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ECONOMICS

INNOVATIVE MARKETING COMMUNICATION CHANNELS THAT FORM A POSITIVE IMAGE OF THE ENTERPRISE

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Annotation. *The influence of different communication channels on the impressions of the consumers of transport services is investigated. It is proved that due to the development of information technologies, the formation of a positive image of enterprises is influenced by the constant contact of customers and manufacturers of transport services. The probable expectations and benefits of using web personalization technology as a method of increasing information accessibility of transport services have been investigated. It has been confirmed that enhancing customer communication channels is driven by the development of mobile versions of websites and mobile applications, which is another advantage in creating a positive corporate image.*

Key words: *communication channels, positive image, brand, information technologies, transport enterprises.*

The evolutionary development of business management theory and practice has reached the stage of "relationship marketing", when an increasing number of companies are declaring customer-orientation as a core business philosophy, in which building long-term customer relationships is the primary purpose of the business. In turn, one of the manifestations of the client-oriented approach is the promotion of the company's brand. In this situation, more and more transport companies are attracting the attention of consumers by offering unique products. The active use of IT is facilitated by the consideration of customer preferences. The tendencies presented form a scientific and practical interest in the problem of creating a positive image of transport enterprises, which, in turn, requires the development of tools for implementing solutions to promote the brand of enterprises.

Taking into consideration the interest for the problem, it should also be pointed that currently in the scientific literature, most scientists consider the issue of creating a positive image from an applied point of view, and explore only certain areas related to the creation of personalized products and services. Specificity of work of transport enterprises has been researched by the following scientists: L. Gopkalo, V. Lukyanov,

G. Munin, O. Rosmetova, T. Mostenska, T. Vladarchik, T. Sokol, V. Stepanova and others.

Marketing and management aspects of relations with consumers of transport enterprises are studied in the works of such authors as V. Maltseva, M. Blum, B. Gerasimov, N. Molotkova, F. Kotler, D. Bowen, D. Mackens, D. Mathew, S. Bury, S. Melnichenko, A. Magaletsky, V. Starostin, L. Tkachenko, etc.

At the same time, the marketing aspects of analytical training and methodological support for the formation of a positive image of transport enterprises remain poorly understood, which is what determines the importance of the research.

The purpose of this work is to study the theoretical foundations of management technologies for the formation of a positive image of motor transport enterprises and to develop recommendations for their implementation in the activities of the transport enterprise.

In recent years, the development of the transportation industry has been accompanied by a number of challenges for the industry, including an increase in the number of shared service providers, a growing impact on the online booking process, and the rapidly changing needs and expectations of guests. That is why it is important to move from a classic marketing paradigm of exchanging tangible goods between sellers and buyers to a new concept of relationships where the fundamental purpose of marketing is to establish long-term relationships with each specific consumer.

In addition to the transport industry, the development of innovative marketing channels of communication with consumers takes place in the realm of hospitality, which includes the hotel and restaurant business and tourism.

To determine the main areas of influence on the image of enterprises in the service sector (transport, tourism and hotel and restaurant) innovation channels, it is necessary to determine the main components of the image of companies.

The difficulty of unambiguously formulating the image of the service industry can be explained for several reasons:

- the authors often describe not the image itself, but the result of its action - acquisition of special value for the consumer, creation of additional value, reduction of risks both for the company, and for the buyer. This approach depicts influence of the already existing and successfully functioning image, however does not give understanding the primary nature of the image, its creation and origin;
- the image may change over time, lose its value or replace it with another. The component of the image involves its growth or transition in the other direction. This leads to more and more new definitions being taken for granted the basis of new rounds of enterprise image development. In this case, earlier formulations become obsolete and irrelevant;

A significant problem in determining the image is its associativity and emotional component. Sensory characteristics are highly individual for each individual. One person's perception can be quite the opposite perception of the other, moreover, over time it can deepen, creating new connections and relationships. This is not denied the possibility of a logical and realistic approach to the formulation of the image, however, the assessment of subconscious influence will often be subjective, because the consumer

himself does not always understand the reason for certain feelings;

- the definition can be formulated on the basis of the already existing image specific company (or several similar companies). Thus not taken to the attention of enterprises that differ significantly in size, approach to doing business, positioning, etc.

Among the external advantages of special interest to the company represents the formation of customer loyalty by raising the level satisfaction. An important function of a brand is to create utility for consumer, in particular through compliance with the promises of the advertising campaign. Most definitions of image among the main functions are distinguished differentiation, which has become a central problem of the current market situation due to oversaturation, increased competition and reduced product life cycle. Unique functional or emotional usefulness allows the brand to stand out - the more complex these advantages or their combination, the more difficult they are copy and lend to competitors. Among the internal benefits of the image for the company in the first place it is expedient to single out financial growth as the main goal of functioning companies. The growth of customer loyalty leads to an increase consumer value of products [5, p. 452].

The image gives the company numerous advantages that can be summarized in two main categories: external advantages, which include opportunity influence the market and consumers, and the internal benefits they embrace financial benefits and employees (Fig. 1.).

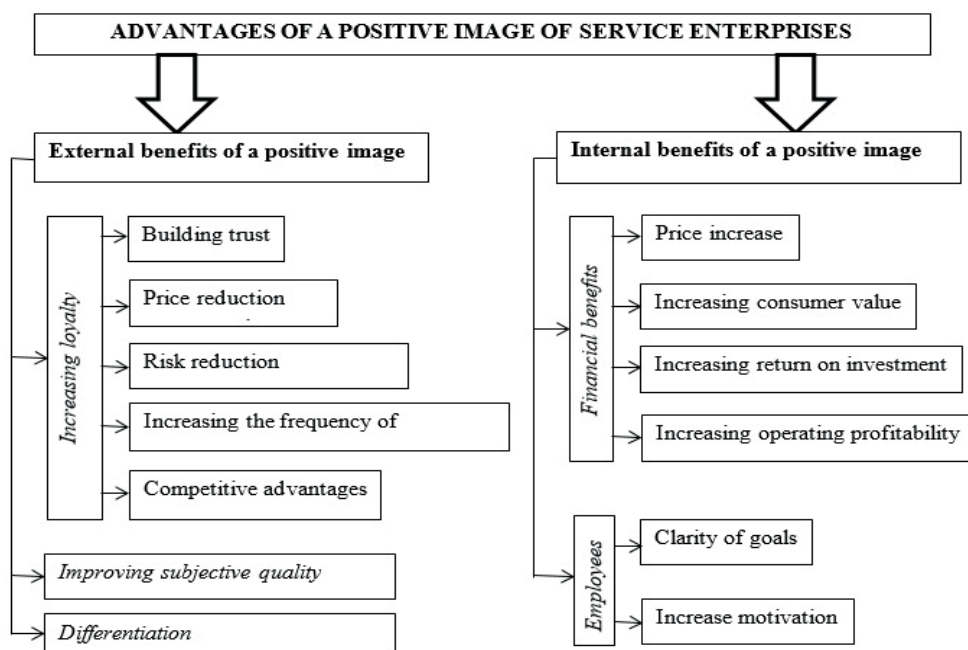


Fig. 1. The scheme of forming a positive image of enterprises in the service sector

Source: formed by the author on the basis of [1, 2, 5]

Internal financial benefits in some cases include a reduction in marketing costs, as a strong image will require regular marketing support, while the cost of research and launch of new products (under the existing brand) will be slightly lower. That is, for the formation of a positive image, a necessary condition for modern enterprises is the use of innovative marketing channels of communication with consumers.

The increasing amount of information on the provision of transport services on the Internet reveals a great need to create a positive image using online information. Of course, the difficulties involved in finding the right, useful information can ultimately discourage consumers from using an online booking service for a particular vehicle. The concept of forming a positive image is aimed at solving this problem. The concept provides for the selection of proposals (in the context of transport service research) that are as appropriate as possible to the consumer, according to his life status at a particular point in time.

In the context of increased information accessibility, a more detailed study is the need for web personalization. Thus, according to Eirinaki M. and Vazirgiannis M. [4], web personalization is the process of customizing the content and structure of a website to suit the individual and specific needs of each user, depending on his behavior on the site. Mobasher B. [6] and co-authors define web personalization as an act of responding to the individual interests of the user. Web personalization allows you to respond precisely and quickly to the unique and specific needs of users.

The main expectations and benefits of using web personalization technology as a way to increase the accessibility of transport services are presented in Table 1.

Table 1

**Expectations and Benefits of Using Web Personalization Technology
as a Method for Increasing Transport Information Access**

Benefits for customers	Benefits for transport companies
Using information from previous customer experience facilitates future interaction	The communication between the transport company and the user becomes more efficient
The complex procedural steps required to provide services must be hidden from customers	Predicting customer behavior and preferences
Reuse of consumer information for further interaction	Impact on the client in order to increase the income of the enterprise

Source: Developed by the authors.

Thus, web personalization solves the problems of increasing information accessibility of transport services and optimal search for information, which creates a positive image for the client.

On the other hand, there are many untapped opportunities to deliver personal messages to other channels. In addition, using different sources of information, such as contextual data and other people's databases, also enhances personalization. A significant area of digital and personal communication remains impersonal.

That is, knowledge of the client's previous experience, places of travel, activities and reviews, plays an important role and influences the client's intention, as well as creates a cause and effect relationship that leads to the choice of a particular institution [1, p. 613].

Regarding the main channels of communication between transport companies and clients, the main channels of delivery of personal messages are customer e-mail and social networks. (Table 2).

Table 2

Use of business-to-customer communication channels *

Communication channel	Use to deliver information, %	Communication channel	Use to deliver information, %
1	2	3	4
Email	80%	Web Media	24%
Social networks	42%	Web products	24%
Landing pages	37%	SMS	22%
Web pages	36%	Advertising reorientation	19%
Web content (articles, blog posts)	31%	Communities	19%
Advertising messages	26%	Mobile applications	19%
Mobile Internet	26%	Web dialogs, chats	12%
Contextual advertising	24%	Digital signs	7%
Social Advertising	24%	Other channels or none of the following	3%

Source: [4]

*in % according to the survey *Marketing Personalization: Maximizing Relevanse and Revenue*, July 27, 2015.

Survey of 506 marketers finds that between 70% and 94% have seen an increase in the effectiveness of various key metrics by employing personalization. The specific percent increase depends on individual metric. Presented in Figure 2.

Several case studies highlight impressive effects of personalization applied in various ways and channels:

- Microsoft dropped bounce rates by 35% and increased add-to-cart rate by 10%.
- O'Neill increased conversions by 46% with web personalization.
- Alex and Annie has seen a 73% lift in monthly email revenue.
- Gamestop saw a 41% increase in average order value (AOV). [3]

Creating a positive image through web-based personalized channels is very important at a stage when the guest does not really understand what he or she wants. And once he has made his choice, survived the trip, gained experience and is ready to

share it, personalization can help make his loyalty to the transportation company public and turn him into a sales agent.

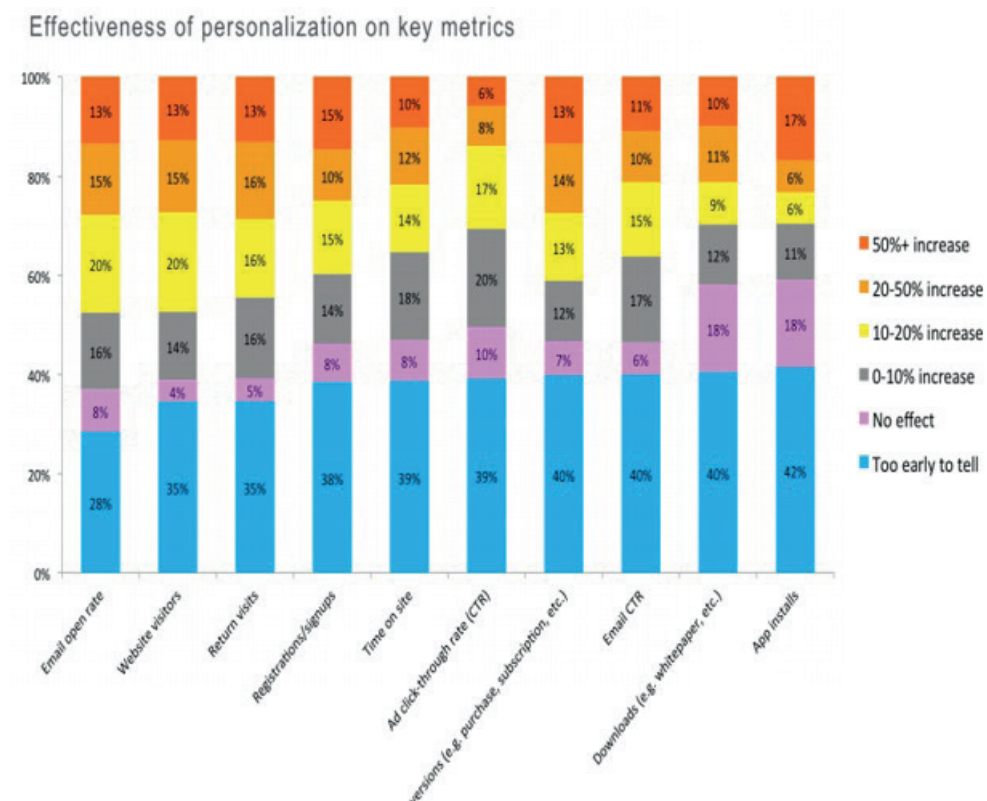


Fig. 2. Indicators of communicative personalization channels

When designing communications channel selection messages, it is advisable to keep in mind that text in sms should be shorter and more concise, whereas messages in viber, telegram, and e-mail may contain more text. In today's world, smartphones are getting more and more features that make life easier and more comfortable, allow you to plan your day and have time to accomplish everything you need. They have become indispensable when traveling: it is very convenient when one small device replaces you with a map, a camera, a book, a player and many other things that occupied almost half of its volume several years ago in a backpack. Find tickets, book lodging, get directions, choose the best places to eat, and view a poster of the most exciting events in any city, now available through the use of popular mobile apps.

In addition to the above, it can be stated with certainty that marketing communications include Internet technologies which today are the main advantages of application in the activities of modern enterprises, namely:

- constant and prompt access to the necessary information;
- instant delivery of information to different places;
- possibility of simultaneous centralization and decentralization;
- interactive contact with potential partners and consumers.

An important area that is actively used through the Internet in the hotel business and tourism is the recent development of so-called virtual tourism. It can be a trip to museums or other places of interest without leaving your home using a computer. Such trips have a double impact on "virtual tourists" - they not only raise their intellectual level, but also encourage them to see in the real world what they have encountered on the Internet.

At the present stage of development, the application of the capabilities of the global network in the activities of the vast majority of domestic enterprises has become an integral part of their effective functioning in the market. New types of e-commerce relationships are constantly being formed on the Internet, which has led to the emergence of such a term as e-business.

E-business is an economic activity aimed at carrying out basic business processes using information and telecommunications technologies in order to obtain benefits.

It allows more economical channels of communication with target markets, provides an easy and fast way for consumers to purchase goods and services, a high level of service and retention of potential guests, reduces costs through greater efficiency of internal operations and commercial procedures.

E-business by type of interacting entities is divided into categories:

- business-to-business (B2B) - the concept of building business processes of the enterprise and a set of Internet technologies and tools that increase the transparency of the enterprise and facilitate its interaction with business partners. Interaction between enterprises is translated into the level of communication of information systems. In case of insufficient level of automation, the form of controlled access of employees of the partner enterprise to the internal information resources of the enterprise is used. According to this scheme, the "tour operator - travel agent" booking system operates in tourism. Such systems are used not only to improve business processes, but also as a powerful marketing tool for forming an agency network;

- Business-To-Consumers (B2C) - the concept of building business processes of the enterprise and a set of Internet technologies and tools that increase the transparency of the enterprise and facilitate its interaction with consumers (online store);

- Consumer-To-Consumers (C2C) - the concept of exchanging experience in purchasing a product, interaction with a company;

- business-To-Government (B2G) - the concept of building business processes of the enterprise and a set of Internet technologies and tools that increase the transparency of the enterprise and facilitate its interaction with administrative bodies;

- Consumers-To-Government (C2G) - the concept of consumer interaction with administrative bodies (social, tax spheres).

Thus, the capabilities of the global Internet allow it to be used as an effective tool in

the hotel business, especially in marketing. The use of online operations allows the hotel to acquire a new audience and cover much larger areas, open new forms of work with guests, ensure the possibility of constant interaction with partners, as well as access to various information sources.

The concept of marketing involves the use of marketing channels as Internet technologies in marketing research, product development, pricing, delivery to the consumer and the introduction of new approaches to sales promotion to meet the needs of consumers through innovative organization of material and information exchange. If we highlight the main approaches to the use of Internet resources, it is:

1) additional tool - this approach is used by companies that use the Internet as a complement to traditional marketing, which provides consumers with additional benefits and serves as a basis for building relationships with them. The main ways to promote a tourism product are to create an online catalog of the company, the formation of the company's image, the use of the network as a cost-effective means of increasing the popularity of basic products by providing information about it, reducing costs by automating customer service;

2) virtual business - this approach is typical for companies that use the Internet as a basis for creating a full-fledged "virtual" business (independent, profitable enterprise that exists only in the network). The company can present a wider range of goods, gets the opportunity to provide additional information in a form in which it can not be copied by competitors, use the Internet to provide consumers with economic benefits that competitors can not provide.

E-commerce has a number of advantages:

- the possibility of developing new types of strategies to promote the tourist product;
- cost reduction;
- ensuring timely receipt of information and prompt feedback from consumers and partners;
- reduction of funds transfer time;
- improving the level of guest service and relationships with them; consumer product orientation;
- convenience of doing business; rapid response to changing market conditions;
- establishing partnerships and creating a guest base.

Thus, e-commerce is becoming one of the important tools for maintaining the competitiveness of tourism enterprises. More and more users are switching exclusively to mobile devices, so every progressive company is incorporating a plan for strategic development and strengthening of customer communication channels to develop mobile versions of websites and mobile applications, which is another advantage of creating a positive image. The mobile application is an application specially designed for a specific mobile platform (iOS, Android, Windows Phone). Add-ons can be built for the company's internal needs or for marketing, branding and sales growth. 88% of customers prefer mobile apps. Add-ons are more functional, form the base, can send push messages.

Conclusions. A positive image is based on long-term emotional communication with consumers on the basis of trust, and hence the image should be considered as the image of the enterprise as a whole. The specifics are as follows intangible characterization of the image requires a more holistic approach to promotion, which will develop consumer confidence in action enterprises. Build relationships with customers based on shared values, thinking and commitment, and therefore can connect more effectively consumers with the image of enterprises in the service sector, so it is necessary to use innovative marketing communication channels. Through the use of innovative marketing communication channels, the company influences all activities, namely increases customer base, strengthens business relationships, increases productivity production and provision of services, improves business processes. Through the use of innovative marketing channels of communication with customers is the process of personalization of services of enterprises in the service sector.

Application of various tools of Internet technologies hotel enterprises are one of the most important areas of promoting tourism products and maintaining communication with consumers. The introduction of Internet technologies allows hotel enterprises to significantly reduce guest service time, provide online reservations, reduce the cost of services and other tasks.

The proliferation of computer reservation systems is primarily associated with an increase in the volume of services and their expansion, reducing the cost of electronic reservation and reservation services.

Thus, innovative technologies in the hotel increase its competitiveness and quality of services, which has a positive effect on the image of the company, increasing the flow of regular guests, which accordingly guarantees the company's profit. That is, in order to create a positive image, businesses need to constantly communicate with customers, report on available services, loyalty systems and other news. For this purpose it is necessary to use all possible channels of communication with consumers.

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ANALYSIS OF THE TOURISM ENTREPRENEURSHIP POTENTIAL REALIZATION IN CASE OF UKRAINE

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Annotation. *The article substantiates the essence and components of the tourism entrepreneurship potential. The spheres of direct and indirect influence on the process of realization of the tourism entrepreneurship potential of the region are established. The regression analysis of realization indicators of entrepreneurship tourism potential is carried out and the factors influencing this process are defined.*

Key words: *factors of direct influence, factors of indirect influence, potential formation, potential of tourism entrepreneurship, potential realization, tourism, tourist flows.*

Formulation of the problem. The specificity of tourism business is due to the need of involving a wide range of stakeholders in the process of creating and promoting a tourism product. In this process, an important role is played by the potential of tourism entrepreneurship, which is due not only to the internal capabilities of enterprises, but also the external environment.

Modern tourism enterprises face the need for optimal use of existing potential, which is formed under the influence of internal and external factors, as well as ensuring a high level of its realization. At the same time, at the national and regional levels there is a need to regulate the business environment to achieve the desired level of both the process of formation and the process of realization the potential of tourism entrepreneurship.

Analysis of recent research and publications. Theoretical bases of diagnostics of potential of tourist business are covered in works of the following scientists: Butko M. [1], Dashchuk Yu. [2], Mysiak O. [3], Nehoda H. [4], Sviezhentsev V. [5].

The scientific works of Herasymenko V. [6], Horun V. [7], Humeniuk V. [8], Ilina M. [9], Komlichenko O. [10], Melnyk O. [11], Osypchuk M. [12] are devoted to practical aspects.

Formulation of the article's tasks. The purpose of the article is to diagnose the realization of tourism entrepreneurship potential in the regions of Ukraine and identify the most influential factors.

Outline of the main material. The tourism entrepreneurship potential is an opportunity to carry out economic activities in a particular region, due to production, social, investment, information and innovation, tax and natural features. The social component of the potential is formed on the basis of reproduction of the population, social environment, comfort of life, well-being, dignity of work, education and provision of specialists in industry; production component of the potential – by increasing and

mobilizing fixed assets in the activities of enterprises of the industry; investment component of the potential – due to the attraction of long-term financial investments in the fixed capital; information-innovation component of the potential – on the basis of information and communication technologies, innovation activity, innovative products of industry; tax component of the potential – the implementation of public expenditures for the development of the region and in particular its tourism sector; natural-resource component of the potential – based on the increase of natural areas of the region that are suitable for tourism, as well as under the influence of the general ecological condition.

The functioning of tourism business takes place under the influence of all participants of the regional tourist system. The latter covers enterprises of tourism sector, enterprises of direct influence (transport, art, sports, entertainment and recreation) and enterprises of indirect influence (agriculture, industry, construction).

Realization of the tourism entrepreneurship potential is an important management process in the tourism sector, because it indicates the extent to which the internal capabilities of the region are used. The result of the realization of the potential of tourism business is the number of tourists served by tour operators and travel agents.

The diagnosing process of the tourism entrepreneurship potential is carried out in the following stages:

1. Data collection for the calculation of indicators of production, social, investment, information-innovation, tax, natural-resource potential of the tourism industry and areas of direct and indirect impact;
2. Calculation the indicators of the regional tourism entrepreneurship potential;
3. Collection of data on the flow of tourists to the region;
4. Regression analysis of the relationship between the tourist flow to the region and indicators of production, social, investment, information-innovation, tax, natural-resource potential of the tourism industry and areas of direct and indirect impact;
5. Identification of statistically significant indicators of the tourism entrepreneurship potential realization.

Given the fact that the formation of the tourist potential of the region and its components (production, social, investment, information and innovation, tax, natural resources) is under the influence of direct influence (transport and logistics, art, sports, entertainment and recreation, public administration), the sphere of indirect influence (agriculture, industry, construction) and directly the tourism sector, the relevant data were collected.

Therefore, the analysis of potential components for 25 regions of Ukraine in 2017 and 2018 was conducted. Given the fact that information on the state of the Autonomous Republic of Crimea and the city of Sevastopol is not published (due to low reliability of data on which the calculation is based), assessment and analysis of tourism potential in Ukraine was conducted without taking into account these regions.

The empirical basis of the study is the data of the State Statistics Service of Ukraine [13], regional statistics departments, the Unified State Open Data Portal [14], the Ministry of Community and Territories Development of Ukraine [15], the Ministry of Finance of

Ukraine [16], the Cabinet of Ministers of Ukraine [17], Department of Tourism and Resorts of Ukraine [18], the State Fiscal Service of Ukraine [19].

The most attractive tourist region of Ukraine is the city Kyiv (more than 2 million tourists in 2017 and more than 3.5 million tourists in 2018). This is the result of developed infrastructure, significant historical heritage, high level of foreign direct investment, access to numerous diverse specialists and other advantages of the capital. Lviv, Dnipropetrovsk, Ivano-Frankivsk, Odesa and Kharkiv regions also have a significant tourist demand, and there are many architectural and historical monuments.

During the study period, the largest number of tourists in Ukraine was served by juridical entities (tour operators and travel agents). Their share was 85.6% in 2017 and 86.8% in 2018. The largest share fell on juridical entities (more than 66.6%) in the following regions: Donetsk region, Ivano-Frankivsk region, Lviv region, and the city Kyiv. In Vinnytsia, Zhytomyr, Luhansk, Poltava, Kherson, Khmelnytsky, Cherkasy and Chernihiv regions more than 2/3 of tourists were served by individual entrepreneurs.

In 2017, 41,622 foreign tourists were served by tour operators and agents in Ukraine, and in 2018 their number increased by 87.3%. Lack of demand for tourist services in 2017 was recorded in the following regions: Vinnytsia, Donetsk, Zhytomyr, Kirovohrad, Luhansk, Rivne, Sumy, Ternopil, Kherson, Cherkasy and Chernihiv. In 2018, this list decreased by 5 regions, but the number of foreign tourists was only 39 people.

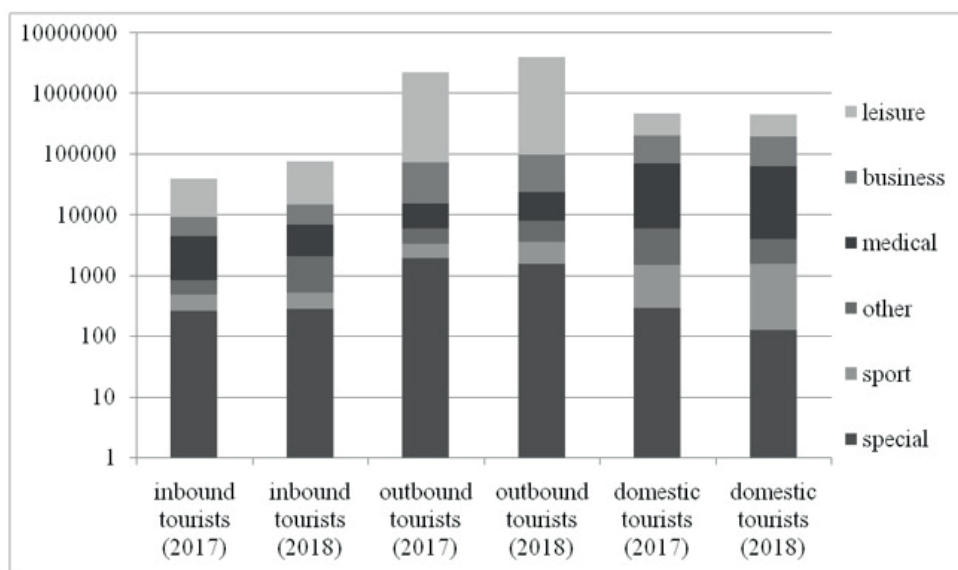


Fig. 1. Number of tourists served by tour operators and travel agents of Ukraine

The share of inbound business tourism in Ukraine in 2017 was 12.02%, and in 2018 – 10.62%. The only directions of foreign citizens for this type of tourism were the following: Zaporozhye region, Ivano-Frankivsk region, Kyiv region, Odesa region,

Poltava region, Chernivtsi region, and the city. The largest number of incoming tourists traveled to the regions of Ukraine for recreation (76.34% in 2017 and 80.34% in 2018). The following regions had the highest demand for leisure and recreation services among foreign tourists: Ivano-Frankivsk region, Lviv region, Odessa region, Poltava region, and the city Kyiv. Medical tourism had the third place in demand among foreign tourists (9.14% in 2017 and 6.26% in 2018). The only regions visited by foreign tourists for treatment are Volyn region, Lviv region, and the city Kyiv. Other types of tourism are not attractive enough for inbound tourism. The total number of foreign tourists who travel for sports and other types of tourism was 833 people in 2017 and 2113 people in 2018.

The largest number of consumers of tour operators and agencies are outbound tourists (81.4% in 2017 and 88.2% in 2018), which indicates unfavorable trends in the tourism entrepreneurship potential realization in Ukraine. In 2017, the number of outbound tourists was 2.3 million people, and in 2018 – 4 million people (75.7% more). The highest rates of outbound tourism were recorded in Kyiv (76.7% of outbound tourism in Ukraine in 2017 and 81.0% in 2018). In other regions, outbound tourism ranged from 2.8 thousand people to 82.7 thousand people in 2017 and from 6.2 thousand people to 112.8 thousand people in 2018.

Leisure and recreation occupy the largest share in outbound tourism (96.7% in 2017 and 97.5% in 2018). The largest flows of tourists produce the following regions: Kharkiv region (1.35%), Odessa region (1.37%), Kyiv region (1.58%), Dnipropetrovsk region (2.73%), Lviv region (2.85%), and the city of Kyiv (80.75%). Business tourism accounted for 2.59% of flows in 2017 and 1.89% in 2018. The number of Ukrainians who went abroad for medical purposes was 9,583 in 2017, and 6,035 in 2018. Demand for sports and other types of tourism among Ukrainians was 0.26% in 2017 and 0.2% in 2018.

Domestic tourism in Ukraine accounted for 17% of tourist flows in 2017 and 10.1% in 2018. Luhansk, Mykolaiv and Poltava regions had the lowest demand for tourist services. The greatest tourist attraction was Ivano-Frankivsk region (55.8 thousand domestic tourists in 2017 and 33.6 thousand domestic tourists in 2018), Lviv region (86.5 thousand domestic tourists in 2017 and 61.9 thousand domestic tourists in 2018) and the city Kyiv (220.7 thousand domestic tourists in 2017 and 228.9 thousand domestic tourists in 2018).

In domestic tourism leisure and recreation predominate (57% in 2017–2018). The most popular tourist destinations of domestic tourism are: Ivano-Frankivsk, Lviv, Odessa, Zaporizhia, Khmelnytsky regions, and the city Kyiv, which in total have 71.8% of domestic tourism for recreation. The second most attractive type is business tourism (27.9% in 2017 and 29% in 2018). The city Kyiv accounts for 97.4% of all domestic business trips, and Ternopil, Lviv, Kyiv, Zaporizhia, Odesa and Sumy regions account for 2.3%. Medical tourism covers 13% of domestic tourist flows, sports – 0.3%, and other types – 0.1%.

In this study, we propose to take into account the number of foreign tourists and domestic tourists who were served by tour operators and agents in the region (legal entities and individuals-entrepreneurs), because these tourist flows depend on the

existing tourism entrepreneurship potential in Ukraine.

As a result of regression analysis, 11 indicators of tourism business potential were identified, which affect the volume of tourist flows to the region. Descriptive statistics on these indicators are shown in Table 1.

Table 1

Summary Statistics

Variable		Mean	Median	Max	Min.	Std. Dev.	Obs.
tourist flow to a region	QT_i	20986	4368	288975	46	54255	50
share of fixed assets in the total value of property in tourism industry	FA_i^{ST}	0,6331	0,6536	0,8521	0,2908	0,1275	50
share of fixed assets in the total value of property in arts, sports, entertainment and recreation	FA_i^{SDE}	0,7242	0,8045	0,9618	0,0000	0,2483	50
specialists replenishment index in agriculture	LP_i^{SIA}	0,0499	0,0146	0,8618	0,0034	0,1577	50
specialists replenishment index in construction industry	LP_i^{SIB}	0,0451	0,0364	0,1337	0,0032	0,0288	50
specialists replenishment index in arts, sports, entertainment and recreation	LP_i^{SDE}	0,1235	0,1154	0,3932	0,0120	0,0692	50
share of foreign direct investment in GRP	FI_i^{SD}	0,1613	0,1239	0,6630	0,0233	0,1315	50
share of innovative products in the total sales of industrial products	IPR_i^{SI}	0,0059	0,0038	0,0240	0,0000	0,0063	50
informatization index of the tourism industry	II_i^{ST}	0,1661	0,1081	0,9703	0,0179	0,2086	50
balance of budget taxes and expenses for the tourism industry	$ITax_i^{ST}$	0,2056	0,1277	0,9114	0,0141	0,2058	50
share of natural areas in the total area of a region	NA_i^{ST}	0,0778	0,0715	0,2120	0,0225	0,0496	50
volume of harmful substances emissions into the air of a region, per sq. km	$AE_i^{(SD+SI)}$	0,0121	0,0091	0,0399	0,0002	0,0116	50

The functional relationship between these indicators and the volume of tourist flows

to the region is given below.

$$QT_i = F \left(\begin{array}{l} -54802 + 47802 \cdot FA_i^{ST} + 7549 \cdot FA_i^{SDE} \\ + 225912 \cdot LP_i^{SIA} + 43449 \cdot LP_i^{SIB} + 42085 \cdot LP_i^{SDE} \\ + 6724 \cdot FI_i^{SD} + 79370 \cdot IPR_i^{SI} + 15831 \cdot II_i^{ST} \\ + 62801 \cdot ITax_i^{ST} + 121603 \cdot NA_i^{ST} - 406404 \cdot AE_i^{SD+SI} \end{array} \right);$$

The multifactor regression model is highly reliable:

$$R^2 = 0,976, \text{ a } F_{stat} > F_{cr} (F_{stat} = 143, F_{cr} = 2,71).$$

The obtained equality allows us to draw conclusions about the impact of the formation process of certain elements of production, social, investment, information-innovation, tax and natural-resource regional potential in Ukraine on the tourism entrepreneurship potential realization. Consider them for each individual indicator.

The share of fixed assets in the total value of property in tourism industry is directly proportional to the flows of tourists to the region. Thus, an increase in the means of production of temporary accommodation and catering enterprises by 1% will increase the flow of tourists by 478 people.

The share of fixed assets in the total value of property in arts, sports, entertainment and recreation determines the amount of tourist flows that can be served by the tourist destination. Increasing the share of fixed assets in the total value of property by 1% increases the number of tourist flows to the region by 75 people.

The quality of human potential in the art, sports, entertainment and recreation determines the tourist attractiveness of the region, as evidenced by regression analysis. The high level of knowledge, skills and abilities of workers in this field plays a key role in creating an attractive tourist destination, so providing the region with highly qualified workers is an essential condition for development in both short and long term. Thus, an increase in the specialists replenishment index in arts, sports, entertainment and recreation by 1% will contribute to the influx of 420 tourists to the region.

Another indicator that positively affects the tourist flows of the region is the specialists replenishment index in agriculture. An increase of this indicator by 1% contributes to the growth of tourist flows by 2259 people. Given the fact that the quality of agricultural products depends on the efficiency of the restaurant industry, training in this area plays a significant role in realization the regional potential.

The construction industry plays an important role in the economy, as it contributes to the achievement of national goals for socio-economic development – housing, infrastructure and employment. The ability to meet the needs of the tourist infrastructure of the region depends on the quantitative and qualitative composition of the construction companies. That is why the formation of the human component of the potential has

a significant impact on the tourism entrepreneurship potential realization. Thus, an increase in the region's indicator by 1% will increase tourist flows by 434 people.

Another important factor of the model is the share of foreign direct investment in GRP. An increase indicator by 1% will increase the number of tourists by 67 people. Attracting investments in the development of tourism enterprises, as well as areas of direct and indirect influence allows us to follow the vector of progressive development.

The innovation component of the potential in the model is expressed as a share of innovative products in the total sales of industrial products. An increase in the indicator by 1% will increase the number of tourists by 793 people. Given the fact that the level of technical equipment of all enterprises involved in direct and indirect providing tourist services depends on the products of industrial enterprises, so increasing the innovative activity of enterprises is an effective tool for managing the region's competitiveness.

IT play a crucial role in the promotion of tourism services in modern economic conditions, so the informatization index of the tourism industry in the region affects the level of the tourism entrepreneurship potential realization. Regression model (1) allows us to conclude that the growth of the indicator by 1% will increase the number of foreign and domestic tourists in the region by 158 people.

The next element of the model is the tax potential. The balance of budget taxes and expenses for the tourism industry of the region has a positive effect (an increase of 1% allows to increase the number of tourists by 628 people). Therefore, public administration faces the task of increasing public spending on tourism development.

The Nature Reserve Fund of Ukraine is a unique recreational resource of the tourism industry, so increasing its area is an important task of regional development. An increase in the share of natural areas in the total area of the region by 1% will provide an additional tourist flow to the region by 1216 people.

The environmental aspect is key in the process of choosing a tourist destination, so helping to reduce harmful emissions into the air of the region has a positive impact on tourist flows. The developed model indicates that the reduction of harmful substances emissions into the air of the region of 1 ton per 1 sq. km will increase tourist flows by 406 people.

Conclusions. As a result of the analysis of the tourism entrepreneurship potential realization in Ukrainian regions it is proved that the most influential factors are the following: production potential in tourism and the sphere of art, sports, entertainment and recreation; human potential in construction, agriculture and arts, sports, entertainment and recreation; investment potential in the sphere of direct influence; innovative potential of industrial enterprises; information potential in tourism; tax potential in tourism; natural-resource potential of region. Management of the formation optimization of these factors contributes to the growth of domestic and inbound tourism of the region.

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INTEGRATED ASSESMENT OF THE FINANCIAL SECURITY OF THE ENTERPRISE

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Annotation. *In the article it is proposed to calculate the integral indicator for evaluation the level of financial security of enterprise based on the use of the Harrington desirability function, that is the universal and comfortable way of construction of the generalized indicators. The proposed methodology of evaluation the level of financial security is tested in practice on the example of the Privet joint stock company "Zaporizhkoks". The correspondence of the assesment results to the results of the assesment of the financial security of the enterprise was proved based on the analysis of its financial condition, which proves the practical utility of the proposed method.*

Key words: *Financial security, integral indicator , scale of desirability, coefficient, function of part.*

Formulation of the problem. In the conditions of market economy the level of efficiency of activity of any enterprise straight depends on the state of his finances, that, in turn, makes the problem of systematic providing of financial security one of the most important questions of financial management of a business entity.

The issue of ensuring the financial security of an enterprise has become especially relevant in the context of a global pandemic. The pandemic resulted in fundamental changes of factors of external and internal environment of functioning of managing subjects, partial or complete stop of activity, break of productive-sale chainlets, shock of solvent demand, crisis of advancement, increase to the level of financial risks and others like that.

In turn, an important value in providing of financial security of an enterprise plays the complex evaluation of her level, that gives an opportunity to educe existent problems in the state of financial security of enterprise or sign of their origin and, accordingly, take measure in relation to their warning and overcoming.

For this reason questions of evaluation of financial security of domestic enterprises and in a theoretical, and in practical plan are very actual and timely.

It is worth nothing that most of the methods for assessing the financial security of an enterprise are rather complicated from the point of view of their application.

Therefore, it becomes necessary to further improve methods for assessing the financial security of the enterprises based on bringing the factors that characterize financial security to a single integral indicator.

Analysis of Recent Research and Publications. The issues of assessing the financial security of an enterprise are devoted to researches of such domestic and foreign scientists-economists, as: Blank I.O., Baranovskyi O.I., Horiacheva K.S., Yermoshenko M.M., Illiashenko S.M., Krakos Yu.B., Kuzenko T.B., Papekhin R.S., Poida-Nosyk N. N., Shamrai M.I., Shelest V.V. and others.

Despite the theoretical and practical significance of scientific research in the field of assessing the financial security of an enterprise, the issue of determining indicators and methodical approaches to assessing its level are still debated. In particular, we are talking about the formation of complex methods for assessing the financial security of domestic enterprises.

In this regard, the purpose of the submitted article is to substantiate the possibility of applied use of an integral methodology for assessing the financial security of an enterprise, built on the use of the Harrington desirability function.

Research Results. The concept of "financial security" is a rather complex category, which leads to a varied interpretation of its economic essence. The absence of a single scientifically grounded and officially approved approach to the concept of the essence of "financial security of an enterprise" predetermines the need to determine the most optimal meaning of this concept. Therefore, it is advisable to compare the scientific opinions of scientists on this issue, which in the future will help to avoid misunderstandings regarding the interpretation of the essence of financial security, in particular, as an object of analysis.

The study of scientific economic literature on the problems of ensuring the financial security of an enterprise makes it possible to assert that there are several points of view regarding the interpretation of the essence of the concept of "financial security of an enterprise" namely:

- from the point of view of the position of the financial condition of the enterprise;
- from the point of view of stability and resilience of the enterprise;
- in terms of the degree of efficiency in the use of the enterprise's resources.

Thus, in our opinion, under the financial security of an enterprise it is advisable to understand a certain financial condition of the enterprise, which is characterized by its ability to withstand existing and emerging threats, that is provided by constant monitoring and diagnostics of its level, as well as the formation of a set of preventive and control measures.

Similarly, with the absence of a single point of view regarding the interpretation of the studied category, it should be noted that there is no single approach to assessing the level of financial security of an enterprise. Various methods of its assessment are considered in the scientific literature today.

There are such approaches to assessing the level of financial security of an enterprise as: an assessment of financial security based on an analysis of the financial condition of an enterprise, when indicators of financial strength liquidity, business activity, profitability and other indicators are compared with the boundary values of financial indicators; indicator approach; resource-functional approach; approach based on the use of the criterion of the «minimum total loss that is inflicted on security» ; an approach

that proceeds from the sufficiency of working capital (own and loan) to carry out production and sales activities; program-targeted approach; ranking method; strategic targeting approach; structural analytical methods; comprehensive threat assessment; comprehensive assessment of the economic and financial potential of an enterprise; bankruptcy forecasting methods; financial security analysis based on STEP- analysis, SWOT- analysis, SPACE- analysis and others [2; 5].

At the same time, given the fact that the financial security of an enterprise is a complex systemic category, to assess its level, there is a need to take into account a variety of indicators (coefficients) that will serve as the basis for determination values of the integral indicators of the financial security of an enterprise.

Based on the analysis of economic literature [1; 2; 4; 6], we will determine the coefficients for assessing the level of financial security of an enterprise, proposed for inclusion in the calculation of the integral indicator of its level with justification of the expediency of inclusion in the calculations selected indicators:

1. Property status indicators:

- fixed assets usefulness ratio (R_{fau}), which shows part of the fixed assets, suitable for exploitation, that directly influences on efficiency of economic activity of an enterprise and, consequently, level of its financial security.

2. Business activity indicators, which represent the level of efficiency of the use of resources of an enterprise, in particular its fixed assets and working capital, carry out direct influence on the size of net income from sales; can lead to the release of part of the financial resources, which directly affects the financial security of an enterprise. The last indicators included in the model allows to take into account and correct the balance or cash flows during settlements with commercial lenders and debtors, which has a positive effect on the level of financial security of an enterprise:

- return on assets (RA);
- turnover ratio of current assets (R_{tca});
- payables to receivables ratio (R_{pr}).

3. Liquidity and solvency indicators, which characterize possibility of an enterprise quickly to transform assets into cash with the aim of payment of the current liabilities. Problems in the field of financial security will be evidenced by the fact that the need for liquid assets exceeds their actual availability. Therefore, it is advisable to include such liquidity indicators in the financial security assessment mode:

- total liquidity ratio (R_{tl});
- absolute liquidity ratio (R_{al}).

4. Financial strength indicators that, foremost determines financial independence of subject of management from the loan sources of his activity. Also, the financial security is greatly influenced by the provision of the enterprise with its own working capital and the maneuverability of its own funds, which characterize the ability of a business entity to finance the total volume of working capital at the expense of its working capital and determine the efficiency of the company's equity capital:

- autonomy ratio (R_a);

- finance strength ratio (Rfs)
- equity ratio (Re)
- equity capital flexibility ratio (Recf).

5. Profitability indicators that reflect the company's ability to generate profit in the course of its business activities, and therefore cannot be included in the model for assessing the financial security of an enterprise:

- return on assets ratio (Rra);
- return on equity ratio (Rre);
- profitability ratio (Rp).

6. Investment attractiveness:

- the Beaver ratio (Rb), which allows for an express analysis of the financial condition, and hence the financial security of the an enterprise, based on the identification of the unsatisfactory structure of the enterprise's balance sheet.

After determining the list of indicators for assessing the level of financial security of an enterprise, one should determine the approach to calculating the integral indicator of the financial security of an enterprise, which, at the same time, must be universal, simple and easy to calculate.

Therefore, we consider it appropriate to calculate the integral indicator based on the assessment of the above indicators to use the generalized Harrington desirability function, which is a universal and convenient way to construct a generalized indicator.

The specified function is a quantitative, unambiguous, single and universal indicator of the quality of the object under study, characterized by such properties as adequacy, efficiency and statistical sensitivity, which allows using it as an optimization criterion. The construction of this generalized function is based on the idea of converting the natural values of individual indicators into a dimensionless form. Then it is followed by taking into account the partial functions on the Harrington scale and the integral indicator for assessing financial security of an enterprise (D) (formula 1) [3, p. 69]:

$$D = \sqrt[n]{\prod_{i=1}^n d_i},$$

$$d_i = \exp(-\exp(-y_i)),$$

де n –amount of indexes that is used for the evaluation of financial strength security;

d_i –function of part (desirability of part), that is determined in accordance with the scale of Harrington;

y_i – an indicator of financial safety is in a dimensionless kind.

Thus, to assess the financial security of an enterprise based on the Harrington desirability function, it is necessary to convert the system of indicators selected for analysis into dimensionless form, and then calculate the values of the partial functions

by the formula (2).

Formulas for reducing the coefficients to dimensionless form are (3) and (4):

$$y_i \uparrow(\max) = \frac{k_i}{k_{kpm}},$$

$$y_i \downarrow(\min) = \frac{(1 - k_i)}{k_{kpm}},$$

де k_i – calculation value of index;

k_{kpm} – critical value of index;

max/min – criterion of maximization (minimizations) of the got index.

To interpret the obtained characteristics of the level of financial security, use the Harrington desirability scale.

The scale of desirability refers to psychophysiological scales. Its purpose is to establish a correspondence between physical and psychophysiological parameters.

Physical parameters mean possible responses that characterize the functioning of the investigated object. These may include aesthetic and even statistical parameters. Psychological parameters are understood as purely subjective assessments of the experimenter's desirability (priority) of one or another response. To obtain a scale of desirability, it is convenient to use ready-made developed tables of correspondences between priority ratios in empirical and numerical (psychological) systems (Table 1) [7].

Table 1

Scale of desirability of Harrinhton

Value of function	Estimations are on the scale of desirability
1,00 – 0,81	Very well
0,80 – 0,64	Well
0,63 – 0,38	Satisfactorily
0,37 – 0,21	Badly
0,20 – 0,00	Very badly

Means the estimates given in table 1, we propose to use it to characterize the level of financial security of the analyzed enterprise.

Let's check in practice the proposed methodology for assessing financial security using the example of the Private joint-stock company «Zaporizhkoks». It is one of the largest producers of coke for metallurgy (about 10 percent of the total coke produced in Ukraine) and one of the largest exporters of chemical products in Ukraine.

So, at the first stage, in accordance with the chosen methodology, 14 indicators were calculated, which from different sides characterize the state of the financial security of

the enterprise (Table 2).

Table 2

There are indexes of evaluation of financial safety of the Private joint-stock company «Zaporizhkoks» during the period 2017-2019

Name of index	Datains			Criterion of optimization	
	2017 y.	2018 y.	2019 y.		
Rfau	0,63	0,60	0,95	0,5	max
Ra	4,72	11,01	7,54	3	max
Rtca	1,75	1,33	2,33	5	max
Rpr	1,35	1,41	2,81	1,00	max
Rtl	1,31	1,53	2,86	1,00	max
Ral	0,002	0,06	0,02	0,25	max
Ra	0,33	0,44	0,72	0,5	max
Rfs	0,48	0,79	2,63	1,00	max
Re	0,24	0,35	0,65	0,1	max
Recf	0,62	0,64	0,51	0,5	max
Rra	0,18	0,13	0,01	0,1	max
Rre	0,39	0,30	0,02	0,1	max
Rp	0,12	0,12	0,01	0,1	max
Rb	0,17	0,21	-0,07	0,2	max

Table 3

Dimensionless values of indexes of financial safety of the Private joint-stock company «Zaporizhkoks» during the period 2017-2019

Index	2017 y.	2018 y.	2019 y.
Rfau	1,26	1,2	1,9
Ra	1,573333	3,67	2,513333
Rtca	0,35	0,266	0,466
Rpr	1,35	1,41	2,81
Rtl	1,31	1,53	2,86
Ra	0,008	0,24	0,08
Ra	0,66	0,88	1,44
Rfs	0,48	0,79	2,63
Re	2,4	3,5	6,5
Recf	1,24	1,28	1,02
Rra	1,8	1,3	0,1
Rre	3,9	3	0,2
Rp	1,2	1,2	0,1
Rb	0,85	1,05	-0,35

After calculating the values of the coefficients that characterize different aspects of the financial security of the analyzed enterprise, we will bring them to a dimensionless form in accordance with the proposed methodology. For this, each indicator is compared with the value of the established optimization criterion (Table 3).

At the last stage, one should calculate the partial functions of desirability and calculate the integral level of financial security of the enterprise based on determining the value of the Harrington function for each of the analyzed years (Table 4).

Table 4

Function of part $d_i = \exp(-\exp(-y_i))$

Index	2017 y.	2018 y.	2019 y.
Rfau	0,753027	0,739934	0,861079
Ra	0,812733	0,974845	0,922196
Rtca	0,494263	0,464665	0,533921
Rpr	0,771638	0,783375	0,941571
Rtl	0,763517	0,805304	0,94434
Ra	0,370822	0,455378	0,397279
Ra	0,596395	0,660484	0,789048
Rfs	0,538599	0,635181	0,930458
Re	0,913275	0,970254	0,998498
Reef	0,748724	0,757269	0,697261
Rra	0,84764	0,761449	0,404608
Rre	0,979962	0,951432	0,440991
Rp	0,739934	0,739934	0,404608
Rb	0,652193	0,704732	0,24194
Harrington function	0,692381	0,725593	0,623342

According to the results of assessing the financial security of the Private joint-stock company «Zaporizhkoks» using the Harrington function in accordance with the Harrington desirability scale (Table 1), the analyzed enterprise had a good level of financial security during the period 2017-2018. But by the end of 2019 the situation worsened, the indicator dropped to a satisfactory level, as indicated by a decrease in the value of the Harrington function by 14,1 percent. These signals need to take urgent measures to restore the level of financial security of the enterprise.

We emphasize that the conclusions obtained on the basis of calculating the integral indicator of the assessment of the financial security of the enterprise fully confirm the results of the traditional assessment of the level of financial security of the Private joint-stock company «Zaporizhkoks» based on its analysis financial condition.

Thus, at the end of the period, the analyzed enterprise showed a significant deterioration in all profitability indicators against the background of strengthening financial strength and overall liquidity (along with constant problems with absolute

liquidity). This happened due to the rapid decrease in the level of net profit in 2019 by 91,4 percent and became the main factor in the deterioration of the level of financial security of the Private joint-stock company «Zaporizhkoks».

Thus, the proposed methodology for the integral assessment of the level of financial security of an enterprise based on the Harrington's desirability function is fully effective. It is flexible enough and allows to detect threats to the financial interests of the enterprise and can be used as one of the criteria for making managerial decisions that relate to the areas of ensuring the necessary and sufficient level financial security of the enterprise.

Conclusions. Thus, the main stages of an integrated assessment of the level of financial security of an enterprise using the Harrington desirability function are:

1. Determination of the list of coefficients that would comprehensively characterize the level of financial security of the enterprise.
2. Calculation of the values of the selected coefficients for the corresponding period.
3. Bringing the calculated values of the coefficients to a dimensionless form with the further calculation of the values of the partial functions of desirability.
4. Calculation of a complex indicator of the level of financial security of enterprise.

Approbation of the proposed methodology for assessing the level of financial security of an enterprise using the example of the Private joint-stock company «Zaporizhkoks» during 2017-2019 rr. revealed a deterioration in the level of financial security from good (0,69-0,73 during the period 2017-2018) to satisfactory (0,62 in 2019), which corresponds to the results of the assessment of financial security based on the analysis of the financial condition of the enterprise. Based on the testing results, it was concluded that it is advisable to use the proposed methodology for assessing the level of financial security of domestic enterprises, based on the use of the Harrington desirability function, which is not difficult to use and allows to calculate the integral indicator of financial security based on a small amount of initial data contained in the financial statements of the enterprise.

In general, the proposed method for assessing the financial security of an enterprise based on calculating the integral indicator of financial security using the Harrington desirability function has real practical utility and can be used by domestic enterprises as a tool to prevent threats to the financial interests of the enterprise and to ensure the required level of its financial security.

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A COMPREHENSIVE APPROACH TO ENSURING THE CONTINUITY OF THE ACTIVITY OF CONSTRUCTION COMPANIES: FINANCIAL AND ORGANIZATIONAL ASPECT

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Annotation. *This article is devoted to clarifying the institutional composition of construction companies and substantiating the methodological principles of ensuring the continuity of construction companies. It is grounded the basis of the integrated risk management system which is to be implemented in construction companies and it is structured its three level: strategic, instrumental and operational ones.*

Key words: *construction company, institutional structure of the construction field, integrated risk management, methodology of construction company functional continuity.*

Problem statement. In the dynamic economic environment, and the significant increase in the frequency of crises and states of instability in general, the search for approaches to enable business continuity and maintain stable business growth is becoming increasingly important. It should be noted that the construction sector, which is one of the engines of economic growth, is currently undergoing a period of stagnation in Ukraine. Declining demand and lack of orders, including due to the lack of mortgage lending programs, have sharply increased competition between companies in the construction sector. This has increased the pressure to improve quality and productivity, and to reduce costs that necessitates improvement of their internal financial management methodology to enable their market growth in the future.

Analysis of recent research and publications. It is important to note that the management of construction companies is always in the spotlight of scientists because of their high level of importance for the economic development of any country. In particular, it is appropriate to single out the work by L. S. Pheng, Q. T. Chuan, in which the scientists consider the environmental factors and work performance of project managers in the construction industry; works by S. Keoki Sears, G. A. Sears, R. H. Clough, who studied construction project management; works by J. Yang, G. Q. Shen, M. Ho, D. S. Drew exploring critical success factors for stakeholder management in construction projects. Along with this, in our opinion, the problem of financial development of the construction sector should be studied taking into account current changes that significantly transform the environment of construction companies affecting their institutional structure.

The purpose of the article is to clarify the institutional composition of construction

companies and substantiate the methodological principles of ensuring the continuity of construction companies.

Presentation of the main research material. First of all, we consider it important to clarify the institutional structure of the construction sector. Let us note that in the scientific literature the following terms are used: construction, construction sector and construction field, which are often identified. This, in turn, blurs the institutional framework of the functional sub-sectors of construction. With this approach, the question arises whether it is possible to identify construction companies and companies of construction sector and what is the logic of their semantic subordination?

For example, V.N. Butyrina, A.A. Soghomonyan, examining investment risks in construction, consider only construction companies, i.e. those whose final products are general and specialized works on the construction of buildings and structures [1]. Along with this, N.E. Simionova and I.Yu. Petukhov equate construction companies with construction business [2]. Thus, the authors, exploring the methodological problems of risk analysis of a construction company, structure the internal risk factors in the following directions: the specifics of the contractual works market; specifics of construction products; specifics of construction production. We agree that all this affects the state of construction companies, however, the second direction, in our opinion, cannot be attributed to internal factors. D.M. Minnibaev and Zh.V. Zaitseva, developing methodical tools of investment risk management of the enterprises of a construction complex, consider only construction companies [3]. V.A. Koshelev, carrying out the categorization of features of construction, emphasized the following directions: technical features of construction products; features of construction production; organizational and economic features of the construction sector [4, p. 15]. We are in favour of this approach, however, we consider it appropriate to specify the content of the construction field institutionally. Thus, first, we believe that the institutional framework of the concept of “construction field” is broader than the term “construction sector”, which is the content-forming component of the construction field. In our opinion, the institutional composition of the construction industry is generally represented by the following participants: the general contractor and subcontractor, the real estate developer and construction customer, the developer and management company, manufacturers of building materials, structures, construction and road building machines, as well as research and design institutions represented by project, scientific, research and designing organizations. The classification structuring of the institutional composition of the construction field is given in Fig. 1.

Let us focus on the models of operational interaction of different types of enterprises in the construction field. It should be noted that there are different models of interaction between the subjects of the construction industry. Model 1 is that the general contractor is liable to the subcontractor for non-performance or improper performance by the customer of its obligations under the contract, and to the customer for breach of obligation by the subcontractor. For example, in the field of housing construction, the general contractor is a construction company that has entered into a contract with a real estate developer (customer). It is this organization that undertakes to perform all construction and

installation work on the construction site in accordance within the approved deadlines. In turn, the general contractor may engage several additional contractors for each type of work or select one subcontractor to whom the project will be entrusted in full.

Model 2 assumes that the general contractor controls the work of both contractors and subcontractors. If the contractor and subcontractor work on the construction site together with the general contractor, performing different functions, they can all together be accountable to the real estate developer. Such use of additional construction companies may occur due to lack of necessary equipment or personnel, short deadlines and other similar reasons. As a rule, the functions of the general contractor do not include services for budgeting and architectural design. These works are either performed by the real estate developer or ordered by a special architectural company.

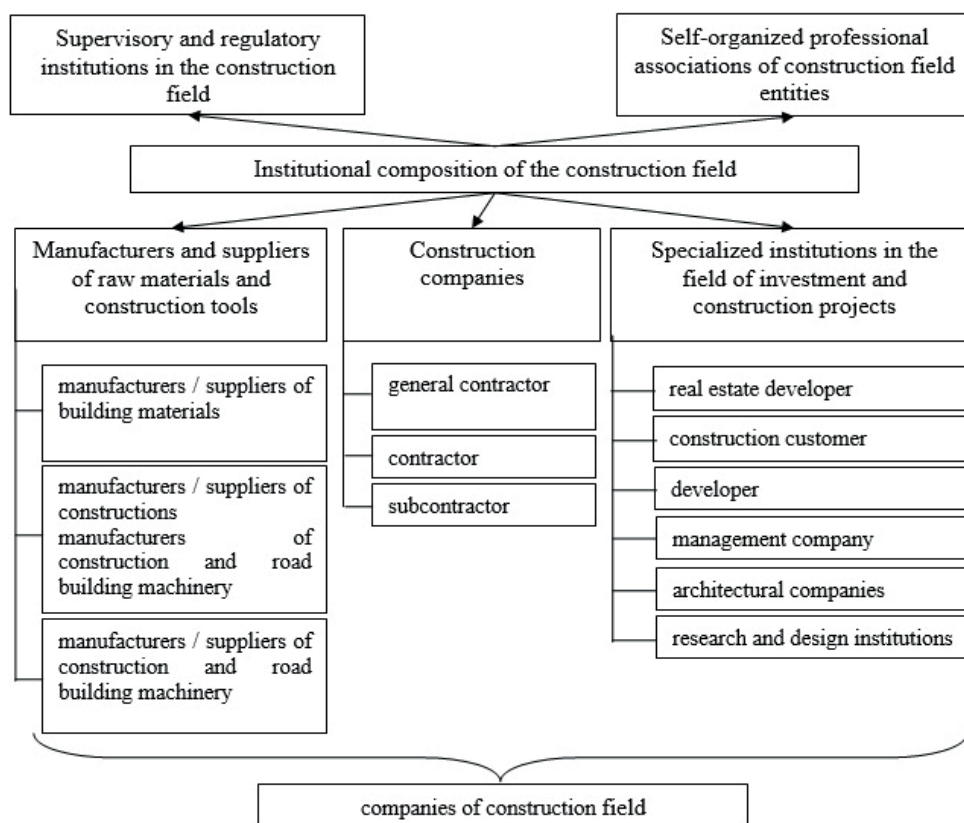


Fig. 1. Institutional structure of the construction field

Source. Developed by authors.

Model 3, in which the general contractor acts as the designer of the object and as the organization that deals with all construction work. In this case, the customer can sign a contract with the general contractor for the author's or technical supervision, which

provides for control by a specialist architect over how well the construction team works, whether the construction and installation work comply with the project etc.

Regarding the functional position of the management company, its task is to fully manage the construction process (in the Ukrainian economic space, they are represented by an asset management companies). Such powers are in some cases transferred by the real estate developer through a properly executed power of attorney or contract. Management companies are often involved in the process of selling construction products, including through forward contracts. Note that the functions of the management company include not only control over the work of the general contractor and additional contractors, but also management of joint ventures, i.e. it simultaneously performs the functions of general contractor and investor, as well as equipment supplier (if required by the customer / real estate developer).

It should be noted that until 2017 according to the Law of Ukraine “On architectural activity” the terms “real estate developer” and “construction customer” had been used as interchangeable. According to the legislative changes, the term “real estate developer” was replaced by “construction customer”. At present, an entity can acquire the status of a “construction customer” if it owns a plot of land (one or more) and intends to complete the construction in accordance with the law.

The functions of the real estate developer include: supervision of the project progress, quality and timing of contractors; providing the construction site with all the necessary supporting documents; material support of the object, unless the contract with the general contractor provides otherwise; further sale and conclusion of agreements with investors.

A fairly new type of construction companies is “developers”, i.e. entrepreneurs who are engaged in development in order to make a profit from the sale or lease of real estate. The functions of the developer include: development of the project of a construction object; real estate market analysis; purchase or lease of land; obtaining a building permit; hiring a contractor to implement the project; construction supervision; attraction of basic and additional investments for project implementation; advertising and sale of real estate. In essence, a developer is a real estate developer / customer, but with a wider range of functionality. It is under the brand of the developer that new buildings are advertised.

Revealing the features of ensuring continuity of activity, in this paper we are to pay attention to construction companies. In our opinion, the main prerequisite for their continuity is the high quality of the internal risk management system. However, first of all it is important to note that the development of construction companies and the construction industry in general, on the one hand, creates the preconditions for active economic development of the country, region, city; and on the other hand, it refers to those types of economic activity that are closely correlated with various economic factors. Besides, let’s not forget that construction projects and, as a result, construction companies that directly implement them, from the very beginning of existence are directly exposed to a wide range of risks [5]. Note that the most commonly used approach to risk management of construction companies is the life-cycles methodology. According to this

approach, risks are structured according to the degree of their significance in terms of life phases of construction. Once the risks have been identified and structured in terms of life phases, measures are developed and the costs of their implementation are estimated.

In general, risks and willingness to accept them are a defining feature of real estate developers, for whom the main priority they pursue in the risk management process is to maximize final profits, while ensuring a high level of construction risk management. Note that currently there is no established approach to the classification of risks of construction companies, as evidenced by the generalization of scientific approaches by R. A. Bahamid and S. I. Doh [6] (Table 1).

Table 1

Scientific approaches to the classification of risks of construction companies

Author	Classification of risks
Wang S. Q., Dulaimi M. F. and Aguria M. Y.	Project level, country level, market level
Dikmen I., Birgonul M. T. and Han S.	Resource, productivity, design, managerial, payment, client, technical, subcontractors
Al-Kharashi A. and Skitmore M.	Client, consultant, labour, contract, contractor, relationship, materials
Nieto-Morote A. and Ruz-Vila F.	Project management, engineering, execution, suppliers
Kuo Y-C. and Lu S-T.	Construction safety-related, construction management; engineering design, natural hazards, socio and economic
Enshassi A. and Mosa J. A.	Legal, physical, design, political, fanatical, environmental, logistics, management, construction
Zou P. X., Zhang G. and Wang J.	Quality related, environment related, safety related, cost related, time related
Perera B., Dhanasinghe I. and Rameezdeen R.	Economic-financial and political, technical and contractual, managerial, external and site condition
El-Sayegh S. M.	Internal (owners, contractors, subcontractors, designers, suppliers), external (social & cult, economic, political, natural, others)
Choudhry R. M., Aslam M. A., Hinze J. W. and Arain F. M.	Health and safety risks, contractual risks, financial risks, design risks, management risks, construction risks, external risks

Source: [6, p. 5].

It is important to emphasize that the areas in which the risks of construction companies arise are characterized by a special multidimensional nature. Thus, the objects of attention within the risk management systems of construction companies are the following areas: safety of staff; terms of contractual obligations; kipping to the time limit at performance of works on the construction project; selection of subcontractors; selection and logistics

of supply of construction materials; taking into account the interests of a wide range of stakeholders and more. By conducting a corporate risk assessment and implementing a risk management process, construction companies provide the opportunity to effectively identify, assess and minimize potential risks before they cause real financial losses.

In a dynamic economic environment, it is important to take a proactive approach to risk management. Moreover, the more complex and formalized the risk management processes are, the more opportunities there are to maximize the risk management effects of construction companies. It is worth noting that after the prolonged recession, construction companies operate in a new economic environment, which is characterized by lower margins in the construction business and, as a result, less room for error. Many analysts believe that the days of high margins and favorable contractual relations are in the past. Also, one of the significant challenges for the construction business is the acute shortage of skilled labor. Regarding the latter, scientists and experts, in particular, we are talking about P. Teichholz [7; 8] and McKinsey's analytical reports, focus on a significant productivity reduction namely in construction business. This applies also to the developed economies of the world.

The reasons for the decline in productivity in construction include the following:

- fragmentation, bearing in mind that the construction industry is mainly represented by small enterprises where, as a rule, only up to 50 employees work;
- professional skills. Studies show that the level of education of construction workers at the age of 30 has a declining trend. This leads to increasing gaps between the competencies of specialists in construction companies, which in turn, hinders the active introduction of new technologies;
- inefficient purchasing processes and contracts;
- division of the working cycle. Different professional competencies and working styles of architects and engineers influence the way they work with construction companies, which is a deterrent to establishing effective interaction between them and optimizing the design-construction process;
- limited use of industrial construction techniques. First of all, we are talking about the technology of lean construction, the use of information modeling of buildings based on big data (BIM), a proactive methodology to prevent delays;
- limited use of technology. Experts note that the construction sector is slow to innovate, a recent MGI study has found that it lags behind most other sectors of the economy in terms of digital asset and labor intensity [9];
- risk avoidance. Construction business, as a rule, prefers proven technologies and approaches, as their financial buffer is insufficient to cover the risks caused by experimental activities and innovations. Besides, errors in the construction industry are usually well visible, which in addition to the negative financial consequences also causes reputational risks of the construction business;
- uniqueness of construction projects and individual approach to clients. On the one hand, it has a positive effect on the satisfaction of consumers of construction products, however, on the other hand, it discourages construction companies to pay attention to

previous experience in construction projects, and take into account their features.

Given the above, it should be noted that in the new business environment, contractors must manage risks differently than they did five years ago. In particular, this is also confirmed by the results of a survey of construction companies conducted by AGC and FMI [10]. According to these data, more than 90% of respondents stated that they managed the risk differently than five years ago.

In our opinion, an effective system of risk management in construction companies should have the following features: 1) proactivity, 2) integrity and inseparability from the overall business management system of the construction company; 3) being characterized by a sufficient level of formalization to minimize the level of subjectivity in risk management (in particular, in terms of choosing the most significant and meaningful risks). Compliance with these criteria, in our opinion, will contribute to the formation of a holistic and strategic perception of the business among construction companies. Within this paradigm, it is also important to be aware of the duality of the nature of risk, i.e. the perception of it as a strategic opportunity, rather than solely a cause of financial loss.

The duality of the nature of risk, in turn, gives rise to two different concepts of risk management, which are appropriate to distinguish between “aggressive” and “passive”. Thus, the target priority of the “aggressive” risk management model is to maximize the value of the business by formalizing risk tolerance, potentially increasing the rate of return and stabilizing profits. Along with this, the “passive” model of risk management aims to protect the business by minimizing risks and their impact on the balance sheet, profits and capital of the enterprise.

In our opinion, ensuring the continuity of the construction company is derived from promoting the flexibility of the company, including the use of market opportunities while protecting against various threats. Therefore, it is important that the risk management methodology of construction companies takes into account the dual nature of risk.

Another equally important is the permeability and integrity of the risk management system. In our opinion, this should be reflected in the existence of a risk management strategy, be properly implemented organizationally, as well as materialized through applied methods of its implementation. The specification of these provisions is given in Table 2.

Table 2

Methodological principles of ensuring the continuity of construction companies on the basis of integrated risk management

Characteristic criteria			
1	2	3	4
STRATEGIC LEVEL OF RISK MANAGEMENT OF CONSTRUCTION COMPANIES			
Name of approach	General corporate approach	Partnership approach	Approach based on maximizing benefits
Essence of approach	Provides identification, assessment and management of the entire set of risks of the company. The focus is not only on the local level of construction, but also on a wide range of external threats to the construction industry that may not be directly related to a particular business. This scale contributes to a clearer definition of risk areas and is an applied basis for strategic planning of the company	Assignment to risk management entities of insurance companies and insurance brokers	The main priority of risk management is to increase the market value of companies, the search for new ways to increase the rate of return
Semantic difference of approach	Involvement of employees at all levels in risk management	Active use of risk allocation methodology based on the competency approach, which, for example, is typical for project financing	Application of the risk avoidance method only in exceptional cases when the effect of participation in risky activities is zero or negligible
Features of practical implementation	The division of responsibilities in risk management depends on the ability to influence them, and not limited to the scope of professional responsibilities of employees	Insurance brokers and companies specializing in this field act as strategic partners, providing construction companies with the necessary tools for stable operation in conditions of uncertainty	Consideration of risk and risk activity through the prism of future results, and not only probable losses in case of failure. Acceptance of the concept of risk as a market opportunity

Table 2 (Continued)

1	2	3	4
INSTRUMENTAL LEVEL OF RISK MANAGEMENT OF CONSTRUCTION COMPANIES			
Name of tool	Internal financial buffer	Independent institute of risk management	Insurance
Essence of tool	Ensuring the validity of risk and compliance with the principles of economic feasibility and financial efficiency of risk management	Operational insularity of the department responsible for risk management. Institutional insularity from the security management unit. At the level of the supervisory board (in the case of large construction companies) the establishment of a risk management committee	Creating an external financial buffer through the use of an insurance tool
Semantic difference of tool	Most modern construction companies do not have a full understanding of risk tolerance of their company, which leads to situations in which the amount of potential financial losses significantly exceeds their margin of safety, both in terms of reputation and finance	Creating an institutionally separate risk management unit that specializes exclusively in risk management and does not combine this work with security issues, let alone any activity that directly generates revenue	Use of the insurance tool in case the management decides to take a risk that goes beyond the established risk appetite
Features of practical implementation	Clear formulation of risk appetite and definition of quantitative or qualitative framework of the company's risk tolerance	Creating a separate risk management unit; the rewards to the head of risk management should depend on the dynamics of the company's profit, which is formed within the formulated risk tolerance	Reasoned choice of insurance program that adequately meets the risks of a particular construction business of the company and its risks

Table 2 (Continued)

1	2	3	4
OPERATIONAL LEVEL OF RISK MANAGEMENT OF CONSTRUCTION COMPANIES			
Name of approach	Project approach	Worldview approach	Multivector approach
Essence of approach	Systematic and coherent process of assessment and analysis of potential project risks at all phases of construction	Introduction of risk management culture as a worldview core of the construction company and the causal chain of business value creation. Paying special attention to ensuring a high level of safety of construction works. As part of the development of the construction safety program, the introduction of quantitative indicators to measure its effectiveness	Subject to the involvement of contractors and subcontractors in the construction project, their actions also become the objects of attention of the risk management unit
Semantic difference of approach	Decision-making regarding project risks within the framework of the formulated risk tolerance of the company	Monitoring of external and internal claims and active conflict management measures	Comprehensive risk management of the construction company is provided, including those risks that may be due to the actions of third parties
Features of practical implementation	Involvement of internal experts with specialized experience in the assessment of project risks. Discussion of final conclusions on project risks with the involvement of the risk manager	Value-oriented paradigm of doing business, in which the focus is on a set of values, the formation of which is an aim of the company's activity, which in turn determines the growth of business value	Assignment of risk management of a construction company, which may be due to the actions of third parties, to the competence of the risk management unit
EXPECTED RESULT	Improving the quality of construction costing (by taking into account the relevant unforeseen costs); adoption of the concept of safe construction as a basis for conducting construction business; introduction of a risk-based approach to management decisions; increasing the financial stability of construction companies; promoting the stability of construction companies and ensuring the continuity of their activities		

Source. Developed by authors.

Conclusions. Thus, risk management in the context of construction project management is a comprehensive and systematic way to identify, analyze and respond

to risks to achieve the goals of the construction business. At the same time, the risk management methodology used by the vast majority of construction companies is quite fragmentary and does not correspond to modern features of the economic environment. It has now become clear that effective risk management does not mean eliminating risk, which is arguably the cheapest approach in terms of financial costs. However, from an economic point of view, this approach is meaningless, because what is potentially profitable is risky by definition, and activities that do not pose a risk are not economically interesting and, therefore, do not bring tangible benefits. It is this economic thinking that requires immediate implementation in the corporate management of construction companies. Further research will address the justification of applied aspects of risk assessment of construction companies.

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STRATEGIC TRAJECTORIES OF INNOVATIVE DEVELOPMENT OF CONSTRUCTION BUSINESS

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Annotation. *This article is devoted to defining the determinants and conceptualize the strategic trajectory of innovative development of the construction business. It is determined the main prerequisites for the functioning of the construction industry in the context of innovation and factors influencing the creation of a strategic trajectory of construction business are generalized.*

Key words: *construction business, strategic trajectory of construction business, innovation potential of the construction industry, innovative system of strategic development.*

Problem statement. Modern business is in a constant vortex of innovations and is accompanied by the triad of concepts “novelty — uncertainty — risks”. Indeed, in the middle of the last century, the traditional paradigm of the established principles of business development underwent some changes. This led to management difficulties with relatively complex systems and enhanced the impact of an active environment on the success of the business. Thus, in the previous stages of development of socio-economic relations in the formatting of complex systems, in other words a particular business, no attention was paid to the impact on their functioning of transformations in the external and internal environments. Over time, the sensitivity of this impact was increasing, and as a result there was a need to level it. In addition, the economic systems themselves became more complicated and the requirements for the accuracy of their management became stricter. The relevance of this is supported by the development of the digital economy, based on the large-scale use of information and human capital.

Therefore, the established theoretical paradigms have been replaced by the latest innovative techniques of creative entrepreneurial thinking. It is with the help of the latter that modern strategic decisions, principles of successful business development are designed and new points of its growth are created. Given the growing unpredictability of the external environment, the active use of high technology and communications, increasing importance of information and knowledge capital, digitalization of business processes, the transformations are occurring primarily in the business management system.

All this together means that business, regardless of its scale, desperately needs to form a trajectory of development on the basis of strategic decisions, taking into account the multi-format competitive space. In this case, the construction business is no exception. In particular, it is well-formed trajectories that allow to demonstrate the logic of actions arising from the adoption of certain management decisions.

Analysis of recent research and publications. Let us note that innovative development of construction industry is the focus of attention of both national, and foreign

scientific community. Thus, F.M. Sayfullina, L.R. Mustafina, D.N. Semenov explore innovative technologies in terms of ensuring sustainable development of construction, focusing on engineering sector [1]. V.P. Bochek pays attention to the assessment and general management of economic benefits of innovative technologies in construction [2]. The work by N.M. Vasiliev deserves attention; he reveals the features of the transfer of innovative technologies as a catalyst for the development of construction production [3]. The article by Z.A. Vasilieva and A.E. Novikov is also of scientific and applied interest; they consider the dynamics and depth of the introduction of innovative technologies in construction under the influence of the real estate market [4]. S.Yu. Kopelchuk focuses on approaches to the innovative transformation of the construction industry from the standpoint of the need to reduce operating costs associated with the maintenance of real estate [5]. A.P. Duka pays attention to the modeling of innovative regulation of the construction sector of the national economy [6].

The purpose of the article is to define the determinants and conceptualize the strategic trajectory of innovative development of the construction business.

Presentation of the main research material. After the demonopolization of construction infrastructure, options to use traditional equipment, processes, technology, business models and the corresponding workforce in this area have been retaining for a long time. In addition, the construction industry is characterized by a weak absorptive capacity to recognize the new. There is a low level of “flow of knowledge” and application of new, primarily on the basis of borrowing.

There is often a competition for cheap labor. This leads to an iterative process, which according to A. Toffler is called the “race to the bottom” instead of the “race up” and the desire for change for the better. Instead, in our opinion, the stimulus for renewal is the formation of innovation activity, new information workers, innovative modernization, etc. Of course, speaking of transformation of the established paradigm of development and the new realities of the construction industry, we cannot ignore the role of the state in this process.

Thus, public practice has developed four models of interaction between the state and the construction business in the modernization of the industry:

1. The model of “forcing to modernize” or in other words administrative pressure, which means that only the state is able to readjust the business from a consumer paradigm to innovation.

2. Model of “public-private partnership” — coordinated and joint participation in the implementation of innovative programs and projects. Under such conditions, the exchange of resources and activities becomes a necessary attribute of interaction between government and business in the field of innovation.

3. The model of “compensation of costs” of business for the implementation of innovative initiatives through business access to government-controlled resources (in particular, energy, land, etc.).

4. The “night watchman” model means that the state does not interfere in the innovation policy pursued by businesses and regions.

In our opinion, it is possible to create a favorable innovation environment only with the use of the positive features of the first three models. Only with such a combination, sound, effective and “smart” solutions are implemented, and thanks to these solutions, the overall positive synergy is achieved. By the way, in the present circumstances, there is a clear transition from production determination in the economic development of the construction business to the innovation and infrastructure one, in which the key positions are taken by human capital, specific and interspecific resources.

From the considered models of interaction, possible forms of regulation of business entities in the construction industry derive, namely:

1. Explicit government regulation is a direct government intervention in solving certain problem situations or issues. It is worth noting that state regulation serves to solve important problems of general importance and high risk, which affect the interests of broad sections of the population.

2. Self-regulation is a way to solve problems through market mechanisms in the absence of government intervention. This form occurs when the market is able to solve certain issues on its own or participate in resolving certain situations. At the same time, there are no significant losses and risks for society.

3. Co-regulation, as a rule, implies the interaction of the state and business, in which the business sector independently produces and implements measures to address the identified problems, and the state provides the legal basis for such regulation.

What form of regulation is optimal? There is no single answer to this question. Of all the possible forms of regulation of construction, there is co-regulation, and the option of state participation, for example, in state licensing, is needed only for work performed on particularly dangerous, unique and technically complex capital construction projects. Works on other capital construction projects may be subject to co-regulation. At the same time, it is necessary to emphasize the need to establish a legal basis for the implementation of their tasks by construction businesses, while the latter can independently develop and implement in practice the rules and approaches to activities that comply with current legislation.

The study of the general level of innovative activity of construction business entities deserves special attention when considering innovative development. Thus, in general, the overall level of innovation activity is quite low due to lack of financial resources, poor availability of infrastructure, inefficiency of commercialization institutions, insecurity of intellectual property etc. The low activity of construction businesses is due to the peculiarities of the industry itself, where product innovation is not a key success factor, as there is often lack of incentive by organizations, and there are no benefits from innovation due to lack of serious competition in the real estate market.

We consider it absolutely necessary to recognize the dominant importance of innovative aspects of construction business, which will promote innovative modernization and ensure economic growth not only in the industry but also in the regional aspect. In general, this will help to overcome technological backwardness in the researched area. What is meant by innovative modernization? First of all, it should be recognized that this

is an objective economic reality, which is characterized by specific features, conceptual framework, scientific schools and other inherent features.

Innovative modernization cannot be only technological, it must cover all components of investment and construction activities and construction business, starting from the knowledge patterns of innovative development, flexible production and time saving, and ending with ensuring high quality and efficiency of construction products and services. Under such conditions, it is worth talking about the renewed priorities in science, industry, business and education on a national scale, namely:

- replacement of the inertial scenario of innovative development with the scenario of technological breakthrough, focused on the large-scale use of the fifth technological paradigm;
- ensuring transition of the construction industry to a post-industrial technological method of production;
- qualitative shift in the structure of human capital and market priorities;
- forming long-term forecasting of innovative renewal of the construction industry, increasing its competitiveness and ensuring sustainable development;
- defining innovative priorities and researching perspective market niche positions;
- modernization of infrastructure representation, improvement of consumer characteristics and increasing usefulness of products of construction industry companies;
- choosing strategy of innovative breakthrough in order to revive and/or restructure the scientific potential in the field in symbiosis of science and practice;
- increasing labor productivity, reducing energy and material consumption of construction, increasing its manufacturability and giving preference to innovative investment;
- producing innovative partnership of the state, construction business and public interests, with active interaction of which there is an opportunity not only to build a specific industry innovation system, but also to form a favorable innovation climate and innovation infrastructure, significant demand for innovation and efficient use of intellectual capital.

New realities of the construction industry in the context of reorientation to the innovation direction are influenced by many prerequisites (Fig. 1).

It is worth noting that modern reality requires a completely different configuration of assets, resources and positions, a fundamentally different attitude to creative ideas, new approaches and opportunities to succeed in modernization. Taking into account the current trends in the construction industry and the reformatting of the paradigm of thinking, it should be emphasized that the innovative system of strategic development of the industry should be based on:

- first, creation of intermediate markets for knowledge and innovation as a link between researchers, developers and construction companies;
- second, the optimal combination of internal knowledge with external one, internal opportunities for modernization with deeper external transformations of the macroeconomic format;

- third, transformation of business models and the structure of innovation management processes of organizations, as well as the effective ratio of various elements to a single whole in order to focus on providing consumers with sound system solutions;
- fourth, the formation of public networks in terms of innovation partnerships with technology parks, financial communities and other infrastructure participants to find new promising developments, exchange knowledge and attract investment;
- fifth, dividing labor in the field of innovation and value chain into separate components, forming an updated portfolio of assets, resources, key competencies, the creation of intellectual property management systems, etc.;
- sixth, using the principles of reflectivity, nonlinearity, efficiency, synchronicity, priority of seeking opportunities, bifurcation, self-organization and self-management, synergy, variation of motion vectors;
- seventh, co-financing of effective innovations together with venture companies, which are focused on achieving strategic success and basic guidelines.

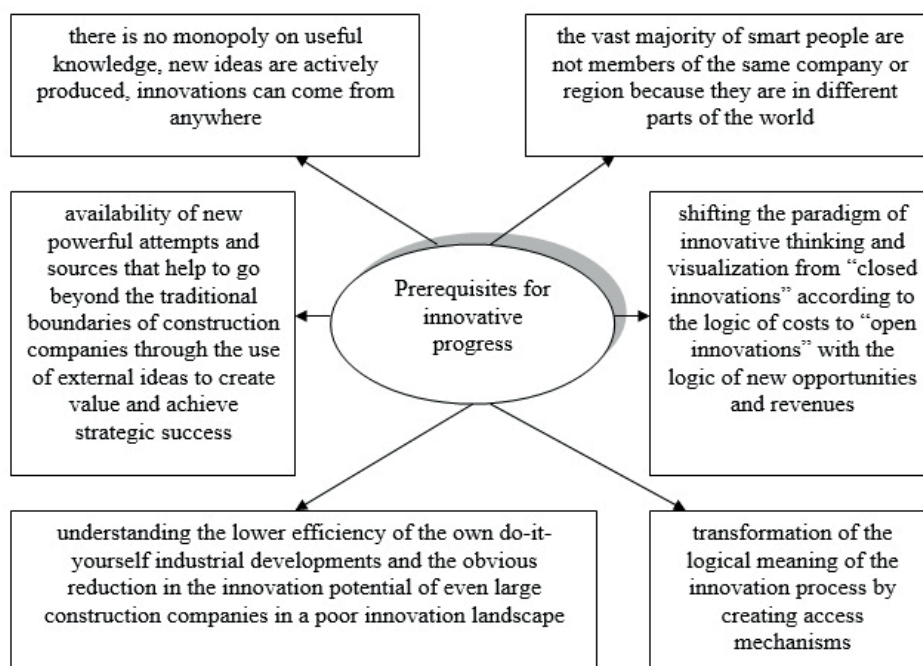


Fig. 1. The main prerequisites for the functioning of the construction industry in the context of innovation

In our opinion, the following aspects are the most interesting for scientific coloring: firstly, how the business finds itself on a certain trajectory and how the trajectory influences strategic decisions, as well as whether the reverse effect is possible at all. Let's highlight the driving forces that form the trajectory — they are cognitive processes

and the economic environment. Figure 2 shows the relationship of the main forces influencing the creation of a strategic trajectory of the construction business.

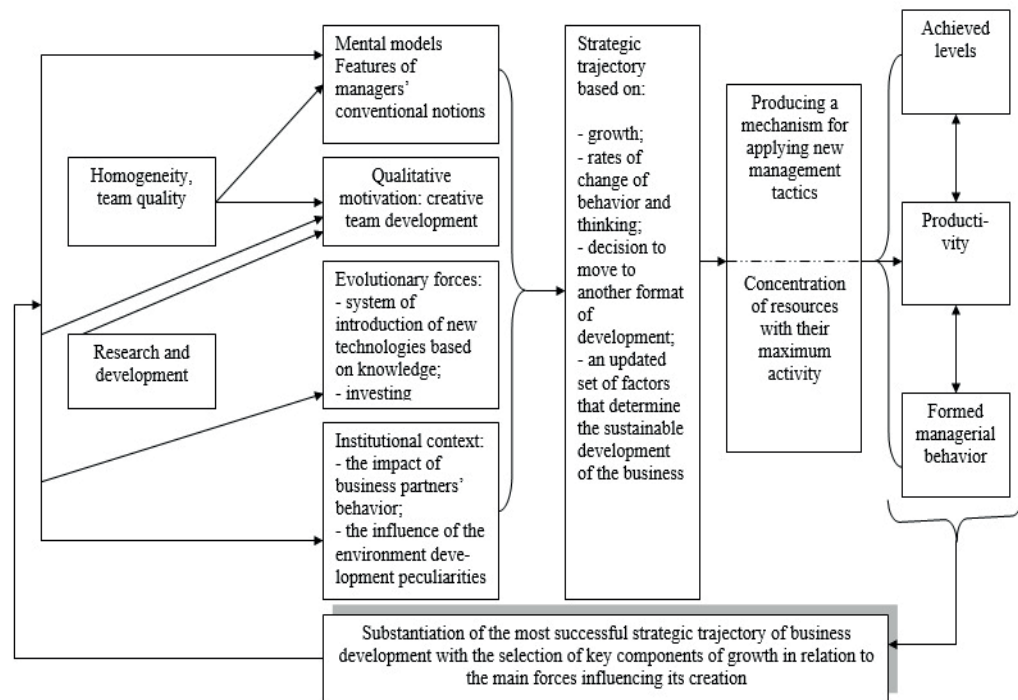


Fig. 2. Generalization of factors influencing the creation of a strategic trajectory of construction business

Conclusions. Finally, it should be noted that the rapid growth of the innovation potential of the construction industry will require a reformatting of the innovation paradigm in the context of the transition from “closed innovation” to “public innovation”. The main disadvantages of the paradigm of closed innovation include: short life of innovative products and services; lack of links between research, development and implementation; changing the landscape of useful knowledge; weakening of vertical-integration and technical synergy and increasing the importance of network synergy; excess amount of new knowledge, ideas, concepts, etc.; growth and availability of the venture capital market; openness to innovation and creativity of business models of companies; strengthening the practical significance of the “buy and develop” approach; lack of own resources for research and generation of new knowledge; participation of intermediaries and availability of intermediate innovation markets; increasing the possibilities of using external suppliers of innovations; active development of the new mechanisms of financing of innovations with high return (co-financing, joint programs, etc.); new rules for the management of intellectual property, i.e. from fixation to

commercialization; transformation of innovative ideas into new business; the emergence of websites to find useful innovative solutions and implement intellectual property agreements. This will generally contribute to the construction of strategic trajectories of innovative development of the construction business.

It is important to understand the fact that in reality the transformation processes occur inconsistently and nonlinearly. They are closely intertwined and undivided. Such processes are devoid of clear logic in the form of a consistent algorithm of actions, and the dynamics and nature of their relationship can occur differently at different stages. For example, technological elements of a business may emerge in the future before a clear vision is formed. But it is through the formation of an innovative vision that effective management of the process of finding growth points in the future begins.

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ASSESSING EFFECTIVENESS OF FINANCIAL AND CREDIT SUPPORT FOR DEVELOPMENT OF GRAIN MARKET OF UKRAINE

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Annotation. *The study is devoted to substantiating the criteria for assessing the effectiveness of financial and credit support for the development of the grain market of Ukraine. The role of public management and administration in increasing the financial and credit support for the grain market through improvement of relationship between the state, banks and grain market actors is determined. Proposals for ensuring the innovation and investment component of the grain market development are provided.*

Key words: *grain market, financial and credit support, monetary policy, banking sector, targeted-programme method, innovation-investment model, initial public offering (IPO).*

Introduction. In the modern civilized world, to achieve a decent quality of life of every member of society is possible only through effective and rational organization of public administration based on the principles of democracy, rule of law and priority of the individual, with its mechanisms being highly adaptable to new external and internal changes.

At the same time, given the scarcity of domestic sources of financial assets, the practical achievement of these goals is bolstered by the state's encouraging financial and credit support for grain market development, based on implementation of a system of measures related to the state financial policy [8]. In addition, the country's grain industry has a significant potential for development, primarily due to the availability of rich land resources and a sufficient number of skilled labor [12].

The current trends in the grain market, increased impact of external factors on its operation and development, restructuring of the industry, and other features of the present stage of agro-industrial complex functioning call for an active application of modern research methods, qualitatively new approaches to organizing and evaluating the mechanism of the state regulation of the grain market [13], in particular, its financial and credit support.

Modern approaches to determining the effectiveness of the financial and credit support for the development of the grain market should include a set of indicators that characterize the nature and effectiveness of the state policy in this area. The modern challenges facing the national grain market are not limited to the lack of funds, but also include a low level of efficiency of the mechanisms for funds application and

control by public authorities. In other words, from an economic perspective, it is not the matter of how much to allocate from the budget, but rather how to manage the funds more effectively [15]. Therefore, increasing the effectiveness of financial and credit support for the development of the grain market should be achieved through a system of administrative, legal, and economic levers of influence using a variety of methods of assessment and control.

Presentation of the main material. The state regulation being a complex tool of public policy implementation, the assessment of its basic criteria, in particular efficiency and effectiveness, is of great interest to both researchers and practitioners. Assessment, as C. Weiss notes, is “a systematic evaluation of the operations and/or results of a program or policy against a set of explicit and implicit standards to improve the program or policy” [1]. Assessment is the first step to influence a public policy effectively, just as it is the first mandatory step in any action that is designed to produce positive results. The work should begin with collecting accurate information and recognizing the nature of the problem, understanding the interests of the people involved, possible policy options and the consequences of implementing or not implementing each of them, identifying organizations and channels of communication with influential stakeholders and government officials responsible for policy-making. The stronger the foundations laid on the basis of such knowledge, the better results can be achieved in the course of influencing public policy [10].

Encyclopedic literature defines effectiveness as: a ratio of useful effect (result) to the cost of obtaining it; a degree of comparison of results with costs; a system of indicators that characterize the level of utilization of production capacity of a system; in management – achievement of management goals with minimal undesirable consequences or costs [5].

The purpose of assessing the effectiveness of financial and credit support for grain market development is to determine how well the sources of financial and credit resources in the grain market sphere are chosen and what result they yield.

Focus on the final results (prediction of results, design of each action and formation of centers of responsibility for the final results) is found in management practice and is a fundamental component of many modern management concepts, including regional market management. Assessment helps to improve the quality of executive activity proper, which becomes a factor of [3, 14]:

- determining public authorities optimal activities in order to provide high-quality, efficient and productive services to community residents;
- strengthening the responsibility of public authorities. They are important for the budget process which can be significantly improved by assessing the relevance of services quality to their costs;
- increasing the transparency of public authorities, since the documents for assessing their performance on the basis of these criteria are always available to the general public.

In general, based on the priorities of research on the impact of public administration measures on the factors and indicators of the grain market condition and development, several types of criteria for assessing the effectiveness of the state regulation of the grain

market can be distinguished, namely:

- indispensable effectiveness;
- plan realization effectiveness;
- target and implementation effectiveness;
- total (integral) efficiency;
- relative effectiveness;
- development effectiveness;
- challenge effectiveness;
- financial efficiency;
- subject efficiency.

Of course, it is the "financial efficiency" type of criterion that is the basis for assessing the effectiveness of financial and credit support for the development of the grain market, since sometimes there is a temptation to believe that the more financial resources are spent, the more things are done. Practice shows that this is far from the case.

Among the analytical technologies, i.e. methods used to assess the effectiveness of public management of the grain market, we can highlight the following:

1. Comparison of the performance of different authorities. This important technology, being based on specific data, makes it possible to understand why some authorities can achieve high levels of productivity and effectiveness, obtain better results, while others cannot. Sharing results is useful for both taxpayers and government officials. The analysis of productivity, quantity of sown areas, and gross harvest in different regions of Ukraine can be indicative.

2. Comparing the planned with the actual. This is a fairly simple and useful method of analyzing the results, the application of which involves identification of specific objectives for the bodies of governance. The goals can be based on:

- analysis of past performance;
- comparing the activities of other similar organizations and structures over a certain period of time;
- approved executive standards;
- data from the private sector and non-governmental organizations;
- study of real needs of the population, etc.

3. Time trends. This is another valuable analytical technology. The activities of governing bodies usually do not change significantly from year to year. Changes are gradual, both positive and negative, but eventually small changes can become a trend. The authorities must collect, monitor and study the results of their activities over several years, so as not to find themselves in an uncontrollable situation. In terms of assessing the state regulation of the grain market, this method can be used to analyze changes (dynamics) of indicators that can assess quantitatively the effectiveness by the final result – the dynamics of sown areas, gross harvest, agricultural productivity both taken as a whole and by individual grain crops, etc.

It is the application of the time trends method that is the most appropriate when assessing the effectiveness of financial and credit support for the development of the

grain market.

Along with that, there is an urgent need to create an objective monitoring system that would allow a timely and in-depth assessment of the effectiveness of decisions taken in the field of grain market in individual regions of the country. Its task will be to identify promptly the main trends and forecast the development of the grain market in the regions, indicate possible "growth points" and ways to unleash the potential of a particular region in the grain market sphere by improving local authorities performance.

All the developed methods of assessing effectiveness depending on information can be divided into three groups:

- methods based on expert assessments;
- methods based on statistical information;
- methods based on expert-statistical estimations.

It should be mentioned that currently there are many complaints about the quality of the data base and information used in research [9, p.28]. As noted by an American economist E. Lichen, one cannot but acknowledge the fact that almost all estimates contain errors, and that neither art, nor science, nor statistics can deprive the assessment process of the impact of human bias or probability of error [2]. In particular, the quality of information is negatively affected by constant uncontrolled change of mechanisms and forms of management, reduced effectiveness of financial instruments, the dominance of shadow schemes which sometimes become the basis for grain markets operation and survival in the present conditions. This significantly affects the quality of economic analysis and formation on its basis of conceptual provisions for the development and improved effectiveness of the state regulation of the grain market.

Having regard to the multi-sector structure of the grain market, the presence in its composition of agricultural as well as processing, industrial, transport enterprises, market infrastructure units, etc., it is advisable to apply a differentiated approach to assessing management performance, since every field of the grain market has its own specific features based on the characteristics of its activity.

Creation and efficiency of the domestic manufacturing, warehousing and processing formations of the grain market infrastructure are inextricably linked with the quality of functioning of the credit and financial component of that infrastructure, which includes a number of financial institutions (banks, credit unions, agro-industrial financial groups, leasing and insurance companies, etc.).

Along with the tools of technological and price regulation, the regulatory role of the state includes a set of measures of financial and credit incentive for grain market development, which belong to the state financial policy in terms of monetary, budgetary, tax, investment, insurance policy, etc. [8].

Deep economic shocks can only be resisted if monetary policy relies on domestic regime and long-term strategy. According to a study conducted by M. Makarenko, it is an integrated application of all monetary policy instruments as part of the state mechanism of economic regulation that is effective. For instance, advanced countries that use occasionally liberal regulatory mechanisms, when facing threats to their

economic stability, apply such effective means of countering crisis as broad refinancing of commercial banks and promoting their additional capitalization, emission support by the central bank for government spending in the context of an expansionary fiscal and debt supporting policies [10].

As experts point out, serious challenges to the Ukrainian agricultural enterprises is their inability to attract financing on acceptable terms and repayment of the existing debts. Today, the banking sector of Ukraine gives very little credit to manufacturing enterprises of the real sector of the economy, which is largely due to banks lacking economic incentives to make long-term and riskier investments, compared to other areas of business. On the other hand, manufacturing companies are unwilling to borrow at high interest rates which exceed by far their profitability.

The real sector continues to degrade, losing its competitive position, markets, including the domestic Ukrainian market. The share of imported equipment and devices is growing from year to year. In 2020, a share of raw materials (low value-added goods) in the structure of domestic exports was about 86% [5]. Ukraine has become a commodity-dependent country. The demand and prices for traditional Ukrainian export products are declining due to the dominance of recessive trends in the world economy. This is accordingly reflected in the indicators of the socio-economic condition of Ukraine.

The choice of indicators that characterize the effectiveness of financial and credit support for the development of the grain market should be based on the economic content and the role played by the banking sector with its inherent functions in the country's economy.

The first function is to provide economic entities with the money needed for current settlements and payments (money as a means of advanced payment, means of circulation, means of payment, means of fulfilling tax and other obligations), as well as for economic development (cash loans and direct investment in the form of acquisition of shares or stocks of economic entities, including public equities). From this point of view, the accumulation by banks of temporarily free money of enterprises, organizations and the population appears not as a function (goal, task), but as a necessary way (for commercial banks – the only possible way) to accomplish it.

This first function of banks allows us to consider the banking sector as a set of institutions for financial intermediation. In this capacity, commercial banks, in particular:

- pool the financial (monetary) funds of the majority of the parties to economic turnover, aggregating disparate amounts (including small ones belonging to enterprises, organizations, institutions, individuals) into general monetary funds which due to their large size become a very serious economic resource;
- mediate settlements and payments for most business agreements concluded between economic entities, without which a normal commodity turnover in society would be virtually impossible; in that way banks allow these entities to save on the so-called transaction costs (costs of concluding and conducting agreements), minimize entrepreneurial and other financial risks;
- take an active part in financing state innovation and investment projects or public-

private partnership projects;

- make tax and other mandatory payments to their customers at their expense, trying to optimize such payments;
- ensure preservation or even an increase (possible accrual of interest) in the amounts entrusted to them by customers;
- ensure cash transfers to non-cash funds and vice versa, timely supply customers with the necessary cash;
- based on special agreements as trustees manage the money and other property of individual clients in their interests or in the interests of the persons specified by them;
- conduct currency exchange transactions;
- providing customers with the above services, banks thus: implement the monetary policy of the central bank or are participants in the implementation of the government budget policy, i.e. can help conduct the economic policy of the state; contribute to stabilization of the country's money circulation; form a money supply, including a supply of resources for investment; act as conductors or even "guides" in market economy for other grain market participants (for their cash flows) – manufacturing enterprises, trade organizations, etc.;
- direct the collected funds to the most promising enterprises of the grain industry (various forms of financing creditworthy borrowers that are strategically important for the industry);
- invest part of their own funds within the permitted standards, directly or through their subsidiaries (bypassing these standards), in the authorized capital of grain market participants for the purpose of joint management and receive the relevant dividends. In this case, banks cannot be regarded as intermediary organizations.

Accordingly, the second function of the banking sector is to provide economic entities with specific banking products (cash management technologies).

The assessment of the achieved banking sector equilibrium, as its ability to effectively perform the above functions, is based on evaluation of the financial stability of the banking sector, for which it is more appropriate to use a system of the following indicators:

- a share of total assets, equity capital and liabilities in GDP;
- a share of loans to legal entities and individuals in GDP;
- adequacy of the banking sector capital;
- a share of liquid assets in total assets;
- return on assets and capital of the banking sector;
- a coverage ratio which is calculated as a ratio of client's deposits to loans granted to them;
- a share of the loan portfolio in the assets of the banking sector;
- a detailed structure of loans in the banking sector;
- a share of loans and liabilities in foreign currency;
- temporary average terms of attraction and placement of credits and deposits;
- temporary average interest rates on loans and deposits;

- a share of funds in the total amount of assets aimed at financing state innovation and investment projects;
- a share of funds in the total amount of assets aimed at financing public-private partnership projects;
- a share of non-performing loans (in accordance with IFRS) in the total amount of loans;
- a state share in assets and capital of the banking sector;
- a foreign share of assets and capital in their total aggregate in the banking sector;
- debt dependence of the banking sector on external borrowing.

The scope of activity of banks is part of the sphere of non-material production, where useful labor is embodied in a special result, which has, as a rule, its own value, and where its special products – services are produced. In the field of grain market operation, in principle, there is no other function but ensuring the process of grain production, storage, sale and use based on free competition, free choice of direction of grain sales and pricing, as well as state control over grain quality and storage. In this sense, banks produce completely unique products – banking or monetary (financial) technologies, without which no grain market entity can do, and which are extremely varied in different banks, even when they perform seemingly standard operations. In all cases of banking production, we are talking about various combinations of conditions, rules, procedures, works, and interaction regulations which constitute an integrated technological process of servicing clients.

Unfortunately, Ukraine does not use such an effective model of assistance in financing of an innovative model of grain market development as specialized state development banks. The Development Bank is an institution whose activities are aimed at implementing the state innovation and investment policy designed to help increase the competitiveness of the national economy and its diversification on an innovative basis. The use of specialized state development banks yielded positive domestic experience in the past century, as well as proved its importance for innovative development in many foreign countries. Development banks should become centers for elaboration of the public-private partnership mechanism as a means of increasing the financial attractiveness of innovative projects for private investors.

The basis for implementation of an effective budget policy is laid by the targeted-programme method. It is aimed at rational and effective mobilization, distribution and use of financial resources of the state budget [7]. The development of the grain industry as a whole should be subject to a certain programme which is part of the targeted-programme organization of public administration. The state should regularly develop national investment programmes and plan mechanisms for mobilizing investment resources, determine comprehensive innovation and investment strategies to develop its national economy.

Improvement of the state regulation of the grain industry is primarily related to attracting domestic and foreign investment in the grain sector of Ukraine by way of: creating stable and transparent business conditions; improvement and harmonization

of the legislation of Ukraine with the requirements of the World Trade Organization and the market needs. In particular, it is important for the structure of grain production to constantly maintain the viable condition of the market mechanism in this field, to mitigate the adverse socio-economic consequences of its operation for grain producers in a changeable market environment.

One of the tools to optimize the structure of financial support for grain market development programmes, especially for large-scale agricultural formations – agro-holdings, is to attract resources to the international stock markets of IPO (public offering of shares). The first experience showed the complexity and high cost, while at the same time, good perspectives of such operations, for they open access to substantial capitals of international investors.

For large Ukrainian companies, IPO is a very promising method of attracting significant funds for development and expansion. Besides, entering the international stock market contributes to qualitative changes in the domestic grain industry, increasing transparency, bringing reporting closer to international standards, and promoting active dialogue with investors. The most important factors influencing the success of IPO are: the quality of preparation for listing, the choice of organizers and the exchange, the available market conditions. However, popularization of this method of financing projects of grain production and processing is hindered by a number of limitations imposed by the national legislation and a high cost of services related to IPO process organization [4, 16].

The most important factor in the formation of an innovation and investment model of grain market development is enhanced innovation activity. The state support for innovative processes is therefore indispensable. Transition to new forms of addressing economic, environmental and social problems of the regions, characteristic of the innovation and investment model of social reproduction, urgently requires of public authorities to change the current policy of management and development of the innovation activity in Ukraine and to provide its mandatory financial and legal support.

The state protectionism of innovative development is to ensure a stable demand for investment, which may require engagement of banking institutions and other investment and financial structures. Formation of an innovation market, in turn, depends on stimulating the demand for means of labor and on import substitution by prioritizing the investment of production of knowledge-intensive technologies, machinery and equipment. It is necessary to create a state institutional system that would integrate the strategy and tactics of the innovation and investment process, its mechanisms and legal framework on a single scientific and methodological basis.

Depending on the means used in specific public management and administration mechanisms, they can be political, economic, social, organizational and legal as well as complex, according to a particular sphere of social activity, one of which is the grain farming of Ukraine.

Conclusions. 1. It is shown that assessment of the effectiveness of financial and credit support for the development of the grain market will improve the quality of the

executive activity of public authorities. At the same time, it is essential to create an objective monitoring system that will allow a timely and in-depth assessment of the effectiveness of decisions taken in the grain market sphere by individual regions.

2. Today, a low quality of information is a significant problem for public administration, which can lead to continuous uncontrolled changes in the mechanisms and forms of management, reduction of financial instruments effectiveness, dominance of shadow schemes that sometimes become the basis for grain operator's functioning and survival in the present conditions.

3. In the context of chronic crises that have become characteristic of Ukraine's economy, the introduction of a new monetary policy is increasingly essential, since it would provide the economy with sufficient amount of stable, cheap and "long-lasting" national currency to facilitate Ukraine's transition to the innovation and investment model of social reproduction. Improving the planning and achievement of monetary policy targets should become an element of a unified system of both the current and strategic state regulation of the economy.

4. It is established that an important factor of high financial and credit effectiveness of the grain market is the ability of the country's banking sector to perform its functions efficiently. A system of indicators for assessing the financial stability of the banking sector is proposed. An emphasis is placed on the need to use specialized state development banks as a component of providing the innovation and investment model of grain market development.

5. In the context of increasing the degree of dynamism of the market environment, more and more attention is drawn to the targeted-programme type of financial support for grain market development, according to which the management organizational structure is based on a specific goal or a complex programme, the rest of its elements and interrelations being subordinate to it.

6. One of the tools to optimize the structure of financial support for grain market development programmes, especially for large-scale agricultural formations – agro-holdings, is to attract resources to the international stock markets of IPO (public offering of shares). Grain market player's entering the international market contributes to qualitative changes in the domestic grain industry, increased transparency, bringing reporting closer to international standards, and an active dialogue with investors.

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SECURE COORDINATES OF INFORMATION-NETWORK ECONOMY: CHALLENGES FOR UKRAINE

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Annotation. *The article analyzes the essence of the concept «information-network economy» and describes its key features. The influence of information-network economy on aggravation of problems in the field of economic and financial security is determined. The key threats to financial security of economic agents in the conditions of economic relations transfer to virtual reality are identified. Particular proposals concerning development of security issues during building-up of information-network economy in Ukraine are justified.*

Key words: *information, network, information-network economy, economic security, financial security, virtual environment, cybercrime.*

The modern economy is characterized by complex and ambiguous processes that will determine its development in the strategic perspective. First of all, they concern the change in the format of economic relations in the part of information and knowledge transforming into important productive resource. In such conditions, each country tries maximally use possibilities of information-network economy. However, this does not preclude the deepening of various disparities in the level of economic development that exist between different countries. These issues become especially relevant for Ukraine. Now our state is significantly inferior in the level of information and network technologies development to economically developed countries. This situation reduces Ukrain's global competitiveness. However, the active introduction of information-network technologies in economic relations is associated with significant risks, which relate primarily to security issues. Nowadays, great part of economic relationship has been transferred to virtual economy. This creates additional opportunities for economic agents, and creates additional threats. For Ukraine, there are numerous problems in creating certain coordinate system of economic and financial security in the process of creating information-network economy.

Analysis of recent research and publications. Issues of information-network economy development were considered in the works of famous foreign and domestic scientists Y. Bazhal, V. Bugorsky, A. Hrytsenko, M. Castells, P. Drucker, M. Lysenko, R. Lipsey, F. Machlup, M. Porat, N. Topishko, A. Chukhno, P.J. Van Baalen. In turn, the problems of economic and financial security are reflected in the works of O. Baranovskiy, O. Briginets, Z. Varnaliy, O. Ivashko, I. Komarnytsky, Y. Kirichenko, N. Kravchuk, N. Nakonechna, O. Savitsky, V. Tkachenko.

Research Results. In recent decades, a fundamentally new technological system has been finally formed, which has radically changed the essence of economic relations. These transformations receive from scientists a different definitions – “post-industrial economy”, “information economy”, “knowledge economy”, “digital economy”, “network economy”, “new economy” etc..

Without deepening into theoretical discussions concerning the essence of all these definitions, we emphasize that in any case, the formation of fundamentally new nature of relations in economy took place on the basis of radical technological changes based primarily on innovation. In the basics of such changes is active use of information and information technology based on various networks.

Firstly, it should be noted that both definitions of “information economy” and “network” economy are objectively related to the post-industrialization of economic and social life. Their identification and substantive characteristics on the one hand are consequence of post-industrial economy functioning, on the other hand - in themselves are expression of post-industrial economy. Moreover, it can be assumed there is the connection between information economy and network economy, because, as will be shown below, processes that are inherent to them are interconnected.

Note that in both cases in definition of “network economy” and in definition of “information economy”, in the special professional literature there is no unity – there are both fairly concise definitions and cumbersome, with many features and characteristics. Obviously, that term “network economy” is directly related to term “network”, which is often considered as “set of any paths, lines of communication, channels, etc., located in a certain territory; system” [1].

First of all, let us cite the position of one of the founders of this direction of economic science M. Castells, who argued: “network economy is a certain part of information economy and connected with the emergence of new existing economic entities - production networks, to competence of which will get global production” [2].

Obvious is the fact that this position in general reflects the understanding of scientists of network economy essence in the 80-90’s of the XX century. At the same time, it should be emphasized that in recent decades the networks themselves and economic science have come so far that the current approaches to the definition of this concept differ significantly from the position of M. Castells. The fact that the scientist considers network economy as a component of information economy attracts attention. At the same time, the key process that inherent to network economy is the emergence of production networks as fundamentally new economic entities.

Later, this position was interpreted differently - when a group of companies merged on the basis of existing ones, or created a fundamentally new network, for maximizing of their potential. In this regard, particular specialists note: “this is a group of companies which on the basis of Internet technologies combine to use their features, resources, specific advantages over others to implement certain joint projects” [3]. Let’s note, that in most scientific works the authors emphasize the fact that the network economy is based on information technology, which significantly changes the competitive landscape.

Other scientists, when characterizing the network economy, focus on the relationship problematic of market system elements, and, accordingly, relationship between economic agents. Thus, in the work of A. Hrytsenko the following is noted: “if in the hierarchical structure the elements of the system are at different levels and have different status, then in the network - they are at the same level and equal” [4]. In our opinion, such changes have an extremely powerful impact on the format of financial relations, because in fact the “equidistance” of all economic agents from the financial flows that exist in the modern economy is articulated. At the same time, as will be shown below, networking has both positive and in some cases destimulation effect on financial relations.

In some scientific positions, the analysis of network economy essence is reduced to the main and key basis - functioning of various networks. In particular, in the work of R. Voitovych the following definition is given: “... activities carried out with the help of electronic networks” [5].

In our opinion, the emphasis on the electrotonization of processes at level of network economy is not accidental, because it sufficiently characterizes the whole deep essence that is inherent to this economic formation. Obviously, it is possible to discuss the analysis of the network economy as a certain type of “activity”, but it is clear that the decisive role of electronic systems is not in doubt.

Great value from the point of view of scientific discussion results are those definitions of network economy, which emphasize various changes in the format of economic relations, which, among other things, are institutional in nature. By highlighting in the characteristics of network economy only the features connected with networks’ functioning and their impact on interaction of economic agents, scientists, in our opinion, artificially limit the effectiveness of their own work. In particular, we can agree with the position of the following authors that network economy “highlights the organic relationship between technological (virtual networks) and institutional specifics of constantly evolving lifestyle (network social environment)” [6].

The process of virtualization of economic and, with them, financial relations have another important consequence related to the processes of economy state regulation. In this regard, we cite a foreign scientist R. Tsvylov: “Network economy - a form of economic activity, which is dominated by non-market mechanisms of regulation and organization of horizontal relations in the economy” [7].

We emphasize that the issue of state regulation in network economy conditions is of particular importance. Last but not least, it is connected with the fact that virtual environment is extremely difficult to fall under possible state regulatory influence. Moreover, in some cases the possibility and effectiveness of such influence can be questioned at all. For example, there is the situation around cryptocurrencies, which embody almost all possible features of network economy. On the one hand, the efforts of individual states to regulate this segment today can be assessed as ineffective, on the other hand, various economic agents are already perceiving cryptocurrency as a means of payment.

No less heated discussion is taking place in scientific circles concerning the

substantive characteristics of the concept “information economy”. Although, it should be noted that in scientific thesaurus this concept was introduced much earlier than the concept of “network economy” (this contains the origins of some scientists who indicate that network economy – a direct consequence and one of the forms of manifestation of information economy).

One of the founders of this area of financial science F. Machlup notes that the information economy is an economy in which most of the gross domestic product is provided by activities of production, processing, storage and transmission of information and knowledge [8].

As you can see, this scientist clearly identifies a key feature of information economy – production of GDP is shifted to sectors related to information and information technology. In our opinion, such position characterizes the “ode from” the features of information economy, but by no means – not all. As will be shown lower, this purely comparative aspect is used by many scientists to characterize the information economy, but only in combination with other features.

Moreover, it should be noted that quite often the term “information economy” is analyzed on the border of interdisciplinary research - economics, management, sociology, psychology, etc. In particular, foreign scholars note the following: “... philosophical and economic term, which denotes a special type of economy in which information is determining resource of production, and in the structure of employment most part is headwork employees” [9].

That is, here we are talking not so much about the relationship between different sectors of economy, as about the transformation at the level of productive resources (in other works – factors of production).

At the same time, other specialists note that changes relate not only to production processes but also to consumption. Thus, in one of the works the following opinion is given: “Information economy is a production system in combination with the sphere of consumption, where information is the leading productive force (decisive means and object of labor), as well as the main product of production and consumption” [10].

In such approach, we can distinguish both positive and negative features. In particular, in our opinion, the analysis of changes in the level of information consumption is sufficiently justified, on the other hand, today the thesis that information is the “main” product of consumption should be treated with caution. Information, due to its features and characteristics reflects the surrounding reality, due to development of technology there was an explosive growth of its volume, however, to say that information has become the main product of individual consumption today is too early.

In our opinion, at modern stage of civilizational development we can say about the formation of a special phenomenon – the information and network economy. At the same time, if a few decades ago the information and network economy was largely an abstract concept, which was analyzed by economists at theoretical level, now it has gained real shape, especially when it is related to economically developed countries.

Analysis of scientific works of leading specialists and own researches give the

chance to define information-network economy as follows (fig. 1.):

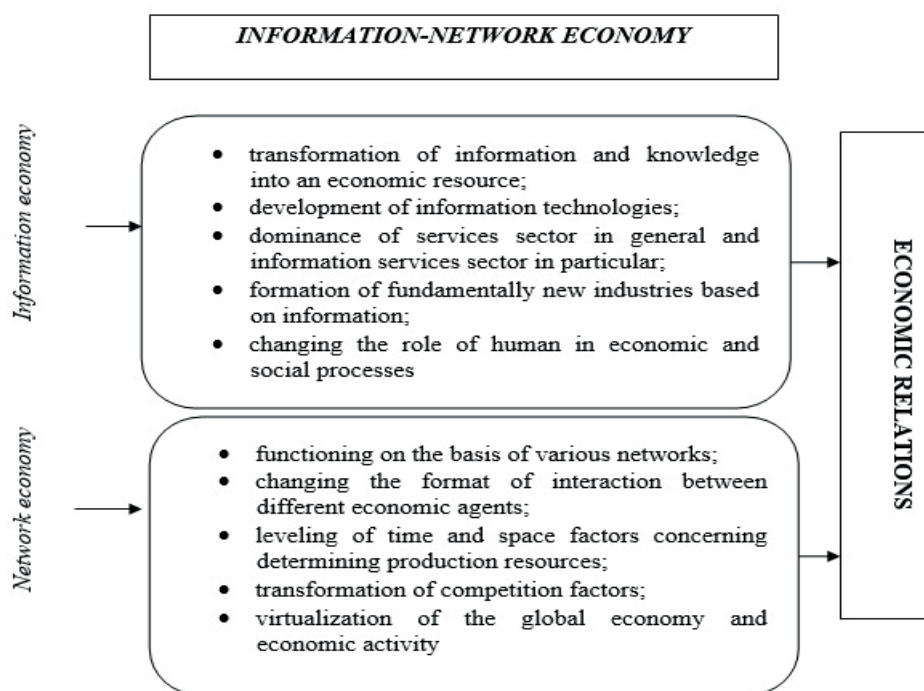


Fig. 1. Key determinants of information-network economy

Source: designed by author

Quite an obvious thesis, that information-network economy, in addition to significant changes of positive nature in economic relations, also creates significant threats, primarily connected to activities in virtual environment. In general, due to such processes, the scientific community is increasingly analyzing the concept of “virtual economy”. The analysis of professional literature makes it possible to conclude that virtual economy is characterized by certain imbalances that negatively affect economic agents’ activities [11-12]. They are especially acute for Ukraine and other countries with transition economies. First of all it is necessary to pay attention to the following:

1. There is a deepening of the gap between the processes at the level of virtual economy and processes that are characteristic to “traditional” economic relations. Quite often, virtual economy functioning is not only not aimed at elimination of problems that exist in the real sector, but also stimulates their intensification. It should also be noted that economic relations’ virtualization has cross-country dimensions, as it fully reflects all, without exception, advantages and disadvantages of modern globalization. In particular, having extremely strong scientific potential, Ukraine has become almost the main “exporter of brains” in the last decade. The outflow of highly skilled labor and scientific personnel is becoming one of the key socio-economic problems for our

country at the modern stage.

2. In fact, uncontrolled and large-scale movement of financial capital creates a favorable environment for various manipulations. The most striking evidence of such processes is the galloping growth of mobile payments in the world (Fig. 2):

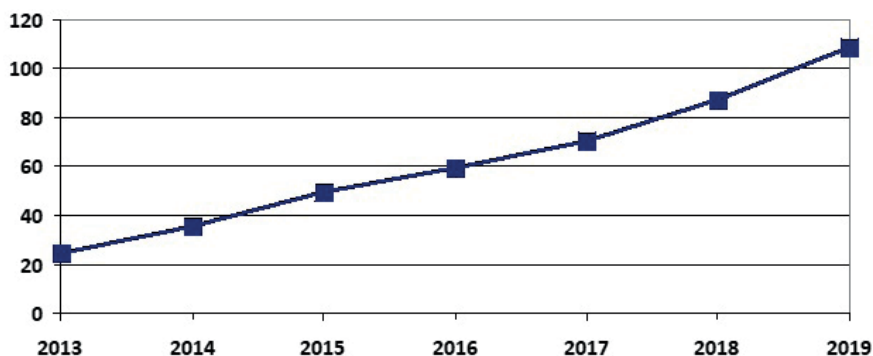


Fig. 2. Volumes of mobile payments in the world in 2013–2019, billion dollars USA
Source: compiled on the basis of [13] with addition of author's own calculations.

Capital mobility is directly connected to the rapid spread of digital technology. Today, this aspect of economic relations leads to rapid changes at the level of economic behavior of consumers of goods and services. In turn, these transformations determine changes at the level of corporate strategies in all sectors of the modern economy. Thus, for each person a certain personal virtual economic environment is formed, in which this person interacts with other economic agents. At the same time, such relationships are often conflicting, which strengthen the already high “toxicity” of the virtual environment. For Ukraine, capital mobility creates additional opportunities in a global scale in terms of its involvement in the economy. However, it should be acknowledged that today such opportunities have not actually been used, and inconsistency of economic reform policies stimulates the rapid outflow of capital from the domestic economy.

3. The shift of emphasis towards virtual economic relations exacerbates the question of the possibilities and effectiveness of regulatory state activities. The weakening of the state's position as a regulator is characteristic to all states without exception. In many respects, this process has an objective basis - private sector has a much higher ability to adapt its activity to virtual economy conditions compared to the clumsy state apparatus.

As a result, there are conditions for cybercrime, the scale of which is simply impressive (Fig. 3):

In Ukraine, this aspect of information-network economy functioning is combined with an extremely low level of financial literacy of the population and its distrust to financial institutions' activity. Domestic media abound with numerous messages of fraud in the virtual environment, which cover a wide range of financial transactions - from lending to fraud with bank cards. This situation further damages the reputation of

participants in Ukraine's financial sector.

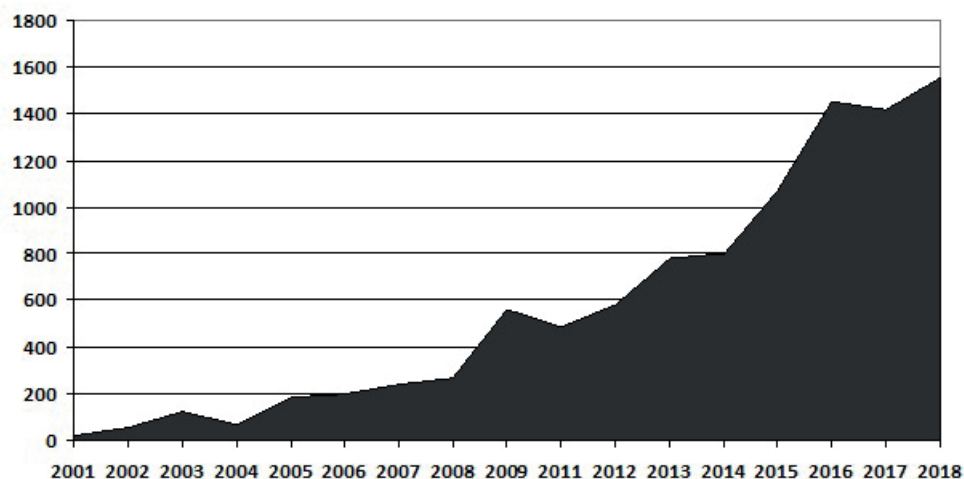


Fig. 3. The amount of losses from cybercrime, determined by appeals to The Internet Crime Complaint Center, млн дол. США

Source: compiled by author by [14].

4. The issue of economic and financial security comes to the foreground, especially for countries with transitive economies. The experience of economically developed countries shows that overcoming information asymmetry is an important, but not exclusive aspect of the state. First of all, it should be a set of measures aimed at creating an institutional environment that is unfavorable for cybercrime and various machinations in the virtual environment. At the same time, real steps on this path should become extremely important for Ukraine, and not the adoption of regular programs and concepts.

5. Complex changes should take place in the public consciousness - today a significant part of Ukrainian citizens ambiguously perceive the effects of the information-network economy, and some domestic politicians are constantly speculating on this topic, appealing to the past in "traditional" industries' development. Taking advantage of the inconsistency of economic reforms, the actual failure of social policy imposes on society the idea of necessity to maintain the existing technical and technological base of domestic industry, the existence of metallurgy and mining prospects. At the same time, the experience of other countries convincingly shows that only the emphasis on the latest technologies and sectors can be the basis for rapid economic development. Thus, the mental aspect is also important in terms of forming the security coordinates of Ukraine's development in the information-network economy.

Conclusions. Strengthening the information role and various networks determines the strengthening of information role connected with information security issues. In Ukraine, this aspect requires special attention, because institutional "failures" of domestic economy form numerous threats to economic agents' security. At the same

time, the joint efforts of both state and business units and individuals are necessary here.

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PUBLIC ADMINISTRATION

PROFESSIONAL DEVELOPMENT AND PUBLIC SERVANTS' PROFESSIONAL TRAINING AS INTERRELATED FACTORS OF THE EFFECTIVENESS OF PUBLIC SERVICE IN UKRAINE

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Annotation. *The article is devoted to the analysis of the current state of professionalization of the public service in Ukraine. A brief overview of the main approaches and concepts in the public servants' training system is carried out. The main steps in a pandemic in order to institutional capacity of the public service are highlighted. Priority areas for improving the public service professionalization at the legislative level have been identified.*

Key words: *professionalism; professional development; professional training; professional competence; competency approach; professionalization; public service.*

Introduction. Significant socio-economic and political developments in recent decades have placed enormous demands on public administration and the public service system around the world. Currently, in a period of constant changes, including caused by the Covid-19 pandemic, we can see how the role and position of the public servant is gaining new importance, accompanied by active changes in the concept of the public service.

Public servants face new managerial goals and objectives, so the issues of improving the public servants' professional training need thorough research. The issues of developing mechanisms for attracting highly qualified, talented, competent specialists to the public service, capable of ensuring the effectiveness of public policy implementation and implementation of reforms, are becoming increasingly important.

The purpose of the article is to analyze the current state of public service professionalization in Ukraine, to identify problems of public servants' professional training and to identify priority areas for improving the public service professionalization.

Methods and used materials. In the course of the research a set of interconnected and complementary methods was used, namely: general scientific analysis of scientific domestic and foreign sources, regulatory framework; methods of analysis and synthesis of information; complex and system method, generalization method.

When working on the materials of the article, the legal framework, analytical and

statistical data of public authorities, scientific sources of domestic and foreign scientists were used.

Presenting the main material. The globalization of labor markets, scientific and technological progress and the strengthening of interdependence between states require the creation of qualitatively new, complex and competitive relations between states and, accordingly, effective governance within the country.

In growing numbers, governments have responded to these pressures, demands and changes, as they have realised that they cannot afford to stay behind in a world of increasingly dynamic and competitive markets, as well as pluralistic, diversified societies where higher expectations give birth to new and progressively more complex challenges. Governments have responded by bringing new ideas and initiatives to bear on the traditional fields of public administration and the public service profession aiming at making their structures and systems more citizen-oriented, more flexible, more reflective of the values of society and more focused on performance and results. [1, c.2].

Modernization of the public administration system involves, first of all, training of highly qualified personnel of the public service, focusing on the best models of European governance. The formation of a new paradigm of public service functioning in the context of European integration trends, along with the lack of quality management training, involves paying attention to improving the system of public servants' training based on European standards.

In order to build professional public service institutions, institutionally strengthen the professional capacity of public servants, in the process of adapting the public service to EU standards in Ukraine adopted a number of important regulations: Strategy for Public Administration Reform of Ukraine until 2021; The concept of reforming the system of public servants' professional training, heads of local state administrations, their first deputies and deputies, local government officials and deputies of local councils and the action plan for its implementation; Regulations on the system of public servants' professional training, heads of local state administrations, their first deputies and deputies, local government officials and deputies of local councils, approved by the resolution of the Cabinet of Ministers of Ukraine dated 06.02.2019 № 106 [2]. The adoption of a number of important regulations can be considered the beginning of a new stage in the development of the system of public servants' professional training.

Components of continuous public servants' professional training in Ukraine are: the system of professional education; Higher Education; postgraduate education; Certification training; self-education; practical experience; internship.

Modern continuing professional training presupposes that public servants have the desire and ability to learn, strive for self-improvement and self-development, to engage in self-education, self-realization throughout their professional life, to be motivated and competitive.

Vocational education is a prerequisite for the professional development of a public servant. Vocational education is seen as a system, process and result. Vocational training is the process of obtaining vocational education in a formal, informal, informal way.

Vocational training is carried out through a system of educational institutions, establishments, organizations, regardless of the form of ownership, which have the right to provide relevant educational services, and is conducted at the expense of state and local budgets and other sources not prohibited by law.

Ukraine has a system of training, retraining and advanced training of public servants and local government officials. The main higher education institution in this system is the National Academy of Public Administration under the President of Ukraine (IV level of accreditation) and its regional institutes (Dnipropetrovsk, Lviv, Odessa and Kharkiv), where training in the master's program of senior and middle management of public administration and local government on the basis of higher education, as well as training of scientific, pedagogical and scientific employees.

After the transformation of the specialties of the field of knowledge "Public Administration" into the specialty "Public Management and Administration" of the field of knowledge "Management and Administration" and its further allocation into a separate field of knowledge "Public Management and Administration", the network of higher education institutions that have the right to conduct educational activities in the specialty "Public Management and Administration" has begun to expand. In 2017, there were 88 higher education institutions that had the right to carry out educational activities in the specialty "Public Administration", in 2018 there were 109 such higher education institutions, in 2019 - 116. In 2019, among 116 higher education institutions that train masters in the specialty "Public Administration", dominated by state-owned universities (78 institutions), 21 higher education institutions are in private or communal ownership [3,c.24].

There are two main approaches in the system of training of public servants in Europe:

- Anglo-Saxon approach involves the development of criteria for assessing the competence of professionals, which stimulates continuing professionalism; training takes into account the individual characteristics of positions;

- The French approach provides for the effective functioning of a broad specialized sectoral system of training of public servants, adapted to the state of the central type, focusing on in-depth study of economics. The training of a small highly qualified elite is provided by the National School of Public Administration [5].

Ukrainian scientists S. Seryogin, E. Borodin, N. Lipovska in their study came to the conclusion that foreign experience in general has developed three concepts of training qualified personnel in the public service:

- 1) the concept of specialized training, focused on the present or the near future; it concerns the relevant workplace. Such training is effective for a short period of time, from the point of view of an individual public servant helps to preserve his job, as well as increases self-esteem;

- 2) the concept of multidisciplinary training is effective from an economic point of view, as it increases the internal and non-organizational mobility of the employee. However, the latter circumstance is a risk for the organization where the public servant works, because he/she has a choice, so he/she is less attached to the relevant job;

3) the concept of personality-oriented learning aims to develop human qualities inherent in nature or acquired in practice. This concept applies primarily to public servants who have a penchant for research and the talent of a leader, a teacher. Purposeful training of qualified public administration staff involves close connection and coordination of these concepts of training [7].

The system of professional training, retraining and advanced training of public servants in Ukraine is based on the French approach, which provides for the establishment of standard features of the current system of training of public servants, introduces a policy of continuous training and retraining, but undergoes continuous improvement and regulation. At present, there are similarities in the system of training and concepts of training of public servants with other countries. We are convinced that the best option for holistic training of qualified personnel is a set of various forms, technologies, concepts of training, which in the future provide the implementation of acquired knowledge, skills and abilities in accordance with the needs and requirements of professional activity of public servants.

At the same time, foreign experience is a nominal model, while its fundamental implementation requires both normative and mental adaptation and acceptance.

Adaptation of European approaches to the domestic system of in-service training of public servants in Ukraine is a very relevant and necessary process for Ukraine (introduction of different approaches and practices in the training system, application of a competency approach in assessing the ability of public servants to perform their duties). Along with the improvement of the legal framework, there is a rethinking of the personality of a public servant of a qualitatively new European model, his role and status in society.

It is obvious that training alone is not enough to strengthen the professional competence of public servants. Another problematic issue is the lack of knowledge about what the public service is; inefficient system of information and communication with the public, lack of effective actions aimed at forming a proper image of the service.

At present, self-education and distance training are becoming very popular and relevant among public servants. There are a number of free online platforms for self-education. According to the results of online courses it is possible to obtain a certificate.

The main element of career development of public servants in developed European countries is their continuous professional development. In order to increase the efficiency of public administration, developed European countries are actively implementing a competency-based approach to the system of personnel management in the public service.

However, a single international framework for the competencies of public servants has not been developed. The basic competencies of public servants of the European Union are outlined, while each individual state depending on its political system, mentality, historical traditions, economic and social development and the level of administrative reforms determines the public servants competencies necessary for effective state functions.

In order to institutional capacity of the public service, in the conditions of power reset and automation of processes, the Cabinet of Ministers of Ukraine in 2019-2020 introduced the following real steps:

Simplification of the competition procedure - the Government introduced changes that simplified the procedure for hiring and firing public servants; Mandatory testing of candidates for knowledge of special legislation is excluded, and it is also allowed to reuse successful test results that candidates previously passed in the Assessment Center. At the same time, given the importance of management positions, another requirement was added - integrity and compliance with the rules of ethical conduct.

Digitalization: translation of HR-processes into electronic form (HELP DESK for candidates, HRMIS, Career.gov.ua, Career-bot, integration of the vacancy portal of the public service Career.gov.ua with Work.ua and Robota.ua); launched a number of electronic services that help structure information about government vacancies, make it convenient, fast and accessible.

Ensuring appropriate conditions for the professional development of public servants: the Knowledge Management Portal has been launched, which is the only online database of educational programs and training programs for public servants. Providers and teachers post information about their training courses on the portal, and consumers can register for them online. The search system divides the curriculum by subject, form of study, region. As of February 24, 2020, 508 training programs were presented on the Knowledge Portal, 84 providers were registered, 124 teachers and almost 11 thousand users. This was certainly an important step in the development of the market of educational services in the field of vocational training. The portal provides free access to the catalog of information services in the field of vocational training.

HR function in government. Adoption of a new Law on Public Service, construction of a single network of HRs and knowledge base and implementation of a system for evaluating the performance of the public service according to clear KPIs.

Recruitment. The direction envisages simplification of the personnel selection procedure and creation of the personnel reserve.

Wage model. It is expected that the work will be aimed at introducing job categorization and regulating the salary system. The Government approved the Concept of the reform of the system of remuneration of public servants and approved a plan for its implementation until 2022, which provides for an increase in the fixed part of wages and a decrease in its components; equal and fair distribution of the remuneration fund and the Classification of all positions in government agencies; competitiveness of salaries in the public service with a market level (under conditions of efficiency and growth of real GDP). An important task of the Concept is to balance the gaps between salaries. The concept aims to attract more citizens to work in government agencies, financial motivation to work in which becomes more interesting, and public service - prestigious [8,9].

In 2019, a pilot project for the implementation of the Human Resource Management Information System (HRMIS) was approved. The system implemented as part of public administration reform will increase the efficiency of officials and open public access to

socially important data on the public service.

The unprecedented pandemic situation has resulted in a multifaceted crisis that has posed a real challenge to the public service and the education of public servants. But new challenges are the way to new searches and opportunities. On the plus side, Covid-19 provided an opportunity to test our physical, technical and intellectual ability to meet the demands of today's digitalization.

Digital education determines the sign of relevance and becomes extremely relevant. In early 2020, the Ministry of Digital Policy of Ukraine launched a national online platform for digital literacy "Action. Digital education ". The President of Ukraine V. Zelensky noted that "now every Ukrainian can learn a digital gramophone for free, useful and interesting" [10]. Every citizen can master digital skills in a modern format - educational series. Currently, 3 educational series for public servants are available on the online platform: "Access to public information"; "Open data for public servants"; "Digital Literacy of Public Servants 1.0. based on Google tools. The educational series covers the capabilities and features of free Google services for use in professional activities and daily life. Digital skills allow you to effectively and safely apply technology in work and study, for professional and personal development. [11, 12]

In 2020, under the Covid-19 pandemic, new opportunities for personnel management and professional development of public servants were actively introduced, which helped them to adapt to professional services (distance education, flexible working conditions, improvement of personnel management processes, etc.). In order to ensure the effective functioning of the authorities for the period of quarantine for the first time in Ukraine conditions were created for remote work of public servants, for timely performance of tasks and functions of the authorities use modern digital technologies: online meetings, electronic document management systems, chatbots, electronic mail services etc. [13].

Conclusions. Thus, to increase the level of professionalization of public servants, we believe that further regulatory standardization requires:

- the opportunity to obtain a free master's degree in "Public Management and Administration", even if the official already has a master's degree in another field;
- improving the system of motivational incentives to increase professional competence in the system of public servants' professional training, ensuring the retention of jobs for public servants for the period of training and the availability of bonus incentives in case of successful training in the form of additional salary supplements or career prospects;
- development of technologies for individual training of masters of public administration depending on the level of education and training; updating training programs in accordance with information and technological progress, the challenges of today; optimal combination of different approaches and teaching methods;
- involvement in teaching not only well-known theorists-scientists, but also specialists-practitioners; actualization of personalization, contextuality, flexibility and giving an advanced character to educational programs; focus on the development of creative potential and creative thinking; providing psychologically comfortable

conditions;

- increasing the term of internships in central executive bodies with the opportunity to actively participate in the development of regulations; systematic internships for masters of public administration abroad, mobility of students; gradation of the size of the scholarship depending on the success of studies;

- introduction of a system for monitoring the effectiveness of advanced training of public servants and its impact on the performance of professional duties.

The above substantiates the conclusion about the need to develop a new strategy for vocational training of public servants, modernization of the vocational training system, improving the institutional structure of vocational training, retraining and advanced training of public servants.

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PUBLIC MANAGEMENT OF SOCIAL PROTECTION AS SUBJECT OF SOCIAL POLICY

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Annotation. *Analyzing the key aspects of understanding social protection and its public administration in modern scientific literature, it is concluded that social protection is viewed as a function of the state, as a system of socio-economic measures aimed at providing citizens with material benefits in situations involving social risks (illness, disability, old age, loss of the breadwinner, unemployment, industrial accident, etc.).*

Key words: *social protection, social policy, public management of social protection.*

Introduction. The relevance of the research topic is due to the fact that the transition from administrative to market economy marked a qualitatively new stage in the socio-economic and political development of Ukraine. One of the important tasks of the state was the formation of a new model of public management of social protection. Improving the state social policy that meets the conditions of a market economy and the standards of the welfare state continues and now appears to require scientific analysis of this process.

Analysis of recent research and publications. Scientific achievements of researchers in public administration in general, and social policy and protection in particular I. Bandura, T. Gerasimov, M. Golovaty, O. Degtyar, S. Kornienko, M. Kravchenko, O. Machulskaya, O. Nikitchina, V. Roik, V. Skuratovskyi, N. Stakhovskaya, Y. Stelmashchuk, A. Stoyka became the theoretical and methodological basis of our study. However, in them we can see a rather cursory analysis of the nature and content of public social protection policy

The purpose of this study is to highlight the key vectors of understanding public administration of social protection as a subject of social policy.

Main results of the study. First of all, it should be noted that in scientific circulation the concept of "social protection" has been used recently. It replaced the term "social security", which characterized a specific organizational and legal form of social protection in the Soviet economy, carried out directly by the state. In general, the term "social security" was used to define the system of relations in the field of social protection associated with the provision of certain types of security at the expense of the state budget [7, p.278].

In general, the term "social protection" appeared in the United States in 1935. and gradually spread to all Western countries to denote a system of measures to protect any citizen and any inhabitant of the country from economic and social degradation due to unemployment, loss or sharp decline in income, illness, childbirth, occupational injury or disease, disability, old age, disabled citizens is developed in many countries in the late XIX - early XX century [9, p. 1-2].

In turn, the concept of "social protection" is constitutionally enshrined in Ukraine, which includes the right of citizens to receive them in case of full, partial or temporary disability, loss of breadwinner, unemployment due to circumstances beyond their control, as well as in old age and in other cases. provided by law. This right is guaranteed by the obligatory state social insurance, which is carried out at the expense of insurance contributions of citizens, enterprises, institutions and organizations, as well as budget and other sources of social security; creation of a network of state, municipal, private institutions for the care of the disabled [See: 6].

Accordingly, today in our country there are four types of State Social Insurance:

- 1) from accidents at work and occupational diseases;
- 2) in case of unemployment;
- 3) on temporary disability;
- 4) pension.

The scientific literature offers various approaches to the definition of the term "social protection". For example, in the terminological-conceptual dictionary edited by M. Holovaty, 2 approaches to the definition of social protection are given as:

- "A system of principles, methods, statutory social guarantees, measures and institutions that provide optimal living conditions, meeting the needs of the population;
- Certain types of collective support, the purpose of which is to maintain the well-being of people, as well as direct assistance to people in difficult life situations, the introduction of preventive mechanisms aimed at preventing such situations" [4, p.49].

At the same time, there is a broad and narrow understanding of this phenomenon of social life. Let's look at this in more detail.

In particular, in a broad sense, social protection belongs to the functions of the state and is a system of organizational, legal and economic measures aimed at protecting the welfare of each member of society in specific economic conditions and certain risk situations, which provides an effective mechanism of social protection.

The Institute of Social Protection provides for the redistribution of social wealth in favor of people who temporarily or permanently need special attention from society, namely: from rich to poor, from healthy to sick, from young to old, which actually implements the principle of solidarity between generations [See: 10].

Accordingly, there are tasks for the public management of social protection, namely the optimization of structural and functional support of state policy in the field of social protection; improving mechanisms for public involvement in the regulation of social protection; development and implementation of the state quality standard for the provision of various types of social services, creation and implementation of indicators of their acceptable quality; diversification of service providers for the social sphere; development of the Unified analytical and information system in the field of social protection; optimization of the procedure for assigning pensions and their indexation; providing social patronage for graduates of boarding schools; reorganization of shelters for minors in psychological and social rehabilitation centers for children; transformation of special boarding schools into methodological and advisory centers for development

and correctional work in the regions; improving the network of boarding schools for retirees and providing decent standards of service in such institutions.

Although it should be noted that domestic scientists quite often another broad definition of social protection, adopted by the International Labor Organization, is used, which is defined as protection that society provides to its members through a set of social measures against economic and social disasters caused by the cessation or significant reduction of employment due to illness, childbirth, industrial accidents, unemployment, disability, old age and death; providing medical care, providing subsidies to families with 30 children.

This understanding of social protection offers, in turn, a certain methodological approach, which sets the tone for research in the social sphere, which is manifested in determining the essence of the definition of "social protection" by various researchers. In this regard, it can be noted that economists distinguish several approaches to determining the composition of the conceptual apparatus of social protection: political, methodological (institutional) and instrumental [11, p. 14], in addition, we would highlight: functional, systemic and regulatory.

At the same time, in a narrow sense, social protection is considered as a system of special measures to protect the population given the peculiarities of its professional and social status. O. Khomra and T. Rusanova to the system of social protection of the person carry measures for protection and restoration of physical and spiritual health of the person, on elimination of alcoholism, drug addiction and other negative phenomena. A. Stoyka proposes to interpret the term "social protection" as one of the main components of the human development system, which includes actions to ensure a sustainable and decent standard of living, which leads to its motivated productivity and effective reproduction of human capital [See: 9].

In the encyclopedic literature, social protection is considered as two interrelated concepts, on the one hand - providing all citizens with equal opportunities to ensure a decent life through their work, on the other - state support for disabled and socially vulnerable citizens [2, p. 384]; or provides only the care of the state for citizens who need help and assistance due to age, health, social status, insufficient provision of livelihoods [6, p. 317].

Finally, the "Encyclopedia of Public Administration" provides the following definition: social protection is a set of organizational, legal and economic measures aimed at ensuring the welfare of each member of society [8, p. 270]. Accordingly, it should be emphasized that social protection is the embodiment of social policy. Because of this, in scientific thought there are a number of concepts regarding the peculiarities of its functioning.

Thus, the liberal concept which became the first basis for the formation of social policy, a system of views that determines the minimum role of the state and the minimum scale of social functions, because from the point of view of the liberal concept the market is an ideal system of individual welfare. According to the liberal concept, the state should not. to interfere in market processes of welfare formation and is obliged

to create framework legal conditions for their functioning. This approach is based on the achievements of the English classical school of political economy (A. Smith, D. Ricardo, J. Mill) and characterizes the initial stage of evolution of the content of state social policy [2, p.11-12].

At the same time, the Austrian neoliberal school (L. Mises, F. Hayek) most clearly expresses the liberal spirit, because it believes that the state should not interfere in the spontaneous natural processes of welfare, which develops evolutionarily by laws similar to natural. "To understand our civilization, it is necessary to realize that this order was not formed as a result of the embodiment of a conscious plan or human intention, but spontaneously: it arose from unintentional adherence to traditional and mainly moral practices," wrote F. Hayek [3, p. 25].

The next stage in the evolution of the content of social policy was the neoclassical theory, which significantly expanded liberal ideas about the functions of the state to create a legal order that protects private property and market freedoms, support free fair competition, antitrust policy, internalization of externalities, does not distort income redistribution as the implementation of the principle of social justice. If the state performs all these functions, market conditions will be close to the conditions of perfect competition, and the efficiency of the system will be supposedly the highest. Neoclassicists are less categorical than liberals in macroeconomic regulation.

It should also be emphasized that public management of social protection is carried out at the state, regional, municipal (local) level, as well as at the level of enterprises, organizations, institutions and others. At the state level, the main goals, objectives, principles of social development are determined, as well as the main ways and objectives of achieving them in relation to society as a whole.

Based on this, as N. Stakhovskaya emphasizes, the legislator tries to include in social protection various state measures of material, medical, cultural, educational and other nature, through which the state cares about the younger generation, about citizens who have special merits, before the Motherland and in fact about the entire population of Ukraine.

At the same time, at the regional level, social policy is carried out taking into account economic development and the relevant opportunities of regional, ethnic, national, historical, cultural and other features. Regional authorities define and implement regional laws and social programs. They ensure the functioning of the institutional social infrastructure, as well as establish areas of social assistance and plan the development of social infrastructure. It is the authorities in the regions that implement housing policy, policy in the fields of education, health care, etc. Basic principles of activity of regional and local authorities in the social sphere (regional and local bodies of state system, regional social programs, plans and organizations of activity in a concrete branch of social sphere, state legislative and executive bodies in certain branches of social sphere, etc.) authorities and resolutions of city and regional administrations of Ukraine.

Therefore, the territorial centers of local social protection bodies carry out the following main activities: purchase of food, household items, medicines, etc. at the

expense of recipients of services, delivery of food, medicine, hot food, provision of transport services, implementation of social patronage, call a doctor, organizing mental health counseling and improving relationships with the social environment, support of medical and health-improving measures, occupational therapy, providing in-kind or cash assistance, providing advice on current legislation.

Accordingly, the vast majority of scientists believe that the most important principles on which the modern model of social protection is based are addressability, systemicity and complexity, multi-subjectivity, flexibility of functions. They allow the social protection system to fulfill its purpose in terms of providing assistance to citizens in difficult life situations, to encourage and support social initiative, human activity, and the desire to solve problems.

As we can see, the main element of the system of public management of social protection is a person who is both its object and the subject of management. The social sphere is a holistic subsystem that is constantly changing, generated by the objective need of society for the continuous reproduction of the subjects of the social process. This stable sphere of activity of people on reproduction of the life, its conditions is under stricter state control and provides existence of the state strategy of its system development.

This type of management activity has the main purpose of influencing the sphere of society, directly related to meeting the material and spiritual needs of man, the functioning of social infrastructure, the provision of social goods and services. The social sphere in the conditions of creation of innovative economy in Ukraine is called to fill other spheres (economic, political, spiritual) with an intellectual product (new knowledge, intellectual property and information), capable to change bases of vital activity of society, to provide revision of many sociocultural priorities and values. Innovative and intellectual product [5, p.166].

Conclusions. Thus, analyzing the key aspects of understanding social protection in the modern scientific literature, we can conclude that social protection is seen as a function of the state, as a system of socio-economic measures aimed at material security of citizens in situations involving social risks, disability, old age, loss of a breadwinner, unemployment, an accident at work, etc.).

In essence, content and internal rigor, public management of social protection is a holistic system of interrelated elements 1) the choice of public authorities (based on national interests) general strategic goals, objectives and direction of public policy of social protection; 2) understanding and approval of society's general strategic goals and objectives for the development of social protection 3) a single piece of legislation that forms a purposeful social field for all groups and groups of the population; 4) development of vectors and strategies of state policy aimed at ensuring the financing of social protection; 5) a single social infrastructure, a single personnel and information space.

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PHILOSOPHY AND THEOLOGY

ETHOS OF YOUTH SUBCULTURES IN THE CONTEXT OF THE SPIRITUAL SITUATION IN UKRAINE

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Annotation. Reception of the problem of spiritual self-determination of youth in the context of the realities of contemporary society is carried out. Among the current challenges we have systematized the following: individualization and atomization of society; dissemination of simulated information flows against the background of the development of communication technologies; domination of consumerism. It has been substantiated that one of the reasons for the value vacuum among young people is their confusion in front of the “market” of ideological paradigms in which both true values and their ersatz are present. Against this background, the following become natural ways of choosing a personality positioning model in relation to them: conformism, non-conformism and a kind of ideological compromise, which, in our view, is transmitted by subcultural formations.

Key words: axiology, spiritual values, conformism, non-conformism, youth subcultures, ethos.

Introduction and setting of the problem. The modern information society is characterized by pluralistic, often multidirectional and contradictory effects on human. These influences can hinder the processes of his spiritual self-determination while offering a person a wide horizon of freedom. This is not surprising. Freedom implies responsibility for choosing your own life path. The wrong choice or inability or unwillingness to make it is accompanied by the loss of life senses and the emergence of an existential vacuum. At a young age, the crisis of value self-consciousness is accompanied by the search for own comfortable environment – a certain community of people. Alternatively, such an environment can be youth subcultures that form the axiological basis of a young person’s life position while reproducing the attributes of group belonging. This is the prerequisite for the relevance of studying the phenomenon of youth subcultures in order to understand the patterns and main trends in the development of the axiological sphere of modern youth.

Foreign and Ukrainian philosophers paid attention to the problems of formation of the personal value system, in particular: Iryna Vasylieva, Wilhelm Windelband, Nikolai Hartmann, Soren Kirkgaard, Serhii Krymskyi, Sergei Levitzky, Abraham Maslow, Viktor Emil Fankl, Erich Seligmann Fromm, Andrii Chaus, Max Scheler, Volodymyr Shynkaruk, Vasyl Yaroshovets, Olena Viacheslavova, Nataliia Ishchuk. A significant part of existentialist philosophers, representatives of personalistic philosophy and philosophy

of life, as well as materialist philosophy have addressed the problems of human self-determination, in particular: Nikolai Berdyaev, Albert Camus, Emmanuel Mounier, Jean-Paul Sartre, Ludwig Andreas von Feuerbach, Viktor Emil Fankl, Max Scheler, Karl Theodor Jaspers and others. Such domestic researchers paid attention to the problems of transformation of value paradigms of modern youth, humanization of the education system as: Viktor Andrushchenko, Iryna Vasylieva, Svitlana Dorohan, Vasyl Kremen, Tanita Liuryna, Valentyn Molodychenko, Petro Saukh and others.

The purpose is to analyze the specifics of the phenomenon of youth subcultures in the discourse of its socially adaptive potential.

Main results of the study. A contemporary young person, as an active subject of life, a spiritual and creative being, enters into a relationship with the natural and social environment, has a significant impact on the formation of his value system. The phenomenon of personal values is determined by both objective and subjective factors. However, as Kagan rightly notes, value is an internal guideline of activity, emotionally mastered by the subject, and therefore is perceived by him as his own spiritual intention [2, p. 164]. A person that emotionally experiences values not only acts in accordance with them, but also forms a subjective attitude towards himself, other people, world's processes and its phenomena. Possessing freedom of choice, a young person can act as a carrier, transmitter or critic of a certain axiological model. In this case, we are talking about his willingness to accept or reject the prevailing value model in a society or to distance himself from it. The so-called conformism is a partial or complete perception of axiological models of one or another type of society or nonconformism – their decisive rejection. Looking ahead, in our opinion, one of the mechanisms of distancing from conformist imitation is youth subcultures that act as cells for the transmission of certain nonconformist intentions.

Let's name the main threats to traditional spiritual values that are relevant in contemporary society. Among them are: individualization and atomization of society; dissemination of simulated information flows against the background of the development of communication technologies; domination of consumerism. Overall, these factors negatively affect the young generation's perception of fundamental spiritual values: goodness, truth, beauty. For example, individualization and atomization not only determine, but also act as a consequence of people's alienation from each other. As a result of this, modern man loses the feeling of what Vittorio Hösle calls the experiences of community, "experience-We" [3, p. 88]. In fact, it is the loss of a sense of common destiny and spiritual kinship that arise within communities, interests. Instead, the Other is perceived as a competitor, enemy or a stranger. Youth is losing the "skills" of identifying themselves with a particular social group, and hence with an axiological system. Individualistic intentions lead to a gap between the norms of universal and individual morality. In its rigid forms, it generates a personality that is blind to the world of absolute values [4, p. 80], which makes interpersonal interaction superficial.

Consumerism has a similar effect on interpersonal interaction. Thanks to it, a certain value reversal is carried out – from the spiritual to the material. As a result, the

feeling of authenticity is leveled both in society and in a person. As Nataliia Ishchuk justly notes, consumerism resonates with the logic of the market, forming a person as a monadic consumer – a “market Proteus”, a “situational I”, which does not adapt to the situation so much, but adapts to the market idol. Consequently, a market assessment comes and devaluates the human personality, leading to oblivion of the highest values “in the thirst for the acquisition of a certain thing, service, impression” [5, p. 394-395]. As a result, self-development is replaced by mass production and consumption of psychological excitors, which is supported by powerful means of manipulating people through television, advertising, political technologies (elements of mass culture) [6, p. 205]. Thus, an individual is formed that is incapable of personal self-awareness and holistic perception of social reality. These processes provoke in a person an increase of such negative signs as: uncertainty, anxiety, isolation and so on.

The information society affects ambivalently the transmission of value paradigms. Together with positive consequences, such as access to a variety of information, convenience and speed of communication, etc., opportunities for abuse are created. In particular, social myths can be created and broadcasted via the Internet, giving rise to simulacra of false social projects and ideologies. In order to bring “peace” to society and relieve tension, the media provoke further mass production. Instead of informing, they weaken the “social field”, which is steadily “shrinking” under their influence [7]. Information directed to a specific target audience does not require a high intellectual and spiritual level of the individual’s development and assumes just such an instant effect. As Iryna Vasyliieva rightly notes, today we are talking about total, global and spiritual pressure on human subjectivity. “In the process of manipulating human subjectivity, there is an impact on its various levels and layers: consciousness, subconscious, unconscious, ideals, values, meanings, emotions, feelings, etc.” [8, p. 100-102]. As a result, the formation of a multicultural communicative space is observed, accompanied by dissolution and disperssion of consciousness, confusion and frustration of a person in a sea of heterogeneous, contradictory information. The means of virtual reality provide for mastering the attention of the broad masses of people, which contributes to the formation of a paradox, when other people’s opinions, judgments, assessments and conclusions can be perceived by consumers of virtual information as their own. The prerequisite for mass culture is the possibility of forming an unconditional belief in an illusion, the prevalence of the irrational over the rational. The consciousness of a person of mass culture is so mythologized that such a person easily agrees to consume the proposed product [9, p. 64]. Often information from Internet resources and the media is aimed at unconditional perception by the audience and actually excludes the moral and ethical aspect. The power of information resources is so significant that a person of mass culture loses the ability to critically perceive it, which can destroy his personality.

Information flows on the Web have a spontaneous, multifaceted, contradictory character. A user, sitting for hours in front of the screen, loses the ability of autonomous conscious existence and the protective cognitive filters. Such uncriticality causes his uncriticality in practical activities – social, professional and everyday. Researchers note

that manipulators implement their own needs in this way and level our individuality [10, p. 22-26]. Such means of manipulation are used not only in the field of marketing, but are the powerful means of manipulating public consciousness. A person finds himself in a game situation when the moral and ethical component of his choice is leveled and, as a result, his personal integrity is lost. In particular, the immersion of a person in the virtual world connects with a number of factors, the main one of which is the desire to escape from the “I”-Real and the search for possible ways of successful self-realization in cyberspace. Attempts to escape from objective reality, in turn, leads to depersonalization of the personality, its destabilization in various spheres of life, and therefore favors the loss of identity [11, p. 26-30]. A person living in a global, dehumanized society reaps the bitter fruits of inhuman (often technicalized) social interactions when such universal human values as kindness, mercy, empathy, etc. are reduced to nothing. These factors cause a number of negative consequences. Among them are: unwillingness to show empathy and empathize in co-existence with the Other; failure to build constructive dialogue in personal and professional spheres. At the same time, it should be noted that a significant part of critically-minded people such a situation causes resistance, which is an absolutely positive phenomenon.

As the founder of logotherapy Viktor Frankl rightly notes, the need to find the meaning of life is actualized not only in a state of difficult life circumstances, but also in a state of certain well-being. The vast majority of people are constantly busy trying to somehow satisfy their vital needs. But when these needs are satisfied, they suddenly find themselves in a state called by Frankl “existential vacuum”. In such a situation, the spiritual in a person rises above the social, bodily and mental. Moreover, the most viable, even in extreme conditions, are people who are “directed towards the future, towards the cause that awaited them, towards the meaning that they wanted to realize” [12, p. 12]. It is also natural that people, in search of authentic meaning, are trying to connect with their like-minded people, which, in our opinion, is one of the key factors in the formation of youth subcultures.

Let's turn to this problem in more detail. Subculture is a system of norms and values that distinguish a group from the majority of society. It is understood as a community of individuals that differs from the dominant culture or (in its ultimate expression) is hostile to this culture (counterculture). Subcultures are characterized by mandatory attempts to form their own worldviews, oppositional (not necessarily hostile) to the worldviews of other social groups or generations, peculiar demeanors, clothing and hairstyle, forms of leisure, etc. Subcultural movements emerged at the junction of generational conflict. It is no coincidence that KIIS experts associate the emergence of innovative subcultures “with the denial of the “basic” culture of society, when a total negative interpretation of the norms and values of traditional culture turns the subculture into a counterculture” [13, p. 75]. It is obvious that subcultures exist for a comfortable entry into the world in accordance with the requirements of time, as well as rejection of the unnecessary (as their representatives believe) parental experience. They are reactionary formations directed against the paradigms of a consumer society, the substitution of material values for spiritual

values; leveling the ethical “minimum” that we see everywhere in modern society.

Nonconformism is a significant determinant of subcultural formations. As a strategy of social behavior, it presupposes the development and observance of moral norms that contradict those generally recognized in society. Nonconformism has a group character and it assumes the existence of a community of like-minded people, friends, acquaintances, but not individuals. Its essence lies in the departure from the passive tacit consent of the majority, social pressure, coercion, as well as the rejection of non-working social dogmas. On the one hand, nonconformism implements values that are “disadvantageous” for an authoritarian society, and on the other hand, the imperative of serving the total whole is leveled. The desire to peacefully get out of social oppression generates a need-challenge to society – to create a system of personally perceived and experienced meanings that are capable of working in a democratic society. The designated social tendency assumes the recognition of a certain personal significance of its role in the life of society. Thanks to this, usually, material interests are not implemented, but social contradictions are eliminated. Conscious personal experiencing of a nonconformist choice contributes to the realization of values that are relevant to a person’s inner needs. Thus, a personal model of behavior is formed, which is a certain compromise between the requirements of society and existential needs, combining high adaptive capabilities and personal uniqueness.

Subcultural communities are active, which ensures the ability to influence the axiological core of culture in the future. For example, the youth of the 1960s in the United States opposed the consumer society, racial inequality, and the Vietnam War, which became a serious social factor influencing these processes. It is significant that the subcultural movements everywhere, albeit somewhat demonstratively, defend precisely the universal values of Good, Mercy, Justice, Truth, Beauty. The formation of subcultures is associated with the awareness of the spiritual crisis of contemporary society and the transition to a postmodern one, implemented by attempts to level the negative influence of an obsolete culture (Jean-François Lyotard, Leslie A. Fiedler, Paul-Michel Foucault and others). It is generally accepted that the values of previous eras are perceived by a significant part of young people skeptically and sometimes even negatively. The personal position of a significant part of young people in relation to contemporary society is not yet formed. On the one hand, such situation is favorable for the crystallization of a clear life position. On the other hand, this demographic group is capable of falling under the manipulative influences of the environment, which can disintegrate it in the social and information space.

Quite often, culture and subculture mutually condition and complement each other. Subcultures are formed on the basis of the dominant culture, and therefore do not necessarily dissonant with each other. Culture and subcultural movements are not necessarily contradictory or mutually exclusive, as it is the case with anticulture and counterculture. A number of researchers (Sliusarevskiy, Sokolov, Stepin) note that these movements are capable of generating new ways of people’s activity, without violating established social customs, law and order. Also, their participants are trying to form

their own position, to invent something of their own. “Perhaps, the system of principles according to which the choice is made – is the most important characteristic of a subculture” [14]. The moment of choosing a culture, the acceptance of certain types of behavior by an individual young person foresees the formation of a conscious life position and the acceptance of cultural norms of a particular subculture. Youth movements are characterized not by the reproduction of long-standing norms and patterns of behavior, but by the attempts to form their personal. This fact is one of the criteria for the emergence of informal youth associations. On this basis, we can judge the postfigurative culture in contemporary society. At the same time, we agree with Voloshyn, who notes that the existence of subcultures and the possibility of youth joining them “guarantees ... a sense of security and stability, offering a certain set of values and social roles that young people were deprived of in the traditional spheres of social life” [15, p. 45].

Participants of subcultural movements are trying to realize the need to create their own ideas, symbols, different from the dominant culture. Often, behind the shocking look of young people, there is an attempt to find a balance in the incomprehensible world of adults. Subcultures everywhere mitigate the authoritarian influences of popular culture. Thus, youth is trying to escape from the control of adults, realize the need for friendship with peers, informal, trustful communication. Betrayal is unacceptable in the youth environment, and therefore one of the basic values is compliance with the norms of their group morality. Thus, the level of anxiety is somewhat reduced, a group of like-minded people is formed, which is constructive from the standpoint of avoiding social isolation. The positive factors of the subcultural activity of youth include the focus on communication with peers, the desire for self-expression in creativity and sports, the discovery and development of talents, the formation of confidence, and support for a healthy lifestyle. Although the values and morals of these communities are not universal, but precisely of a group nature, these associations often implement not personal selfish motives, but humanistic meanings, which provide for the protection of the rights of oppressed communities.

Without a doubt, subcultural movements also have a number of negative factors associated with demonstrative behavior, which acts as an external marker of cultural protest. Among these factors, we note the following: nihilistic moods, shocking behavior, the desire to try the “forbidden fruit” like drugs, dangerous entertainment, etc. However, to one degree or another, these markers are inherent in all young people, even those who do not belong to subcultural formations.

Conclusions. The reception of anthropological and socio-philosophical factors in the formation of subcultures shows that the main determinant of their emergence is the need for self-determination of youth in the context of the “challenges” of contemporary society. The social catalysts that determine their emergence are the following: individualization and atomization of society; dissemination of simulated information flows against the background of the development of communication technologies; domination of consumerism. The value vacuum generated by these factors gives rise to many models of life strategies, including a subcultural

“response”. In the conditions of a total spiritual crisis in contemporary society, the following value strategies are capable: conscious or unconscious perception of social values (conformism); moderate critical position, which is transmitted by subcultural formations; conscious rejection and protest (non-conformism) demonstrated by countercultural formations. It is substantiated that youth subcultures act as a certain compromise between the paradigms of mass culture and counterculture. Anthropological and psychological factors in the formation of youth subcultures are age-related personality problems, which are perceived catastrophically against the background of constant social perturbations. As a consequence – the desire to create an own value system, as well as the need to belong to a certain community of people that is ready to share certain value intentions.

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GREEK THEOLOGICAL TERMINOLOGY IN THE DICTIONARY OF UNTRANSLATABLES. HISTORICAL PERSPECTIVE AND TRANSLATION ATTEMPT

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Annotation. *The paper is devoted to the translation of Greek theological terminology, discussed in the French Dictionary of Untranslatables into Slavonic languages (mostly Ukrainian and Russian). Modern translation practices are viewed in a wide historical context. In the 19th century France, the patristic revival affected both the national-oriented movement of Gallicanism and the universalist, down to ultramontanist, liturgical movement of Solesmes. It was the latter that issued the famous series Patrologia Graeca. In the 20th century, French Patristics switched from Latin translations to French (Sources chretiennes); however its orientation on the Latin equivalents of Greek terminology did not lose its actuality. In Slavonic world, the patristic anthology Добротолюбие (Philokalia), published by St. Paisius Velichkovsky in 1793, combined the both tendencies: the centrifugal – as a translation into the language of the local population, and the centripetal – as a translation into the literary language shared by many ethnic groups. The practice of the literal (“factual”) translation, in spite of all its problems, provided for a Cyrillic world a tight connection with the antiquity – a common heritage of Europe. Therefore the refusal of modern Ukrainian from the Old-Slavonic vocabulary means isolation from this heritage and an obstacle in the dialogue with the other languages of philosophy. Restoration of this nexus of senses is an important task for the Ukrainian humanities.*

Key words: *Greek Patristics, Church Slavonic, translation, Solesmes, Gallicanism, Liturgical movement.*

Introduction. For over ten years “Spirit and Letter” Research and Publishing Association (Kyiv) is working on the Ukrainian version of the French Vocabulaire européen des philosophies. Dictionnaire des intraduisibles (VEP) [2]. During our work on this fascinating and astonishing project we have encountered the “untranslatables” of the two main kinds. On one hand, these are the words that are deeply enrooted in the specific local context and so have no analogies in any other environment – like Romanian dor, Basque gogo or German Sehnsucht. On the other hand, some terms belong to rather universal tradition and historically have obtained quite different connotations in many European languages. A graphic example here is the notion of οἰκονομία, analyzed in the entry by M. Mondzain [6], that came to be used in very different spheres from theology to economy. In Ukrainian at least three calques, or, better yet, transliterations, of οἰκονομία are in use: the words «економіка» (economics), «економія» (economy, saving of) – both terms deriving from the Latin transliteration from Greek, – and «ікономія» (iconimia) – direct transliteration from the Greek term. The latter term expresses the multiple theological meanings of the original, from the plan of Salvation down to concession in the sphere of canonic law (one diphthong οἰ,

differently transliterated, changes the meaning completely). Russian, besides all of that, has also the term «домостроительство». Although none of these options covers the wide range of the Greek term, we gave preference to «ікономія», at least due to its rare usage that itself indicates some unusual treating of the word (in a sense, we tried to imbue this rare vocable with a new – although rather ancient – content). Nevertheless, we had many doubts in a series of contexts where the “economic” dimension was obviously prevailing; and dealing with antique economical treatises by Xenophon and Aristotle, we even applied an Old Slavonic term «домострой» – a traditional heading for the Old Russian treatises of that kind.

This uncertainty shows, how differently may the universal tradition (in this case, a Greek notion) be retraced in its local perceptions. Such problems are very typical for the Greek terminology that is a common heritage of different philosophies of Europe. So now I would like to address this interweaving of the local and the universal in the sphere I use to deal with – in the terminology of Greek patristic literature. I will compare several traditions of its translation - into French, into Church Slavonic and into modern Ukrainian; and I will try to demonstrate that what appears to us now as a triangle (Greek – French – Ukrainian or Greek – French – Russian) is actually a kind of polyhedron that has its dimension of depth, involving ancient languages like Latin and Old Slavonic.

Translating Greek Patristics into French. In many aspects, the French scholarship is leading in the edition and translation of the Greek patristic literature. The bilingual series *Sources Chretiennes*, founded in 1942 by Jean Danielou et al. consisting of more than 500 volumes of the Greek, Latin and Syrian Fathers, was a pioneer that made a paradigm for the German *Fontes Christiani*, and the other editions. Certainly, such a grandiose project as *Sources Chretiennes* could not appear out of nothing; it rests upon the foundation that was laid already in the 19th century by the pleiad of French scholars and translators who worked on the celebrated *Patrologia Graeca*. The activity of this circle was, in turn, preceded by the works of the 17th- and 18th-century French patrologists. However, the raise of interest towards the Greek Fathers in the 19th-century France had more in common with a revolution, rather than an evolution. This Patristic explosion, according to Olivier Rousseau, was profoundly shaped by the French Romanticism, and in turn influenced greatly the Romantic thinkers.

That means that it coincided in time with the consolidation of national self-consciousness and with the birth of European nationalisms, including the French one. The latter expressed itself, among others, also in the theology – as the church movement of Gallicanism, striving for the revival of the ancient local liturgical practices and for the greater independence from the pope. This movement for more national church, founded by dom Lamennais, was engaged in edition of some early Greek Christian sources, as did also the movement of the patristic renewal, founded by dom Gueranger, the abbot of Solesmes. But, despite the numerous features of similarity, the two trends, far from concurring, opposed each other rather sharply. Despite their common interest towards liturgy and the church history, they differed considerably in the understanding of the role of translation and of the diversity of languages. The figures of Gallicanism – Lamennais,

Bossuet (the younger), Juber – keeping in line with Port-Royal, used translation to bring liturgy closer to the laity, often at the cost of radical simplification and refuse from everything that they found obscure.

Meanwhile the liturgical movement of Solesmes adhered to the ultimately universalist position, inclining to downright Ultramontanism. In spite of all his piety towards the Greek Fathers and the Orthodox Church, abbot Gueranger hoped that Latin will eventually become the language of Christendom. And in spite of all his care for the French laity, he did not dare to provide in his popular explanations of the liturgy the French translation of its main part. That view, without any doubt, was shared by those of Gueranger's associates who worked on *Patrologia Graeca* – the Latin edition of the Greek Fathers. The main figure of the project was the closest disciple of dom Gueranger, dom Pitra; as it is observed, “abbot Migne was the printer, and dom Pitra was the editor” of the series [1, p.124]. Latin was considered by them as the one and only language proper to express the depth of Greek philosophy and theology.

Afterwards this universalist pattern of *Patrologia graeca* was supplanted by the paradigm of *Sources Chretiennes*, that gave justice to multiplicity of languages and to the variety of translations. But, however disputable the former pattern may look, it had at least some ratio in the context of the French Humanities, that perpetually has to take into account the long, in fact antique, tradition of translation from Greek into Latin. Whether this continuity was estimated as a support or as a spoke in wheel, there remained a kind of dialogue with it, and this dialogue goes on also on many pages of our Dictionary. I tried to gather some key Greek philosophical terms analyzed in VEP into a table to get an idea of the main strategies of their adaptation by French, Ukrainian and (preliminarily) Russian languages. The renderings were proposed by the translators and discussed by the editing team; the best variants were used in the published version. Here it is easy to notice how often does French language resort to the Latinisms in translating this vocabulary; on the other hand, some of equivalents have no connection with the scholastic tradition. And, as we will see, Russian and Ukrainian languages often encounter the same dilemma.

Greek – Slavonic. If we now turn to the Slavonic tradition of adoption of the Greek philosophy, we will observe the both tendencies – the centrifugal and the centripetal. The Patristic anthology *Philokalia*, issued in Church-Slavonic by St. Paisius Velitchkovsky in 1793, was intended to introduce Slavonic believers (originally, monks rather than laity) to the treasures of the Greek theology. As a translation into the local language, more or less clear for the local population (although a high, literary language) it stood in line with the movement of cultural independence from Constantinople, pertinent for Kyivan tradition since at least 11th-12th centuries, when the first local cults were introduced and the Greek language came to be consistently excluded from the liturgy (which logically followed from the efforts of St. Cyril and St. Methode in the 10th century). On the other hand, Slavonic *Philokalia* also significantly inclines towards universalism. St. Paisius had not less tender affection towards Greek, than dom Gueranger towards Latin. In his letters Paisius used to praise Greek, lamenting that some of its linguistic features

(like articles, declension of the nouns etc.) cannot be properly translated, and so “all the books in Greek, grammatically, make incomparably more sense than their Slavonic translations” [7].

Greek	French	Ukrainian	Russian
ἐστι	il y a	є, існує	есть, существует
τὸ τί ἦν εἶναι	quiddité (от лат. quidditas) l'essentiel d'essence (от лат. essentia)	«чимбутність», «щосність»	«чтойность», «суть бытия», «бытие тем, что было» и т.д.
ἀρχή	principe (от лат. principium)	принцип, начало	принцип, начало
ὑποκείμενον, ὑπόστασις	sujet (от лат. subjectum)	суб'єкт (лат.), підмет (польск.), сюжет (фр.)	субъект, подлежащее, сюжет
φύσις	nature (от лат. natura)	природа, натура, ество	природа, натура, естество
κόσμος, πᾶν	monde (от лат. mundus); universe (от лат. universum)	світ, всесвіт	мир, вселенная
αἴσθησις, αἰσθητόν	sens (от лат. sensus), sensible	чуття, почуття	чувство
λόγος / λογικός	raison, rationalité (от лат. ratio), discourse, langage, parole (лат. oratio) etc.	логос, мовлення, слово, розум, раціональність etc./ розумний, логічний	логос, речь, слово, разум etc./ разумный, логичный
συνείσθησις, συναίδησις	conscience (от лат. conscientia)	свідомість, совість, сумління	сознание, совесть
νοῦς	intellect (от лат. intellectus), entendement	інтелект, ум	дух, интеллект, ум
φαντασία	imagination (от лат. imaginatio)	фантазія, уява, поява	фантазия, воображение
δόξα	apparence, gloire, opinion (от лат. opinia) etc.	погляд, гадка, слава	видимость, мнение, слава
ἀφαίρεσις	abstraction (от лат. abstractio)	Абстракція	абстракция
τρόπος	trope	Троп	троп
ἀναλογία	analogie (от лат. analogia)	Аналогія	аналогия
σῆμα / σύμβολον	signe (лат. signum) / symbole (от лат. symbolum)	знак / символ	знак / символ

πολιτικός	politique, civile (от лат. civilis)	політичне, громадянське	политическое, гражданское
οικονομία	économie (от лат. oeconomia)	Ікономія	домостроительство, икономия
δίκη	justice (justitia)	справедливість, правда	справедливость, правда
μνήμη	memoire (от лат. memini)	пам'ять	память
αἰών	âge, éternité (от лат. aeternitas)	вік, доба, вічність	век, вечность
χρόνος	temps (от лат. tempus)	Час	время
καιρός	moment (momentum), instant	момент, мить	момент, мгновение
ἱστορία	histoire (от лат. historia)	історія	история
ζῷον	animal (от лат. animal)	тварина, жива істота	животное, одушевленное
ἦθος, ἥθος	morale (от лат. mores), éthique	мораль, етика	мораль, этика, нравственность
εὐτυχία, μακαριότης	bonheur, béatitude (от лат. beatitudo) (entry GLUECK)	щастя, блаженство	счастье, блаженство
κάθαρσις	catharsis	Катарсис	катарсис
ὑψος	sublime (от лат. sublimis)	Піднесене	возвышенное
μίμησις	imitation (от лат. imitation), représentation	наслідування, репрезентація	мимесис, репрезентация
εἶδωλον	image (от лат. imago)	образ, зображення	образ, изображение
πάθος	passion (от лат. passio), emotion (от лат. emotion)	пристрасть	страсть
πράξις	pratique, action	практика, дія	практика, действие
φρόνησις	prudence (от лат. prudentia), sagesse	розсудливість, практичний розум	рассудительность, практический разум, прозорливость

Nevertheless, Slavonic language, that “excels many languages with its unspeakable grace and with great affluence and abundance of its expressions”, is also endowed by a special status, – surely, after Greek. That is another dimension of the universalism of Paisus’ school, where Slavonic served as a kind of lingua franca for the hundreds of monks of ten nationalities – “Moldavians, Serbs, Bulgarians, Hungarians [i.e. Transylvanian Romanians], Greeks, Armenians, Jews, Turks, Russians and Ukrainians” (although both

Slavonic and Romanian were used in the liturgy).

An important feature of translation from Greek into Church-Slavonic is its perpetual ideal of literal correspondence. This tendency remained indisputable since the 10th till the end of 18th century when Paisius could assert: “I always use the type of translation called ‘word-by-word’, for this is the way in which the divine Scripture and all the books (liturgical and the other) were translated from Greek into Slavonic”; “beware of the shameful arbitrariness, I present (only) what I find in the Greek book” [7]. Paisius refers to the practice of translation, established, according to his information, by the emperor Justinian. This practice supposed such a great affinity of the two languages, that a translator could be baffled by the smallest linguistic dissimilarity, like the different use of prepositions etc. Evidently, this approach could result in cumbersome, obscure translations; however, if they were eventually rejected, the reason was explained as their not enough literal character (or corruption by the copyists). The editorial efforts to make translations more literal and clear used to cause great debates, especially in the case of St. Maximus the Greek in 16th century, and the reform of translations, performed by Patriarch Nikon in 1650-s – 1660-s, which resulted in the church schism.

But despite these evident problems, the practice of literal, or “factual”, translation had its evident advantages. Paisius was right in claiming that in many linguistic aspects “Slavonic is the closest language to Greek”. Without any doubts it was consciously shaped this way by generations of translators, beginning with Stt. Cyril and Methodius. The affinity that was established between the two languages is indeed striking:

- The syntax of Church-Slavonic was constructed under the Greek paradigms (down to such nuances as absolute Dative, introduced to translate absolute Genitive of Greek etc.) This was reflected, among others, in the central role of verbs and adverbial participles (so-called Russian gerund): the subject is described primarily from the viewpoint of its actions. Slavonic has developed a complex system of tenses (that was reduced afterwards) to deal with Greek texts, where the verb, as H. Yannaras observes, is the foremost part of speech. Not every encyclopedia of philosophy gives justice to the role of the verbal terminology, so, the emphasis of VEP on the importance of the verbs like ἐστὶ, τὸ τί ἦν εἶναι, ἐρᾶν, ἀγαπᾶν, φιλεῖν, συγγινώσκειν etc. is very pertinent.

- Church-Slavonic morphology also tightly follows that of Greek – for instance, in such phenomenon, as an inclination to form complex words (having several roots). Such archaic terms are extremely necessary for the philosophical thinking, and it is very difficult to translate them into any modern language without losing their integral content. This can be said of such Greek key terms as καλοκαγάρθια, φιλοκαλία, οἰκονομία, σοφροσύνη, εὐτυχία etc.

- The vocabulary of Church-Slavonic also strived for the maximal correspondence to Greek, which gave birth to countless calques and linguistic borrowings. We had to recall them more than once, dealing with highly differentiated terminology of Greek and even Latin scholastics (one of extremely problematic fields for the modern Ukrainian). For instance, in the entry Αἰὼν we have applied «вік» for αἰών (in the sense that is does not possess in modern Ukrainian), «співвічний» for συναίδιος, «одвічний» for

aeviternus etc.

Modern state of affairs and conclusions. So, openness of modern Slavonic languages towards the resources of Church-Slavonic is a factor that significantly facilitates for them the translation of ancient Greek texts. Such interweaving between the modern and the archaic linguistic levels is quite a natural state of the living language. However, unhappily, this is not the case with the Ukrainian. The formation of the modern normative Ukrainian in the framework of Russian empire, where this language itself was prohibited, could not proceed in almost natural way. Ukrainian literary language, whose canons were actually created in the laboratory conditions by the circles of the enthusiasts, was intentionally devoid of any “vestiges” of Old Slavonic and Church-Slavonic. That was surely a mistake, for each living language, besides its normative “conscious mind”, has, so to say, some “subliminal mind” and even the “unconscious mind”. The loss of connection with the linguistic layers of its own past had grave aftermath for the modern Ukrainian – actually, it added to the barrier between it and the other modern European languages (though the intention was opposite).

Translating from English the book by the Greek theologian and philosopher J. P. Manoussakis [5], I often noticed how easy it is to express in Russian the cumbersome English constructions that embody the author’s intuitions, enrooted in the antique and patristic Greek thought. Due to the historical affinity between our ways of thinking, we sometimes easily recognize in these frightening Heidegger-like English constructions the native turns of speech:

- things-to-come – τα ἐρχόμενα – грядущее;
- stepping-out-of-myself – ἔκστασις – исступление;
- to stand in front of someone’s face – (πρός-опον, as explained by the author) – предстоять лицу;
- personality as being-in-front-of-another – (πρὸς τι, Aristotle’s category of relation, as explained by the author) – бытие-в-предстоянии, etc.

Maybe, in such cases the participation of languages in some shared senses is even more important than any quantity of literal equivalents in their vocabularies. Walter Benjamin, rejecting the idea of precise correspondence between the words of two languages, supplanted it with the metaphor of debris of an amphora, that supplement each other, adding to some larger entirety which is to be ultimately fulfilled, on his opinion, in the eschatological perspective. From this viewpoint, what is at stake here is not the correspondence between the terminology of Greek, French, Russian and Ukrainian, but rather the question, whether the habit of Old Slavonic to adjoin Greek, to reason together with it has survived in the modern Slavonic languages. That question is extremely actual because the languages of modern European philosophies are, in turn, profoundly shaped by the similar habit to reason together with ancient – so-called “dead” – languages. This common habit can help us today to develop the space of the shared senses, where translation would flow as naturally as breathing.

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ETHICAL AND SOCIAL PROBLEMS OF MODERNITY IN THE CONTEXT OF NARRATIVE AND ACTIVITY OF PROTESTANT CHURCHES IN UKRAINE

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Annotation. *In the article the author analyzes the main vectors of the response of the Protestant Churches of Ukraine to the significant problems of ethical and social life of society, such as: culture and education, politics and the phenomenon of war, ecology and bioethics. The author concludes that modern Ukrainian Protestant communities have become active participants in interaction with civil society, as this interaction is based on gospel truths and ideals. Protestant churches' social programs in Ukraine do not ignore the problems that relate not only to their own believers, but also to the life of civil society in the country as a whole.*

Key words: *social doctrine, bioethics, Christian ethics, missionary, pacifism, patriotism, ministry, ethical and social problems.*

The world in the 21st century, despite scientific, technological and digital innovations, continues to suffer from problems that determine socio-ethical uncertainty and controversy of values, especially if taken into consideration the part of society that identifies itself as believers and compares its own system of behavior and decisions not only with the norms of secular law, but also with the requirements of the axiological systems of those religions that are religious source of their own. In Europe, as in Ukraine, Christian communities are always forced to respond to a number of global challenges of our time, which are rooted in bioethical, environmental, political, social, cultural and educational discourses. Such a reaction requires both theoretical and practical solutions, appeals and programs, which are generalized in social doctrines and are evidence of an adequate understanding of the missionary nature of the Christian church.

Considering the urgency and complexity of religious communities' social services, our article aims to analyze the main markers of ethical and social strategies of Protestant churches in Ukraine and their axiological significance and practical effectiveness.

It is obvious that Ukrainian, as well as foreign theologians, scholars of religion studies and philosophers often pay attention to the specifics of the functioning of Protestant religious organizations in the modern conditions. In particular, M. Cherenkov and R. Solovii in their monographs and articles in scientific journals draw attention to certain doctrine aspects of Christian communities, which religious science classifies into Protestantism, and to specific examples of their missionary service. A. Minich actualizes the general principles of priority directions formation of social doctrine in Christianity. O. Brodetskyi and I. Horokholinska consider the ethical variability of modernity, its reactivity and compatibility with religious and secular norms, the laws of universal axiology and humanity. Zass, a German researcher whose works are translated into

Ukrainian, demonstrates the indifference of Protestant philosophical and theological discourses to the problems of bioethics with the help of philosophical methods.

Appealing to their generalizations, we will try to outline the signs of indifference of Ukrainian Protestant communities to ethical and social issues on the following markers: culture and education, ecology and bioethics, politics and issues of military danger.

It is worth noting at once that the "mainstream" of modern social programs of Protestant churches in Ukraine has undergone significant changes. Despite the importance of eschatological and soteriological markers of these programs, modern Ukrainian Protestants do not push such eschatology to lack of initiative and ineffectiveness, the narrative of exclusive acceptance of retribution for sins / sinfulness, but to well-considered decisions that, in our opinion, do not contradict Christian nor a morally sound civil position. In regard, A. Minich states: "Most Protestant theologians assess global problems from the standpoint of apocalyptic alarmism and social pessimism, presented by the Club of Rome, as evidenced by the program document entitled" Fundamentals of Social Teaching of the Seventh-day Adventist Church in Ukraine , which demonstrates the attitude to the global problems of today: war and peace, environmental, energy, demographic, raw materials, the negative effects of SR, urbanization and more. According to the position of the Protestant Churches, believers should take the most active part in solving these problems. The emphasis is on strengthening evangelistic practice, no one is able to overcome difficulties by their own efforts, without God's intervention a dignified human existence and the construction of a just society are impossible" [5, pp. 267-268]. That is, despite the Christian understanding of the constant need to coordinate their actions with the Divine providence, and crucial in the mission of enlightenment and missionary, yet researchers note the awareness of individual responsibility of the believer not only for their own salvation in the soteriological perspective, but also salvation of everything creates here and now , securing it and constant protection, as was commanded to the first people in the Garden of Eden.

Such an understanding of social service requires Protestant communities to outline their own vision of those aspects of public life that we are going to analyze below.

Culture and education. In Soviet times, in Ukraine, and throughout the Union, there was an idea of the sectarian, isolationist nature of the activities of Protestant communities. Their way of life and value system clearly contrasted with the defining cultural priorities, indicating that their religious culture was a complete antagonist of the culture of that time. Without focusing on the qualitative characterization of the culture of the Soviet era, we intend to claim that modern Protestant churches in Ukraine demonstrate complete openness to Ukrainian culture. In particular, in one of the works on the history of the Seventh-day Adventist Church in Ukraine and written by its believers we read: "Culture, first and foremost, should not serve the political or economic interests of any community, but contribute to the creation of each individual... it should not be permitted for man to find himself outside the cultural development of the society in which he lives, he ceased to feel his responsibility and solidarity with other people in the creation of the common good "[3, p. 224]. This view is evidence that

Ukrainian Protestant organizations clearly demonstrate a desire to share responsibility for the development of national culture, national cultural values, obviously given that such values will be aimed at the development of each individual member of such a state, community and so on.

The fact that Protestant religious organizations are not indifferent to the development of Ukrainian culture and the processes associated with the educational and scientific community is confirmed. Theological educational institutions, private schools created and administered by Protestant Churches, are currently quite actively implementing those educational strategies that contribute to the growth of education of the Ukrainian young generation, educating it simultaneously in the best Christian and national traditions. Protestant theologians were among the first to join the process of entering theology into secular universities, recognizing its equal status with other sciences and scientific specialties, and so on. And this is also a factor not only of confessional, but also of cultural initiative, because theology is a part of world academic culture, and it must develop qualitatively in Ukraine as well.

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Bioethical problems. Bioethical problems in the global dimension of conceptualizing the phenomenon of "respect for life" cannot but worry the Protestant theologians of today, because issues such as abortion, euthanasia, surrogacy are clearly required not to harm life, but at the same time in the secular context they acquire controversial positions. Here is what G.-M. Zass writes about Protestant bioethical discourse: "Commitments to life also include responsibilities to oneself," emphasizes Yar in his memoirs on Luther's explanations on the fifth commandment: "Do no harm anyone's life, but help and encourage everyone in needs of body and life, wherever you are. Focusing on the Epistle to the Corinthians (3:16), Yar states: "The preservation of life, not excluding one's own, is a duty. And destroying or damaging one's life, again one's own, is an ethical sin." The conservative theologian describes this differential-ethical concretization of the duty to self-preservation and self-sufficiency as critical, in terms of culture and time, from which the definitions are based: "How do the ethical responsibilities of the fifth commandment practically affect personal life? This is expressed in the inability to take life, to shorten it, weakening your health by viciousness, incontinence in food and drink, strong anger, frivolous recklessness and so on. It is especially important to maintain sexual purity,

as well as to prevent alcohol abuse. Regarding the first statement, the reasoning from the New Testament is especially clear: "Flee from sexual immorality. Every other sin a person commits is outside the body, but the sexually immoral person sins against his own body." (1 Corinthians 6:18)" [4, pp. 201-202]. Therefore, it is obvious that the Protestant Churches in Ukraine condemn the phenomena that show disrespect for Life in general, encroach on the ability to make decisions about its duration, indicate indifference to their own health, both physical and spiritual. However, such condemnation is not exclusively a moralizing condemnation. It is worth noting the rather active position of Protestant communities on the way to the establishment of rehabilitation centers, support centers, medical support projects, etc. Educational seminars, active work with Christian youth, which in the context of biomedical problems can become a safeguard against the need to solve them, etc., are also important here.

Ecology. It seemed that despite the obvious need to develop own strategy for responding to biomedical problems, the issue of ecology for Protestant communities is not of that importance. However, as O. Brodetskyi correctly states, "in many religions there are semantic resources of a certain attitude to the environmental issues. And the vector of this attitude can be turned ambivalently: either in the direction of passivity and paralysis of the creative will of man, or in the direction of their real activity encouragement. Under such conditions, the responsibility of the educational work properly carried out by religious leaders and initiative members of communities, whose main value postulate should be social health and communicative harmony of human coexistence and preservation of human culture in its humane human created forms, is greatly enhanced. Under other conditions, environmental initiatives of religions will be only declarative and ineffective" [1, p. 264]. And if biomedical issues are an obvious problem area for Christian ethics, the environmental is not so actively developed, but still in the context of realizing the importance of the Lord's responsibility for all living things on the "crown of creation" is, fortunately, not ignored.

Protestant religious leaders in Ukraine are largely conscious of the question of Christian responsibility for the ecological present and future. R. Solovii writes about the motivation of evangelical Christians to protect the ecosystems of the Earth: "In response to the scale of God's redemption, which encompasses all creation, the Emerging Church seeks to care for the environment. Therefore, Michael Frost emphasizes that Jesus' followers must be motivated by love and faith to care for the earth. For the Emerging Church, the earth is not just an annoying or hostile secular space, but a divine miracle of creation, which is part of God's plan of redemption" [6, p. 247].

Youth actions and Christian camps with environmental goals - although not frequent, but still is an evidence not only of theoretical but also practical awareness of Protestant communities of the importance of this type of social service.

Politics. The next no less resonant and controversial marker of ethical and social activities of Protestant communities in Ukraine is their involvement in political processes. If at the dawn of the independence of our state, the Protestant Churches consciously stayed away from all aspects of political life and state-building, now, as M.

Cherenkov correctly points out: “..... active social position, participation of Churches in life, patriotism, confession of democratic values and ideals become common features of all churches of the evangelical movement in Ukraine. It is obvious that today this is the main way of development, the main stream of Ukrainian evangelical Christianity. It is possible that Ukrainian evangelical Protestantism will become an outpost of Christian democracy and culture for its neighbors in the post-Soviet space ”[7, p. 186]. This does not mean that religious leaders try to influence on political processes through a system of religious influence on their own believers, but only demonstrates their understanding of themselves as part of civil society, which shares responsibility with other citizens as to what our country will be in economic and legal context future, and on what values its political future will be built . The events of the Maidan, the Revolution of Dignity and other resonant political upheavals in the country demonstrated the readiness of leaders of Protestant religious communities to be moral authorities for society and to assess adequately social processes in the country, to be mentors and leaders of social change.

War. But is the most socially controversial problem of the ethical and social reaction of Protestant communities to the military conflict in Ukraine. I. Horokholinska points out not without a reason:... "war and religion" determine the problem of the need to participate in the armed confrontation of people who identify themselves as believers. Thus, the issue of deprivation of another person's life - which naturally arises during a military conflict - can also raise a variety of issues in civil society that have a religious connotation - especially the question of the proportionality of religious pacifism and patriotism or duty to the country or in general - the admissibility of the murder of another convinced believer "[2, p. 338]. Despite the controversial issues, Protestant religious communities in Ukraine are active participants in the volunteer movement, which aims to help both military men and their families. The social programs of Protestant communities draw their own attention to the problems of internally displaced people, children from the families of the deceased, and so on. A significant number of Protestant religious ministers join the chaplaincy and spiritual support of the military. It is no secret that military events have also raised the issue of religious intolerance on the occupied territories, especially this intolerance and aggression extends on Protestant communities. This is another important challenge Protestant communities in Ukraine are facing and already has a number of reacting models in hand.

Conclusions. Modern civil society in Ukraine is in a phase of active, sometimes contradictory, transformations in the context of both their ethical and social orientation. World tendencies of ethical and social reality are caused by post-secularity (active entrustment of religion into the public space of secular values and culture). Also, along with these changes, transformations are noticeable in our country. In some places, those world trends become their drivers or catalysts. Therefore, religious communities are organizing their own social initiatives more consciously and actively, which, on the one hand, testify to their Christian identity and fidelity to evangelical axiological norms, and on the other - demonstrate relevance and responsibility to society's demands. The Protestant Churches in Ukraine are now full participants in the cultural, political,

educational, scientific and socio-moral life of the country, and their social programs and socio-ethical projects are a clear confirmation of this. Protestant theologians are beginning to consider more actively not only intra-confessional issues, but also problems of social, cultural and scientific nature that are of national and cultural significance.

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PEDAGOGY AND PSYCHOLOGY

PROJECTIVE MODELING OF MULTIPROFESSIONAL APPROACHES TO THE TRAINING OF FUTURE MUSIC TEACHERS

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Annotation. *The purpose of the article is to justify the cultural orientation as the basis for the modernization of art education. The research methodology based on culturological, systemic, comparative-analytical approaches. Scientific novelty lies in the substantiation of promising trends in the improvement of art education in the context of modern requirements, which can become the foundation for the development of new programs, textbooks, teaching aids.*

Key words: *future teachers of music, humanistic paradigm of education, cultural approach, art, educational paradigm, modernization, design.*

Introduction. The purpose of this article is to identify key trends in cultural orientation as a leading factor in the modernization of art education. Tasks – to define key concepts of research, such as "cultural approach", "cultural paradigm of art education", "cultural center of art education", "conceptual core", to define leading approaches to the evaluation of the results of cultural direction of modern education, as the basis of modern education, as well as to substantiate the main directions of implementation of the cultural-centric approach in the professional training of teachers of arts disciplines. Art education in the conditions of profound ideological changes in society is of particular importance as a factor in the education of personality spirituality, as a means of knowing the world in the unity of understanding and experience of man reproduced by artistic means of phenomena, as a means of psychological discharge of a person against the backdrop of the busy, dynamic life of today. Theoretical comprehension of these functions actualizes the need to study socio-cultural aspects of the transformation of the artistic educational paradigm, outlining its principles in the context of cultural space.

Theoretical background of the research. The study of culturological dimension of artistic training and education of young people is becoming more and more active every year. A number of researchers rightly emphasize the importance of culturological support of educational processes (V. Bibler, T. Goldstein, S. Gutman, V. Shulgina, A. Khutorskoy). M. Castells, in particular, notes that the education culturological

principle focuses on taking into account the integral totality of modern forms of cultural development, encouraging students to comprehend the world as a cultural unity in various planes [6, 123]. A. Zapesotsky sees the difference in the culture-centric approach in the accentuation of the human essence, which should permeate the educational process at all levels [3, 420]. S. Gutman notes about crisis phenomena in education, which is a consequence of underestimating the role of culture, insufficient consideration of changes in its development [2, 35-36].

It should also be noted that there are practical shifts in the modernization of art education based on culturological principles. Educational standards focused on the artistic and cultural development of the individual were defined; subjects related to the knowledge of art culture by students were introduced, the basics of integrative art education of schoolchildren were developed, the basic core of which is the culturological paradigm.

However, there is still no clarity in the design of the development of art education on a cultural basis. Let us also note about the insufficient correctness of the use of terminology in highlighting the cultural problems of the development of art education, where the activity of its application is ahead of scientific meaning.

The cultural context of the artistic and educational space of a university.

Despite significant achievements, a large number of opinions, the problem of the essence, content, functions of the cultural approach in the space of art education belongs to the eternal, always open to resolution and even scientifically provocative. We offer our version of the specified definition.

Under the culturological approach in art education we understand the integral unity of the leading (dominant) means of achieving (ensuring) its effectiveness based on the accentuation of humanistic, spiritual values of mankind in the perception, interpretation and creation of art. Accordingly, the culturological paradigm of art education we define as a system of scientific views, which involves the correlation of artistic and pedagogical means of forming a personality with a broad cultural context of society life.

The structure of this paradigm includes, firstly, the object of influence of cultural factors, and secondly, the activity aspect. We understand the culture-centrism of art education as a system-forming component of the normative system of competencies aimed at shaping the personality as an integral and creative subject of artistic culture. Finally, we interpret the conceptual core of art education as a necessary and sufficient number of universal principles to ensure its effectiveness.

These definitions have formed the basis for formulating the leading trends in the renewal of art education, as well as the choice of evaluative approaches to determining the effectiveness of research search.

Leading tendencies of improvement of art education in the context of modern requirements. As a result of the study, it was found that the modernization of art education is characterized by the following trends:

- Focus on innovative factors in the development of a globalizing society, which means correlating the content, methods, forms of art education with the natural processes

of culture modernization in the context of world development. The art education renewal forecasting must take into account the desire for a cultural universe as a characteristic feature of the globalization era. In addition, it should be borne in mind that the formation of a common human culture is not linear and not unambiguous. The focus on the multidimensionality of the reflection of globalization trends in art education should go side by side with the concept of the coexistence of various cultural values. At the same time, it is important to provide for that art education has to transmit not only traditional cultural values that have constant features, time-tested, but also artistic innovations that are relevant to the present;

- Ensuring the national basis for art education, which implies special attention to the formation of students' readiness to master artistic creativity as a reproduction of the spiritual values of the nation. The view on art through the prism of national culture not only expands the boundaries of artistic knowledge, allowing penetration into the depths of the reproduction of the world and self-reproduction of the artist, artistic activity in the context of national culture contributes to the actualization of rationally unconscious factors of perception, evaluation and creation of art, actualizes the communicative relations of the author of a work of art and the recipient, promotes creative self-expression in socio-cultural activities. At the same time, recognition of the intrinsic value of one's own culture in art education should go alongside the assessment of the merits and advantages of the other. Entering into a dialogue with others, national culture acts as the basis for the artistic development of the individual. It should be borne in mind that the national culture illuminates such aspects of art, by which the aesthetic consciousness of the individual can pass.

Thus, national culture plays the role of a kind of means for knowing the other one. Equally, a foreign culture acts as a stimulator of deep knowledge of its own;

- The actualization of the acmeological foundations of the individual artistic development serves as the basis for the perfect mastery of artistic activity, the achievement of its peaks. The sense of the acmeological direction of training is to activate the student's desire for complete, deep knowledge and expressive performance of works of art, for creative self-expression in art at the highest level. The acmeological guidelines for teaching act as the incentive for the constant, systematic self-improvement of students, aim them not only at work, but also open the horizons of understanding art as the highest manifestation of the human spirit in the system of artistic and figurative mastering of reality. The art education at the level of up to date requirements provides for the development of appropriate programs for acmeological training, the introduction of acmeological trainings, the development and implementation of methods for the acmeologization of the educational environment;

- The strengthening of the hedonistic effect of art education is the urgent direction for improving educational opportunities, the incentive to encourage young people to master art activities at the level of cultural requirements. The analysis of modern practice shows that, unfortunately, educational approaches, where coercion, instructions, and exactingness are the main means of pedagogical influence, still prevail. At the same

time, the immanent feature of artistic activity as a means of obtaining aesthetic pleasure, enjoyment, unfortunately, does not count in the content and organization of education.

So, defining the leading trends in the renewal of art education based on the culturological principles, we consider the hedonic tone of the educational process as one of the priorities. Quite fair the attitude towards persistent, selfless work in the process of mastering artistic activity should go alongside, correlate with the hedonistic coloring of education. The cultural dimensions in teaching should be oriented towards the pedagogical process to ensure positive experiences of the student, the perception of the cultural space in the context of psychological comfort. The increased vulnerability of the future artist should be forwarded into the channel of emotional relief, receiving aesthetic pleasure from communicating with artistic images;

- The realization of the cognitive potential of informative technologies. The cultural dimensions of the reorganization of art education are associated with ensuring its compliance with the dynamic development of society, the growth of the amount of information, the rapid activation of social needs in the systematic renewal of knowledge, experience, and types of activity. The culture-oriented paradigm of the artistic formation of the person assumes the conviction of students that any knowledge is relative, quickly becomes obsolete, artistic skills and abilities require constant improvement and expansion. Overcoming the contradictions between the rate of renewal of artistic competence and a limited period of study objectively hinders the ability of students to assimilate educational material. So, the renewal tendencies should be focused on the formation of a culture of receiving information among students, the ability to learn, to independently operate with the acquired knowledge and artistic skills. Changing the paradigm of art education should be associated with the formation of a special type of culture - art and information culture of the individual. This, in turn, necessitates the development of specific methodological systems for the artistic development of a personality, new educational technologies, based on a combination of traditional and artistic-computer (multimedia, network, electronic) methods of supporting creative self-determination, self-expression, self-regulation of a personality in the artistic educational space.

Projective Modeling of the Impact of the Cultural Paradigm on the Reorganization of Art Education. Projective modeling of the culturological paradigm influence on the art education reorganization requires the determination of ways to assess its results. We offer to apply certain approaches, which include:

- Assessment of the culturological orientation of training, the formation of the artistic and cultural erudition of students based on the results of independent artistic and creative activity (the expressiveness of the interpretation of a musical composition, dance movements, theatrical actions, etc., from their compliance with the stylistic characteristics of artistic trends, etc.).

- Evaluation of the effectiveness, quality, intensity of educational activity, which can act as a pedagogical product, is subject to analysis, diagnosis.

- Involvement of the future specialist in self-assessment of the culturological component of his artistic achievements by means of interviewing, testing, introspection.

Multiprofessional approaches to the training of future music professionals.

Conceptual provisions reflected in the "National Doctrine for the Development of Education in Ukraine" (2002), "Conceptual Foundations for the Development of Pedagogical Education in Ukraine and its Integration into the European Educational Space" (2004), the Law of Ukraine "On Higher Education" (2014) determine the path of implementation of State policy in the creation of the intellectual and spiritual potential of the nation, the formation of creative, competitive citizens of Ukraine, capable of cultural identification and orientation towards the values of the "dialogue of cultures". The priority direction of the process of training students of art education is the creation of a practical basis for the implementation of the creative potential of the future teacher by ensuring the cultural orientation of education, methodological support of this complex dynamic process, pedagogical support for the integration of individually spiritual, social and artistic and technological components of the educational process, deep rethinking of existing and creation of new holistic knowledge and professional art and educational practice.

The implementation of the tasks of humanistic transformation of the artistic and educational paradigm in higher educational institutions provides for the creation of a practical basis for the formation of the creative individuality of the future artist. The high spiritual and artistic level of the Faculty of Arts makes the development of the conceptual foundations of a target and comprehensive program for the training of teachers of art disciplines on culturological principles, the actualization of prospectively creative student figures, is mediated by the tasks of providing theoretical and practical synchronization of the educational process, aesthetic determination and artistic and creative individualization of teaching, scientific methodological, creatively intellectual, communicative and artistic support of the educational process, the introduction of forms, methods and techniques of teaching aimed at encouraging students to acmeological growth, the formation of the ability of future specialists to search and implement original performing and creative projects.

The practice of the Faculty of Arts provides numerous examples of fruitful cooperation between representatives of various departments, and namely: theory and methods of music education, choral singing and conducting, pedagogy of art and piano performance, instrumental and orchestral performance; theory and history of music; theories and methods of vocal placement; choreography.

Participation in creativity competition, various creative projects, art actions is aimed at the creative self-expression of students, which is realized through artistic, scenic and concert practice. In particular, these are concerts of classes, participation of students in creative competitions, open lessons, recitals of the Faculty of Arts' teachers.

The final reporting concert is held annually at the National Philharmonic with the participation of representatives of various departments, where the most significant professional achievements of the Faculty of Arts named after Anatoliy Avdievsky are presented.

One of the leading Faculty of Arts' activities is cooperation with the Ministry of

Education and Science of Ukraine and higher educational institutions of the country of the artistic profile to find ways to improve higher art education in the light of creating new standards for secondary schools in the field of "Art". The Faculty has introduced a new specialization "Teacher of the integrated course "Art"; the content of the specialization "Sound Engineering" has been improved in accordance with the capabilities of the scientific and practical laboratory of sound, light and acting. At the Faculty of Arts, there is a practice of implementing interdepartmental projects, which is an incentive for professional self-improvement of students.

The faculty is constantly expanding the range of educational services, in addition to the main specialty, the students have the opportunity to choose the additional one: the integrated course "Art", practical psychology, church singing, light direction, sound and acting, English language, which in the future will better integrate them into the professional space.

Relevant in the light of the latest innovations with higher education is the Faculty of Arts' focus on the implementation of international cultural and educational programs. The Department of Pedagogy of Art and Piano Performance became the founder of the International Competition of Pianists "Art-Klavier", the All-Ukrainian Competition for Students and Teachers of Children's Art Schools "Prolisok". The Department of Instrumental and Orchestral Performance conducts the International Guitar Competitions "GitAs" and string and bow competence. The Department of Theory and Methodology of Voice Production holds the International Competition of Vocal Art named after A. Gurts. The Department of Theory and Methods of Music Education, Choral Singing and Conducting is holding a competition of choral conductors "How to sing yourself with your heart", which is dedicated to the memory of the outstanding maestro Anatoliy Avdievsky. The Faculty has auditoriums-museums in the memory of the outstanding artists of Ukraine Anatoliy Avdievsky and Mykola Mozgovy.

The Faculty of Arts' creative teams are a practical laboratory for the training of future specialists. The mixed choir of students "Dzvin" has existed since the first days of the Department establishment. For many years, the choir team has demonstrated a high performing level, has repeatedly successfully participated in the choir forums, festivals, won the Grand Prix of the All-Ukrainian Choir Competition n.a. M. Leontovich. The choir is a creative laboratory for all students of the faculty to master through joint creative projects the classical and modern choral heritage in all genres and styles.

The decoration of the Faculty is the song and dance ensemble "Chervona Kalina". The main task of the "Chervona Kalina" ensemble is to popularize Ukrainian folklore and folklore of the peoples of the world. The collective, whose repertoire include the best examples of national and world culture, is a repeated participant and winner of many festivals and competitions.

The task of coordinating the departments and scientific laboratories activities is successfully coped by the Educational and Scientific and Practical Center for Integrated Arts Education. This structural unit operates in a single complex of innovative educational, teaching and methodical, research and creative and performance activities

of the departments. In the structure of the Center, there is a laboratory for directing light, sound and acting, providing additional specialization and is a practical platform for the creative professional growth of a future graduate.

The Faculty of Arts implements new approaches to profession-oriented work through the creation of the educational and information network and the implementation of creative projects in different regions of Ukraine. These projects were implemented in Berdichev, Kamenets-Podolsk, Uzhgorod, Krivoy Rog and Truskavets.

In recent years, the Faculty of Arts has implemented several outstanding art projects:

- Art project "Under your protection, the Mother of God" (October 2018);
- Faculty of Arts' creative report in the Column Hall of the National Philharmonic of Ukraine (November 2018);
- Requiem concert "Chernobyl, youth will remember" (April 2019).

One of the components of the education innovative concept at the Faculty of Arts named after Anatoliy Avdievsky is the idea to cultural and artistic ties with creative teams from other countries. In particular, the Head of the ENSEMBLE ORCHESTRAL VOCATIONS association (France), conductor Margarita Ghazaryan, with her own creative team, visited the Faculty of Arts with a creative visit and took part in the art project "Under your protection, the Mother of God", which took place in the Cathedral of the Ukrainian Greek Catholic Church ...

M. Ghazaryan conducted works by the French composer G. Fauré performed by the symphony orchestra and choirs of the Faculty of Arts named after Anatoliy Avdievsky.

Within the framework of the project "Ukraine in the European Space: Common Values of Education and Art" a creative trip of the mixed choir of the Faculty of Arts "Dzvin" to Paris was organized. The choir performed at the Notre-Dame-de-Bonne-Nouvelle in Paris, the program of which included works by French and Ukrainian composers.

In order to popularize the school repertoire, vocal, vocal and instrumental and vocal and dance ensembles were invited as part of the Anatoliy Avdievsky Choir Forum in 2019 (organizer of the Department of Theory and Methods of Music Education, Choral Singing and Conducting).

It is appropriate to point out that the collectives of the Department of Instrumental and Orchestral Performance cooperate with choral collectives, vocal ensembles and soloists, and relations have been established with the Department of Theory and History of Music. The creative teams of the faculty, when implementing artistic projects of the university, unite in a large combined mixed choir and orchestra, opening up new opportunities for repertoire diversity and powerful professional growth.

So, the organizational forms and methods for the implementation of pedagogical tasks used at the Faculty of Arts, due to the specifics of training specialists in the field of art: educating creative youth on the best examples of world and national art, enhancing scientific and concert-creative activities. The pedagogical orientation towards close cooperation of the departments of the Anatoliy Avdievsky Faculty of Arts, the establishment of international relations and the creation of new art projects with

educational institutions in Ukraine and abroad ensures the high competitiveness of the graduate of the Faculty of Arts in the labor market and meets the challenges of the time.

Conclusions. Thus, the dominant directions in the development of art education based on the culturological principles are defined as the desire for a cultural universe - a characteristic feature of the globalization era, which provides for the coordination of modernization changes in art education with the trends of global cultural development; ensuring the national basis of the artistic formation of the individual, which orientates students to the development of artistic creativity in the aspect of reproducing the spiritual values of the nation; actualization of the acmeological foundations of art education, which motivationally guides the students towards achieving excellence in artistic activity, enhancing the hedonistic effect of art education as a means of psychological relaxation and getting students of aesthetic pleasure from communicating with artistic images; the formation of the artistic and informational culture of the individual, which should become the basis for overcoming the contradictions between the rates of renewal of artistic competence and the limited period of study.

The defined directions in the development of art education are in interaction and interdependence, and constitute a certain system. The role of its pivotal, system-forming links is played by cultural reference points. Each of the components of the system plays its own role, and neglecting any of them negates the action of others. Thus, national values in the context of a culturological approach act both as the basis for the artistic development of students, and as a kind of means for learning about another culture. The acmeological factors, directing to the achievement of heights in knowledge, interpretation, art creation, act as an incentive for constant, systematic self-improvement of students. Compliance with hedonistic foundations orients the pedagogical process towards ensuring positive experiences for the student, the perception of the cultural space in the context of psychological comfort. The realization of the cognitive potential of informative technologies ensures that art education is consistent with the rapid activation of social needs in the systematic updating of knowledge, experience, and types of activity.

The necessity and sufficiency of the identified trends is due to taking into account the objective social and cultural foundations of the development of art and the introduction of subject-personalized approaches to the cultural development of the individual.

The training of highly educated, competitive specialists in art education involves the implementation of professional art and educational practice in the context of the cultural and creative context of the art and educational space of the university. The implementation of the ideas of multi-professional approaches to the training of future specialists in the context of European integration trends in the field of education makes it possible to ensure the harmonious development of their personality, acts as a universal mechanism for revealing the spiritual potential of the subjects of the artistic and educational process.

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FORMATION OF ARTISTIC ORIENTATIONS OF PUPILS IN THE CONTEXT OF MODERN EDUCATION PARADIGM

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Annotation. *The problematics of artistic education of upper-formers under modern conditions is highlighted in the article. The essence and meaning of personal artistic orientation in the context of personal development is considered. A special methodology to form the artistic orientations in upper formers in the process of music and stage activities is proposed, and its approbation results are given.*

Key words: *arts, artistic values, artistic orientations, upper formers, methodology.*

Introduction. The article significance is conditioned by the need to study the pupils' artistic education in the context of humanistic ideas of personal spiritual development.

The arts are always aimed at man's inner world. Artistic images translate spiritual values and ideals of generations. In a special artistic form the arts fix and depict social experience, accumulate spiritual demands and society's requirements, send value reference marks of world and life understanding, and thereby initiate a unique possibility to know true humanistic values (from the Latin word "humanus", i.e. humanistic). In the context of modern education paradigm aimed at creative and spiritual development of personality, its self-implementation, only the arts have priority.

The unusual development of informational technologies in the modern world opens wide possibilities for pupils to become acquainted with various artistic events, artistic mainstreams, traditions, and innovations. In this case, nowadays one can see also dangerous trends of quasi-arts propagation, substitution of high artistic values with mass-manipulative ones, banal-and-entertaining "glamorous" forms of pastime. According to data from Ukrainian researchers, M. Khovrich and A. Meshkun [17], a significant part of students is internet-dependent and demonstrating consumers' attitude to the arts.

Addressing to the issues of free person artistic-and-esthetic development harmonization through actualization of valuable-and-semantic perception of the arts is conditioning the problems of forming artistic orientations in pupils, especially in upper formers, since they are in the life period of self-knowing and self-determination, and the arts can become a basis of spiritual formation in them.

The article aims at revealing the essence of artistic orientations of a person, presenting a method to form artistic orientations of upper formers in the process of music-and-stage activities.

Main part. Demands of the modern society for students' spiritual development condition the importance of studying and correcting the axiological affirmations in upper formers, when studying the arts.

Issues of the value-based attitude to the arts were highlighted in works of several philosophers (O. Drobnitsky [3], I. Zyazun [5], M. Kagan [6], L. Stolovich [16] et al.), scientists and educators (V. Driapyka [4], A. Kozyr [9], E. Otich [11], G. Padalka [12], O. Rudnitskaya [14], O. Shchelokova [18] et al.). Scientists have proved that the arts themselves initiate humanistic landmarks of personal entering the spiritual value world.

Being a complex and specific form of reality reflection, the arts save spiritual values of many generations in artistic images and thereby influence on human conscience. In this case, the full-scale art perception is regulated by recipient's demands through communication with artistic images. This deepens the issues of person's selective attitude toward artistic values, perception of their special significance, while individually experiencing the emotional content of artistic works, subjectively evaluating artistic images.

The analysis of theoretical concepts dedicated to the value problem (V. Andrushenko [1], G. Vyzhletsov [2], O. Drobnitsky [3], V. Driapyka [4], I. Zyazun [5], M. Kagan [6], L. Stolovich [16], et al.) showed the presence of such concepts in scientific literature as "value-based orientations of a person", "personal values" that are especially important, when determining a personal attitude toward artistic values, and value-based content of person's artistic orientations.

Understanding the "value" category from the position of highlighting the special importance of something for a subject allows to interpret "value-based orientations" as important elements of a personal structure that are formed and fixed by life experience of a person in the process of social adaptation and socialization. They separate something important for a person from insignificant through perception of definite values. Value-based orientation is, first of all, either selection or rejection of definite life senses, readiness or unreadiness to behave oneself according to the orientations.

Certain norms and rules of a society become personal values, if a subject adopts definite norms and rules of a society (freedom, goodness, benefit, truth, etc.). The values provide a person with sense and goals of life, define live activities, attitude toward the world and him/herself. Such approach allows to consider artistic values as highest forms of artistic information, where the most important values of human life in the "unrepeatable imaginative content" are translated.

A selective attitude toward artistic values translated by several varieties, art genres, as well as toward artistic activities in general provide the artistic orientations. Specifically, the artistic orientations in our work are considered as the most important factor of personal self-determining in the artistic world.

Artistic orientations are based on personal values, provide personal direction of knowing the world artistic picture, in the same time they form personal values and spiritual integrity in a person.

There is no doubt that the arts are important means of forming personal values. The arts always generalize and synthesize the most important values of human life. The emotional coloring of artistic information that provides the sensual level of response helps to fix the values in conscience, thereby widening the limits of artistic world

perception.

Each of art forms keeps the unlimited world of spiritual and aesthetic values. The artistic orientations contain the free value-based choice of artistic information, i.e. the choice corresponding to individual interests and demands that, in their turn, depend on a volume of artistic-and-aesthetic knowledge, personal value formation, sensual sphere development, experience of communication with art works. Therefore, the artistic orientations are interconnections of psychological direction elements of a person (interests, preferences, demands, and affirmations) on the one hand, and they reflect certain artistic experience, awareness in the arts sphere, formation of personal evaluative position toward artistic works on the other hand.

According to our research, artistic orientation is an integral poly-functional system of human interaction with the arts, i.e. the system, which has a dynamic and developing character; it is predefined by personal values, ideals in the arts and expresses subject's capability to perceive, experience artistic events, as well as the readiness for artistic-and-creative activities. Artistic orientations are expressed in artistic demands, opinions, ideals, interests, and affirmations. Three subsystems are selected in the structure of the studied phenomenon:

- 1) cognitive: understanding and perception of various artistic information (for instance, art content, art varieties, style direction, genre characteristics, expression means, artistic image peculiarities, artistic and aesthetic values, etc.);
- 2) emotional: sensual-and-evaluating reactions toward artistic images, preferences toward varieties and styles of the arts, selectivity of personal attitude toward artistic works, capability to choose and evaluate artistic events;
- 3) pragmatic: predisposition to a certain art activity type, direction toward self-fulfillment in artistic activities.

In this case, as it has been discovered in our research, each subsystem possesses specific functional capabilities, namely: cognitive – fulfills educational, informational, culturological, heuristic, foundational, artistic-and-conceptual functions that provide forming of opinions about artistic world picture, its true values and capabilities of self-determination in them; emotional – fulfills hedonistic, value-reflective, evaluative, compensational, suggestive, aesthetic, cathartic functions aimed at sensory perception of artistic images that define personal insight into emotional content of artistic works, emotional reactions to artistic values; pragmatic – fulfills communicative, educational, socializing, enlightening, creative-and-motivating functions that activate the demands in creative activity and provide the possibility of self-fulfillment for a person in the artistic sphere.

The personal (humanistic) direction of modern artistic education in Ukraine implies students' rapprochement with artistic images through sensual reacting, communication, evaluation, etc., what, according to opinion of scientists [7;8;9;11;12;14], significantly widens the limits of artistic world perception and enriches the individual experience of a value-based world outlook.

Artistic orientations significantly provide the personal communication with the arts.

They express the substantial side of personal direction toward art variety perception and outline the internal characteristics of a selective attitude toward artistic culture events.

Note the importance of artistic orientation formation in upper formers, when the issues of value-based environment perception, humanity spiritual depth comprehension, and personal self-determination are raised. However, the pedagogical practice analysis has showed that in higher forms of modern Ukrainian general schools the artistic circle subjects are not studied well enough. Unfortunately, they are marginalized.

The limited capabilities of the general schools in the area of artistic education of upper-formers are compensated with the non-formal education of Ukraine [15]. Education of pupils in various artistic schools, groups, workshops, clubs of various non-formal educational institutions has practical direction and is not limited in time, what conditions the unique possibilities of artistic development of each person.

The music-and-stage activities, that better meet pupils' demands and attract them by creative self-expression possibilities, artistic identification and communication, is an important artistic direction of upper formers' artistic education under conditions of non-formal education. A musical theatre synthesizes various art types (music, choreography, visual arts, literature, etc.) and thereby provides pupils with the unique possibility to experience art spiritual values in the artistic information perception integrity.

In our research a youth musical theatre has been considered as an artistic-and-educational environment, which provides a set of possibilities to form artistic orientations in upper formers, namely: understanding of social and cultural values, norms, ideals; understanding and reflective comprehension of a wide spectrum of artistic information from various art types; personal comprehension and emotional experiencing of a wide panorama of artistic images; development of artistic conscience and thinking in the process of communicative interaction and direct artistic-and-creative (music and stage) activities; meeting demands in artistic activities, self-development, self-fulfillment in various types of artistic activities, in the process of musical and stage activities (acting, musical performance, mumming, dancing, making costumes, decorations, etc.); sorting and defining personal preferences in the artistic world.

A special methodology based on the axiological-and-reflective approach has been developed in our research to implement the educational capabilities of the music theatre in the context of forming artistic orientations in upper formers. Conceptual stipulations of the approach are as follows: integration of an axiological (value based) conceptual sphere of artistic activities and reflective comprehension of artistic culture values. Implementation of axiological-and-reflective approach ideas allows to discover peculiarities of value-based attitudes of youth toward the arts; correct axiological affirmations of artistic image perception; discover and implement the possibilities to form artistic opinions, preferences, and evaluative position in upper formers.

Development of pedagogical conditions to provide efficiency of the studied process became an important methodical aspect of forming artistic orientations of upper formers in the process of music and stage activities. With respect to peculiarities of artistic education of upper formers, external and internal pedagogical conditions of forming the

artistic orientations of upper formers in the process of music and stage activities were discovered.

The external pedagogical conditions are associated with organization of artistic education of upper formers, specification of its didactic content, providing a comfortable environment of creative interaction. The following is related to the above-mentioned conditions:

- organization of creative interaction of subjects in the artistic and educational environment;
- pupils' familiarization with a wide spectrum of information on various art types and artistic world picture in order to enrich culturological knowledge, artistic erudition, and discover individual artistic preferences;
- interconnection of artistic circle subjects and artistic-and-educational practice varieties;
- using a wide spectrum of artistic-and-pedagogical technologies (integrative, playing, associative, suggestive, etc.) in the process of music and stage activities;
- integration of artistic image compassion situations into pupils' music and stage activities.

The internal pedagogical conditions interact with the external conditions, but they are to be discovered in the learning capabilities of an upper former, his/ her tending to self-development, using gained knowledge and skills to discover the artistic world, self-fulfillment in artistic activities. The internal pedagogical conditions of forming the artistic orientations in upper-formers in the process of music and stage activities are as follows:

- motivation of artistic and cognitive activities of pupils;
- activation of creative thinking of upper formers, when fulfilling artistic tasks;
- actualization of a subjective-and-evaluative attitude toward artistic images;
- assisting to implementation of creative capabilities of pupils in the process of music and stage activities;
- directing upper formers' artistic education to development of their capabilities to fulfill themselves in artistic activities.

Specifically the internal pedagogical conditions aim at achieving the independence of upper formers' in artistic activities, their creative self-development, self-enhancement, and self-fulfillment in artistic expression. A teacher is a motivator, inspirer, coach (from the English word "coach" - transportation means). Therefore, the internal pedagogical conditions shall be considered from the viewpoint of new strategy of developing a person in the process of artistic education, which implies introduction of coaching technologies that help to open pupils' creative potential, maximally implement their capabilities and possibilities in artistic activities.

Implementation of discovered pedagogical conditions implies using special methods in the pedagogical work in order to form artistic orientations in upper formers in the process of music and stage activities, namely:

- verbal: conversation, storytelling, discussion, explanation, verbalization of artistic

image content, etc.;

- artistic-and-representative: demonstration of artistic works (fragments), artistic illustrations, etc.;

- artistic-and-contemplative: observation, synesthesia [13];

- artistic-and-analytical: synchronic and diachronic analysis, artistic context; making artistic parallels, generalization, etc.;

- emotional influence: emotional dramaturgy, compassion, sensual interaction;

- artistic-and-creative: artistic improvisation, image creation, visualization and verbalization of artistic impression, event-projects, creation of artistic digests etc.;

- coaching methods: question-answer, artistic reflection, sketch-images and others that stimulate art studying, activate pupils' personal artistic-and-evaluative position, and develop abilities of self-fulfillment in artistic activities.

According to author's methodology, forming the artistic orientations of upper formers in music and stage activities implies four steps of the pedagogical work; the steps provide the sequence of pupils' gaining the experience, when communicating with the arts, creative interaction in a team (organizational-and-communicative step); wide familiarizing with artistic values and forming a personal artistic-and-evaluative position (value-based-and cumulative step); pupils' self-determination in the creative sphere (corrective-and-conative step); stimulation of self-expression and self-presentation of upper formers in artistic activities (creative-and presentational step).

Author's methodology to form artistic orientations of upper formers in the process of musical and stage activities with using the mentioned above pedagogical conditions, methods of consequential implementation of organizational-and-communicative, value based-and-cumulative, corrective-and-conative, creative-and-presentational steps was successfully tested in the system of non-formal education of Ukraine.

More than 680 upper-formers were involved in the experimental work. Statistic processing of obtained results allowed to reasonably likely determine the efficiency of the proposed methodology, since significant growth of artistic orientation levels of upper-formers after the done experimental work was observed. Quantitative data of done research are given in Table 1.

Table 1

Dynamics of upper formers' artistic orientation formation

Level	Before the experiment		After the experiment	
	abs.	%	abs.	%
Low	497	73.1	144	21.2
Average	128	18.8	292	42.9
High	55	8.1	244	35.9

The obtained results of the research allow to confirm the efficiency of the proposed methodology and its practicability for using in the artistic-and-educative process.

Conclusions. Studying the phenomenon complexity allowed to substantiate the

importance of its formation in upper formers, and suggest ways of updating the artistic education content.

The scientific novelty of the research consists in reflection of important features of artistic orientations of a person, development and experimental testing of the special methodology to form artistic orientation of upper-formers in the process of musical and stage activities.

We emphasize the importance of obtained research results for development of theory and practice of artistic education of upper-formers under modern conditions. Research data may be used, when writing educational programs, methodological textbooks to study the arts under modern conditions, as well as to enhance practices of artistic education.

The methodology developed in the context of the humanistic educational paradigm to form artistic orientations of upper formers in the process of musical-and-stage activities reveals new possibilities of using the arts in spiritual development of youth.

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THE ROLE OF STUDYING THE GROUP-THEORETICAL APPROACH TO GEOMETRY IN THE LEARNING PROCESS OF STUDENTS OF PHYSICS AND MATHEMATICAL SPECIALTIES IN HIGH SCHOOL

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Annotation. *The article examines the role of studying and researching the group-theoretical approach to geometry in the process of teaching students of physical and mathematical specialties of high school. The history of extension of group theory into physics, quantum theory and quantum mechanics, crystallography, as well as the history of development of group theory and image theory is analyzed. Different criteria for group classification are considered. The types of groups, their properties and examples of their practical application are described.*

Key words: *Group, theoretical-group approach, group classification, geometry, physics, group theory, image theory, invariant, geometric transformation.*

The "Erlangen Program", proposed by Felix Klein in 1872 in a lecture "Comparative Review of Recent Geometric Research" played a significant role in the development of geometry since it established a group-theoretical approach to geometry as a science that studies the properties of space that are invariant to the specified group of transformations. According to F. Klein's "Erlangen program", we define as geometric those properties of figures in space E and the related variables that are invariant under each transformation from the given group G and that, thus, are identical at all G -equivalent figures.

Analysis of recent research and publications. The analysis of scientific and methodical literature, including the research of A.N. Kolmogorov, L.S. Atanasyan, A.D. Alexandrov, V.G. Boltyansky, V.F. Kagan, O.V. Manturov, A.V. Pogorelov, P.M. Erdniev, I.M. Yaglom, Z.I. Slepkan, M.V. Pratsovytyi and others, shows that the application of group-theoretical approach to the study of geometry in solving the problem of organizing quality educational and scientific activities of students in higher education and in bringing it closer to teaching school geometry is one of the most important components of future training teachers of mathematics, physics and computer science.

The purpose of the article is to expose the role of studying and researching the group-theoretical approach to geometry in the process of teaching students of physical and mathematical specialties of high school; to analyze the history of the extension of group-theoretical thinking into physics, quantum theory and quantum mechanics, the history

of the development of group theory and image theory; to examine various criteria for classification of groups, namely: depending on the number of elements of the set (more precisely, its cardinality) - finite, infinite discrete, continuous and mixed continuous groups, according to another criterion: discreteness or continuity; description of types of groups, their properties and practical application, namely: application in special relativity, which is a certain "geometry" that studies the invariants of the so-called "Lorentz group", and requires the same expression of physical laws in different coordinate systems (reference), in which those properties of figures which are equally expressed in various coordinate systems are studied; and to investigate schemes of practical use of group theory in atomic physics and crystallography, in mathematical methods of modern physics for students of physical and mathematical specialties of high school.

Presenting main material. Let the set E of elements of arbitrary nature and some group G of its transformations be given. Let us agree to call the set E a space, its elements, points, and each set of points, a figure. Those properties of the figure F and the variables associated with it, which are preserved under all transformations of the group G , are called invariants (invariant properties) of the group G . The geometry of group G is a system of statements about the properties of figures and their associated quantities, invariant under all transformations of group G .

Different groups of transformations lead to different geometries. Thus, Euclidean geometry is determined by a group of similarity transformations and its subgroup - a group of movements, i.e. it studies such properties of geometric figures that are preserved under similarity transformations and motions. Affine geometry is determined by a group of affine transformations, i.e. it studies the properties of geometric figures that are preserved under affine transformations: straightness, parallelism, the ratio of segments of one line. Projective geometry is determined by a group of projective transformations, i.e. studies the properties of geometric figures preserved under projective transformations: straightness, double or complex ratio of four points lying on one line (harmonism) [5]. Lobachevsky's geometry is determined by a group of projective transformations that transfers a circle into itself (or an arbitrary conical section).

Along with the forms and relations of bodies of ordinary space, the subjects of modern geometry also include other forms and relations, taken from reality, by maximum (mathematical) abstraction, having a structure similar to the structure, forms and relations of bodies of ordinary space. Such or other sets of objects, the relationship between which is described by systems of axioms, are called generalized or abstract spaces, and the study of these spaces and given objects in them is the content of geometry in the modern sense of the word.

F. Klein's "Erlangen program" played a major stimulating role for the further development of geometry (a fairly wide range of different (new) geometries was introduced), although it did not become comprehensive for it (it does not contain some important branches of geometry, such as Riemannian geometry).

The definition of geometry as a theory of invariants of a group of transformations is equivalent to the point of view when what is set is not the transformation of space but the

transformation of coordinates in it, and under investigation are the properties of figures that have equal representation in different coordinate systems. This point of view has found application in the theory of relativity, which requires the same expression of physical laws in different coordinate systems (reference) [6].

The group-theoretic approach to geometry allowed F. Klein to identify deep connections between different geometries, discovered until then, to consider them from a uniform point of view and to place them in a hierarchical order.

The extension of group theory into physics began at the turn of the 19th and 20th centuries. This was facilitated by two outstanding achievements in two different fields of science: the classification of crystals and crystallographic symmetries by E. Fedorov and A. Schenflis (1892) and the special theory of Einstein-Poincaré relativity (1895).

The group view of geometry is important for many branches of physics. The most famous application of group theory in pre-quantum physics is the description of crystal symmetry. There are 32 point and 230 spatial symmetry groups of crystals. Interestingly, in 1830, when the mathematical term "group" appeared, Hessel derived 32 crystallographic classes. They describe the symmetry of the environment for a position in the crystal. The classification by famous Russian crystallographer E. Fedorov and German scientist A. Schenflis in 1891 of 230 spatial groups is considered a masterpiece of analysis. In addition to rotations around the axes of symmetry, reflections in the planes of symmetry, inversion transformations of the crystal, they also include discrete translations of the crystal. Interestingly, this was done before the discovery of the atomic structure of crystals.

But in the 19th century, the physical and mathematical branches of group theory developed almost independently of each other. The widespread extension of the group apparatus into physics began shortly after the creation of quantum mechanics and is associated with the names of G. Weil, E. Wigner, G. Bethe, Y. Cancer, and many other famous mathematicians and physicists.

Thus, the special theory of relativity is a certain "geometry" that studies the invariants of the so-called "Lorentz groups". The group view of geometry is used in atomic physics and crystallography. Thus, Russian scientist E.S. Fedorov in 1890 proved that there are exactly 230 groups of space motions, which are groups of self-alignments of atomic structures of different crystals, they are called Fedorov groups. Fedorov's research is considered the basis of the doctrine of crystals. Under certain conditions, the crystallization of minerals occurs according to one of the Fedorov groups. For example, table salt crystallizes in the form of cubes, and the group of self-alignments of the cube is one of the Fedorov groups [6].

The formation of quantum theory and quantum mechanics went hand in hand with the development of group theory and image theory. In the works of Heisenberg and Dirac, quantum-mechanical variables were presented as elements of associative algebra that satisfy some commutation relations, and the states of the system as vectors of the image space of this algebra. A new form of equations of quantum theory required a new mathematical apparatus.

The possibilities of applying group theory have expanded considerably due to the fact that states in quantum mechanics, in contrast to classical mechanics, are given by vectors in abstract Hilbert space, and symmetry transformations are represented by unitary (or antiunitary) transformations of this space. It was revealed that the symmetry group of a quantum mechanical system and its irreducible images can be used to classify the energy spectrum and stationary states of the system, calculations of matrix elements and calculations on perturbation theory. Representing the Hamiltonian as the sum of successively descending terms, taking into account increasingly subtle interactions in the system, in the language of group theory means a gradual decrease in symmetry, the transition from the original group of high symmetry to its subgroups. With this approach, it is possible to trace the genealogy of energy levels of the system and its steady states. It is widely used in the theory of atomic and nuclear spectra, spectra of molecules and solids. Without major changes, the group approach can be used to consider the spectra of other quantities under observation. The theory of elementary particle spectra permits to solve rapidly the following inverse problem: to guess the symmetry that unites different particles from the available spectra (or their parts).

The needs of physics stimulated the development of a number of significant areas of mathematical group theory, such as canonical forms of irreducible images of different groups, the theory of Klebsch-Gordon coefficients (named after A. Klebsch and P. Gordan), unitary images of noncompact Lie groups, various extensions of Poincaré groups. The first significant results in these areas were obtained by physicists.

Therefore, for the successful application of the ideas of symmetry in addition to the general concepts of group theory and their images, it is necessary to know in detail the specific groups of symmetry, which are common in physics. These include groups describing the "geometry" of systems: the group of rotations in three-dimensional space that underlies atomic spectroscopy, its various finite subgroups ("point symmetry groups") describing the external symmetry of molecules and crystals, the group of permutations of identical particles. A special place in this series is occupied by symmetry with respect to the inversion of time, which introduces anti-unitary transformations into physics. Unitary groups of different orders are used in the theory of elementary particles and in the theory of atomic spectra (when considering the terms of the considered configuration). Lorentz group determines the structure of space-time in the special theory of relativity; in the general theory of relativity, other Lie groups are used to describe gravitational fields.

Today, theoretical and group methods dominate the arsenal of mathematical methods of modern physics, demonstrate their effectiveness and universality in all branches of physics.

The scheme of practical use of group theory in many problems is as follows: description of system symmetry, creation of a summary image on the set of system states considered in this problem, its decomposition into irreducible components using design operators and, if necessary, calculations of matrix elements on symmetric states.

There are different criteria for classifying groups. Depending on the number of elements of the set (more precisely, on its cardinality) there distinguish finite, infinite

discrete, continuous and mixed continuous groups.

If the number of elements in a group is finite, then the group is called finite. The number of elements of a finite group is called its order. If the number of elements in a group is infinite, then such a group is called infinite.

Groups can also be classified according to another criterion: discreteness or continuity.

A discrete group consists of a discrete set of elements. The elements of an infinite discrete group can be renumbered using a natural number or any numbered set of characters. For example, the group of translations (parallel transfers) of an infinite crystal lattice is an infinite discrete Abelian group. As elements of the group translation vectors can be considered \vec{a}_i , where i are any integers; and \vec{a}_i denotes for the elementary translations, and the parallelepiped built on them is the elementary link of the crystal.

When the elements of a group are continuously dependent on any parameters, the group is called continuous. The elements of a continuous group are specified by a finite number of parameters that change continuously. The most well-known example of continuous groups are Lie groups. More precisely, the Lie group is a group whose set of elements forms a smooth variety. The solutions of differential equations are found with the help of Lie groups as groups of symmetries.

A group is said to be compact if its parameters run through limited intervals of values. For example, a group of rotations in three-dimensional Euclidean space (also denoted as $SO(3)$ or $Rot(3)$) is a continuous three-parameter compact group; one of the possible parameterizations is with the help of three Euler angles.

In mixed groups, some parameters run a discrete (in particular, finite) set of values. For example, a complete orthogonal group in three dimensions (or $O(3)$) is an example of a mixed group - three continuous parameters (Euler angles) are complemented by a fourth parameter, which takes two values (say, + and -) and distinguishes between proper and improper rotations.

The classification and properties of discrete and crystallographic groups of plane motions have been studied in our previous publications [10].

Conclusions. Transformations of the set in any geometric theory play a special role, due primarily to the fact that much of the figures and their properties, which are studied in geometry, have an invariant-geometric nature. This means that geometrical science studies figures and their properties that are invariant with respect to a group of transformations of the corresponding set.

The group-theoretical approach to the study of Euclidean geometry allows us to consider movements in a different way and from a different point of view to evaluate their role in proving theorems and solving school problems. The theme of "Movement" is the core of both school and university courses in geometry.

The need to study the theory of geometric transformations in the school course of geometry is that it is one of the most effective ways to solve many geometric problems for proof, construction and calculation.

The study allows to focus on the relationship of theoretical and group approach to

geometry with geometric transformations, which are studied by students in the course of such disciplines as "Analytical Geometry", "Projective Geometry and Image Methods", "Fundamentals of Geometry", to establish interdisciplinary links with a school course in geometry, algebra, physics, quantum theory and quantum mechanics, special relativity, topology, group theory and Lie algebras, crystallography, ornamental art and other branches of science and industry.

Optimal volume, novelty, optimal difficulty, cognitive interest, specifics, the ample use of interdisciplinary links, progressive development give the best way to acquire knowledge and interest in future teachers of mathematics, physics and computer science.

In this sense, the group-theoretic approach to the study of both Euclidean geometry and non-Euclidean geometries, namely, projective geometry, hyperbolic geometry or Lobachevsky geometry is an inexhaustible source for new research, interesting work and mathematical reflections, for solving various geometric and physical problems and their testing in practice by students of physical and mathematical specialties of higher educational institutions

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ART PROJECT AS A SPECIAL FORM OF ORGANIZATION IN THE SOCIO-CULTURAL SPHERE MANAGEMENT

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Annotation. *The article substantiates the technology of project creation in the activities of the manager of the socio-cultural sphere. The author considers methodological approaches to defining the essence of the concept of project. The views on the principles that should be guided by the manager of the socio-cultural sphere in the process of performing project management functions are analyzed. Emphasis is placed on certain factors of implementation of project creation technologies as fixed assets in the activities of the manager of the socio-cultural sphere.*

Key words: *project, technologies, management technologies, socio-cultural management.*

The problem formulation. In the modern environment, further development of scientific provisions on the importance of project activities in the socio-cultural sphere. We understand project activity as organizational and managerial activity of individuals and legal entities, subjects of activity, aimed at developing a set of step-by-step measures, which in turn contribute to the effective solution of current problems of culture and art in a certain time and within the agreed budget, which is allocated to finance the resources used during the project. Being an effective means of organization, cultural and artistic diversity, identification and increase of resource potential, interaction with public authorities, commercial structures, the public and partners, project activities are a specific form of regulation of socio-cultural processes. Art project management today actively complements the developed form of organization management and enables cultural industry entities in the process of cooperation to implement a variety of creative ideas, ie to become an effective modern model of management in the field of socio-cultural policy. Thus, the relevance of this topic is due to the wide possibilities of a system-oriented approach in the modern practice of implementing art projects as a specific form of organization in the management of the socio-cultural sphere.

State study of the problem. The introduction of technology in the creation of various projects in the management of socio-cultural activities has been studied by many scientists. In particular, the article by N. Bakhmat (2019) considers the didactic principles and modern requirements for designing the educational process of future managers of socio-cultural activities in the information and educational environment of higher education. The modern requirements to the content of training are analyzed and the list of general cultural competences is offered taking into account didactic principles of designing of educational process. M. Bryl (2018) reveals the impact of effectively organized educational and practical activities on self-development and the formation of a manager of socio-cultural activities as a subject of innovation. And the practical significance of the research topic is the ability to introduce at the level of forms and

methods of teaching effective modern ideas for the formation of innovative thinking in the manager. T. Hryhorchuk (2019) focused on issues related to the design of educational and methodological complex for distance learning of future managers of the socio-cultural sphere.

S. Kalaur, O. Soroka (2019) focused on the potential of a systematic approach in the training of future managers of socio-cultural activities. The authors proved that this approach will help to organize the training of students as a holistic system that provides for the unity of psychological and pedagogical theory, methodology and practice. The article by O. Kostiuchenko (2017) analyzes the properties of modern management training, factors of its effectiveness, in particular the key elements, principles, functions of project training. Attention is focused on the properties of relevant training, which require the development and implementation of the following technologies: full-fledged mentoring for everyone; modeling and forecasting of individual learning trajectory, training protocols, etc.

V. Liubarets (2018) considered the current requirements for the content of training manager of socio-cultural activities, due, on the one hand, trends in society and its spiritual sphere, and on the other - regulations governing the order and content of the educational process.

Among the scientists who consider technologies in the management of socio-cultural activities should be noted the works of S. Kostylev (2014), H. Novykova (2006), which examines the specifics and importance of modern management as a complex system of principles, functions, methods in the structure of socio-cultural management. formation, functioning and development of artistic and creative space that provides the production, reproduction and translation of artistic ideals, patterns, values and practices.

In the context of our work, aspects of project management are explored by R. Archybal (2017), who focuses on the implementation of project portfolio management concepts and project management organizations in the company by creating project offices.

K. Davydovskyj (2014) formulates the parameters of an art project and distinguishes between educational and extracurricular art projects of educational institutions. M. Poplavskyj (2019) describes the phenomenon of project activity - "crossover point" and its spread in contemporary art practice. The author notes the growing mass demand for entertainment and musical-theatrical projects as a new form of synthesis of several arts, generated by the implementation of new technologies. Effective Project Management, Martynyshyn, Y.M., & Kovalenko Y.Y. (2017) is defined as a strategic tool for the development of the socio-cultural sphere, the features of which are: first, its holistic concept is based on the interaction of economic, cultural, socio-psychological, creative and technological aspects; secondly, its effectiveness depends on effective time management, material and human resources, project team, implementation of innovations and efficient use of investments, as well as on the realization of creative potential, professional competencies (multicultural, linguistic, informational, political, social and psychological, etc.); third, its competitiveness as a component, a complex comparative characteristic of competitive advantages, management factors and productivity of

resource use.

Unresolved issues. Noting the importance of scientific research of these scientists, it should be emphasized that in this problem today there are still many unresolved issues. Today, the methodology of art project management is widely used in the socio-cultural sphere. The modern manager of the socio-cultural sphere is constantly working in an environment where he becomes a subject of activity. The problem of project activity in socio-cultural practice, both in theoretical and in practical aspect, deserves constructive attention. In particular, further study of the specifics of the art project as an organizational and managerial form of socio-cultural activities, features of socio-cultural design technologies, the possibility of applying foreign experience, evaluation of the effectiveness of project activities.

The purpose of the article is to identify and generalize modern trends in the use of art projects as a special form of organization in the management of the socio-cultural sphere and to determine the main directions of its effective functioning.

The methodological basis of the study. The methodological basis of the study is dialectical ideas about the relationship between theory and practice in the study of socio-cultural phenomena and processes. The fundamental provisions of this work are based on an innovative approach, which involves awareness of the need to implement modern creative trends in the organization of the socio-cultural sphere; on a systematic approach that identifies ways to involve managers of socio-cultural activities in the creation of creative cultural and artistic projects through the combination of theory and practice of management and content of art projects.

Research methods. The study uses methods of analysis and synthesis, comparison and comparison, specific scientific and empirical methods, according to which the structure of the discipline is proposed in the relationship of its main elements and specific factors important for the work of managers of socio-cultural sphere. The method of analysis provided us with opportunities to identify the place of means of project activities in the practical work of the future manager of the socio-cultural sphere. Through synthesis, we were able to find the relationship between the use of techniques for the implementation of art projects. Comparison and comparison – to identify common and different terminological concepts in the context of artistic practice; Empirical methods: conversations, dialogues, conferences (on-line in the ZOOM system) with the teaching staff and students of the department focused the author on organizational, scientific, methodological, theoretical issues of this research topic.

The information base of the study consists of the results of the analysis of publications of leading scientists and researchers in the socio-cultural sphere, on the design of the process of implementation of art projects by managers of socio-cultural activities. The study also used the data of personal observations of the author, made during the teaching of professionally-oriented disciplines in the specialty 028 "Management of socio-cultural activities" at the Department of Show Business Management at Kyiv National University of Culture and Arts (Kyiv, Ukraine).

Research results. Project management in modern reality has emerged as a direction

of management and requires material and personal resources, organizational, economic and legal support for the implementation of the creative idea of the project. That is, project management is aimed at obtaining an effective result from a specific project in certain conditions, for a certain period of time with a separate project team. This result is assessed by creative and economic indicators.

Defining the concept of "project management", some experts see it as an innovative component aimed at mastering modern management technologies, new forms of interaction with the audience and the consumer, the development of socio-cultural partnership, the interaction of various fields.

This type of management is gradually being mastered by public organizations, which have little financial incentive to develop, reform and modernize their activities, as they are registered as non-profit organizations. Due to project activities, these organizations master new technologies of financial planning with the help of government agencies and make optimal use of their own resources. Project management orients the creative team to achieve a specific result in a certain time, focusing on limited opportunities – financial, personnel, information, organizational.

Project management involves publicity and the use of such management mechanisms that would take into account different groups of external interests. To this end, at cultural institutions, commercial firms, associations, various kinds of "boards" are formed, which include public organizations, consumers, sponsors, representatives of public authorities. In management practice, such forms as boards of trustees, clubs of friends, whose functions are limited only by attracting financial resources for an organization or a specific project, are widely used. Issues of management, formation of strategic development plans, operational activities are outside their area of competence.

Modern market relations in the field of culture and art have forced the leaders of this field to learn to operate with new terms, such as "products", "producer", "consumer", "goods" and others. In the activities of the manager of the socio-cultural sphere are increasingly used techniques that in the recent past are not so typical for this area of activity: "operational financial management"; "Distribution of human resources"; "Information flow management"; "Formation of consumer demand".

Project management plays a crucial role in the effective implementation of the project idea, in bringing the project to the audience as the end point of the creative process, the implementation of organizational and managerial decisions adequate to market conditions.

Project management is also characterized by functions: organization, planning, motivation, control. Each of these functions is necessary for the manager of the socio-cultural sphere. Planning provides the basis for the implementation of the main strategic goal - the creation and implementation of the project, profit, and the functions of organization, motivation and control are focused on the implementation of tactical tasks.

In the organization as a technological process are characteristic of the activities in the socio-cultural sphere features and principles, among which are the following:

- 1) situational principle, based on determining the degree and nature of the

organization and establishes its boundaries.

2) the principle of partnership, which involves building relationships between participants at the level of subjective relations, mutual respect, mutual interest, partnership.

3) the principle of constant action of the organizational factor, penetrating all stages of preparation and implementation of the project.

Regardless of the scale of the project, the manager of the socio-cultural sphere in the course of performing the organizational function must be able to:

- to understand and determine the goals of the project, to detail them, to identify the degree of participation in the project of an organization, individual;
- identify the activities necessary to achieve the identified objectives;
- to distribute the types of activities between specialists and unite them into managed working groups and departments;
- to establish coordination of different groups and types of activities through the establishment of working relationships, distribution of roles, responsibilities, types of reporting, deadlines;
- unite working groups with the unity of purpose, where each member of the organization works for the common good and no one has the right to work against the goals of the organization;
- determine the scope of management: the number of working groups, the number of managers and subordinates.

The function of the organization is to bring together the activities of all professionals involved in the development and implementation of the project, to determine the mission, role, responsibilities and accountability of each of them.

Organization is the most important function of managing the process of development and implementation of an art project. Therefore, we can offer the following definition. The organization of cultural and artistic project management is a structural system in the form of relationships, rights, goals, roles, activities, and on the other hand, is the process by which the project is developed and implemented, clarifies, expands, maintains or reduces the structure of the institution, firm, organizing committee, board, involved in the project.

The concept of "management" is more universal and is used in cases where the tasks of influencing the system or the individual are solved in order to transform them into a new quality on the basis of the laws inherent in this system. The department performs the functions of regulation, coordination and control over the activities of various institutions and organizations, working groups, committees involved in the project at various stages.

Management of art projects is quite a complex formation, because it absorbs the content of the activity, organization and technology. The content of the project management process is determined by the essence, goals and objectives, principles, methods, functions, specifics of the industry, the level of this body in the general system of governing bodies. The most common in art projects was a functional management system, built with the goals and objectives of a particular project.

Depending on the tasks to be solved in each specific project, the management system can be refined, expanded, fragmented, representing a complex dynamic structure in which three interrelated parties can be distinguished: 1) functional, 2) structural, 3) informational. Thus, large-scale projects require: a special order of the city authorities, the territorial community authorizing the action, the organization of security, schemes of security barriers, the development of forms of accreditation and passes. Advertising and information services, which produce commercials, video clips, posters, advertising banners, and advertising interviews in the mass media, also carry a significant workload. According to modern market standards, the cost of an advertising campaign reaches 40% of the cost of the first batch of a new product, which must be taken into account when drawing up a business plan for the project.

Each element of the management system functions and develops on the basis of the solution of the set purposes and tasks, and at the same time all elements of system, functioning, acquire new quality and new value. The process of managing art projects is characterized by a constant change of states in the system, changes in the links between its elements, due to the goals and objectives of a particular age or social group.

Economic and project management includes a system of resource provision: staffing; financing; the size of the salary; types of encouragement or punishment; material and technical resources.

As many cultural institutions (theaters, museums, film studios, philharmonics, public cultural institutions and private production firms) gradually move to market conditions where there is a potential consumer and a potential producer, the main goal of the project is to combine their interests and mutual benefit. The spectator gets the opportunity to enjoy communication with art, the organizers – material gain. However, dividends, ie making a profit from art projects, are not only material but also moral, ethical. In market conditions, when developing a project there is a question of project cost, earnings, income, profit, ie obtaining the projected result. When calculating the cost of a project with autonomous financing, two main parameters are taken into account - tangible and intangible costs. When determining the cost of a state theater project, all costs associated with its creation are included: simple unemployed actors; salaries of employees of theater workshops; utility bills, etc. Conquering the market of an art project – one of the main conditions of a market economy, and to begin activities for its implementation requires the collection and analysis of information about the audience, ie from marketing research.

Marketing research may include gathering information on the following issues:

- similar projects have been created in the last five years;
- if created, to whom they were addressed, ie to which target audience;
- whether they had spectator success;
- what was the duration of their operation of the cultural project;
- in which geographical point of the city or region they were located;
- what is the pricing policy;
- what was the reaction of professionals and spectators, etc.

If the project is created for the first time, the audience needs to be studied in terms of segmentation of the information field to identify interest in the planned project.

The next stage is the launch of the project into production: development and launch of an advertising campaign to promote the project on the market, the beginning of the rehearsal process, the inclusion of all services (workshops, production shops, lighting and sound, etc.).

The model of art project management and the principles of forming the board and delegating powers to it are determined in the process of constructive dialogue between stakeholders, organizations, legal and financial structures and are regulated by relevant documents. An important condition for effective management of the socio-cultural sphere is the use of various models of public participation in project management: participation in decision-making, participation in project development and implementation, participation in evaluating the activities of creative groups, participation in obtaining planned results. When developing and implementing creative projects, the manager of the socio-cultural sphere must take into account possible ways of implementing the program and motivating projects. The main premise is that the personal remuneration of employees who have contributed to the implementation of the investment project should be assessed based on the degree of innovation and risk of the project, as well as the degree of employee participation in the project. In the case of successful implementation of the project, we can say that part of the profit is obtained through the creative and professional efforts of an individual or group of people.

In order to determine the personal contribution of each project participant (or group of participants), it is necessary to divide the project process into areas of responsibility, identify key people in the process of its development and implementation, determine the individual motivation of each.

The key people are:

- 1) persons who are the initiators of the idea of the project in the framework of a competition or "brainstorming".
- 2) persons involved in the development of the project and its protection from investors.
- 3) persons responsible for project implementation.

The implementation of any creative project requires material and labor resources, as well as organizational, legal and financial support.

Art projects of this type exist thanks to the support of individual patrons, large-scale fundraising companies, their own earnings. State support in this case can act as one of the sources of funding. Charitable organizations and sponsors, providing financial assistance, go out of their interests, supporting either an individual director, actor, or express the interests of a particular ethnic group, or show interest in a particular topic or author.

In order to protect their interests and rights, in order to provide social guarantees, artists unite in powerful trade unions.

In addition to the management of a separate project, there is a so-called organizational

way of functioning of the artistic process, which takes place within the framework of permanent structures - repertoire theater, philharmonic and other cultural institutions. The majority of creative workers and a significant share of budget funding are assigned to these structures.

This way of managing the creative process indicates the presence of an appropriate repertoire, a permanent creative group, budget funding of the organization as a whole, rather than a specific project. In this case, a less programmed rehearsal process is possible, and the rental of the play after the premiere can take years. However, such nuances of the process of operation of the play, as the repair and replenishment of the artistic design of the play, the introduction of new performers, touring, anniversary shows, press coverage often require additional funds.

Various cultural and artistic figures have become freer in choosing individual tours both in the country and abroad, many of them have long worked in different countries. Became more common and various projects of joint productions, rental of ready-made foreign opera and theater projects. For many years, cultural organizations have fruitfully collaborated with famous directors, conductors, soloists, who become permanent members of the troupe.

Today project management is widely embodied in repertory theaters, budgetary cultural institutions, experimental projects of new art forms, new organizational models are created. In the context of individual projects, cooperation is established with sponsors interested in this project. There are consecutive and parallel projects. Certain areas of art programs that are implemented over a period of time, one-time actions designed to draw attention to the organization, cooperation with other organizations and companies can and should be considered as separate projects.

Conclusions and discussion. The article formulates the results of the study on the identification and generalization of current trends in the use of art projects as a special form of organization in the management of socio-cultural sphere and determine the main directions of its effective functioning.

Generalizations of modern trends in the socio-cultural sphere allow us to draw the following conclusions:

1. Art project in the modern system of socio-cultural sphere is considered as a means of professional development, given that: it is an activity based on the creative organization of the event, designed to create conditions for effective implementation of values in the Ukrainian society, consolidating the practice of public partnership. , private and non-profit sectors, helping to attract additional resources, accelerating the adaptation of organizations and cultural institutions to modern conditions.

2. The use of modern design technologies significantly complements the traditional views on the structure and organization of socio-cultural activities, the implementation process becomes more interesting, meaningful, visual; found that the specifics of the project as an organizational and managerial form allows to adequately address the problems of the socio-cultural sphere in terms of reform.

3. The role of innovative project technologies in the management of socio-cultural

sphere, which are used in the implementation of projects in the field of culture, to identify cultural needs, expand the target audience, intensify feedback with cultural policy actors, to form information and communication cultural space, increase the overall efficiency of socio-cultural activities.

The scientific novelty is as follows: project activities are considered in the context of increasing complexity of cultural processes, which necessitates the development of various, including technologies aimed at solving important problems for society and culture, improving tools for solving them. Highlighting the project activity as a special type of organizational and managerial activity of the subjects of cultural policy, the author concludes that the project activity influences the development of cultural diversity; promotes the integration of cultural actors; in general, intensifies the interaction of various subjects of cultural policy.

The practical significance of the obtained results is revealed in the possibility of their use to solve a number of theoretical problems and develop recommendations for the application of modern project activities in the field of culture and the development of practical recommendations. In the process of drawing up curricula, programs, directing training tools, development of methodical materials, practical staging activities in the educational process of training the future manager of socio-cultural activities in higher education institutions.

Prospects for further scientific exploration in this direction. It is promising to study the conditions of a favorable environment of higher education institution in which the formation of the future manager of socio-cultural activities by means of directing art projects.

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MEDICINE AND PHYSIOLOGY

BLOOD PRESSURE, TRIGLYCERIDE AND INSULIN LEVELS IN PATIENTS WITH CORONARY HEART DISEASE IN COMBINATION WITH NONALCOHOLIC FATTY LIVER DISEASE

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Annotation. *The aim of the study was to assess the interrelationship between the rate of insulin resistance, triglyceride levels and blood pressure in patients with coronary heart disease (CHD) in combination with nonalcoholic fatty liver disease (NAFLD). According to the design, group A (main) consisted of 56 patients aged 55-72 years (median 64 [59.0; 69.0] years) with CHD in combination with NAFLD, group B - 18 patients aged 53 - 70 years (median 59.7 [56.0; 65.0] years) with CHD without NAFLD. The parameters of the lipid spectrum, insulin levels and insulin resistance were evaluated.*

In the group A, a significantly higher TG (by 28%) and insulin (by 20%) levels was registered in comparison with the group B, $p < 0.5$. Indicator HOMA1-IR - 3.4 [1.7; 4.6] in the group A and 2.27 [1.75; 3.11], $p < 0.5$ in a group B. The group A revealed a direct correlation of TG levels with glucose level and SBP level. In patients with CHD in combination with NAFLD, an increased TG level was associated with an increase in insulin levels and HOMA1-IR. SBP level correlated with the level of TG, ALT, AST, insulin levels and HOMA1-IR.

Key words: *coronary heart disease, non-alcoholic fatty liver, insulin resistance, insulin levels, triglycerides, systolic blood pressure.*

Insulin resistance (IR) is one of the most important risk factors for cardiovascular diseases, including coronary heart disease (CHD). In turn, CHD has taken one of the leading places in the structure of disability and mortality in cardiovascular diseases in last decades. It should be noted that there is an increase in patients with comorbid pathology in the world, namely CHD in combination with non-alcoholic fatty liver disease (NAFLD) (1).

The actual prevalence of NAFLD is unknown because NAFLD is often underdiagnosed, and most patients with NAFLD, even those with diabetes, have normal liver aminotransferases (2). The prevalence of NAFLD increases up to 70% in diabetic patients and to 90% in obese people (3). It has been proven that patients with NAFLD are at increased risk of cardiovascular disease (CVD) (4). Risk factors, namely arterial hypertension and dyslipidemia (5), are of great importance today. One of the features of the lipid spectrum in patients with NAFLD is an increase in serum triglycerides (TG) levels, which was reported in 20–80% of cases associated with NAFLD (6). Many studies have highlighted the link between NAFLD and abdominal obesity, insulin resistance

(IR) and elevated TG levels (7). In accordance with the new ESC recommendations, the TG level is a target in the treatment of dyslipidemia (8), and when it increases more than 1.5 mmol/l, it provides not only additional diagnostic procedures, but also the patient's treatment.

Initially ignored, the fruitful work of Framingham and other watchdog groups subsequently demonstrated the importance of systolic blood pressure (SBP). This led to a paradigm shift, with the result that SBP became the focus of modern risk assessment and treatment (9). The RISC study showed that fatty liver was associated with an increased 10-year risk of CHD even in subjects without diabetes or hypertension (2). Moreover, patients with NAFLD, even without metabolic syndrome, have more vulnerable soft coronary plaques than healthy people in the control group (10). However, the connection between insulin resistance, TG levels and blood pressure in patients with coronary artery disease in combination with NAFLD requires further study today. Thus, larger studies are required to demonstrate whether NAFLD is the main cause of CVD or whether NAFLD increases the risk of death from CVD as such.

Purpose of the study: to assess the interrelationship between the rate of insulin resistance, triglyceride levels and blood pressure in patients with CHD in combination with NAFLD.

Materials and methods. The study involved 73 men aged 53-72 years (median - 63 [58.0; 68.0] years) with CHD: stable angina pectoris 2-3 FC. According to the design, group A (main) consisted of 56 patients aged 55-72 years (median 64 [59.0; 69.0] years) with CHD in combination with NAFLD, group B (comparison) - 18 patients aged 53 - 70 years (median 59.7 [56.0; 65.0] years) with CHD without NAFLD.

Exertional angina pectoris (II and III functional class) was diagnosed according to the classification of the Canadian Heart Association (NYHA FC) (11). The diagnosis of CHD was established in accordance with 2013 ESC Guidelines on the management of stable coronary artery disease (12) and 2019 ESC Guidelines for the diagnosis and management of chronic coronary syndromes: The Task Force for the diagnosis and management of chronic coronary syndromes of the European Society of Cardiology (ESC) (13). The diagnosis of NAFLD is established in accordance with EASL-EASD-EASO Clinical Practice Guidelines for the management of non-alcoholic fatty liver disease (14).

Inclusion criteria: presence of ischemic heart disease (stable exertional angina of 2–3 FC, postinfarction cardiosclerosis more than 6 months old), presence of NAFLD, patient's age from 45 to 70 years, informed consent of the patient.

Exclusion criteria: a history of acute cerebrovascular accident and myocardial infarction for up to 6 months, acute heart failure, diabetes, grade 4 obesity, viral hepatitis, and portal hypertension.

Stable angina pectoris II FC was established in 36 (65%) patients in group A and 8 (44%) in group B, III FC - in 20 (35%) in group A and in 10 (55%) patients in group B, a history of acute myocardial infarction (more than 6 months) in 20 (35%) in group A and in 8 (44%) in group B, a history of acute cerebrovascular accident in ischemic type

in 10 (17%) in group A and in 2 (11%) in group B.

Patients of both groups received antihypertensive drugs. Angiotensin converting enzyme inhibitors were taken by 45 (80%) patients in group A and 15 (83%) people in group B, sartans - 11 (19%) in group A and 3 (15%) in group B, calcium channel blockers - 30 (53 %) in group A and 9 (50%) in group B, beta-blockers - 12 (21%) in group A and 6 (33%) in group B.

All patients were tested for serum TG, total cholesterol (TCL) high-density lipoprotein cholesterol (HDL-C) by enzyme-linked immunosorbent assay (ELISA) using Human reagents (Germany) on a biochemical analyzer Chemistry Analyzer RT-1904C.

The level of cholesterol LDL - according to the formula W. T. Friedewald:

$\text{LDL cholesterol} = \text{TC} - (\text{HDL cholesterol} + \text{TG} / 2.2) (15).$

Body mass index (BMI) was calculated using the Quetelet formula:

$\text{BMI} = \text{BM} (\text{kg}) / \text{height}^2 (\text{m}).$

BMI in the range of 18.5-24.9 kg / m² was considered normal, 25.0-29.9 kg / m² - excessive, 30.0-34.9 kg / m² - obesity I degree, 35.0-39, 9 kg / m² - obesity II degree.

The level of activity of hepatic transaminases aspartate aminotransferase (AST), alanine aminotransferase (ALT), gamma-glutamyl transpeptidase (GGT), alkaline phosphatase (ALP), bilirubin, urea, creatinine, and glucose was determined by standard methods.

The reference ALT values were determined at the level up to 41 U/L, AST up to 40 U / L, total bilirubin up to 21 μmol/L. The glucose content in capillary blood was determined by the glucose oxidase method. The level of insulin in the blood plasma was determined by the enzyme immunoassay using Insulin ELISA kits manufactured by DRG (Germany) on a «Stat fax Lab Line 002» apparatus. The normal concentration of insulin in blood serum was considered to be 2-25 MCU / ml.

To assess the state of tissue sensitivity to insulin, the Homeostasis Model Assessment of Insulin Resistance (HOMA) was calculated, which is a marker of insulin resistance according to the formula (Matthewset al.)

$\text{HOMA1-IR} = \text{insulin} (\mu\text{Od} / \text{ml}) * \text{glucose} (\text{mmol} / \text{l}) / 22.5.$

HOMA values above 2.7 indicate about insulin resistance.

The research was carried out in accordance with the ethical standards of the World Medical Association's Declaration of Helsinki on the Ethical Principles of Medical Scientific Research. The patients were informed about the clinical study and gave written agreement to participate in the research. Ethics commission protocol of the SE "Dnipropetrovsk Medical Academy of Health Ministry of Ukraine" № 2 dated February 6, 2017.

Statistical data processing was carried out using the Statistica® for Windows 6.0 (StatSoft Inc.), Microsoft® Excel 2010 (Microsoft®) software packages. Analyzing the data, the methods of nonparametric statistics were used. The data are presented as the median (Me) and the boundaries of the interquartile range [25%; 75%] when describing quantitative features, qualitative - as a percentage, using the χ^2 criterion. The Mann-Whitney U-test was used to compare the rate in two independent groups. To assess the

interrelationship between the signs, correlation analysis was used with the calculation of the Spearman's rank correlation coefficient (r). The differences were considered statistically significant about $p < 0.05$.

Results. The analysis of anthropometric data revealed significantly higher indicators of BMI 30.9 [28.9; 35.0] kg / m² (17%), weight 98.5 [90.0; 105.0] kg (by 11%), waist circumference [105.0; 116.0] cm (by 9%) in the main group compared with the control group (98.7 [92.0; 106.5] cm, accordingly ($p < 0.05$)), which indicates about the presence of both common and abdominal obesity. Obesity grade 1 was detected in 25 (44%), grade 2 in 14 (25%) patients in the group with CHD in combination with NAFLD. The second stage of hypertension was detected in 36 (63%) patients in the main group and in 10 (56%) in the control group, the third stage in 20 (36%) in the main group and in 7 (44%) in the control group. In the main group, a significantly higher level of ALT (by 28%), GGT (by 41%), TG (by 28%) was registered in comparison with the control group ($p < 0.05$). By AST levels, glucose, bilirubin, creatinine levels, the main group and the comparison group did not differ significantly (Table 1).

Table 1

Characteristics of biochemical parameters of patients with coronary artery disease in combination with NAFLD

Index	CHD + NAFLD N=56	CHD without NAFLD N=17
Total protein, g / l	72,7 [70,2; 77,5]	73,7 [70,0; 78,5]
Total bilirubin, μ mol / l	10,8 [8,2; 12,7]	13,3 [8,5; 13,4]*
Direct bilirubin, μ mol / l	3,8 [3,0; 4,5]	4,09 [2,30; 4,20]
ALT, U / l	26,3 [16,6; 24,9]	22,6 [14,8; 26,6]
AST, U / l	22,6 [17,4; 26,0]	24,2 [16,6; 21,4]
GGT, U / l	44,5 [22,0; 60,0]	33,7 [25,0; 39,0]*
ALP, U / l	71,2 [62,0; 83,5]	74,0 [64,0; 86,0]
Urea, mmol / l	5,3 [4,6; 6,1]	5,6 [5,0; 6,3]
Creatinine, μ mol / l	87,4 [78,0; 97,0]	90,2 [87,0; 94,0]

Notes: * - reliability of differences between the main group and the comparison group is ($p < 0.05$).

The analysis of lipid spectrum parameters in the group of patients with CHD in combination with NAFLD was carried out in accordance with the European dyslipidemia guideline. In the main group, a significantly higher level of TG was registered - 2.34 [1.7; 2.8] mmol/L (by 28%) in comparison with the group of patients without NAFLD 1.8 [1.06; 2.42] mmol/L ($p < 0.05$) (Table 2).

Table 2

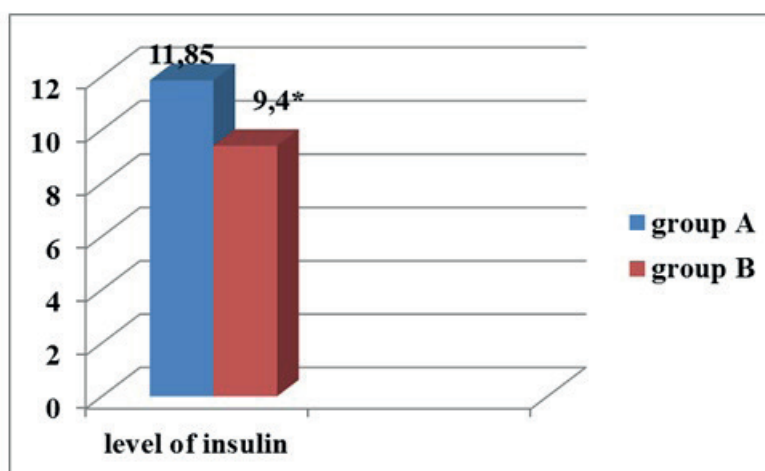
Indicators of blood lipid spectrum in patients with coronary artery disease in combination with NAFLD

Index	CHD + NAFLD N=56	CHD without NAFLD N=17	p
total cholesterol, mmol / l	5,25 [4,4; 6,1]	5,76 [5,2; 6,4]	0,03*
TG, mmol / l	2,34 [1,7; 2,8]	1,8 [1,06; 2,42]	0,03*
LDL mmol / l	3,2 [2,5; 3,9]	4,14 [3,53; 4,73]	0,03*
HDL mmol / l	1,1 [0,97; 1,26]	1,08 [0,98; 1,26]	0,6
VLDL mmol / l	1,06 [0,67; 1,2]	0,65 [0,42; 0,72]	0,04*

*Notes: * - significance of differences between the main group and the comparison group is ($p < 0,05$).*

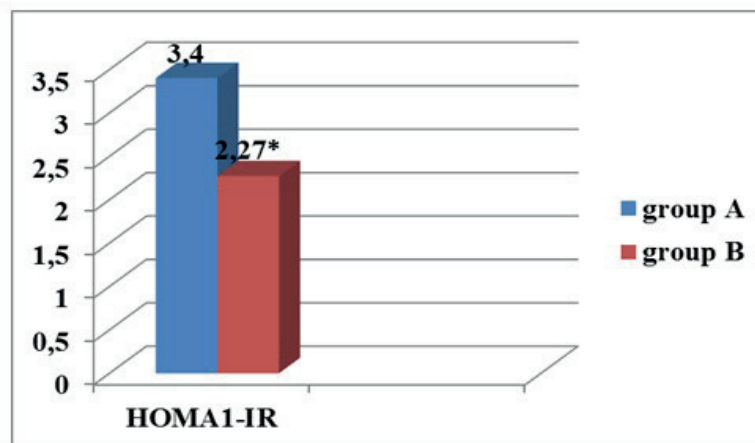
The group A revealed a direct correlation of TG levels with BMI ($r = 0.31$, $p < 0.05$), patient weight ($r = 0.33$, $p < 0.05$), glucose level ($r = 0.45$, $p < 0.05$) and SBP level ($r = 0.47$, $p < 0.05$).

An increase in insulin levels above 25 MCU/ml was recorded in only one patient of the group A. The average insulin level in the group A was significantly higher than 11.85 [7.7; 13.7] than in the group B 9.4 [7.1; 11.5], $p < 0.5$ (Picture 1). Indicator HOMA1-IR - 3.4 [1.7; 4.6] in the group A and 2.27 [1.75; 3.11], $p < 0.5$ in a group B. (Picture 2). There were no significant differences in serum glucose between the groups (5.5 [5.0; 5.9], 5.4 [4.8; 5.7], $p > 0.5$).



Pic. 1. The average meaning of insulin levels in patients with coronary artery disease in combination with NAFLD.

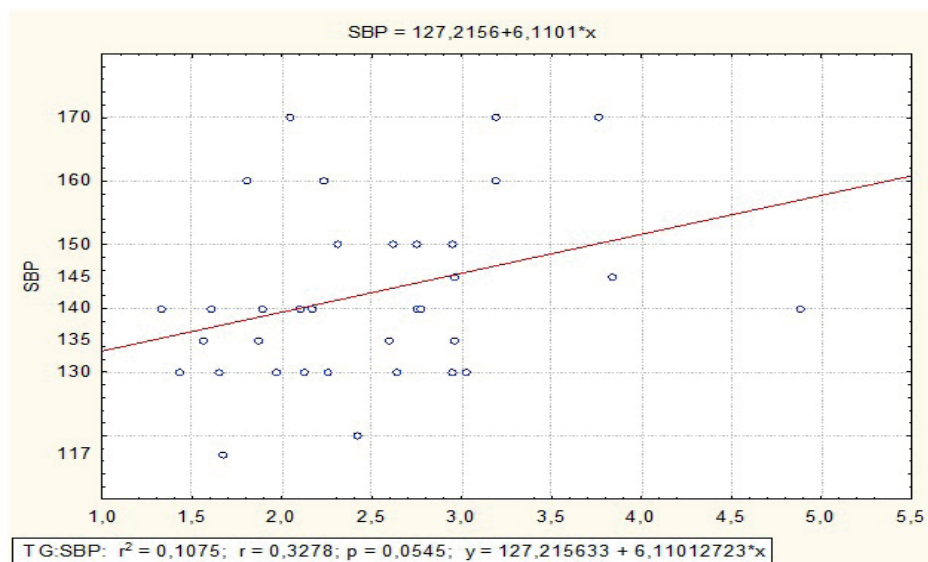
*Note. The differences in indicators are reliable compared with those: * in the control group ($p < 0.05$) according to the Mann-Whitney test.*



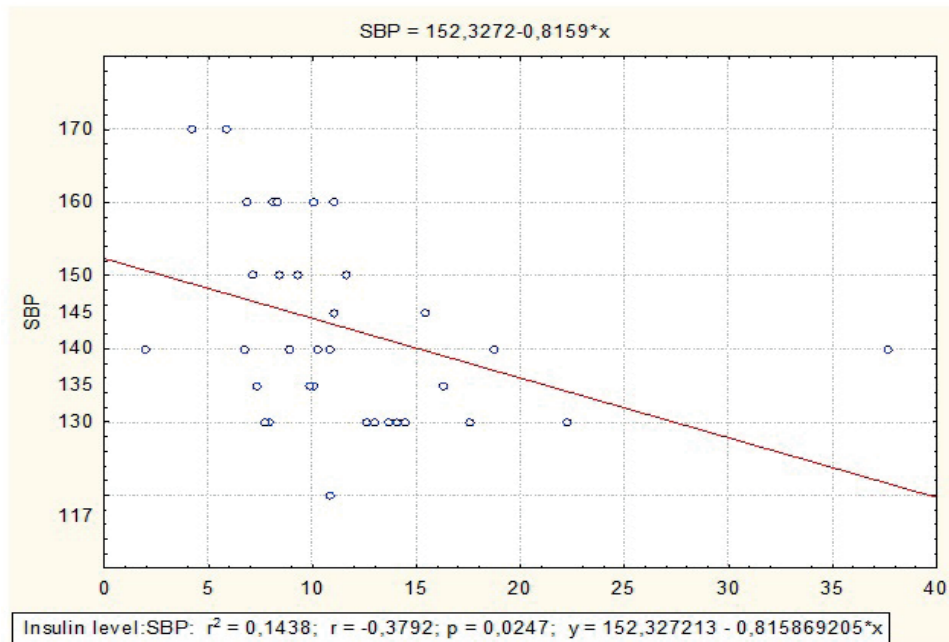
Pic. 2. Average meaning of HOMA1-IR in patients with coronary artery disease in combination with NAFLD.

*Note. The differences in indicators are reliable compared with those: * in the control group ($p < 0.05$) according to the Mann-Whitney test.*

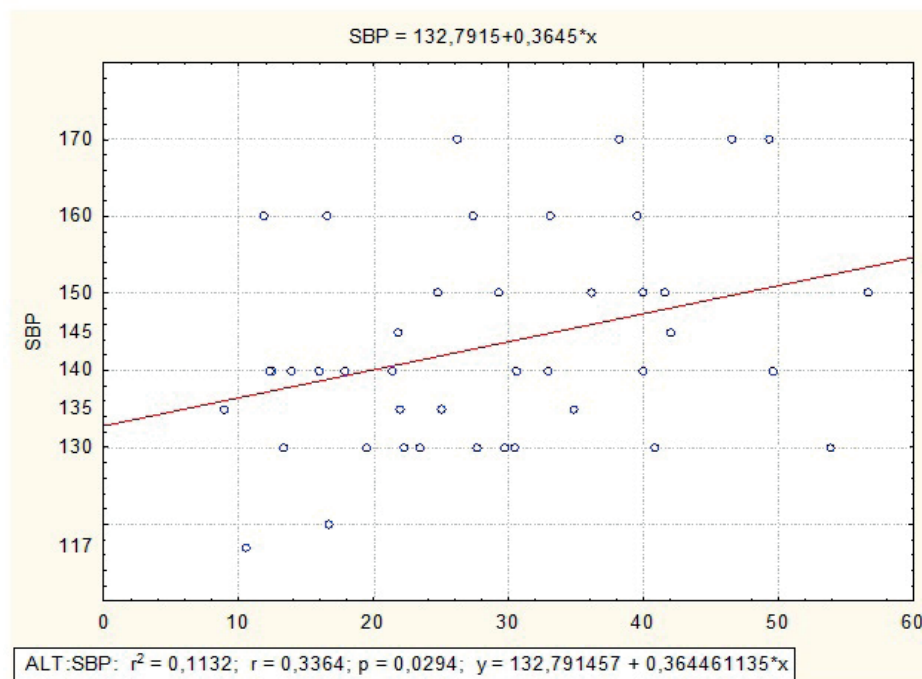
In patients with CHD in combination with NAFLD, there were significantly higher SBP values of 143.7 [130; 150] mm Hg, while the SBP level correlated with the TG level ($r = 0.36$, $p < 0.05$), ALT ($r = 0.31$, $p < 0.05$), AST ($r = 0.32$, $p < 0.05$), DBP ($r = 0.68$, $p < 0.05$), insulin levels (-0.48 , $p < 0.05$), HOMA1-IR (-0.35 , $p < 0.05$) in comparison with group B. (Picture 3, 4, 5, 6).



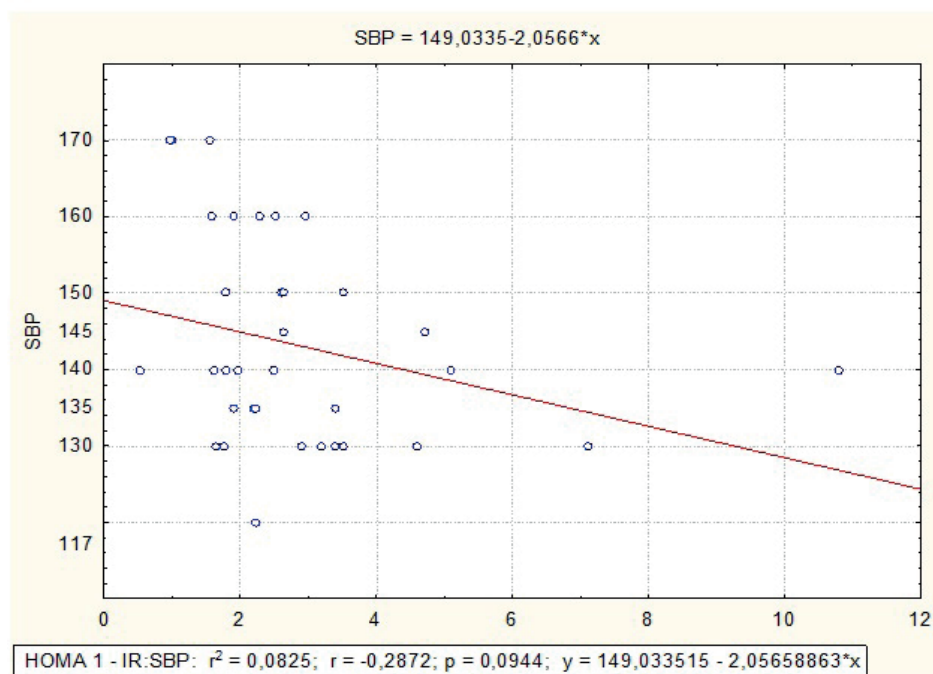
Pic. 3. Scatter plot. Positive correlation between SBP and TG levels.



Pic.4. Scatter plot. Negative correlation between SBP and insulin levels



Pic. 5. Scatter plot. Positive correlation between SBP and TG levels.



Pic. 6. Scatter plot. Negative correlation between SBP and HOMA1-IR.

Discussion. Methods for correcting risk factors for cardiovascular diseases are being studied in detail all over the world. A special category is patients with CHD in combination with NAFLD, given the prevalence of non-alcoholic steatosis, as well as the authors' data on its effect on the development of CVD (17). There are many data connecting the hepatic enzymes ALT and GGT with the incidence of diabetes (18) in patients with NAFLD. It has been shown that up to 85% of subjects with NAFLD, compared with 30% in the control group, are insulin resistant and have abnormal glucose metabolism, that is prediabetes or T2DM, which they were not aware of. NAFLD alone cannot be considered a cause of IR, but rather a consequence. IR is accompanied by an increased level of insulin, which in turn promotes the synthesis of TG in the liver. This may explain the increased risk of cardiovascular disease that is often observed in patients with NAFLD, as evidenced by several epidemiological reports (19), however, the interrelationship between TG, insulin, IR and blood pressure is not fully understood to date. In our study, the main group revealed a significantly higher level of TG, insulin and HOMA1-IR, which does not contradict the data of previous studies and may be associated with the study of these indicators in patients with predominantly NAFLD, not counting CHD.

Conclusions:

1. In patients with CHD in combination with NAFLD, an increased TG level was associated with an increase in insulin levels and HOMA1-IR. Correlation of TG level

with body mass index, patient's weight and serum glucose level was revealed.

2. When combining CHD with NAFLD, significantly higher SBP indices were noted as compared to the isolated course of CHD, while the SBP level correlated with the level of TG, ALT, AST, insulin levels and HOMA1-IR.

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PREVALENCE OF MALOCCLUSION AMONG CHILDREN IN DIFFERENT AGE PERIODS (LITERATURE REVIEW)

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Annotation. *The occurrence of occlusal anomalies varies between different countries, ethnic and age groups. Malocclusion have a multifactorial origin and can hardly ever be attributed to a single specific cause. Occlusion expression is the result of genetic and environment component. Causes include general factors, such as genetic and hereditary components, nutritional deficiencies and abnormal pressure habits or local factors located directly in the dental arch such as supernumerary teeth, tooth decay and premature loss of primary teeth. In patients with occlusion anomalies is important aesthetic complaints, which causes to inferiority complex. Analysis of literature data confirms that dental anomalies frequency around the world varies from 11% to 70%. According the data of investigations the demand for orthodontic treatment is increasing in most countries. Therefore, rational planning of orthodontic measures on a population basis is essential in assessing the resources required for such a service.*

Key words: *prevalence, malocclusions, children.*

Malocclusion is defined as a irregularity of the teeth or a malrelationship of the dental arches beyond the range of what is accepted as normal [23]. The importance of performing epidemiological studies in order to obtain knowledge the prevalence of malocclusions among populations is evidenced as a need for orthodontic treatment increases. These estimations are crucial for planning an orthodontic care service as regards human and financial resources and also for monitoring the oral health programs offered [6].

According epidemiological data, malocclusion take the third place among oral pathologies after dental caries and periodontal diseases. It is therefore in the third position of the scale of priorities as to the dental problems of Global Public Health, according to WHO [12]. Some developing malocclusions with the age may be self-corrected. It is necessary to carry out epidemiologic studies of malocclusion in all regions at different age groups to grade the severity of malocclusion according to the respective age groups [16].

Malocclusion have a multifactorial origin and can hardly ever be attributed to a single specific cause. Occlusion expression is the result of genetic and environment component. A wide number of factors are implicated in the development of malocclusion and can have significant physical and psychological effect on the affected individual

owing to poor esthetic appearance, impaired oral function, frequent dental caries, speech difficulties, temporomandibular joints disorders, traumatic occlusion, and periodontal pathologies [11].

The study was conducted based on the search of review articles deposited in international scientific databases (Scopus, Google Scholar, Pubmed). The search strategy was elaborated taking into consideration the index of citation of concrete articles. Screening and selection of articles was performed according to actuality of topic and incidence of diseases.

The prevalence of malocclusions depends on ethnic group, age-range, and diagnostic criteria [4]. As a part of cross-sectional study to establish the prevalence of malocclusions a dental examination was conducted with children between 5 and 15 years old from Colchale (Chili). It was revealed that prevalence of malocclusions was 81.6 %. Such high index the authors explained by environment factors and high levels of poverty. The influence of changes in lifestyles among the observed children (e.g. nutritional factors and availability of processed food) also explained the high levels of oral damage). According to the characteristics of the malocclusion, Class I was the most frequent in the different stages of dentition – 67%. The highest frequency of Class III in mixed dentition second phase has a frequency of 9%. Crossbite was observed in 36.5% of the examined persons [19].

Another study comprised 10-16 year-old patients from seven different schools in Karnataka (India). It was established that the prevalence of malocclusion in boys was 50.5 % of crowding, 6 % of midline diastema, 17.8 % of cross-bite, 27.4 of increased overjet and 56,4 of deep bite. The prevalence of malocclusion in girls was 51.4 % of crowding, 5,2 % of midline diastema, 6.3 % of cross-bite, 24.7 of increased overjet and 56.4 of deep bite. Boys presented the high number of Class II and Class III malocclusion [17]. The group of investigators estimated the need of orthodontic treatment in 7-16-year-old schoolchildren from Udaipur city (India). It was established that 51.6 % of examined children had malocclusions. Authors used Index of Orthodontic Treatment Need (IOTN) to reveal in details the frequency of malocclusions. A definitive treatment need (Grades 5 and 4) was prevalent in 184 subjects, of which Grade 4 was noted in 133 children (12.9 %) and Grade 5 in 51 children (5.0 %). Grade 3, which corresponds to a moderate treatment need, was prevalent in 111 subjects (10.8 %). Approximately 22.9% (236) of the children had little need of orthodontic treatment (Grade 2). The prevalence of no need of orthodontic treatment (Grade 1) was seen 48.8% of the overall population [22]. Examination of 400, 12-15-year-old schoolchildren from Thiruchengode (India) showed that there were 69.8 % with Class I, 24 % – with Class II/2, 2.8 % – with Class II/2 and 3.5 % – with Class III. Crowding was estimated in 52.5 %, mandibular irregularity – in 43.7 %, deviation from the normal molar relationship (34.5 %) and maxillary irregularity (34 %) [10].

From 1000 patients between 15-30 years (500 males and 500 females) that visited Kabul Stomatology hospital OPD department (Afghanistan) 81.2 % were suffering from malocclusions, among which Class I malocclusions was recorded to be 49 %, Class II division 1 was 14.8%, Class II division 2 was 8.2 %, Pseudo Class III – 3.1 % and Class III

malocclusions was recorded to be 6 %. Class I malocclusions was the most prevalent [7].

During another studying were selected 2.974 of 3-6 years old from Xi'an city (China) using a stratified cluster sampling for assessing the frequency of malocclusions. The frequency of malocclusions among examined persons was 66.31 %. The most common type of malocclusion was increased overjet (34.99 %) in the sagittal direction, deep overbite (37.58 %), and midline deviation (25.32 %) in the vertical and transversal directions, respectively. The prevalence of posterior crossbite, anterior crossbite, and anterior open bite was 7.56, 6.80 and 6.98 %, respectively. The prevalence of the anterior edge-to-edge occlusion was the lowest (2.46 %). On the basis on the own investigation the authors made a conclusion that due to high indices of prevalence of malocclusions in primary dentition early attention to the development of occlusion and necessary interventions towards its influencing factors are important to reduce its prevalence and further adverse effects [21].

A group of authors assessed the prevalence of malocclusions and its impact on oral health-related quality of life among early adolescents in Ndola, Zambia. Examination of 384 primary schoolchildren aged 12-14 years showed that the overall prevalence of malocclusions was 27.9 %. A greater proportion of males (33.7 %) were affected by malocclusions than females (22.8 %). The prevalence of malocclusions was statistically significant in relation to sex, but not significant in relation to age. The most prevalent malocclusion was spacing (10.9 %) followed by diastema (9.9 %) and crowding (7.6 %) and the least prevalent was missing teeth in maxilla (0.5 %). This study estimated not only the prevalence of malocclusions and establishes their negative association with oral health-related quality of life among early adolescents. Age, sex, spacing, crowding and diastema were significantly associated with higher impact on oral health-related quality of life [20].

A cross-study was conducted at Abna, Saudi Arabia. As a result a total of 1998 Saudi citizens (998 males and 1000 females) of mean age 14,13 years were randomly selected. Students undergoing orthodontic treatment or with history of previous orthodontic treatment, previous history of permanent teeth extraction, and craniofacial deformities or syndrome were not included in the sample. It was established that Class I molar relationship was observed in 61 % of the total sample, while Class II and III molar relationships were observed in 16.3 % and 7.7 %, respectively. Class I-III canine relationships were seen in 62.8 %, 11.6 % and 5.6 % of the sample, respectively. Normal overbite was found in 74.6 % cases, while 75.8% had normal overjet. The most prevalent malocclusion trait was crowding (26.6 %), followed by spacing (20.6 %), increased overjet (19.5 %), increased overbite (19.4 %), posterior crossbite (8.5 %), and anterior open bite (6.1 %) [3]. Using a simple randomization method, 520 Saudi participants between 7 and 12 years from Ha'ili city were recruited. Class I relationship was the most prevalent (70.4 %) followed by Class II (21.3 %), while Class I incisal relationship was the most prevalent (72.5 %) followed by Class II (19.8 %). The prevalence of different malocclusion traits was abnormal overjet (28.8 %), abnormal overbite (16.2 %), anterior open bite (7.7 %), anterior cross bite (5.2 %), and posterior crossbite (13.3 %). Crowding

was the most prevalent malocclusion trait, followed by spacing and overbite [2]. To evaluate the prevalence of malocclusion and its association with deleterious oral habits there were examined school children from 9 to 11 years old from Sanaka region of Saudi Arabia. The investigators revealed that 46 % of the examined children had normal occlusion. Deleterious oral habits which are deemed to be prevalent in 79.2 % of children evaluated in the study. The highest prevalence was seen for thumb sucking which was common in more than 70 % of the subjects and the lowest prevalence was for nail biting which was commonly in only 9 % of the subjects. The habit of mouth breathing was seen among 21 % of study population and the results were significantly higher [1].

Another study was done to explore the prevalence of malocclusion and determine the differences of malocclusion status in gender among 12-15-year-old schoolchildren from three sectors of Karachi (Pakistan). According to obtained data in this study only 7.7 % had normal occlusion. Hence the prevalence of malocclusion came out quite high and the most predominant was Class I malocclusion (59.9 %). Class II malocclusion revealed in 22.3 % (division 1) and 4.5 % (division 2). The prevalence of Class III was 10.2 %. Overjet in this study was found to be normal (2 mm) in 58.4 %, excessive (>3 mm) – in 26.6% and reduced – in 15.6 % without any significant gender difference. Overbite greater than 2 mm was observed in only 21.8 % of the subjects. The prevalence of diastema was found to be 21.4 % without any statistically significant gender difference. Crowding in present study was 57.2 % with no gender dimorphism. Anterior crossbite was observed in 8.5 % [15].

During the clinical evaluation of 3380 children of 5-12 years old from Araraquara (Brazil) was revealed that 80,29 % had malocclusion, being more prevalent in females (81.34 %) from 9 to 12-year-old (85,52 %). The most prevalent dental relationship was Class I (63.27 %). Standart I was the most found facial pattern (92.87 %). The predominant inter-arch malocclusions were deep bite and anterior open bite, and the most prevalent intra-arches occlusal changes were spacing and rotations. The Angle classification, seen as key in the diagnosis of malocclusion, presented in the sample, a high incidence of Class I, present in 63.28 % of cases of malocclusion, followed by Class II with 25.66 %, and smaller numbers, Class III which was found in 1.59 % of cases. In the remaining 9.47 % of cases of malocclusion it was not possible to fit them in the Angle classification because the first permanent molars were not fully erupted [5]. Other investigation of 407 schoolchildren aged 9 and 12 year from Nova Friburgo (Brazil) showed that one third of the population has a definite need for orthodontic treatment. Among all children 29.7 % had increased overjet, 3.9 % – reverse overjet, 45.5 % – contact point displacements, 14.5 % – open bite, 10.8 % – increased overbite, 33.7 % - crossbite, 6.6 % – tooth absence, 0.7 % – supernumerary teeth, 12 % – partially erupted, tipped or impacted teeth, 7.4 % – impeded eruption of teeth, 5 % – submerged deciduous teeth [6].

The group of investigators carried out clinical examination of 113 children aged 3-8 years from Spain. As for prevalence of malocclusion, it was found that 34.5 % of children presented molar Class II, followed by increased overjet (33.6 %), crossbite (10.6

%), anterior open bite (9.7 %), and molar Class III (7.1 %). As for oral anomalous habits the study found 15 % with lip interposition, 11.5 % with a tongue thrusting habit, and 7.1 % with oral respiration. The most common non-nutritive habit was pacifier sucking with a frequency of 43.5 % up to the age of 2 years, followed by nail-biting (29.6 %), bruxism (27.9 %), snoring (23.1 %), pacifier sucking beyond the age of 2 years (22.2 %) and thumb sucking (9.3 %) [9].

Group of investigators determined the prevalence of orthodontic treatment need using DHC of IOTN and identify the prevalence of malocclusion in a group of 8–9-year-old schoolchildren in the South of Thailand. Normal occlusion was found at 6.43 %, Class I malocclusion, Class II division 1, Class II division 2, and class III were observed in 78.71 %, 7.92 %, 3.47 %, and 3.47 %, respectively. Among children who presented both the upper and lower incisors, normal overjet (0–3.5 mm) was found at 46.37 % and normal overbite (0–3.5 mm) was found at 50.26 %. Anterior crossbite which had discrepancy between retruded contact position and intercuspal position at >2 mm was found at 6.15 %, 4.62 %, and 8.21 %, respectively. Most of the children had no transverse problem (96.53%). Supernumerary tooth, impeded eruption, and hypodontia were rarely found (<1.50 %). One-fifth of children fell into DHC (Dental Health Component) of IOTN (The Index of Orthodontic Treatment Need) Grade 5 (1.49 %) and Grade 4 (18.81 %). Orthodontic treatment need at DHC of IOTN Grade 1 and 2 (no need and very little need) was found at 26.73 % and 30.20 %, respectively. Most of children in DHC of IOTN Grade 4 and 5 had only one highest DHC problem, 89.13 % and 89.47 %, respectively. Approximately one-thirds of children in DHC of IOTN Grade 2 (34.43 %) had two highest DHC problems. The DHC of IOTN Grade 5 was found in three cases which came from the increased overjet >9 mm [14].

Scientific investigators from Georgia revealed that from 500 children of 6–15 years old (316 females and 184 males) 69.3 % had malocclusion. Normal occlusion was found in 30.7% of subjects. Malocclusion is more often than other anomalies of teeth. It was especially high in the crowding teeth (24.7 %). Crowding of teeth was often found in the upper dental arch. Also was detected high anomalies of teeth spacing. Anomalies were recorded in equal numbers between boys and girls. The study revealed that such anomalies cause many social and functional problems [18].

To provide quantitative data about the prevalence of malocclusions in the Shiraz orthodontic population, there were studied the records of 700 patients (391 girls and 309 boys) aged 6–14 years attending the undergraduate Department of Orthodontics at Shiraz University of Medical Sciences. The prevalence of Angle class I, II and III malocclusion of first molars was 52.0 %, 32.6 % and 12.3 % respectively. Skeletal class I, II and III malocclusion was found in 18.0 %, 70.0 % and 12.0% respectively. There were no significant differences between the sexes in the prevalence of different types of skeletal malocclusion. Children with class III were significantly younger (mean age 8.9 years) than those with class I (9.6 years) or class II (9.7 years) malocclusions. The growth pattern was normal in 24.0% of children, vertical in 56.6 % and horizontal in 19.4 %, and there was no significant difference in growth patterns between the sexes.

The prevalence of large overjet was 30.0 % and negative overjet was 18.0 %. The rate of overjet was significantly higher in boys than girls. However, there were revealed no significant differences in the prevalence of different overbites between the sexes. Crossbite was found in 36.0 % of the sample (17.0 % anterior and 19.0 % posterior crossbite). Oral habits were noted in 17.0 % of patients, including thumb sucking in 9.2 % and lip biting in 2.0 %. No significant difference was found in the prevalence of crossbite or oral habits between the sexes [13].

Epidemiological studies of malocclusion frequency in different regions in Ukraine show great variability, which ranges from 30.8 to 85.4 %. It was examined 700 children of the 1st group of health and 460 patients of 2nd group of health, living in Uzhhorod [25]. In the first examined group maximum value of malocclusions prevalence was established in the early period of mixed dentition – 43.45 ± 2.21 %. Next, the prevalence in the late mixed dentition was 40.62 ± 2.36 % and in the period of permanent dentition – 34.44 ± 2.27 %. In the second examined group the maximum value of malocclusions prevalence was established in the early period of mixed dentition – 43.45 ± 2.21 %. The prevalence in the late mixed dentition was 40.62 ± 2.36 % and in the period of permanent occlusion – 34.44 ± 2.27 %.

A retrospective study analysis of 2236 outpatient dental cards of urban and rural patients with orthodontic pathology from Sumy city and Sumy region showed that anomalies of individual teeth and dental arches dominated in all age groups (71.24 %). Among the occlusion anomalies, a large part falls to Class II anomalies according to Angle's classification (19.18 %). A third part of these patients have a neutral type of lower jaw growth [8].

A group of Ukrainian scientists learned the prevalence of dental anomalies and improve the organization of preventive work among schoolchildren aged 14–15 years. A total of 268 children and adolescents were examined: 122 boys (45.5 %) and 146 girls (54.5 %). In the structure of the types of pathological occlusion the most common was deep bite (38.0 %), in second place was the cross bite (28.8 %), 20.4 % was the distal bite, 7.3 % – straight occlusion, 3.3 % – open bite, 2.2 % – mesial occlusion. In 74.0 % of children there was a deformation of the dentition. The most common (46.0 cases per 100) – deformations of the lower dental arch, in 28.0 cases per 100 – the upper upper dental arch. In 58.0 % of children there was a congestion of teeth, in 23.4 % of cases there were spaces between teeth, and in 18.6 % – diastema. The most frequent was crowding of teeth, observed in the frontal part of the lower jaw (44.4 cases per 100 examined), and in girls it was recorded significantly more often. Less often – in the frontal part of the upper jaw (16.1 per 100 examined). Other localizations of this pathology were rare [25].

To study the prevalence of dental anomalies, 600 children of 3–12 years old from Ivano-Frankivsk region were examined. According to the results of the study, it was found that in children at the age of 3–5 years the pathology of attachment of frenulum was observed in 7.8 % of the examined children, 4.4 % of children with abnormalities of position of individual teeth, anomalies of form of dental arches – 5.9 %; the prevalence of distal occlusion was 9.3 %, mesial occlusion – 2.9 %, open bite – 5.9 %, deep bite –

5.9 % and cross bite – 3,4 %. It was found that at the age of three years the prevalence of distal and open bite was significantly higher due to the presence of bad habits, especially sucking and biting objects, and at the age of 4-5 years occurs redistribution towards mesial, deep and cross-bite, which can be associated with a high prevalence of carious process, loss of crown parts of teeth, premature removal of deciduous teeth. At the aged 6-9 years were found to be high indicators of the prevalence of anomalies in the position of individual teeth, anomalies in the shape of the dentition and distal occlusion, and in children. At the age of 10–12 years, the highest rates of anomalies in the position of individual teeth, anomalies in the shape of the dentition and distal occlusion [24].

Another research of prevalence of dental anomalies made it possible to establish that the prevalence of dental alveolar anomalies in sub-sprouts 16-17 years old is 64.32 ± 1.09 % – 1235 man. The most common tooth anomaly jaw system are dentoalveolar anomalies, Class I – 506 people, which is the percentage is 26.35 ± 1.01 %. On the second place is the distal bite, which corresponds to Class II. Its prevalence is 18.23 ± 0.88 %, and it was detected in 350 patients. The next in frequency was marked by a deep cousin in 189 patients, which was 9.84 ± 0.68 %. More rare variants of the pathology of the dentition there were mesial, open and cross bites. As for the cross bite, this pathology was recorded in 4.84 ± 0.49 % (in 93 patients). Mesial bite, which corresponds to Class III, identified in 58 examined - 3.02 ± 0.39 % of cases. An open bite was diagnosed in 39 examinations which is 2.03 ± 0.32 % of cases [26].

Conclusions. The epidemiological situation of the population is important for planning and implementation of preventive dental services and treatment. Only with substantial data, which represent the actual occlusal condition of the population, which makes it possible to implement public policies focused on prevention of malocclusions and not just on the corrective treatment.

So, according to abovementioned data of investigations the demand for orthodontic treatment is increasing in most countries. Therefore, rational planning of orthodontic measures on a population basis is essential in assessing the resources required for such a service. This underlines the importance of epidemiological studies in order to obtain knowledge about the prevalence of different types of malocclusions and the need for orthodontic treatment in different countries and in different regions of one country.

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