EDITORIAL TEAM

REVISTA

AMAZON1A

Investiga

December 2022, Vol. 11 Num. 51

CONTENIDO

The efficacy of the CABRI 3D program in increasing academic achievement in mathematics of middle students in Arar City

فاعلية برنامج CABRI 3D في تنمية قدرات التفكير لدى مقرر الرياضيات لطلاب المرحلة المتوسطة بمدينة عرعر

Written by:
Ayed A. Al-Ruwaili[1]
https://orcid.org/0000-0003-4811-0770

Abstract

The present research aimed to investigate the efficacy of the CABRI 3D Program in increasing the academic achievement in mathematics of middle school students in Arar city, Northern Border Region. Through its general objective, the study sought to answer the following key question: Are there statistical differences in the academic achievement in mathematics of the members of the study sample as a result of the implementation of the CABRI 3D Program? Methodology and research methods. The study sample consisted of (70) junior high school students in public schools in Arar city. The sample was distributed randomly between a first control group of (36) students and a second test group of (34) students, who learned using the CABRI 3D Program. After conducting the study, all arithmetic means were extracted, along with the standard deviations of the overall scores of the individuals in the sample, Results, and scientific novelty. The results of the study indicated that the students in the test group on whom the CABRI 3D Program was implemented had better direct and deferred academic achievement than the students in the control group who learned in the traditional way.

Keywords: CABRI 3D Program; Teaching Mathematics; Intermediate Education; Retention of Course Content.

المستخلص

هدفت هذه الدراسة لقياس فاعلية استخدام برنامج CABRI 3D في زيادة التحصيل العلمي لمقرر الرياضيات، لطلاب المرحلة المتوسطة بمدينة عرعر بمنطقة الحدود الشمالية، حيث سعت الدراسة من خلال الهدف العام إلى الإجابة عن التساؤل الرئيس التالي: هل توجد فروق إحصائية في التحصيل العلمي لأفراد عينة الدراسة لتعليم مقرر الرياضيات من خلال تطبيق برنامج CABRI 3D لتعليم الرياضيات، وتكونت عينة الدراسة من (70) طالباً من المرحلة المتوسطة بمدارس التعليم العام الحكومي بمدينة عرعر، حيث تم توزيع العينة بطريقة عشوائية إلى مجموعة ضابطة مكونة من (36) طالباً، والمجموعة الثانية تجريبية تعلمت باستخدام برنامج CABRI 3D، مكونة من (34) طالباً، وبعد تطبيق الدراسة، تم استخراج كافة المتوسطات الحسابية وكذلك الانحرافات المعيارية للعلامات الكلية لأفراد العينة، حيث أشارت نتائج الدراسة إلى أن طلاب المجموعة التجريبية الذين تم تطبيق برنامج الحاسوب CABRI 3D عليهم، كان تحصيلهم الدراسي المباشر والمؤجل أفضل من طلبة المجموعة الضابطة الذين تعلموا بالطريقة التقليدية، كما أوصت الدراسة بضرورة ضرورة تعميم برنامج الحاسوب CABRI 3D، على تدريس مقرر الرياضيات لطلاب المرحلة المتوسطة، مع إجراء المزيد من الدراسات التي تدرس أثر استخدام وتطبيق برنامج CABRI 3D، في تعليم الرياضيات من أجل زيادة التحصيل الدراسي لكافة طلاب المراحل التعليمية (الابتدائية، الثانوية)، وضرورة تدريب أعضاء الهيئة التدريسية بالتعليم العام، لتخصص الرياضيات على استخدام برنامج CABRI 3D، وضرورة توظيف البرنامج لكافة التطبيقات الهندسية في تعليم مقرر الرياضيات.

الكلمات المفتاحية: برنامج CABRI 3D، تعليم الرياضيات؛ التعليم المتوسط؛ التحصيل الدراسي.

[1] Associate Professor of Curriculum and Instruction in Mathematics College of Education and Arts, Northern Border University, Kingdom of Saudi Arabia.

Introduction

Due to the technological progress in various fields, the use of computer software to support education has become a necessity of modern education (Momani, 2013). The use of computer applications and software is not limited to one area per se. Rather; they have been used in various fields (Stultz, 2013). This study seeks to use one of the computer applications and software, namely the CABRI 3D Program, in the field of education, particularly on the middle school mathematics curriculum, when students are involved in technologies that move away from traditional education (Karakus, 2018), which relies on rote learning, thus enhancing the level of academic achievement. Indeed, the CABRI 3D Program is effective in helping students increase their academic capabilities, retain information, as well as develop their ability to gather, use and present information creatively, thus enhancing the student's self-confidence in what he/she produces and presents to others (Abu Sarah, 2018).

The CABRI 3D Program is a mathematics program. Specifically, it draws three-dimensional models (geometry of space) (Abdullah, 2015), through which one can benefit from the program in all primary, intermediate and secondary and even university stages of education (Al-Shammari, 2018). Indeed, by using this program, we can manipulate three-dimensional objects, drawing most types of models with curved surfaces, such as a ball, cone, cylinder, and multi-sided shapes such as a pyramid, cube and prism (Bani Yassin, 2013). What distinguishes the program is the ability to move and rotate the shape and change the angle of view to examine it from all directions (Bütün & Karakus, 2021).

Study Problem and Questions

The study problem is that it seeks to determine one of the key scientific aspects by applying a computer program to increase the academic achievement in mathematics course of students, as there are no previous studies on this field, specifically middle school students in the Northern Borders Region. In addition, the application of the CABRI 3D Program is considered an important field for measuring the academic achievement of students who use it to study mathematics. For this reason, the study sought to measure the effect of using the CABRI 3D Program on increasing academic achievement by answering the following key question:

− Are there statistically significant differences in the academic achievement in mathematics attributable to the use of the CABRI 3D Program between the members of the study's test group and the members receiving traditional education?

Significance of the Study

Since mathematics coursework is related to public life, many researchers were keen to study its aspects, and determine whether there was a need for such a study at all stages of education. Indeed, it is conducted on the middle school stage, due to the ability of the computer software learning strategy to make the learner active, effective, and able to access all information while acquiring facts, skills, and processes, and due to the lack of local studies on the subject of the study. Therefore, there is a clear and real need to investigate the impact of using the CABRI 3D software application on increasing the academic achievement of middle school students in Arar city.

Study Objectives

The study specifically aims to:

− Measure the effect of implementing the CABRI 3D Program on increasing the academic achievement in mathematics of middle school students in the schools of Arar city in the Northern Borders Region.
− Reach firm results on extracting statistical results about the extent of the impact of implementing the program, and disseminating the results to all middle schools in the Northern Borders Region.

Scope of the Study

The study focused on studying the impact of implementing the CABRI 3D Program on increasing academic achievement. Indeed, a sample of (70) (male and female) middle school students was selected from two

largely similar schools in Arar city, and the study was conducted during the first semester of the 2021-2022 academic year.

Study Terminology

1.5.1 Teaching Using the CABRI 3D Program: A set of procedures presented by the educational program to the learner for the purpose of explaining the geometry unit, particularly geometry of space and its application (Okumus & Hollebrands, 2016).

1.5.2 Academic Achievement: The progress made by the student in achieving the objectives of the subject studied, which is measured by the grade he/she earns on the achievement test (Abu Lum, 2003).

Theoretical Framework

Using computers in the educational process

In light of the great knowledge revolution that has taken place in our age, computers had to be used in order to make it easier for those working in this field to store information, then retrieve it easily at any time. In addition, computers are relatively cheap given the significant benefits that one derives from using them, particularly in the field of education. All of the foregoing supported the trend towards increasing the quality of education provided to students and breaking the routine of daily education based on the method of rote learning (Al-Balawi, 2015). The computer has been a great tool for both teachers and students, in terms of the quality, enjoyment, and efficiency of the educational process using various computer programs. Computer use has resulted in increased academic and cognitive achievement among the students. In addition, computer software is easy to use for all age groups Accascina & Rogora, 2006).

Motivations for using computers in the educational process

The use of computers in education is considered an efficient and highly effective method. It can help in the development of education by introducing countless study methods. It can also help students develop many skills that will help them in their careers (Ardiç, & Isleyen, 2017). Below are the most prominent motivations for using computers in education, which include improving efficiency thus allowing the use of computers in education to develop innovative teaching plans, which help keep students engaged. They also help promote the capability of individualized learning. This is in addition to the ease of extracting new information. Moreover, computer learning can increase students' sense of comfort and connection as they get closer to pursuing their careers (Guven, 2008). All of this increases efficiency in the educational system, thus helping both the student and the teacher. Indeed, students can now have their lessons when it suits them. The use of computers in education has also helped teachers save time when planning lessons, assessing students, correcting homework, providing feedback, and performing administrative and other paperwork (Qarawani, 2012).

This is in addition to the improvement in the skills that help when using computers in education to refine and develop the students' skills through the computer techniques and programs that are used and interacted with during the study stages. Indeed, the development of skills is often related to the field of programming and computer techniques, whereby computer use increases students' confidence in their ability to learn to use new tools that will support their learning in many fields (Mowafi, 2013).

Obstacles to the use of computers in education

 However, many obstacles red the use of computers in the educational field. These obstacles vary from one area to another (Stultz, 2013), depending on the conditions of the educational area. They can be summarized as follows: The high cost of purchasing computers and using the Internet in schools, particularly in developing countries, as well as the mentality of some teachers, who believe that lectures and rote memorization are the best methods of learning the academic subject and curriculum to be taught to students. The spread of viruses on the internet and fear of their consequences are also a hindrance (Sharman & Amal, 2015), as well as the financial aspect if the computers are damaged due to infection by a virus. Moreover, sitting in front of a computer screen for a long time may affect the physical and mental health of its users.

The CABRI 3D Program

It is a mathematics program used specifically to draw three-dimensional 3D models (geometry of space) (Harasiya, 2008). We can benefit from the program at all academic stages: Primary, intermediate, secondary, and even university studies. Indeed, through the use of this program, we are now able to manipulate three-dimensional objects; draw most shapes with curved surfaces, such as a ball, cone, cylinder, and multi-sided shapes such as a pyramid, cube, and prism; move and rotate the shape; and change the viewing angle to examine them from all directions as though you were holding that shape with your hand (Guven et al, 2009).

The CABRI Program technology was designed in the research laboratories of the French National Center for Scientific Research and the Joseph Fourier University in Grenoble. The project began in 1985 (Khalil, 2006) when Jean-Marie Laborde began making learning two-dimensional geometry easier and more interesting (Okumus & Hollebrands, 2016).

The Program is specialized in teaching geometry. It is the first accredited software produced from a series of dynamic or moving geometry software and is considered the most common and widely used. This program is capable of making radical changes in the field of teaching geometry and mathematical proofs due to its enormous potential. The CABRI 3D program provides the student with a geometry environment through which he/she can create geometric shapes, and perform various measurements enabling him/her to obtain a continuous series of measurements or shapes without the need for reconstruction or measurement each time (Al-Shammari, 2018). It also enables the student to see mathematics as a moving system and helps him/her to get infinite examples of the drawn shape instead of a single static mental image. The student can view the geometric shapes as models that he/she views from all sides and thus become more familiar with the visual issues. This is done in a very short period of time as compared to the time the student would need to identify some of these examples using paper-based methods (Bani Yassin, 2013). The program also has great potential for teaching, learning, and strengthening the student's ability to visualize and model physical structures and movement (Momani, 2013). There are three tasks that strengthen the link between the visual and geometric methods in the program, namely:

− Moving from the verbal description of the geometric shape to draw.
− Explaining the drawing method using geometric concepts, which correspond to the transition from drawing to verbal description.
− Copying the drawing or converting the drawings using geometry.

 The potentials of this program can be summarized as follows (Kepceoglu, 2018):

− It permits the construction of points, lines, triangles, polygons, circles, solids, and other basic elements.
− It allows for retraction, zooming in, zooming out, and rotation of geometric objects around specific axes or specific points as well as reflection and symmetry.
− It allows for easy creation of conic sections, including ellipses, hyperbolas, and parabolas.
− [It offers] the possibility of specifying a measurement for lengths and angles and calculating the perimeter, area, and volume of shapes.
− Finding the operations on vectors.
− It handles with both Cartesian and polar coordinates.
− It displays equations for lines and segments, as well as the coordinates of points.
− It allows the teacher to create lists of tools if he/she wants to focus only on the activities of a specific lesson.
− It tests geometric properties to test hypotheses based on Euclid's five postulates.
− [It] hides the items used in construction to tidy up your desktop.
− It highlights objects through the use of colors.
− It defines the geometric location on an ongoing basis.
− It enables the student to visualize the dynamic characteristics of the shapes through movement.

Basic and Flat Geometric Shapes in the CABRI 3D Program

The CAPRI 3D program is characterized by drawing shapes in the second dimension, but the geometric shapes in the second dimension look different from their natural form (Hussein, 2017), because the program

is designed for three-dimensional shapes, but it allows them to be made in the second dimension. The program also executes some basic and flat geometric shapes such as a circle (oval shape), polygon, sphere, cone, prism (3D), pyramid, and cylinder (Kepceoglu, 2018).
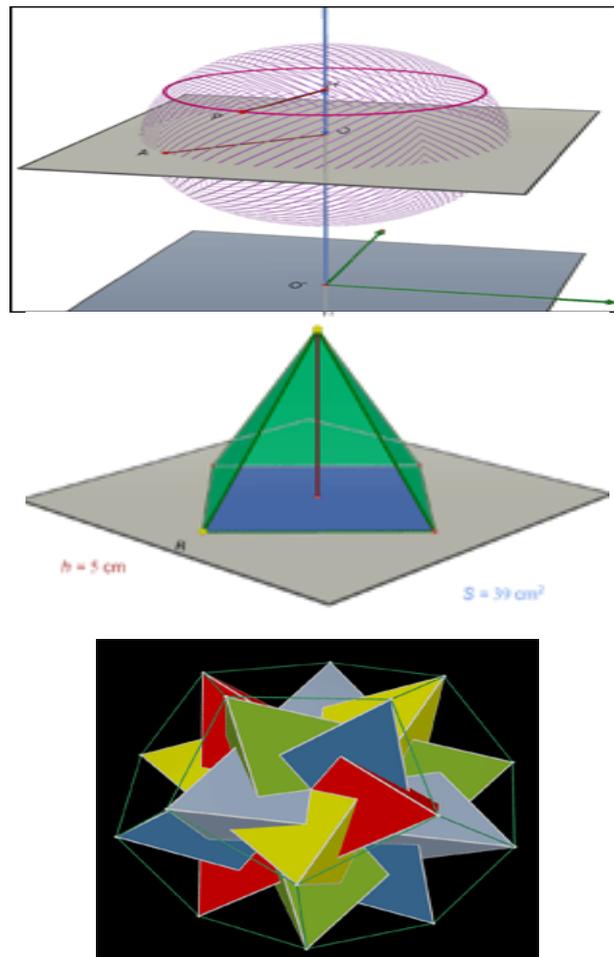
(These graphs and figures have been manifested by the author and under his authorship)

Literature review

(Al-Mahrazi & Al-Darwani, 2016): This study aimed to identify the effect of teaching solid geometry using the CABRI 3D Program on the geometric thinking and spatial awareness of eleventh-grade students in the capital city of Sanaa. To achieve this, a teacher's guide for teaching solid geometry using the program was developed. This was done by formulating the solid geometry measurement unit using the program. The study sample consisted of (89) eleventh-grade students who were selected at random and divided into two groups: (44) students representing the test group and (45) students representing the control group. The test group was taught the solid geometry course using the CABRI 3D Program, while their classmates in the control group were taught the same course without using the program. At the end of the trial, the levels of both groups were measured according to the geometric thinking scale after verifying its reliability and validity. The ready scale was also used to measure the spatial awareness of the topics after verifying their suitability to the Yemeni environment and its measurement characteristics. The data was statistically calculated using the SPSS Program used by the Anova researchers to provide the degree of variance as well as t-test. The results showed that teaching of solid geometry using the CABRI 3D Program developed the students' geometric thinking and spatial awareness.

(Hussein, 2017) This research aimed to explore the efficacy of dynamic geometry (CABRI 3D) programs in teaching geometry of space in high school in the areas of geometric thinking and attitude towards mathematics. The research used the quasi-experimental method with a sample of (50) male and female high school students distributed equally between the test group and the control group. The test group learned

using CABRI 3D, and the control group learned using the normal teaching strategies with the pre-test - post-test (Van Hiele test, the placement on the mathematics scale, attainment test), The results showed that the sample was at the third level of the Van Hiele scale and that there was efficacy with the CABRI 3D Program in teaching geometry of space in high school, while there was no efficacy in geometry of space, geometric thinking and attitudes towards mathematics.

(Hartatiana & Nurlaelah, 2018) The study aimed to measure students' abilities that can facilitate their understanding of geometry concepts, namely the ability to think spatially. Spatial thinking ability can be defined as an ability that involves a person's cognitive processing to provide and process spatial shapes as well as the relationship and forms of the shape. The research seeks to discover the difference in the spatial thinking ability of students who have been given model extraction activities using CABRI 3D (MEAC) and those who have been given model extraction activities using only (MEA) to use a quasi-experimental design in this research, which included a sample of 143 high school students. The study found that students who were given model extraction activities using CABRI 3D had better spatial thinking ability than those who were given model extraction activities. The research also suggests that mathematics teachers implement the instructions using model extraction with CABRI 3D.

(Okumus & Hollebrands, 2016) The study was issued by the North America Branch of the International Group for the Psychology of Mathematics Education, via a paper presented at the Annual Meeting of the North America Branch of the International Group for the Psychology of Mathematics Education (38, Tucson, Arizona, November 3-6, 2016). The methods in which two high school students formed three-dimensional objects were analyzed from the rotation of two-dimensional shapes. The students participated in a task-based interview using paper and pencil. The results indicated that they had difficulty using paper and the pen to rotate the two-dimensional shapes and form three-dimensional objects. The difficulty in thinking about rotation arose in a two-dimensional context. Although the use of processors helped them think about three-dimensional problems, they still had difficulty representing the three-dimensional objects correctly. However, the students were able to link the courses applied to the two-dimensional shape to the three-dimensional object produced using the CABRI 3D software.

Methodology

Study Population and Sample

The study population consisted of a regular random sample of middle school students in public schools in Arar city. The sample consisted of 70 male and female students, with (34) students in the control group and (36) students in the test group.

Study Methodology and Tools

The researcher applied the criteria of the experimental method, which relies on a systematic method used by the researcher to study specific facts through experimentation, interpretation, control, and prediction of the future outcome. The researcher used two tools for the study, namely:

The CABRI 3D software.

The Attainment Test: After analyzing the content of the mathematics unit, an achievement test for geometry skills was built, and the validity of the test was approved through the researcher's work to build the test and through what was presented to the arbitrators. The test was applied in its final form to find stability using the test-retest method, and the Pearson correlation coefficient was extracted. Its value was (0.87), which is an appropriate value to begin conducting the study.

Statistical Processing

After applying and implementing the study procedures, the arithmetic means, standard deviations, and percentages of the total scores of the study sample members were extracted.

Results and Discussion

The text of the key question of the study: Are there statistically significant differences in the academic achievement of the members of the test group and the members of the traditional teaching group in the subject of mathematics, due to the method of learning through the application of the CABRI 3D program? To answer this question, the arithmetic means and standard deviations of the test group's post-test were calculated, according to Table No. (1).

Table 1.
Arithmetic Means and Standard Deviations of the Overall Scores of the Members of the Post-Test [As Compared to] the Students in the Test Group.

Strategy	Means out of (20)	Standard Deviation	(t) value	(f) value
The strategy of using the CABRI 3D	15.12	3.28	0.269	1.220
Program on the students in the test group	Pre-test = 10.67	n= 22		
The strategy of using the traditional method (control)	12.06	3.97	0.763	1.06
	Pre-test = 9.77	N=18		

(This Table has been manifested by the author and under his authorship)

It is noted from Table (1) that the arithmetic means of the overall score of the students in the test group on the post-test was 15.12 out of 20, i.e. 75.6%, with a standard deviation of 3.28 points. In contrast, the arithmetic mean of the overall score of the students in the control group on the same test was 12.06 out of 20, i.e. 60.3%, with a standard deviation of 3.97 points. This descriptive result means that there is a clear difference of 3.06 points, or 15.3%, between the mean overall scores of students on the post-test. This indicates that there is a processing effect on the academic attainment of the members of the study sample, and these differences favor the test group that used learning through the CABRI 3D program.

The results of the study indicated that the students in the test group on whom the CABRI 3D software was applied, had better direct and deferred academic achievement than the students in the control group who learned in the traditional way. In light of this result, it is possible to say that the learning strategy of implementing the CABRI 3D program outperformed the traditional method in terms of direct and deferred academic achievement by students on mathematics. The result can be attributed to the great ability of the CABRI 3D learning strategy to make students active and effective while acquiring skills and information in educational settings that provide engagement, competition, reinforcement and excitement. Indeed, CABRI 3D software takes into account the students' capabilities, and enables them to learn according to their abilities, by having them choose the difficulty level and speed that suit them.

In addition, the CABRI 3D software includes a huge collection of drawings, shapes and colors in educational settings that enable significant academic achievement, and information retention, thus making them active and effective, and igniting the spirit of competition and persistence in them, which enables information retention for a longer period of time, contributes to successful learning, and increases the efficiency of academic achievement.

Conclusions

The study points towards confirming the conclusion of the study objectives according to the following:

The researcher concludes that there is a significant increase in the academic achievement of school students in Arar city, where the results of the direct study indicated that the students of the experimental group, which is the group to which the CABRI 3D computer program was applied, had better direct academic achievement than the students of the main control group who learned in the traditional way. Based on that, a direct conclusion can be reached that the use of the learning strategy through the application of the CABRI 3D program has effectively outperformed the traditional method through learning with the CABRI 3D computer program, and the researcher believes that this is directly due to the great ability of the program to provide students In the experimental group of educational skills and situations that have the ability to

achieve academic achievement, in addition to the competition, reinforcement and suspense, as the CABRI 3D computer program takes into account individual differences, students' abilities, and the level of educational difficulty. The program also facilitates the ability to present a variety of graphics, shapes, and colors in situations Multiple educational works that increase academic achievement and increase its effectiveness.

On the other hand, and based on the confirmed results of the study, it can be concluded that teaching can be generalized through the CABRI 3D computer program to all levels of education for students of general education in the northern border region in the Kingdom of Saudi Arabia, as the direct results of the study push towards confirming the role of the computer program in promoting Academic achievement, increasing the amount of information and its permanence among students, and thus the generalization of teaching through the program has a positive direction so that the rest of the students in the general education of the mathematics course can benefit from the capabilities of the CABRI 3D computer program widely and effectively.

Recommendations

In light of the study results, the investigator strongly recommends the following:

1. Using the CABRI 3D Program to teach the mathematics curriculum to middle school students.
2. Conducting further studies into the impact of using and applying the CABRI 3D Program on mathematics education in order to increase the retention by all students at the educational stages (primary and secondary).
3. Training the mathematics teaching staff in public schools to use the CABRI 3D Program, and using the program for all engineering applications when teaching the mathematics curriculum.

Bibliographic references

Abdullah, A. (2015). Best educational practices in mathematics: The Capri geometry model and the development of students' logical thinking and mathematical reasoning. The Arab Journal of Quality and Excellence, 2(3), 175-197. [In Arabic]

Abu Lum, K. (2003). Attitudes of ninth-grade students towards the use of computers in teaching mathematics. Mutah for Research and Studies: Human and Social Sciences Series, 18(6), 187-209. [In Arabic]

Abu Sarah, A. (2018). The effect of using three computer programs on the academic achievement of tenth-grade students in mathematics and their motivation towards learning it in Qabatiya district: a comparative study. An-Najah University Journal of Research-B: Humanities, 32(6), 1003-1032. [In Arabic]

Accascina, G., & Rogora, E. (2006). Using Cabri3D Diagrams for Teaching Geometry. International Journal for Technology in Mathematics Education, 13(1), 11-22. https://www.semanticscholar.org/paper/Using-Cabri3D-Diagrams-For-Teaching-Geometry-Accascina-Rogora/06372bfaebb4d98156d8fe5fab8d09e25afa7129

Al-Balawi, A. (2015). Cabri 2Plus Professional Degree in Teaching and Learning Mathematics. Journal of the Faculty of Education, Tanta University, 57, 239-262. [In Arabic] https://search.mandumah.com/Record/740573

Al-Mahrazi, A., & Al-Darwani, B. (2016). Teaching spatial geometry using CABRI 3D program and its impact on geometric thinking and spatial visualization among second-year secondary students in Amanat Al-Asimah - Sana'a. Andalusia Journal of Humanities and Social Sciences, 3(9), 8-44. [In Arabic]

Al-Shammari, M. (2018). The effectiveness of the "Cabri 3D" program in developing conceptual comprehension in engineering among first-grade intermediate students. (Master's thesis), College of Education, Qassim University. [In Arabic]

Ardiç, M., & Isleyen, T. (2017). High School Mathematics Teachers' Levels of Achieving Technology Integration and In-Class Reflections: The Case of Mathematica. Universal Journal of Educational Research, 5(12B), 1-17. Doi: 10.13189/ujer.2017.051401

Bani Yassin, A. (2013). The effect of using the Cabri 3D software in developing the spatial ability and solving the geometric problem of the eighth-graders in Jordan. (Master's thesis), College of Graduate Studies, University of Jordan. [In Arabic]

Bütün, M., & Karakus, F. (2021). Mathematics Teachers' Views on Distance Education and Their Beliefs about Integrating Computer Technology in Mathematics Courses. Journal of Pedagogical Research, 5(2), 88-102. DOI: 10.33902/JPR.2021269394

Guven, B., Cakiroglu, U., & Akkan, Y. (2009). The Gap between Expectations and Reality: Integrating Computers into Mathematics Classrooms. Asia Pacific Education Review, 10(4), 505-515.

Guven, B., & Kosa, T. (2008). The Effect of Dynamic Geometry Software on Student Mathematics Teachers' Spatial Visualization Skills. Online Submission, Turkish Online Journal of Educational Technology – TOJET, 7(4) article 11.

Harasiya, B. (2008). The effect of using the Cabri-Geometry II Plus program in teaching geometry on the geometric achievement and mathematical proof skills of the ninth-grade female students. (Master's thesis). Sultan Qaboos University. [In Arabic]. https://search.mandumah.com/Record/964475

Hartatiana, D., & Nurlaelah, E. (2018). Improving Junior High School Students' Spatial Reasoning Ability through Model Eliciting Activities with Cabri 3D. International Education Studies, 11(1), 148-154. DOI: 10.5539/ies.v11n1p148

Hussein, H. (2017). The effectiveness of using engineering dynamic software in teaching spatial geometry at the secondary stage on geometric thinking and the trend towards mathematics. Journal of the College of Basic Education for Educational and Human Sciences, 31, 169-195. [In Arabic]

Karakus, F. (2018). An Examination of Pre-Service Teachers' Technological Pedagogical Content Knowledge and Beliefs Using Computer Technology in Mathematics Instruction. Issues in the Undergraduate Mathematics Preparation of School Teachers, 3.

Kepceoglu, I. (2018). Effect of Dynamic Geometry Software on 3-Dimensional Geometric Shape Drawing Skills. Journal of Education and Training Studies, 1(10), 98-106.

Khalil, H. (2006). Attitudes towards personal computer use among students of the College of Basic Education and its relationship to achievement in mathematics. College of Basic Education Research Journal, 3(2), 1-29. [In Arabic]

Momani, T. (2013). The effect of using the educational computer on the achievement of fourth-year students in the Mathematics Teaching Methods course at the University of Hail. Journal of the Association of Arab Universities for Research in Higher Education, 33(4), 49-59. [In Arabic] https://search.mandumah.com/Record/751349

Mowafi, S. (2013). The effectiveness of a computer-based training program based on a creative problem-solving strategy in developing creative teaching skills and creative thinking among female mathematics teachers at the intermediate stage in Jeddah. Journal of Humanities and Social Sciences, Imam Muhammad bin Saud Islamic University, 27, 65-102. [In Arabic]. https://imamjournals.org/index.php/jshs/article/view/497

Okumus, S., & Hollebrands, K. (2016). High School Students' Forming 3D Objects Using Technological and Non-Technological Tools. North American Chapter of the International Group for the Psychology of Mathematics Education. Retrieved from: http://www.pmena.org/ED583608

Qarawani, M. (2012). Attitudes of mathematics and computer students at Al-Quds Open University - Salfeet Education District- towards the use of e-learning in learning mathematics. The Palestinian Journal of Open Education and E-Learning, 3(6), 139-170. [In Arabic]

Sharman, A., & Amal, A. (2015). The effect of teaching using the computer in developing problem-solving skills, cognitive achievement, and modifying attitudes on the twelfth-grade students in mathematics in the United Arab Emirates. An-Najah University Journal of Research-B: Humanities, 29(7), 1321-1344. [In Arabic]

Stultz, S. (2013). The Effectiveness of Computer-Assisted Instruction for Teaching Mathematics to Students with Specific Learning Disability. Journal of Special Education Apprenticeship, 2(2). [In Arabic]

Flipped Classrooms using Blackboard to Enhance the Instructional Design Skills of Postgraduate Students

Clases invertidas usando Blackboard para mejorar las habilidades de diseño instruccional de los estudiantes de posgrado

Written by:
Farhan Yetaim Alenezi[2]
https://orcid.org/0000-0001-6427-0171

Abstract

This study aims to determine the impact of using the flipped classroom approach through Blackboard, to enhance students' instructional design skills, and identify any challenges that may limit this us.
The study was carried out at the Northern Border University in Saudi Arabia in academic year 2020/2021, with ten students on the Instructional Design Course. The study uses a mixed methods approach, employing both a quantitative research method (test), and a qualitative method (semi-structured interviews).
The study produced several results, the most important of which being the effectiveness of using flipped classrooms in the development of instructional design skills. The study reveals a set of challenges that may limit the use of the flipped classrooms strategy through Blackboard, split into three sections. The first section includes the challenges relating to faculty members. The second section comprises the challenges relating to students. The third section incorporates external challenges.

Key Words: Instructional design, flipped classrooms, flipped learning, postgraduate students, blackboard.

Resumen

Este estudio tiene como objetivo determinar el impacto del uso del enfoque de aula invertida a través de Blackboard, para mejorar las habilidades de diseño instruccional de los estudiantes e identificar cualquier desafío que pueda limitar esto.
El estudio se llevó a cabo en la Universidad de la Frontera Norte en Arabia Saudita en el año académico 2020/2021, con diez estudiantes en el Curso de Diseño Instruccional. El estudio utiliza un enfoque de métodos mixtos, empleando tanto un método de investigación cuantitativo (prueba) como un método cualitativo (entrevistas semiestructuradas).
El estudio produjo varios resultados, el más importante de los cuales fue la efectividad del uso de aulas invertidas en el desarrollo de habilidades de diseño instruccional. El estudio revela un conjunto de desafíos que pueden limitar el uso de la estrategia de aulas invertidas a través de Blackboard, dividido en tres secciones. La primera sección incluye los desafíos relacionados con los profesores. La segunda sección comprende los desafíos relacionados con los estudiantes. La tercera sección incorpora desafíos externos.

Palabras clave: Diseño instruccional, aulas invertidas, aprendizaje invertido, Estudiantes postgraduados, pizarra.

Introduction

The concept of learning is constantly evolving, especially with the investment of modern technology for the purpose of alternative learning approaches, particularly those that support the enhancement of student learning and independence, such as the flipped classroom approach, which is one of the most important learning approaches that technology can contribute to, with creative, effective implementation. Peterson (2016) describes the

[2] Associate professor at the Curriculum and Educational Technology Department, school of education, Vice Dean at the Deanship of E-Learning & Distance Learning, Northern Border University, Arar, Saudi Arabia.

flipped classroom as an educational approach that reverses the role of the classroom from a place for obtaining knowledge to a place for practicing knowledge, with activities that are traditionally completed outside of the classroom now being completed during class time.

Besides this, the learning management system Blackboard is one of the most important current modern technologies suitable for applying different learning approaches in general, with the flipped classroom approach in particular. The company that produces the Blackboard system defines it as an information system for managing education, monitoring students, and monitoring the efficiency of educational processes in educational institutions (Blackboard, 2021). This system provides great opportunities for students to communicate with the course outside of the lecture hall, anywhere, and at any time, due to this electronic system providing the various tools necessary to view the content of the course and to interact with it easily. It also provides the opportunity to communicate electronically with the course professor, as well as other registered students on the same course.

Research Problem

Despite the importance of instructional design for workers in the educational field in general, and for specialists in educational technology in particular, through his teaching of the instructional design course in the Master of Education Technologies program, the researcher noticed a weakness in students' instructional design skills, as the development of such skills requires practice and application, which is not available with the traditional lecturing method of teaching, but requires appropriate strategies that provide the student with the opportunity to understand the skills theoretically, and then apply and practice them practically, such as the flipped classroom strategy. Al Youssef (2020) therefore recommended expanding the use of the teaching model, using the flipped classroom approach, in teaching specialized courses for the College of Education students, especially on courses relating to the acquisition of teaching skills. The study also emphasized the importance of preparing and training faculty members for using technologies in education in order to apply modern methods and strategies in teaching, including the flipped classroom strategy.

The Blackboard system is a modern technology, characterized by many tools and services to assist faculty members to apply various learning methods and strategies, including the flipped

classroom strategy. Thus, the El-Senousy, H. & Alquda, J. (2017) study recommended wider use of the flipped classroom approach through Blackboard in higher education in general, and for postgraduate students in particular. The Goedhart, et al. (2019) study also recommended that further studies should be conducted on post-graduate students in order to verify the extent to which the role of the flipped classroom develops students' skills, because the results may differ from one learning environment to another. Furthermore, the study (Busebaia, & John, 2020) recommended conducting studies in other curricula in order to determine their suitability for using the flipped classroom approach.

It is clear from the above that a problem could be formulated in needing to know the role of the flipped classroom using Blackboard to support the development of instructional design skills among masters' students in educational technology, and to recognise the obstacles that limit the use of flipped classrooms through Blackboard, from their point of view.

Research Objectives

The study identified the following two objectives:

(1) To determine the impact of FC using Blackboard to enhance students' instructional design skills.
(2) To determine the challenges of implementing the FC approach using Blackboard from the postgraduate student point of view.

Research Questions

The following research questions were addressed in order to achieve the above research objectives:

(1) What are NBU postgraduate students' levels of instructional design skills, both before and after studying the instructional design course, using FC through Blackboard?
(2) What are the challenges of the FC approach using Blackboard from NBU postgraduate students' points of view?

Importance of the Study

The importance of the study lies in investing in modern technology, including the learning management system (Blackboard), by applying innovative and modern methods and approaches in the provision of university courses, with flipped classrooms being one of the most important.

The current study is a theoretical addition to knowledge indicated by previous studies relating to the research topic and its variables.

Furthermore, the results of this study may help Northern Border University, as well as other universities, to adopt the integration of the learning management system (Blackboard) in the flipped classroom approach.

Moreover, identifying the challenges that limit the use of flipped classrooms using Blackboard helps decision-makers at universities to develop solutions to overcome such challenges.

Literature review

Several studies, such as (Bhagat et al. 2016; González-Gómez et al., 2016; Yang, Yin & Wang 2018; Day, 2018), confirm an improvement in student academic performance as a result of using the flipped classroom approach.

One of the most important advantages of the flipped classroom approach is the transformation of the student's role into researcher and participant in building knowledge, and the role of the teacher as a mentor. The flipped classroom also contributes to strengthening the spirit of cooperation among students, as well as bearing responsibility, as students take responsibility for their learning before, during, and after the course (Prust et al., 2015).

Knowledge and experience is gained and used at each stage of the flipped classroom approach in order to enhance students' critical and creative thinking, self-learning, and development of communication and cooperation skills during the learning process. Educational materials are available for students at the pre-classroom stage in order to prepare them for the discussion in the classroom stage. Students are provided with a set of learning activities, such as discussion and group presentations, with any required support from the teacher. Then, in the post-class stage, students are set assignments, tests, or enrichment activities in order to reinforce the knowledge gained from the previous stages (Al-Samarraie, et al., 2019). Thus, the flipped classroom approach has become a popular new method of teaching in the 21st Century (Wilson, 2020; Lee and Wallace 2018; Steen-Utheim & Foldnes, 2018).

There are, however, various difficulties that limit the use of flipped classrooms, with some teachers not accepting this approach as it significantly changes the educational process in terms of teaching activities and teacher practices. In addition, it requires more time compared to traditional methods Al-Samarraie, et al. (2019). Each teacher has his own teaching style that they are accustomed to, which they may not wish to change. Moreover, one of the most important challenges facing the implementation of the flipped classroom approach is the lack of full institutional support (Hao & Lee, 2016).

The concept of flipped classrooms is that learning is centered on the student, rather than the teacher. Many researchers (Betihavas et al., 2016; Lai & Hwang, 2016; Sohrabi & Iraj, 2016) believe that it is highly appropriate to utilize student-centered learning theories in flipped classrooms, such as active learning and collaborative learning, for example. Active learning can be defined as 'any instructional method that engages students in the learning process' (Prince, 2004, p. 223). The flipped classroom approach provides opportunities for students to interact and participate in learning activities, where the student goes from being a passive listener to an active learner. In addition, flipped classrooms enhance students' thinking and communication throughout the learning process, as they interact with the educational materials provided by the teacher in the pre-class stage in preparation for presentation in the class stage, through a range of learning activities, such as discussions and group presentations, with minimum support from the instructor.

Collaborative learning is broadly 'a situation in which learners interact in a collaborative way' (Dillenbourg, 1999, p. 8). The flipped classroom approach offers the flexibility of time, interacting collaboratively with peers, and participating in higher-order cognition. Through flipped classrooms, the student becomes a researcher and participant in building knowledge and obtaining information using technology, through learning outside of the lecture hall, enhancing the skills of collaborative work among students, and effective participation with faculty members. Moreover, flipped classrooms can also provide students with the opportunity to use class time to work together and participate in cooperative learning.

Despite the importance of technology, it is difficult to talk about its application in education without talking about instructional design, as this is one of the most basic elements in educational technology. Seels & Richey (1994, p. 31) defines educational design as 'an organized procedure that includes a group of activities and skills related to education analysis, design,

development, implementation, evaluation and management.

The importance of instructional design is that it is the link between the theoretical and applied part of educational technology, making it imperative for all workers in the educational field to master the skills of instructional design, as well as specialists in the field of educational technology to use the best learning strategies that support this, especially those that invest in modern technology, including learning management systems. Despite the importance of instructional design skills, a limited number of studies have examined innovative teaching strategies to help students develop, such as the flipped classroom strategy.

Many studies have confirmed the effectiveness of the flipped classroom approach for developing students' skills. AlSaleh (2019) conducted a study to identify the effect of flipped classrooms on enhancing the research skills of postgraduate students at King Saud University. The results of the study's pre and post tests proved that the flipped classroom approach is highly appropriate for developing the skills of postgraduate students.

Al youssef (2020) conducted a study among students at the College of Education at King Faisal University, on the effect of the flipped classroom strategy on the development of various higher-order thinking and self-learning skills, through a questionnaire distributed to 100 students. The results of using the flipped classroom strategy revealed a statistically significant effect on developing skills for higher-order thinking and self-learning, with the study recommending expanding the use of the flipped classroom strategy for teaching specialized courses to students at the College of Education, especially on the courses relating to the acquisition of teaching skills.

Shih & Tsai (2017) also conducted a study on students' perceptions about the role of flipped classrooms in facilitating project-based online learning in higher education. The study used several tools, such as questionnaires, interviews, and a note card, on a sample of 67 university students. The results showed that the flipped classroom approach may enhance students' learning effectiveness, learning motivation, and learning interest, as well as encouraging diverse development and teamwork. Finally, various suggestions were proposed relating to flipped classroom research and instruction.

Sezer & Elcin (2020) conducted an experimental study which included 363 students from the Faculty of Medicine at Hacettepe University, aimed at identifying the effectiveness of the flipped classroom strategy in imparting students' skills. A performance test and feedback form were used as tools to collect data. The results revealed that students in the experimental group who were taught through the flipped classroom approach were more successful, and gained skills. The degree of their interaction with the lecturer was better and more qualified after practice, compared to the students in the control group who were taught using the traditional lecture-based approach.

The Elmaadaway, M. A. N. (2018) study revealed several results, the most important of which is that using flipped classrooms through Blackboard provides the opportunity for more students to participate in class activities, being able to ask questions and participate in solving problems with their peers.

Wang, F. H. (2017) conducted a study to explore the use of the flipped classroom strategy through an e-learning management system, the results of which showed a high impact on academic achievement and interaction between students, and with their academic staff. The study recommended using the flipped classroom strategy across learning management systems.

Mabrouk and Gendey (2018) conducted a study on the effectiveness of flipped classrooms using the Blackboard system to develop technical work skills, and the attitudes of the students at the College of Education at Al-Jouf University towards the use of practical skills. The results showed that flipped classrooms using Blackboard proved their effectiveness in developing technical work skills.

Nielsen et al. (2018) conducted an experiment with the sample divided into an experimental group and a control group. The aim was to discover the effect of teaching through the flipped classroom approach compared to the traditional approach, on the university's Statistics course. The test scores showed clear differences in student performance improvement in the experimental group, who studied using the flipped classroom approach, compared to the control group.

Busebaia, T. J. A. & John, B. (2020) conducted a study that aimed to assess the participation of nursing students in academic performance using the flipped classroom approach, by means of

multi-modal research, to find their observations and perceptions of the flipped classroom (FCR), compared to the traditional teaching approach. 22 female and four male students were studied, who reported that they had gained a deeper understanding of concepts, and were more motivated and confident when learning the course material. The results of the study support the use of FCR in learning pediatric course content. The study also recommended conducting studies in other curricula in order to determine their suitability for using the flipped classroom approach.

El-Senousy, H. & Alquda, J. (2017) conducted a study entitled The Effect of Flipped Classroom Strategy Using Blackboard Mash-Up Tools in Enhancing Achievement and Self–Regulated Learning Skills of University Students, on 60 post-graduate students. The results revealed that a difference was found in the average achievement scores of the experimental group of students, before and after the test, in favor of the post test. The study recommended a wider use of the flipped classroom strategy using Blackboard in higher education in general, and for postgraduate students in particular.

In contrast, the results of the Goedhart, et al., (2019) study conducted on master's students at Vrije University, Amsterdam, The Netherlands, indicated that although the overall experience was good, not all students agreed that the flipped classroom contributed to positive learning outcomes. Further studies were recommended, as these results may differ from one learning environment to another.

The results also indicated the need for significant institutional support to be one of the most important challenges facing the expansion of the use of the flipped classroom strategy.

Wilson, K. (2020) conducted a qualitative study about resistance to flipped classrooms in the higher education context. His findings revealed that perceived or actual increased workload, equity, and relevance to observed practice were key to understanding the nature of resistance embedded within an implicit understanding of what it means to carry out teaching.

An analytical study conducted by Shi, et al. (2020) aimed to identify high-quality experimental studies that investigated learning outcomes using the flipped classroom approach for university students. A systematic search was conducted in the database that includes the Web of Science, the Education Resources Information Center, and Elsevier ScienceDirect, in order to identify the studies, with a total of 33 studies included in this review. The results established that the implementation of flipped classrooms in education positively affects cognitive learning outcomes, and helps university students to improve their cognitive learning compared to traditional lectures.

Furthermore, the results of the studies indicated some challenges in implementing the flipped classroom strategy using Blackboard. For example, Al-Samarraie, et al. (2019) reported that one of the most important challenges is the length of time that it takes for teachers to prepare educational materials. In addition, there is a marked lack of evidence-based best practices for implementing flipped classrooms in higher education (Betihavas et al. 2016).

In Graziano's (2017) study, the teacher participants agreed that the most important challenge to implementing flipped classrooms in education is increased workload.

Akçayır & Akçayır (2018) conducted a study entitled The Flipped Classroom: A Review of its Advantages and Challenges, with the aim of uncovering the advantages and challenges of using flipped classrooms, as reported by students and faculty members. 71 research articles were analyzed, with the results revealing that the most common advantage of the flipped classroom is improved student learning performance. It was found that the majority of challenges related to activities outside of the classroom, such as student insufficient preparation before the class. A study conducted by Comber and Brady-Van den Bos (2018) on university students confirmed that one of the factors challenging the use of flipped classrooms is the difficulty of applying it to financially poor students.

Davenport (2018) and Sammel, et al. (2018) studies indicated a sense of weariness due to large volumes of preparatory work, limited incentive to complete the work, and a lack of tangible benefits from learning in this way.

Cabi's (2018) study also showed a main challenging factor to be resistance to change, as the results of the study found that some students had an urgent desire to stay with traditional education, and rejected changing to the flipped classroom strategy.

Al-Oufi's (2021) study demonstrated several challenges for using the flipped classroom, the most important of which were lack of internet

access for students, students' lack of interest in following up flipped classroom content, and a lack of skills required for dealing with the technology, programs, and applications needed for use in the flipped classroom. In addition, it was found that additional time and effort was required from both teachers and students.

Research Methodology

A mixed method approach was used for this study, employing a quantitative research method (test) and a qualitative method (semi-structured interview).

Participants

This study includes 10 female students on the master's program in the specialization of Educational Technology in the Department of Curriculum and Educational Technology at the College of Education at Northern Border University. It represents the total number of all students on the program at the time of conducting the study, in the academic year 2020/2021. This program's students study on many courses in the educational technology specialization, including the Instructional Design course, which is one of the most important basic courses in the major. This study was applied to students who are on this course for a full semester (18 weeks).

Intervention

In the first lecture, the flipped classroom strategy was explained, providing information about how it would be used through the Blackboard system. The lecture would be uploaded on the learning management system (Blackboard) seven days before it actually takes place, including presentations, video and audio clips. Students are then able to access and view this uploaded material prior to the lecture taking place. At the time of the actual lecture, a discussion of the topics takes place, as well as practical exercises in order to develop the required skills.

Data Collection

In order to answer the study's questions, data were collected using two methods: test and interview.

Test

The first question of the study used the test tool.

What are NBU postgraduate students' levels of instructional design skills, both before and after studying the instructional design course, using FC through Blackboard?

All of the program's students work in the field of education, for example, as teachers and supervisors, and were therefore expected to have a level of skill and experience in the field of instructional design. In order to view student progress, a pre-test was conducted before the course commenced, and the students were then re-tested at the end of the semester, after being taught strategically via the flipped classroom approach.

Due to the small number of participants on the study, testing the validity and reliability statistically was found to be challenging, however, the test was evaluated and presented to a group of experts in the field of educational technology, curricula and teaching methods, and evaluation. The referee's comments and amendments were considered in order to ensure validity and reliability, as the test included 30 questions relating to the skills of instructional design, including analysis, design, development, implementation, and evaluation.

Interview

Interviews were conducted in order to answer to the second question of the study.

What are the challenges of the FC approach using Blackboard from NBU postgraduate students' points of view?

After reviewing the theoretical literature and previous studies relating to the topic of this study, the tool was constructed and interview questions were prepared, including 16 questions about the possible challenges of using the flipped classroom strategy through Blackboard, for teaching postgraduate students.

After building the tool in its final form, it was presented to a group of experts selected from Saudi university faculties, and then edited by means of deleting, adding, and amending various questions based on their comments. In addition, the researcher conducted a pilot study, applying the tool by conducting interviews with two female masters' students, in order to ensure the clarity of the sample's questions, and to determine the time required to conduct the interview.

Results and Discussion

What are NBU postgraduate students' levels of instructional design skills, both before and after studying the instructional design course, using FC through Blackboard?

Table 1.
Summary of Pre-Test and Post-Test Score

	Mean	Standard deviation	P-value
Pre-test	4.9	2.424413	0.000
Post-test	60	9.128709	

(Own authorship)

Table (1) above shows NBU postgraduate students levels in instructional design skills, before and after using the flipped classroom strategy through Blackboard.

The average pre-test score was found to be 4.9 (with a 2.4 standard deviation), while the average post-test score was found to be 60 (with a 9.1 standard deviation). This increase is found to be statistically significant (p-value=0.000). This result indicates that using the flipped classroom strategy through Blackboard is effective in developing the instructional design skills of postgraduate students. This may be attributed to the advantages provided by the learning management system (Blackboard) to implement the flipped classroom strategy with high quality, confirming the suitability of using the Blackboard system to effectively implement the flipped classroom strategy.

In addition, this result may also be due to the students' interest and motivation for using technology in their learning, as postgraduate students and specialists in educational technology.

This finding is consistent with Mabrouk and Genedy's (2018) study, confirming that the flipped classroom strategy using Blackboard has proven its effectiveness in developing students' technical work skills.

Elmaadaway, M. A. N. (2018) proved that the flipped classroom strategy using Blackboard provides the opportunity for more students to participate in class activities, asking questions and participating in solving problems with their peers.

This result is also consistent with the results of many other studies, such as (Al youssef, 2020; Busebaia, & John, 2020; AlSaleh, 2019; Sezer & Elcin, 2020; Shi, et al., 2020), proving the effectiveness of using flipped classrooms in developing the skills of university students.

This question was assessed using the paired samples t-test in order to compare the mean pre-test score with the mean post-test scores (Table 1).

What are the challenges of the FC approach using Blackboard from NBU postgraduate students' points of view?

After analyzing the personal interviews of the study sample, the results showed that there are several challenges that limit the use of flipped classrooms through Blackboard, which can be classified into three sections - challenges relating to faculty members, challenges relating to students, and external challenges.

First: Challenges relating to faculty members

Most of the study's sample agreed that despite the advantages and benefits provided by flipped classrooms, this approach requires additional effort from academic staff, as confirmed by one of the sample members below:

In my opinion, the most important challenge to using flipped classrooms is that it requires a great effort and a long time to prepare the material and produce it in an appropriate way to upload it to Blackboard.

This may be attributed to the many burdens on faculty members, as they have several responsibilities other than teaching, such as research, and participation in conferences, in addition to the various committees that they are on, as well as family and social responsibilities.

Participants also stressed that one of the most important challenges facing the application of flipped classrooms is the resistance to change by some faculty members, as mentioned by a participant below:

From my point of view, one of the critical factors impeding the use of flipped classrooms is the

reluctance of some faculty members to change from teaching in the traditional way.

The participants also emphasized that the lack of conviction of some faculty members in the importance and benefits of flipped classrooms is one of the challenges facing its implementation, as mentioned by a participant below:

Through our discussions with some faculty members, it becomes clear that some of them have a conviction that the benefit of flipped classrooms is not commensurate with the effort exerted on it, as some of them see that the result is the same, whether they use the traditional method or use the flipped classrooms method.

This may be attributed to the faculty member's reliance on his own opinion without reference to scientific studies and research, of which most have proven the effectiveness of flipped classrooms.

Some participants also mentioned that one of the challenges facing flipped classrooms using Blackboard is academic staff lack of skills in technology in education, including the use of Blackboard, as stated by one of the participants, as follows:

The flipped classroom strategy requires the faculty member to be familiar with the technical skills necessary for the success of this strategy, and this may not be available to some faculty members.

This may be due to a lack of training courses in the use of technology in education. In addition, some faculty members are not interested in using technology in education on a large scale.

These results are in agreement with several studies, where both Wilson, K. (2020) and Graziano (2017) confirmed that the most important challenge to implementing the flipped classroom approach in education is to increase the workload of academic staff. Al-Samarraie, et al. (2019) also reported that one of the most important challenges is the length of time that it takes teachers to prepare educational materials. Davenport (2018) and Sammel, et al. (2018) indicated that there is weariness due to lack of tangible benefit from learning in this way.

These results are also consistent with Al-Oufi (2021), who emphasizes that one of the most important factors limiting the use of flipped classrooms is a weakness in the necessary skills to deal with the technology, programs, and applications in the flipped classroom.

Second: Challenges relating to students

The results demonstrate several challenges relating to students, the most important of which is the lack of the necessary capabilities to use flipped classrooms, such as the internet and computers for some students. One of the participants confirmed that prior to using flipped classrooms, a reliable internet connection must be provided to all students. He states:

The lack of internet availability of adequate quality for all students is one of the most important challenges facing the use of flipped classrooms, as it is no secret to you that some students cannot connect to the internet due to the absence of a subscription to one of the telecommunications companies, or he may not have a computer or a smart phone.

This may be attributed to the economic situation of some families, where it can prove difficult to provide students with computers or smart devices, and subscribe to internet service providers, due to the high cost of smart devices, and the tariffs of subscribing to the internet. There could also be a lack of high-quality internet in many of the areas where students live.

On the other hand, participants mentioned that one of the challenges of using flipped classrooms is that it requires additional time and effort from students, as explained below:

Yes, flipped classrooms are very useful for us as students, but it takes an extra effort from us to read the lecture and read it well before the actual lecture date, and we unfortunately do not have enough time to do so, due to the many assignments required of us as postgraduate students.

This may be due to the fact that postgraduate students often have many assignments from their courses, in addition to often being married and having families, family responsibilities, and social duties.

The participants also stressed that another challenge of using flipped classrooms is low student motivation. A participant mentioned:

Really, I would like to continue in the traditional way, and I do not wish to change to the use of flipped classrooms. I do not have a strong motivation to use this type of education.

This may be due to the conviction of some students in looking for the easiest method of teaching, regardless of the benefit, as the use of flipped classrooms requires more effort from the student.

These results agree with the study of Comber and Brady-Van den Bos (2018), conducted on university students, and confirming that one of the factors challenging the use of flipped classrooms is the difficulty of applying it to financially poor students. Financially poor students may not have internet access, or the use of smart devices to connect to the internet. Akçayır & Akçayır (2018) assert in their study that the majority of the challenges relate to activities outside of the classroom, such as insufficient student preparation before class, due to the extra effort that is required to do so. Cabi's (2018) study also showed that another challenging factor is resistance to change, as the study's results found that some students have an urgent desire to stay with traditional education, and reject changing to the flipped classrooms strategy. Al-Oufi's study (2021) indicated that one of the challenges facing the use of flipped classrooms is the unavailability of the internet for all students, as well as weak learner motivation.

<u>Third: External Challenges</u>

The study's results revealed challenges other than those relating to faculty members and students. The most important of these challenges is the lack of necessary hardware and software for the production of content. One of the participants stated:

The university must provide the necessary tools to use flipped classrooms, such as content production programs, in an appropriate way with flipped classrooms.

This may be due to the economic factors of some universities, as these programs and devices need high financial support which may be difficult for some universities with low budgets.

On the other hand, most of the sample members agreed that one of the most important factors limiting the use of flipped classrooms is the inadequacy of flipped classrooms for all subjects, as one of the participants mentioned:

Despite the advantages of flipped classrooms, we must take into account that it is not suitable for all courses, as there are some courses that are difficult to use in them.

This may be attributed to the fact that the nature of courses can differ so much from one to another, for example, some courses are theoretical, some are practical, and some contain theoretical and practical parts. Moreover, the content of courses is different, whether in theoretical or practical courses.

Therefore, Busebaia, T. J. A. & John, B. (2020) recommended conducting studies in other curricula in order to determine their suitability for using the flipped classroom approach.

Conclusion

After analyzing the study's data and interpreting and discussing its results, the effectiveness of using flipped classrooms in developing instructional design skills among students on the Master of Educational Technology program at the Northern Border University is clear. The study also found a set of challenges that may limit the use of the flipped classroom approach through Blackboard, which are classified into three sections. The first section highlights the challenges relating to faculty members, and as such requires additional time and effort, resistance to change, lack of conviction in the importance of flipped classrooms for some, and weak skills in using technology in education. The second section discusses the challenges relating to students, including the lack of necessary capabilities, such as computers, internet connection for all students, the requirement of additional time and effort, and weakening the motivation of some students. The third section is external challenges, which includes a lack of the hardware and software needed to produce educational content, and the inadequacy of flipped classrooms for all courses.

Recommendations

Based on the results of the study, the researcher recommends the following:

1. Using flipped classrooms via Blackboard to develop postgraduate student's instructional design skills.
2. Developing the skills of faculty members to use the flipped classrooms strategy through Blackboard.
3. The necessity of providing high quality internet for all students.
4. Spreading the culture of integrating technology into university education.
5. Reducing the teaching burdens of faculty members who use flipped classrooms in their teaching.

6. The university must provide the necessary hardware and software to use flipped classrooms.

Bibliographic references

Akçayır, G., & Akçayır, M. (2018). The flipped classroom: A review of its advantages and challenges. Computers & Education, 126, 334-345.

Al-Oufi, H. (2021). Obstacles to implementing the flipped classroom strategy for computer teachers in Medina. Journal of the College of Education (Assiut), 37 (1), 98-123. Retrieved from https://journals.ekb.eg/article_147137_86ba 5944a12db30a1e8b6af700aefd63.pdf

Alsaleh, N. J. (2019). Flipped classrooms to enhance postgraduate students' research skills in preparing a research proposal. Innovations in Education and Teaching International, 57(4), 392-402.

Al-Samarraie, H., Shamsuddin, A., & Alzahrani, A. I. (2019). A flipped classroom model in higher education: a review of the evidence across disciplines. Educational Technology Research and Development, 1-35.

Al youssef, I. (2020). The effect of employing flipped classroom on the development of the higher-order of thinking skills and self-learning in educational technology students at King Faisal University. The Scientific Journal of king Faisal University, Humanities and Management Sciences, 21 (2), 153-160. Retrieved from https://services.kfu.edu.sa/scientificjournal/ Handlers/FileHandler.ashx?file=18%202114 .pdf&Folder=UploadFiles

Betihavas, V., Bridgman, H., Kornhaber, R., & Cross, M. (2016). The evidence for 'flipping out': a systematic review of the flipped classroom in nursing education. Nurse education today, 38, 15-21.

Bhagat, K. K., Chang, C. N., & Chang, C. Y. (2016). The impact of the flipped classroom on mathematics concept learning in high school. Journal of Educational Technology & Society, 19(3), 134-142.

Blackboard. (2021). Blackboard in profile 2021. Retrieved from http://anz.blackboard.com/higher-education/index.html

Busebaia, T. J. A., & John, B. (2020). Can flipped classroom enhance class engagement and academic performance among undergraduate pediatric nursing students? A mixed-methods study. Research and Practice

in Technology Enhanced Learning, 15(1), 1-16.

Cabi, E. (2018). The impact of the flipped classroom model on students' academic achievement. International Review of Research in Open and Distributed Learning, 19(3), 202-222

Comber, D. P., & Brady-Van den Bos, M. (2018). Too much, too soon? A critical investigation into factors that make flipped classrooms effective. Higher Education Research & Development, 37(4), 683-697.

Davenport, C. E. (2018). Evolution in Student Perceptions of a Flipped Classroom in a Computer Programming Course. Journal of College Science Teaching, 47(4), 30-35.

Day, L. J. (2018). A gross anatomy flipped classroom effects performance, retention, and higher-level thinking in lower performing students. Anatomical Sciences education, 11(6), 565-574.

Dillenbourg, P. (1999). What do you mean by collaborative learning? Cognitive and computational approaches (pp. 1–19). Oxford, UK: Elsevier.

Elmaadaway, M. A. N. (2018). The effects of a flipped classroom approach on class engagement and skill performance in a blackboard course. British Journal of Educational Technology, 49(3), 479-491.

El-Senousy, H., & Alquda, J. (2017). The Effect of Flipped Classroom Strategy Using Blackboard Mash-Up Tools in Enhancing Achievement and Self-Regulated Learning Skills of University Students. World Journal on Educational Technology: Current Issues, 9(3), 144-157

Goedhart, N. S., Blignaut-van Westrhenen, N., Moser, C., & Zweekhorst, M. B. M. (2019). The flipped classroom: supporting a diverse group of students in their learning. Learning Environments Research, 22(2), 297-310.

González-Gómez, D., Jeong, J. S., & Rodríguez, D. A. (2016). Performance and perception in the flipped classrooms model: an initial approach to evaluate the effectiveness of a new teaching methodology in a general science classroom. Journal of Science Education and Technology, 25(3), 450-459.

Graziano, K. J. (2017). Peer teaching in a flipped teacher education classroom. TechTrends, 61(2), 121-129.

Hao, Y., & Lee, K. S. (2016). Teaching in flipped classrooms: Exploring pre-service teachers' concerns. Computers in Human Behavior, 57, 250-260.

Lai, C. L., & Hwang, G. J. (2016). A self-regulated flipped classroom approach to

improving students' learning performance in a mathematics course. Computers & Education, 100, 126-140.

Lee, G., & Wallace, A. (2018). Flipped classrooms in the English as a foreign language classroom: Outcomes and perceptions. TESOL quarterly, 52(1), 62-84.

Mabrouk, H. A. S., & Genedy, G. M. (2018). Effectiveness of flipped classrooms using the Blackboard System in developing art work skills and attitudes of Faculty of Education female students at Jouf University toward the use of practical skills. Journal of Research in Curriculum Instruction and Educational Technology, 4(3), 141-161.

Nielsen, P. L., Bean, N. W., & Larsen, R. A. A. (2018). The Impact of a Flipped Classroom Model of Learning on a Large Undergraduate Statistics Class. Statistics Education Research Journal, 17(1).

Peterson, D. J. (2016). The flipped classroom improves student achievement and course satisfaction in a statistics course: A quasi-experimental study. Teaching of Psychology, 43(1), 10-15.

Prince, M. (2004). Does active learning work? A review of the research. Journal of engineering education, 93(3), 223-231.

Prust, C. J., Kelnhofer, R. W., & Petersen, O. G. (2015, June). The flipped classroom: It's (still) all about engagement. In 122nd ASEE Annual Conference and Exposition. (pp. 26-1534)

Sammel, A., Townend, G., & Kanasa, H. (2018). Hidden expectations behind the promise of the flipped classroom. College Teaching, 66(2), 49-59.

Seels, B. B., & Richey, R. C. (1994). Instructional technology: the definition and domains of the field. Washington, DC: Association for Educational Communications and Technology.

Sezer, B., & Elcin, M. (2020). Using traditional or flipped classrooms to teach "vascular access skill": A pilot study to investigate the impact of the flipped classroom approach on students' competencies. The Social Science Journal, 1-14.

Shi, Y., Ma, Y., MacLeod, J., & Yang, H. H. (2020). College students' cognitive learning outcomes in flipped classroom instruction: a meta-analysis of the empirical literature. Journal of Computers in Education, 7(1), 79-103.

Shih, W. L., & Tsai, C. Y. (2017). Students' perception of a flipped classroom approach to facilitating online project-based learning in marketing research courses. Australasian Journal of Educational Technology, 33(5).

Sohrabi, B., & Iraj, H. (2016). Implementing flipped classrooms using digital media: A comparison of two demographically different groups' perceptions. Computers in Human Behavior, 60, 514-524.

Steen-Utheim, A. T., & Foldnes, N. (2018). A qualitative investigation of student engagement in a flipped classroom. Teaching in Higher Education, 23(3), 307-324.

Wang, F. H. (2017). An exploration of online behaviour engagement and achievement in flipped classroom supported by learning management systems. Computers & Education, 114, 79-91.

Wilson, K. (2020). What does it mean to do teaching? A qualitative study of resistance to flipped classrooms in a higher education context. Teaching in Higher Education, 1-14.

Yang, J., Yin, C., & Wang, W. (2018). Flipping the classroom in teaching Chinese as a foreign language. Language Learning & Technology, 22(1), 16-26.

External quality assurance system of higher legal education in Ukraine

Система зовнішнього забезпеченя якості вищої юридичної освіти в Україні

Written by:
Iryna Annienkova[3]
https://orcid.org/0000-0003-0325-7955
Natalia Kostova[4]
https://orcid.org/0000-0003-2397-4812
Nelia Kuznietsova[5]
https://orcid.org/0000-0002-5530-5544
Anastasiia Bokshorn[6]
https://orcid.org/0000-0003-0787-1717

Abstract

The relevance of the topic is due to a significant increase in the importance of law as a social controller of public life. The basis for the development of the legal system in Ukraine is the quality of higher legal education. The aim of the study is to analyze the current state of the external quality system of higher legal education in Ukraine. The following methods of scientific knowledge were used in the article: analysis of legislative and regulatory documents in the field of education, analysis of statistical data, interpretative and analytical method, comparison of different views on the problem under study, induction, deduction, systematization. The dynamic of changes in the results of such procedures of external quality assurance of higher legal education as licensing, accreditation of educational programs, independent external assessment is analyzed. The analysis confirms the persistence of negative trends in the development of the system of higher legal education which results, in particular, in a decrease in the quality of legal training, which was stipulated by a decrease in the volume of lawyers' training on the one hand, and, on the other hand, of an unreasonably large number of the universities that train lawyers, which leads to reducing the requirements for applicants, and,

Анотація

Актуальність теми обумовлена значним підвищенням значення права як соціального регулятора суспільного життя. Підґрунтям розвитку правової системи в Україні є якість вищої юридичної освіти. Метою дослідження є аналіз сучасного стану системи зовнішнього забезпечення якості вищої юридичної освіти України. Для написання статті використані такі методи наукового пізнання: аналіз законодавчо-нормативних документів у галузі освіти, аналіз статистичних даних, інтерпретаційно-аналітичний, зіставлення різних поглядів на досліджувану проблему, індукція, дедукція, систематизація. Проаналізовано динаміку змін результатів таких процедур зовнішнього забезпечення якості вищої юридичної освіти як ліцензування, акредитація освітніх програм, незалежне зовнішнє оцінювання. Проведений аналіз підтверджує збереження негативних тенденцій у розвитку системи вищої юридичної освіти, зокрема, зниження якості юридичної підготовки як результат, з одного боку, зменшення обсягу підготовки правників, а з іншого – необґрунтовано великої кількості закладів вищої освіти, що готують правників, що призводить до зниження вимог до вступників, а й отже, якості юридичної освіти.

[3] Doctor of Pedagogical Sciences, Full Professor, Department of Inorganic Chemistry and Chemical Education Odessa I.I. Mechnikov National University, Odessa, Ukraine.
[4] PhD in Law, Associate Professor, Department of Constitutional and International Law Odessa State University of Internal Affairs, Odessa, Ukraine.
[5] Candidate of Pedagogical Sciences, Associate Professor, Department of Pedagogy and Educational Management Odessa Academy of Continuing Education of the Odessa Regional Council, Odessa, Ukraine.
[6] PhD in Law, Acting Associate Professor, Department of Language Training, Odessa State University of Internal Affairs, Odessa, Ukraine.

consequently, the quality of legal education. Comparison of the results of these external assessment procedures allows us to state that the highest quality training of lawyers is carried out by the leading state classical universities and higher legal educational institutions. The impact of external quality assurance procedures in higher legal education should be supported by the development of an internal quality assurance system at the universities.

Key words: accreditation, higher legal education, assurance of the quality of education, independent external assessment, rating.

Зіставлення результатів зазначених процедур зовнішнього оцінювання дозволяє констатувати, що найбільш якісну підготовку правників здійснюють провідні державні класичні університети та заклади вищої освіти правничого спрямування. Вплив процедур зовнішнього забезпечення якості вищої юридичної освіти має підкріплюватися розвитком системи внутрішнього забезпечення якості у закладах вищої освіти.

Ключові слова: акредитація, вища юридична освіта, забезпечення якості освіти, незалежне зовнішнє оцінювання, рейтинг.

Introduction

The development of democracy in Ukraine is inextricably linked with the further improvement and reform of the education system, including the legal one. According to O. Rogach (2014), law is a social controller of social life, which is formed and functions thanks to the consciousness and will of people. Therefore, the level of development of any legal system is largely determined by the legal consciousness of the people who create it professionally. The main basic source of professional legal consciousness in a modern civilized society is a higher legal education.

Therefore, research on the problems of quality assurance in higher legal education is extremely relevant and timely. Our analysis of scientific research devoted to the study of the problem of the quality of higher legal education indicates that this problem is relevant both in Ukraine.

Analysis of scientific sources has shown a growing interest in the problems of quality assurance in higher education. In particular, the European experience in creating quality systems of higher education, general and specific procedures of external and internal quality in the countries of Southern Europe were studied by I. Sokolova (2020). L. Stolyarchuk (2019) provides a classification of universities that train lawyers and examines the level of quality and problems of professional training of bachelors of law at the universities in the present conditions.

The role and place of universities with specific training conditions of the Ministry of Internal Affairs of Ukraine in the system of legal education are highlighted in the works of V. Abroskin & S. Albula, (2021), E. Muzychuk (2020). The impact of globalization on the development of legal education in Ukraine and

the formation of the efficiency of the future lawyer is described in the study by V. Tkachenko (2021). I. Khokhlova (2019) analyzed the results of reforms and the current state of higher legal education, identified the factors affecting its quality.

The analysis of scientific sources and the study of the experience in external assurance of the quality of higher legal education in Ukraine allows us to state that, despite a wide range of studies on the quality of legal education, there is still no holistic study of the state, problems and prospects for the development of the system of external quality assurance of higher legal education.

The purpose of the article is to analyze the current state of the system of external quality assurance of higher legal education in Ukraine. To achieve the set goals, it is necessary to solve the following tasks: determination of the structure of the external quality assurance system for higher legal education in Ukraine; analysis of the dynamics of the results of the unified professional entrance exam; analysis of the results of accreditation of educational programs in the branch of knowledge 08 Law.

Methods

To solve the problems, the following methods were used: analysis of legislative and regulatory documents in the field of education, interpretative-analytical method of comparison of different views on the problem under study, induction, deduction, systematization. In particular, the analysis of legislative and regulatory documents in the field of education as well as an interpretive and analytical method for comparing different views on the problem under

study were used to study scientific sources and clarify the state of the problem under study. Induction, deduction, systematization made it possible to make conclusions. The study used data obtained from open sources of the State Statistics Service, the Ukrainian Center for Educational Quality Assessment, the National Agency for Quality Assurance in Education (NAQA), higher educational institutions of Ukraine, the results of the research "State of Legal Education in Ukraine" (Mudruk, 2018), Standardized Educational Measurements in Law Graduate Education (Mudruk, 2019), NAQA Annual Reports (Kvit, 2020a; Kvit, & Yeremenko, 2021).

Results and Discussion

The structure and functioning of internal and external quality assurance systems in education in general and higher education, in particular, is determined by the legislative acts of Ukraine: The Law of Ukraine "On Education" (Law of Ukraine 2145-VIII, 2017), the Law of Ukraine "On Higher Education" (Law of Ukraine 1556-VII, 2014).

According to clause 1 of Article 41 of the Law of Ukraine "On Education" (Law of Ukraine 2145-VIII, 2017), the purpose of the development and functioning of the system for ensuring the quality of education in Ukraine is to guarantee the quality of education; to shape public confidence in the system and educational institutions and authorities; to constantly and consistently improve the quality of education; to assist educational institutions and other subjects of educational activity in improving the quality of education.

Article 16 of the Law of Ukraine "On Higher Education" (Law of Ukraine 1556-VII, 2014) determines that the components of the quality assurance system for higher education in Ukraine are: 1) the system for ensuring higher educational institutions of the quality of educational activities and the quality of higher education (internal quality assurance system); 2) the system of external assurance of the quality of educational activities of higher educational institutions and the quality of higher education; 3) a quality assurance system for the activities of the National Agency for Quality Assurance in Higher Education and independent institutions for

assessing and ensuring the quality of higher education.

According to clause 4 of Article 41 of the Law of Ukraine "On Education" (Law of Ukraine 2145-VIII, 2017), the procedures for external assurance of the quality of education include standardization, licensing of educational activities, accreditation of educational programs, institutional accreditation, public accreditation of educational institutions, external independent assessment of learning outcomes, institutional audit, monitoring of the quality of education, certification of teaching staff, public observation, other tools, procedures and activities determined by special laws.

Let us analyze the impact of such procedures as licensing of educational activities, accreditation of educational programs, external independent assessment of learning outcomes, monitoring of the quality of education.

Licensing

Licensing of educational activities is a procedure of recognizing the ability of a legal entity or an individual to provide educational services at a certain level of education in accordance with licensing conditions (Law 2145-VIII, 2017). Licensing of educational activities at the level of higher education is carried out by the Ministry of Education and Science of Ukraine in accordance with the licensing conditions for the implementation of educational activities.

Data on the dynamics of the number of applicants for education in the branch of knowledge 08 Law and the number of universities that train them are presented in Table 1. These data identified by N. Kostova, I. Annienkova, N. Nahorna, & P. Hushcha (2020) confirm the trends in the development of higher legal education and show a significant increase in the number of universities that train lawyers at both bachelor's and master's higher education levels. If in 2010 their number was 111, then in 2019 there were already 129: of which 88 and 41 were state and private universities correspondinly. The number of universities (both public and private), which can train applicants for higher education in the specialty "Law" at the master's level of education, also gradually increased, from 70 universities in 2010 to 103 in 2019.

Table 1.

The dynamics of admission, the number of students and universities that train applicants for higher education in the specialty "Law"

	Accepted		The total number of students who pursue studies	The number of universities that train specialists in the specialty "Law"	
	Total	at the expense of state budget		Total	private
Bachelor students (first level undergraduate students)					
2010	30920	10311	127582	111	38
2015	18673	6450	86927	103	32
2017 *	-	-	38968	101	32
**	17867	5457	39269	118	38
2018 *	-	-	19694	98	31
**	17158	3587	54228	124	35
2019	16906	3499	69764	129	41
2020	15959	2138	60360	-	-
Master students					
2010	8533	3241	11368	70	21
2015	9832	3116	13520	85	25
2017 *	-	-	220	11	3
**	12264	3683	24591	99	31
2018	9842	2290	21897	78	42
2019	6223	2016	17076	103	32
2020	8550	1239	14142	-	-

* according to the list of specialties 2001
** according to the list of specialties 2015
Compiled by the authors based on data Statistial bulletin (Key indicators of higher education in Ukraine, n/d), Statistical digest, (State Statistics Service of Ukraine, 2017)

Analysis of the dynamics of changes in the number of applicants for higher education studying in the branch of knowledge 08 Law from 2010 to 2020 suggests a trend towards a decrease in the total number of applicants for higher education in the specialty "Law", despite a significant increase in the number of universities (both state and private), carrying out their training. It should be noted that in 2020 there is an increase in the number of people who undertook master's degree (the increase is 2327 people or 37.4%), but the general trend remains unchanged.

Table 2.

Dynamics of the number of applications submitted by applicants for admission for a bachelor's degree in the specialty "Law"

Year	The number of applications submitted for a bachelor's degree in the specialty "Law"	Growth rate, %
2017	74 055	
2018	72 965	-1,5%
2019	65 077	-10,8%
2020	116 689	+79,3%
2021	68 124	-41,6%

Compiled by authors using open sourced data by Ministry of Education and Science of Ukraine (2017, 2018, 2019, 2020, 2021).

Data on the dynamics of changes in the number of applications submitted by applicants for admission to a bachelor's degree in the specialty 081 "Law" presented in Table2 indicate a gradual movement towards a decrease in the number of applications from 2017 to 2019, the peak number of 116 689 applications was in 2020, and a significant 1.7 times decrease occurred in 2021. The sharp increase in the number of applications submitted for admission to a bachelor's degree at the Ministry of Education and Science of Ukraine (2020) is explained by the general increase in the number of school graduates and the expansion of the list of categories of applicants who have switched to the online submission of applications. In our opinion, this was also facilitated by the opportunity to submit an unlimited number of applications for a contract

and certain difficulties in entering foreign universities associated with the COVID-19 pandemic. In general, the analysis of the data in Table 2 allows us to speak about the persistence of a downward trend in the number of applicants for higher education in the specialty "Law" (Kostova et al., 2020).

However, it should be noted that despite this trend, the specialty 081 "Law" is one of the most popular among applicants, despite the fact that most of the graduates in the future do not work in their specialty. According to the official data of the State Employment Service, the highest percentage of unemployed is among those holding degrees in law and economics (Mudruk, 2019, p. 107).

The low level of financial support for higher educational institutions leads to an exaggerated use of the contract form of financing education in some, in particular, legal specialties, for the sake of supporting other specialties, which in turn leads, firstly, to a decrease in the level of requirements for enrollment, which negatively affects the quality of education, and secondly, the overproduction of personnel in legal specialties (Mudruk, 2019).

Accreditation of educational programs

Accreditation of the educational program is also an important component of the external quality assurance system. According to the Law of Ukraine "On Higher Education" (Law of Ukraine 1556-VII, 2014) "accreditation of an educational program is an assessment of the educational program and / or educational activities of the University under this program for compliance with the higher education standard; the ability to meet the requirements of the standard and achieve the educational outcomes declared in the program".

The purpose of accreditation is: 1) to establish the conformity of the quality of the educational program and educational activities for this program with the criteria determined by this Regulation; 2) assistance to institutions of higher education in identifying the strengths and weaknesses of the educational program and educational activities for this program; 3) providing all interested parties with information about the quality of the educational program and educational activities for the educational program; 4) strengthening confidence in higher education in Ukraine; 5) promoting the integration of Ukrainian higher education institutions into the European Higher Education Area (Regulation on Accreditation).

The accreditation of educational programs for training applicants for higher education is carried out by the National Agency for Higher Education Quality Assurance (Ukraine). NAQA was created to fulfill the provisions of the Law of Ukraine "On Higher Education" by the Resolution of the Cabinet of Ministers of Ukraine dated April 15, 2015 No. 244 as a permanent collegial body for the implementation of state policy in the field of quality assurance in higher education. But it was able to start working fully at the end of February 2019. NAQA considers its mission in being an "agent of change" in higher education" (Kvit, 2020b, p.171).

NAQA Chairman S. Kvit (2020b), notes that in the accreditation process, NAQA performs, first of all, not a punishing, but a service function, helping universities in their pursuit of excellence. This means that the accreditation process will now focus not on the results of the educational process, but on the process itself. That is, NAQA studies and evaluates the ability of a university to organize a high-quality educational process based on the principle of university autonomy.

The "Regulations on the accreditation of educational programs for which the training of applicants for higher education is carried out" (Order № 977, 2019) defines ten criteria for assessing the quality of an educational program. Nine of them relate to bachelor's and master's programs and one includes a set of requirements for educational and scientific programs of a Ph.D. The criteria for assessing the quality of an educational program are developed taking into account the standards and recommendations for quality assurance in the European Higher Education Area (European Association for Quality Assurance in Higher Education, 2015).

In developing the criteria, NAQA proceeded from the premise that they should be suitable for flexible application. The criteria are a set of general statements about the educational program and the practice of its implementation; they do not have the character of formal and clearly defined rules for the content of education and the educational process. This approach is not accidental and is stipulated by three principles: 1) respect for the autonomy of the Western Military District; 2) taking into account the context; 3) taking into account the positions of stakeholders (NAQA, 2020).

Table. 3.shows how fully the proposed list of criteria meets the requirements of ESG-2015.

Table 3.
Compliance of the criteria for assessing the quality of the educational program with the content of ESG-2015 standards regarding internal support quality of higher education.

	Criteria for assessing the quality of the educational program	ESG-2015 standards (regarding internal quality assurance)
1	Design and objectives of the educational program	1.1. Quality assurance policy 1.2. Development and approval of programs
2	The structure and content of the educational program	1.2. Development and approval of programs
3	Access to curriculum and recognition of educational outcomes	1.4. Enrollment, training, recognition of qualifications and certification of students
4	Learning and teaching in the educational program	1.3. Student-centered learning, teaching and assessment
5	Assessment Activities, Graduate Applicant Evaluation and Academic Integrity	1.3. Student-centered learning, teaching and assessment
6	Human resources	1.5. Teaching Staff
7	Educational environment and material resources	1.6. Learning Resources and Student Support
8	Internal quality assurance of the educational program	1.9. Ongoing monitoring and periodic review of programs
9	Transparency and publicity	1.7. Information management 1.8. Public information
10	Learning through research	1.2. Development and approval of programs 1.5. Teaching Staff 1.6. Learning Resources and Student Support
11		1.10 Cyclical external quality assurance

Compiled by the authors

Comparison of the criteria for assessing the quality of the educational program with the requirements of the internal quality assurance system of the ESG-2015 standards indicates that the criteria for assessing the quality of the educational program make it possible to form an idea of ensuring the quality of the educational program in all parameters

provided for in the first section of the Standards and Recommendations for Quality Assurance in the European Space higher education.

The analysis of the results of accreditation of these programs is presented in tables 4, 5, 6.

Table 4.
NAQA decision on the accreditation of educational programs in the branch 08 "Law" in the context of higher education levels for the period from 01.09.2019 to 30.02.2021.

Accreditation decisions	Higher Education Level						Total	
	first (bachelor)		second (master's)		third (educational and scientific)			
	number	%	number	%	number	%	number	%
Exemplary	-	-	-	-	1	9,1	1	1,5
Accreditation	20	60,6	13	56,5	10	90,9	43	64,2
Conditional	9	27,3	10	43,5	-		19	28,3
Refusal	4	12,1	-	-	-	-	4	6,0
Total by branch 08 Law	33	100,0	23	100,0	11	100,0	67	100,0

Compiled by authors using open sourced data by minutes of NAQA meetings (2021).

Table 4 shows that for the period from September 1, 2019 to September 30, 2021, NAQA made 67 decisions on the accreditation of educational programs in the branch 08 "Law". 33 educational programs of the first (bachelor's) level of higher education, 23 of the second (master's) level and 11 educational and scientific programs of the PhD level have passed the accreditation process. All educational and scientific programs have received accreditation, one of them is exemplary.

The majority of educational programs that have received conditional (deferred) accreditation are implemented at the second (master's) level. 4 educational programs of the first (bachelor's) level have not been accredited and should be closed.

Training of future lawyers in Ukraine is carried out in higher educational institutions of various profiles: classical universities; specialized legal

higher educational institutions; non-core higher educational institutions (Oprishko, 2013, pp. 10-12). Table 5 shows the results of

accreditation in the context of the profile of higher educational institutions that train legal personnel.

Table 5.
Decision of NAQA on accreditation of educational programs in the branch 08 "Law" in the context of the profile of higher educational institutions for the period from 01.09.2019 - 30.02.2021.

Accreditation Decisions	Classic universities		Higher educational institutions of law and law enforcement		Higher education institutions of a professional direction other than law	
	number	%	number	%	number	%
Exemplary	1	6,7	-	-	-	-
Accreditation	11	73,3	15	75,0	17	53,1
Conditional	3	20,0	5	25,0	11	34,4
Refusal	-	-	-	-	4	12,5
Total by branch 08 Law	15	100,0	20	100,0	32	100,0

Compiled by authors using open sourced data by minutes of NAQA meetings (2021).

The data presented in Table 5 indicate that the largest share of educational programs that have passed the accreditation process are implemented in higher educational institutions of a profile other than law, of which a third of the programs are conditionally qualified. All educational programs which were denied accreditation are implemented in these institutions. In classical universities and higher educational institutions of law and law enforcement, the share of educational programs that have received conditional accreditation is much smaller. The best accreditation results are shown by classical universities.

The results of accreditation of educational programs in the context of the profile of higher educational institutions do not support the opinion regarding the advisability of training lawyers in a narrow specialized field (Oprishko, 2013; Vorontsova, 2015). For higher educational institutions of a profile other than law, the training of lawyers is a "by-product" in relation to the main area of professional training and a source of additional funding (Kotukha & Fedorov, 2018). It should be noted that out of 32 educational programs submitted for accreditation by non-major higher educational

institutions, only two programs provide for the training of lawyers in a certain type of legal activity corresponding to the profile of a higher educational institution. These are educational programs "Legal support of aviation activity" (Flight Academy of National Aviation University), "Maritime law" (Odesa National Maritime Academy).

However, we do not agree with the opinion that the training of lawyers in higher educational institutions of law enforcement is a negative phenomenon (Kotukha & Fedorov, 2018) and we support the opinion that these institutions take an important place in the system of higher legal education , providing significant education in the knowledge branch 08 Law (Muzychuk, 2020; Abroskin & Albul, 2021). The results of accreditation of educational programs in the specialty 081 Law, which are implemented in departmental higher educational institutions of power structures, testify to the proper level of training of lawyers in the vast majority of programs.

The data given in Table 6 allow us to speak about a rather low quality of higher legal education in private higher educational institutions.

Table 6.
NAQA decision on accreditation of educational programs by industry 08 "Law" in the context of the type of ownership of higher educational institutions for the period from 01.09.2019 to 30.02.2021

Accreditation Decisions	State universities		Private universities	
	number of decisions	%	number of decisions	%
Exemplary	1	1,7	-	-
Accreditation	41	70,7	2	22,2
Conditional	15	25,9	4	44,5
Refusal	1	1,7	3	33,3
Total by branch 08 Law	58	100,0	9	100,0

Compiled by authors using open sourced data by minutes of NAQA meetings (2021).

It should be noted that the overwhelming majority of higher educational institutions that have received conditional accreditation of educational programs do not post relevant information on the official website. Out of 23 conditionally accredited or non-accredited programs, the corresponding information on the official website of the university is available for 7 educational programs.

Independent external assessment

Another important component of the external quality assurance system for higher legal education is independent external assessment.

A unified special entrance test (ESVI) and a unified entrance examination (UEE) for a master's degree admission in the technology of external independent assessment, prepared and carried out by the Ukrainian Center for Educational Quality Assessment, was introduced in 2016. The ECVI involves a test in law and general educational legal competencies. UEE is a foreign language test (English, German, French or Spanish).

Already in 2017, everyone who wanted to get a master's degree in specialty 081 Law took a single special entrance test, which consisted of three blocks: testing for general educational legal competencies (TOUYUK): analytical, critical and logical thinking; testing in six basic legal disciplines; foreign language testing.

Since 2018, applicants for a master's degree in specialties 081 Law and 293 International Law must take a single special entrance test and a single entrance exam.

General information about the participants and the results of the unified special entrance test for the period from 2017 to 2021 is presented in tables 7, 8.

Table 7.

General information on the results of a single special admissions test.

	2017		2018		2019		2020		2021	
	Num-ber	%	Num-ber	%	Num-ber	%	Num-ber	%	Num-ber	%
Those who were registered	16892	100.0	18186	100.0	16277	100.0	17470	100.0	16300	100.0
Those who took the exam	16081	95.20	15834	87.07	14259	87.60	15243	87.25	14002	85.90
Those who did not show up for the exam	811	4.80	2352	12.93	2018	12.40	2227	12.75	2298	14.10
Those who passed the exam in law	14228	88.48	14009	88.49	10117	70.95	12535	82.23	9096	64.96
Those who didn't pass the exam in law	1853	11.52	1822	11.51	4142	29.05	2708	17.77	4906	35.04
Those who passed the exam TOUYUK	14820	92,29	14293	90.27	11686	81.96	12709	83.37	11098	79.26
Those who didn't pass the exam TOUYUK	1238	7.71	1541	9,73	2573	18.04	2534	16.63	2904	20.74

Compiled by authors using open sourced data of the Ukrainian Center for Educational Quality Assessment. (n/d).

The data shown in table 7 indicate fluctuations in the number of participants in a single special entrance test. The largest number of participants was recorded in 2018 – 18 186 people, the smallest in 2019 – 16 277 people. The absence of persons registered for testing in 2017 was 4.8%. In 2018, 12.93% of registered persons did not appear, which is more than 2.5 times compared to 2017. In 2019 - 2020, this indicator remained almost unchanged. In 2020, there was an increase in the proportion of people who did not show up for the exam, up to 14.1%. The reasons for such a failure to appear require additional clarification. The negative dynamics of the

number of persons who passed / did not pass the unified professional entrance test is worth considering. If in 2018 the percentage of participants who did not overcome the threshold score in the exam in Law did not change compared to 2017, then in 2019 it increased 2.5 times and amounted to 29.05%. In 2021, this figure rose further to 35.04%, that is, more than a third of ETF participants who did not pass the exam. We can also talk about a gradual increase in the percentage of test participants who did not overcome the threshold score from the TOYUK block from 7.71 in 2017 to 20.74% in 2021, that is, almost 3 times. Such negative dynamics by all criteria allows us to speak of a decrease in the level of professional training of graduates of bachelor's degrees in legal specialties of the branch of knowledge 08 Law.

Table 8.
Distribution of participants in a single special entrance test by points from the "Law" test block.

Year	The number of participants who received points from the "Law" test block		
	below 150	150-180	above 180
2017	74,74	23,17	2,09
2018	71,45	25,44	3,11
2019	77,42	20,56	2,02
2020	74,18	24,32	1,50
2021	73,09	24,77	2,14

Compiled by the authors and based on data from the Ukrainian Center for Education Quality Assessment (http:// testportal. gov. ua / stat/).

The data on the distribution of participants in the single special admissions test by points from the "Law" block, given in table 8, for the period from 2017 to 2021 do not yet allow us to state the established trend of improvement or deterioration in the quality of training of future lawyers, since:

– firstly, in the period from 2017 to 2019, there was a fluctuation in the percentage of participants who, according to the test results from the "Law" block, scored less than 150 points, from 150 to 180 points and more than 180 points. Since 2019, the percentage of participants with less than 150 points has been gradually decreasing, but this decrease is insignificant;

– secondly, it is impossible to directly compare the test results in different countries, since in 2018 the format (100 questions versus 70) and the content (8 subjects versus 6) of the test from the "Law" block changed, in 2019 the threshold score was increased to 35 points out of 100. In 2020, the content remained unchanged, the threshold score was lowered to 30. In 2021, the threshold score was again 35. However, a very high percentage of test participants who received less than 150 points (73.09% in 2021), testifies to the still low level of professional training of graduates of bachelor's degrees in legal specialties.

The accreditation of educational and scientific programs for the preparation of applicants for the degree of Doctor of Philosophy revealed the problem of reconciling this process with the results of state certification of higher educational institutions in terms of their scientific (scientific and technical) activities. This applies to universities related to the management of the Ministry of Education and Science of Ukraine. State certification of universities in terms of scientific (scientific and technical) activities began in Ukraine in August 2020. This procedure is carried out by expert groups in scientific areas while the commission for state certification of universities makes the final decision on certification. In essence, this certification can be considered as a component of the external quality assurance system for higher education for the preparation of applicants for the degree of Doctor of Philosophy.

Conclusions

The external quality assurance system for higher legal education is a component of the national quality assurance system for higher education in Ukraine. Important procedures of the system of external quality assurance of higher legal education are licensing, accreditation of educational programs, independent external assessment. Various government agencies take responsibility for the implementation of these procedures, they provide the information which is based on the results of these procedures and does not have a systemic generalizing nature, which makes it difficult to evaluate comprehensively and objectively the state of the

quality of higher legal education in general and in individual universities that train lawyers.

Analysis of the dynamics of changes in the results of these procedures over the past decade allows us to state the relevance of the trends identified in the previous research (Kostova et al., 2020), in particular: a steady decline in the number of applicants for higher education in the specialty 081 Law; an unjustified increase in the number of universities that train legal personnel. The negative impact of these trends on the quality of higher legal education can be manifested due to the lower requirements for admission by universities and the lack of a sufficient number of highly qualified scientific and teaching staff.

Comparison of the results of these external assessment procedures allows us to state that the highest level of professional training of lawyers is provided by the leading state classical universities and higher educational institutions of the legal direction.

The impact of external quality assurance procedures in higher legal education should be supported by the development of an internal quality assurance system at the universities.

Bibliographic references

Abroskin, V. V., & Albul, S. V. (2021). Higher education institutions of the Ministry of Internal Affairs of Ukraine in the context of the Concept of Legal Education Development. The South Ukrainian Law Journal, 1, 204-212. https://doi.org/10.32850/sulj.2021.1.35

European Association for Quality Assurance in Higher Education (2015). Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG). Kyiv: CS Ltd. URL: https://www.britishcouncil.org.ua/sites/default/files/standards-and-guidelines_for_qa_in_the_ehea_2015.pdf

Key indicators of higher education in Ukraine (n/d). Statistical bulletin. URL: www.ukrstat.gov.ua/druk/publicat/Arhiv.../Arch_vnz_bl.htm.

Khokhlova, I. (2019). Reforming of legal education. Comparative-analytical Law, 2, 182-184.

Kostova, N., Annienkova, I., Nahorna, N., & Hushcha, P. (2020). Higher Legal Education in Ukraine in the 21st Century: Current Situation and Development Issues. Amazonia Investiga, 9(27), 42-51. https://doi.org/10.34069/AI/2020.27.03.5

Kotukha, O. M., & Fedorov, M. P. (2018). Current trends in higher legal education. Law and Society, 2, 29-35.

Kvit, S. (Ed.). (2020a). Annual report of the National Agency for Quality Assurance in Higher Education. Kyiv: NAQA

Kvit, S., & Yeremenko, O. (Ed.). (2021). Annual report of the National Agency for Quality Assurance in Higher Education. Kyiv: NAQA

Kvit, S. (2020b). New accreditation system. What awaits Ukrainian universities? In Kvit, S. (Ed.). Annual report of the National Agency for Quality Assurance in Higher Education (pp. 170-175). Kyiv: NAQA

Law of Ukraine 2145-VIII. On Education. Activity. Verjovna Rada de Ucrania from September 5, 2017. URL: https://zakon.rada.gov.ua/laws/show/2145-19#Text

Law of Ukraine 1556-VII. On Higher Education. Activity. Verjovna Rada de Ucrania from July 1, 2014. URL: https://zakon.rada.gov.ua/laws/show/1556-18#Text

Ministry of Education and Science of Ukraine (2017). Top 10 most and least popular specialties of 2017. URL: https://mon.gov.ua/ua/news/usi-novivni-novini-2017-09-14-top-10-najbilsh-ta-najmensh-populyarnix-speczialnostej-u-2017-roczi

Ministry of Education and Science of Ukraine (2018). MES named the top 5 most popular specialties and graduates by the million submissions. URL: http://www.ukrstat.gov.ua/druk/publicat/kat_u/publosvita_u.htm

Ministry of Education and Science of Ukraine (2019). Who and where the entrants want to study - MES publishes TOP-10 most popular universities and specialties of 2019. URL: http://www.ukrstat.gov.ua/druk/publicat/kat_u/publosvita_u.htm

Ministry of Education and Science of Ukraine (2020). Admission-2020: more than 1 million applications are registered, which universities and specialties did the entrants choose this year. URL: https://mon.gov.ua/ua/news/vstup-2020-zareyestrovano-bilshe-1-mln-zayav-yaki-vishi-ta-specialnosti-obirali-cogo-roku-vstupniki

Ministry of Education and Science of Ukraine (2021). Admission-2021: over one million applications are submitted by bachelor's entrants. URL:

https://mon.gov.ua/ua/news/vstup-2021-ponad-miljon-zayav-podano-vstupnikami-na-bakalavrat

Mudruk, S. (2018). State of Legal Education in Ukraine. Analytical study on the results of educational measurements. Kyiv, Ukrainian: Vaite.

Mudruk, S. (2019). Standardized Educational Measurements 2018 in Higher Legal Education. Single Professional Entrance Test and Single Entrance Exam. Analytical research. Kyiv, Ukrainian: Vaite.

Muzychuk, E.O. (2020). Quality of higher legal education. Theoretical issues of jurisprudence and law enforcement problems: challenges of the XXI century. Proceedings of the 4th All-Ukrainian scientific and practical conference. Kharkiv, 47-49. URL: https://library.pp-ss.pro/index.php/ndippsn_20201120/article/view/muzychuk_e

NAQA (2020). Recommendations for the application of criteria for assessing the quality of education programs. Kyiv: LLC Ukrainian educational Orion Publishing Center. URL: https://inlnk.ru/20Qm9N

NAQA (2021). Minutes of meetings. URL: https://inlnk.ru/Mje3oe

Oprishko, V.F. (2013). Features of training of lawyers in non-core higher educational institutions of Ukraine: current state and ways of further development. Legal regulation of the economy,13, 6-27.

Order № 977. On the approval of the Regulation for accreditation of educational programs that provide training for higher education. Ministry of Education and Science of Ukraine from July 11, 2019. URL: https://zakon.rada.gov.ua/laws/show/z0880-19

Rogach, O. Ya. (2014). Problems and prospects of development of higher legal education in Ukraine. [File PDF] URL: https://dspace.uzhnu.edu.ua/jspui/bitstream/lib/9878/1/4.pdf

Sokolova, I. (2020). European approaches and practices to assure higher education quality. Continuing professional education: theory and practice (series: pedagogical sciences) № 2(63), 104-113. DOI: https://doi.org/10.28925/1609-8595.2020.2.14

State Statistics Service of Ukraine (2017) Statistical digest. Higher education in Ukraine. URL: http://www.ukrstat.gov.ua/druk/publicat/kat_u/publosvita_u.htm

Stolyarchuk, L. B. (2019). Current state of bachelors of law professional training in ukrainian higher educational institutions. Young Scientist, 1(65), 89-94. https://doi.org/10.32839/2304-5809/2019-1-65-20

Tkachenko, V. V. (2021). The challenges of globalization and their impact on legal education. Actual Problems of Native Jurisprudence, 3, 40-44. https://doi.org/10.15421/392146

Ukrainian Center for Educational Quality Assessment (n/n). Statistics. URL: http://testportal.gov.ua/stat/

Vorontsova, K.V. (2015). Ukrainy State study of higher legal education in independent Ukraine. Scientific Bulletin of the UNESCO Department of Kyiv National Linguistic University: Series Philology - Pedagogy - Psychology, 31, 275-281.

Zavatska, N., Hoi, N., Kozmenko, O., Kosheleva, N., Zavatskyi, Y., & Yaremko, R. / Volume 11 - Issue 51: 40-49 / March, 2022

40

Empirical research of student leadership's content parameters

Емпіричне дослідження змістових параметрів студентського лідерства

Written by:
Nataliia Zavatska[7]
https://orcid.org/0000-0001-8148-0998
Nataliia Hoi[8]
https://orcid.org/0000-0001-7293-6527
Olena Kozmenko[9]
https://orcid.org/0000-0002-7063-2324
Natalia Kosheleva[10]
https://orcid.org/0000-0002-0380-3242
Yurii Zavatskyi [11]
https://orcid.org/0000-0003-1860-9503
Roman Yaremko[12]
https://orcid.org/0000-0002-2781-7788

Abstract

The aim of this article was to perform a retrospective analysis and generalization of the content parameters of student leadership through an empirical study. Sociometric method and psychodiagnostic instruments were used to establish the values of student group leaders. Significant correlations between the studied leadership parameters were found. The sociometric status of student leaders was determined and their values were clarified. The stages and challenges of forming student leadership qualities were outlined. The model of the development of student leadership qualities was graphically constructed and substantiated. It was generalized that the empirical study of the content parameters of student leadership contains significant scientific facts that should be implemented in the educational process; the data can be useful to university administrations and student group curators.

Анотація

Метою статті є ретроспективне аналізування та узагальнення з емпіричним дослідженням змістових параметрів студентського лідерства. Застосовано соціометричну методику і псих діагностичний інструментарій для встановлення цінностей лідерів студентської групи. З'ясовано значущі кореляційні зв'язки між досліджуваними параметрами лідерства. Визначено соціометричний статус студентських лідерів і з'ясовано їхні цінності. Встановлено і обґрунтовано кореляційні зв'язки соціометричного статусу студентських лідерів з цінностями "Розвиток" (p < .01) і "Сміливість у відстоюванні своєї думки, поглядів" (p < .01); соціометричного статусу усіх респондентів з цінностями "Наявність хороших і вірних друзів" (p < .05) і "Незалежність" (p < .05). Окреслено етапи та завдання формування лідерських якостей студента. Графічно побудовано і обґрунтовано модель формування лідерських якостей

---

[7] Doctor of Psychological Sciences, Full Professor, Head of the Department of Practical Psychology and Social Work, Volodymyr Dahl East-Ukrainian National University, Severodonetsk, Ukraine.
[8] Candidate of Economic Sciences (Ph. D.), Associate Professor Department of Management and Business Administration, Vasyl Stefanyk Precarpathian National University, Ivano-Frankivsk, Ukraine.
[9] Doctor of Pedagogical Sciences, Associate Professor, Dean of Faculty of International Relations, Volodymyr Dahl East Ukrainian National University, Severodonetsk, Ukraine.
[10] Candidate of Pedagogical Sciences, Associate Professor, Associate Professor at the Department of Psychology, Horlivka Institute for Foreign Languages of the State Higher Educational Establishment "Donbas State Pedagogical University", Bakhmut, Ukraine.
[11] Doctor of Psychological Sciences, Associate Professor, Head of the Department of Human Health and Physical Education, Volodymyr Dahl East Ukrainian National University, Severodonetsk, Ukraine.
[12] Lecturer at the Department of Practical Psychology and Pedagogy, Institute of Psychology and Social Protection, Lviv State University of Life Safety, Lviv, Ukraine.

студента. Узагальнено, що емпіричне дослідження змістових параметрів студентського лідерства містить важливі наукові факти, які доцільно операціоналізувати у освітній процес; дані можуть бути корисні адміністраціям університетів, кураторам студентських груп.

Ключові слова: студентська група, освітній процес, термінальні цінності, інструментальні цінності, мотивація.

Introduction

The problem of leadership is directly related to the world's acute sociopolitical and economic difficulties, and it necessitates competent, professionally, morally mature, and trustable individuals. Some scientists believe that such people are the most politically aware, intellectually, morally, and ethically developed, capable of solving any complex problem and building a new life through a creative understanding of the world and humanity's needs (Meneghetti, 2004; Sopovnik, 2012). The COVID-19 pandemic adjusted this scientific problem significantly, increasing young people's existential anxiety (Popovych et al., 2020a), altering spatial regulation of behavior (Khmiliar et al., 2020), and creating favorable conditions for leisure and free time on social media (Hudimova, 2021a; 2021b; Hudimova et al., 2021). The consequences of the COVID-19 pandemic are still being studied, particularly the effectiveness of the educational process, which has undergone significant changes due to distance learning. This articulation of research issues focuses on young people's social expectations and perceptions of their psychological well-being (Ma et al., 2020; Shevchenko, 2019).

At the current stage of society's development, the issue of forming organizational leaders is being studied in pedagogical (Shevchenko et al., 2020a; 2020b; Sopovnik, 2012), psychological (Blynova et al., 2020b), and social dimensions (Popovych et al., 2021b). Universities are undergoing significant transformations, including globalization (aggregation), pragmatization, standardization, and marketing, according to investigation (Serkina & Logvinova, 2019). All of these transformational changes require critical thinking (Arbeláez-Campillo et al., 2020) and appropriate application. The problem of leadership in the student group is still relevant. A leadership position is distinguished by a responsible attitude toward themself, other members of the group,

nature, and the world, as well as a willingness to accept responsibility for solving urgent tasks. The formation of a leader is one aspect of the formation of a national elite in any nation.

Leadership is a personalized form of social control that incorporates all mechanisms and methods of socio-psychological influence to achieve maximum effect in group activities and communication (Klenina, 2019). The following qualities must be owned by the headmaster in order to successfully lead a student group: responsibility; communicative abilities – sociability, namely the ability to establish and maintain contacts with all members of the group, sincerity, willingness to communicate, critical ability to defend their views; s tress resistance refers to the ability to withstand a variety of extreme influences; adaptive mobility – the operation of a purposeful system determined by the correspondence of goals and achievements in the course of activity; organizational skills include self-control, assertiveness, and organization (Zanyuk, 2002).

Researchers are particularly interested in motivation and the development of leadership qualities (Pinkovetskaia et al., 2020). It is important that the leader is able to lead. As a result, subordinates look up to such a leader as an ideal role model and admire them. Leadership skills and inspiring motivation, according to S. Zanyuk (2002), are components of a transformational leader's charisma. Personal attention to each subordinate is critical to ensuring the overall effectiveness of the team and the high productivity of each individual. When a leader encourages subordinates to be innovative and creative, intellectual stimulation occurs. A transformational leader may appear 'soft' and liberal at first glance, but in reality they are a role model, constantly improving oneself and encouraging subordinates to develop themselves (Zanyuk, 2002).

A leader is a person by whom all other members of the group recognize the right to make the most responsible decisions that affect their interests and to determine the direction and nature of the activities of the whole group (Meneghetti, 2004). The effective functioning of the group is primarily dependent on the relationship that develops between the group's formal leader and informal leaders. Knowledge about the group's actual interpersonal relationships allows the teacher to guide them in the right pedagogical direction. The group leader, on the other hand, is capable of assisting the teacher in the teaching and educational process based on business and personal qualities. An experimental study showing that cooperation between students with high levels of leadership qualities and students with low levels of leadership qualities does not produce positive results is scientifically interesting. Concurrently, collaboration with university teachers aims to support participating students and promotes the development of leadership skills (Zorina et al., 2018).

Leadership is the process of internal social organization and communication management that is carried out by members of a small group in spontaneously formed small groups. Most researchers agree that leadership is a changing phenomenon that is closely related to the overall gradual development of the group, as well as the dynamics of the most important areas of its life (Shamir & Eilam, 2005). For example, R. Krichevsky's (2007) leadership theoretical model incorporates the concept of psychological 'value' exchange between group members in their interpersonal interactions. It is assumed that the value characteristics of individuals, namely the individual's significant characteristics, orientation, skills, experience, and so on, appear to be exchanged for the group's authority and recognition (Krichevsky, 2007).

Retrospective analysis reveals that the time of studenthood is youth, which marks the end of the transition period from childhood to adulthood, i. e. entering the adult world. There are significant psychological changes at this age (18-23 years): self-development is activated, conscious self-improvement is actualized, and moral and aesthetic feelings acquire active development. Character traits are being formed and stabilized, and most importantly, a person of this age is mastering a new adult role repertoire. This repertoire of roles can include civic, sociopolitical, professional, labor, and family roles (Popovych et al., 2020b; 2021c).

Under the psychological content parameters of student leadership, we mean a set of characteristics and psychodiagnostic dimensions (for example, sociometric status) that can accurately reflect the phenomenon of student leadership.

A retrospective analysis of the scientific literature led to the conclusion that the ongoing global transformations, such as humanity's fight against the pandemic COVID-19, have had an impact on social reality and the phenomenon of student leadership. This issue requires immediate attention as well as a modern scientific perspective on today's realities.

Hypothesis. We assume that the findings of the empirical study of the content parameters of student leadership will contain important scientific facts, and that the findings should be implemented in the educational process.

The aim of the article is to retrospectively analyze and generalize with further empirical study of the content parameters of student leadership.

Methodology and methods

The methodology of our empirical study was based on the interpretation that it is possible to establish the urgency of the problem, clarify correlations, and interpret the phenomenon through psychodiagnostic measurement of content parameters that relevantly reflect the studied phenomenon. Researchers' perspectives are taken into account in adaptation processes (Blynova et al., 2020a), time perspective research (Plokhikh et al., 2021; Popovych et al., 2021a), and studies of other activities related to the current one (Nosov et al., 2020; Zinchenko et al., 2020).

Participants. The sample was selected at random and included students from a variety of Ukrainian universities: Institute of Psychology and Social Protection Lviv State University of Life Safety (Lviv, Ukraine) (n=44); Kherson State University (Kherson, Ukraine) (n=32); Horlivka Institute for Foreign Languages of the State Higher Educational Establishment "Donbas State Pedagogical University" (Bakhmut, Ukraine) (n=32); Classical Private University (Zaporizhzhia, Ukraine) (n=23); Volodymyr Dahl East Ukrainian National University (Severodonetsk, Ukraine) (n=49). Students ranged in age from 18 to 25 years. Students with different social and family status, different wealth and with different professional

experience. Classical, branch, state and private institutions of higher education are presented. The total number of participants was 180, of whom males (37.78; n = 68) and females (62.22; n = 112). The average age of the participants was M = 19.34.

Organization of Research. A statement section of the study and data interpretation were made in 2021, specifically from February to April, and then continued from October to November. The study included ten student groups from five different universities. Moreno's (1958) sociometry was used. The respondents' sociometric status was assessed, the sociogram and sociomatrix were created, and the sociometric index was calculated. A simulated current situation in student life, allowing respondents to consider their selections thoroughly and thoughtfully.

The value orientations of all respondents were determined using the "Study of Personality Value Orientations" (Rokeach, 1979) method. There were eighteen terminal values and eighteen instrumental values on the list of value orientations. Each respondent chose five values from each of the two forms voluntarily. The values chosen most accurately reflect the respondent's position in student life, particularly in the student group.

Statistical Analysis. The statistical software package "SPSS" version 23 was used. The Spearman coefficient (rs) was used to record correlation relationships. The obtained data was ranked according to MS "Excel". The reliability parameters that were at the level not lower than p≤.05 were taken into account. The modeling method (Shtoff, 1966) was used to develop an empirical model of student leadership qualities.

Results and discussion

Sociogram and sociomatrix using the "Sociometry" method (Moreno, 1958) were constructed. The selections of respondents enabled the measurement of sociometric status and the calculation of a sociometric index.

In Table 1, we present the findings of the study using the "Sociometry" method.

Table 1.
The results of the study according to the "Sociometry" method (n=180)

Group Code	Quantity of selections	Quantity of leaders
1LSULS	9; 7	2
2 LSULS	10; 8	2
3KSU	8; 8	2
4KSU	10; 9; 8	3
5DSPU	16	1
6DSPU	9; 8	2
7CPU	12; 6	2
8CPU	10; 9	2
9VDEUNU	15	1
10 VDEUNU	10; 9; 8	3

According to the results of the "Sociometry" method, there were twenty leaders in ten student groups. There were two leaders in six groups, three leaders in two groups, and one leader in the final two groups. Sociometric method has allowed us to focus on leaders.

So let highlight the findings of the "Study of Personality Value Orientations" method (Rokeach, 1979). We present the sum of selections and the rank of terminal values of student leaders in Tabl. 2.

Table 2.
The results of the study of terminal values of student leaders according to the "Study of Personality Value Orientations" method (n=20)

Terminal Value List	Sum of Selections (∑)	Value Rank (p)
Active life	4	10
Life wisdom	3	14
Health	10	3
Interesting job	3	14
The beauty of nature and art	2	16
Love	6	6
Material support of life	9	4
The presence of good and loyal friends	4	10
Public vocation	4	10
Knowledge	4	10
Productive life	1	17
Development	18	1
Freedom	12	2
Happy family life	8	5
Happiness of others	4	10
Creativity	5	7
Self-confidence	3	14
Entertainment	0	18

Student leaders showed the following importance of the ranks of terminal values: 1) "Development" (∑=18; p=1); 2) "Freedom" (∑=12; p=2); 3) "Health" (∑=10; p=3); 4) "Material support of life" (∑=9; p=4) and "Happy family life" (∑=8; p=5). The student sample had slightly different results of the significance of the ranks of terminal values: 1) "The presence of good and loyal friends" (∑=225; p=1); 2) "Material support of life" (∑=214; p=2); 3) "Health" (∑=210; p=3); 4) "Love" (∑=201; p=4) and "Entertainment" (∑=188; p=5). The results of the study of values and psychological well-being, particularly in the student sample, were consistent with the findings of the study of values and psychological well-being in youth (Semenov et al., 2021). Along with development, hedonistic values had a place in this study. This combination is quite common in our society, as we are forced to admit that hedonistic orientation and consumer philosophy are frequently prevalent among young people.

The amount of selections and the rank of instrumental values of student leaders were determined by the "Study of Personality Value Orientations" method (Rokeach, 1979). Tabl. 3 presents the results.

Table 3.
The results of the study of instrumental values of student leaders according to the method "Study of Personality Value Orientations" method (n=20)

Instrumental Values List	Sum of Selections (∑)	Value Rank (p)
Accuracy	8	5
Mannerliness	9	4
High requests	3	13
Buoyancy	5	7
Diligence	6	6
Independence	1	17
Intolerance of shortcomings in oneself and others	4	10
Education	13	2
Responsibility	4	8
Rationalism	2	16
Self-control	4	9

Courage in defending one's thoughts and views	17	1
Sensitiveness	0	18
Tolerance	3	14
Liberality	10	3
Strong will	3	15
Honesty	4	11
Efficiency in business	4	12

Student leaders showed the following significance of instrumental values: 1) "Courage in defending one's thoughts and views" ($\sum=17$; p=1); 2) "Education" ($\sum=14$; p=2); 3) "Liberality" ($\sum=11$; p=3); 4) "Mannerliness" ($\sum=9$; p=4) and "Accuracy" ($\sum=8$; p=5). The general student sample showed the following significance of the ranks of instrumental values:1) "Independence" ($\sum=221$; p=1); 2) "Liberality" ($\sum=215$; p=2); 3) "High requests" ($\sum=193$; p=3); 4) "Courage in defending one's thoughts and views" ($\sum=190$; p=4); 5) "Education" ($\sum=189$; p=5). The top five instrumental values of student leaders and the general sample differed little, except for the ranking. This suggests that instrumental values, as opposed to terminal values (Rokeach, 1979), have a higher assimilation ability and have a significant impact on the formation of a young personality.

The main findings of Spearman (r_s) correlation analysis were outlined. According to the findings, there was a significant positive correlation between sociometric status and the terminal value "The presence of good and loyal friends" (.233; $p < .05$) and the instrumental value "Independence" (.244; $p < .05$) in the student sample. There was a significant positive correlation of sociometric status with the terminal value "Development" (.333; $p < .01$) and the instrumental value "Courage in defending one's thoughts and views" (.214; $p < .05$) in the sample of student leaders. The dominance of psychological determinants of youth development, conscious civic position, elements of maximalism, and the desire for a quick result were used to explain the obtained results.

The results of the retrospective analysis and empirical study of psychological content features of student leadership enabled us to move on to highlight the stages and objectives of leadership development and to create an empirical model of student leadership qualities.

The first stage of modeling considers the preliminary analysis of students' development of leadership qualities, revealing the role and place of various subjects in the educational process. The following pedagogical conditions were supported: theoretical preparation of students in leadership studies, motivation of students for leadership, readiness to form students' leadership qualities, formation of public opinion stimulating students' leadership behavior, favorable moral and psychological climate and creative atmosphere, development of effective forms of student self-government taking into account the students' ages and individual characteristics (Sopovnik, 2012).

The models of student leadership development found in the psychological and pedagogical literature were examined in the second stage of modeling (Semenov et al., 2021; Sopovnik, 2012). The following components of the model of leadership quality formation in university students were identified by the authors: social need; purpose and objectives; content; methodological approaches and principles; pedagogical conditions; stages of formation; forms and methods, criteria, indicators, and levels of leadership qualities; self-diagnosis, self-correction, and self-education of qualities. The public need requires professionals who are educated in civic values, capable of acting effectively in uncertain situations, being creative in solving pressing problems, producing new ideas, uniting people around a socially useful goal, and ensuring its achievement in the shortest possible time at the lowest possible cost. The model's goal was to foster the development and self-education of a specific set of leadership qualities. In the quality structure, we emphasized the need to behave, act in a specific range of situations, which was also dependent on the cognitive, emotional, and value spheres of personality. In view of this, we proposed five stages of leadership development, which are based on a review of the scientific literature and supplemented by our own research on the phenomenon of student leadership (Krichevsky, 2007; Sopovnik, 2012): 1) dispositional; 2) informational and analytical; 3) affective and valueable; 4) conative and operational; and 5) control.

Figure 1 illustrates the stages and challenges involved in developing a student's leadership abilities, as well as the content of these challenges.
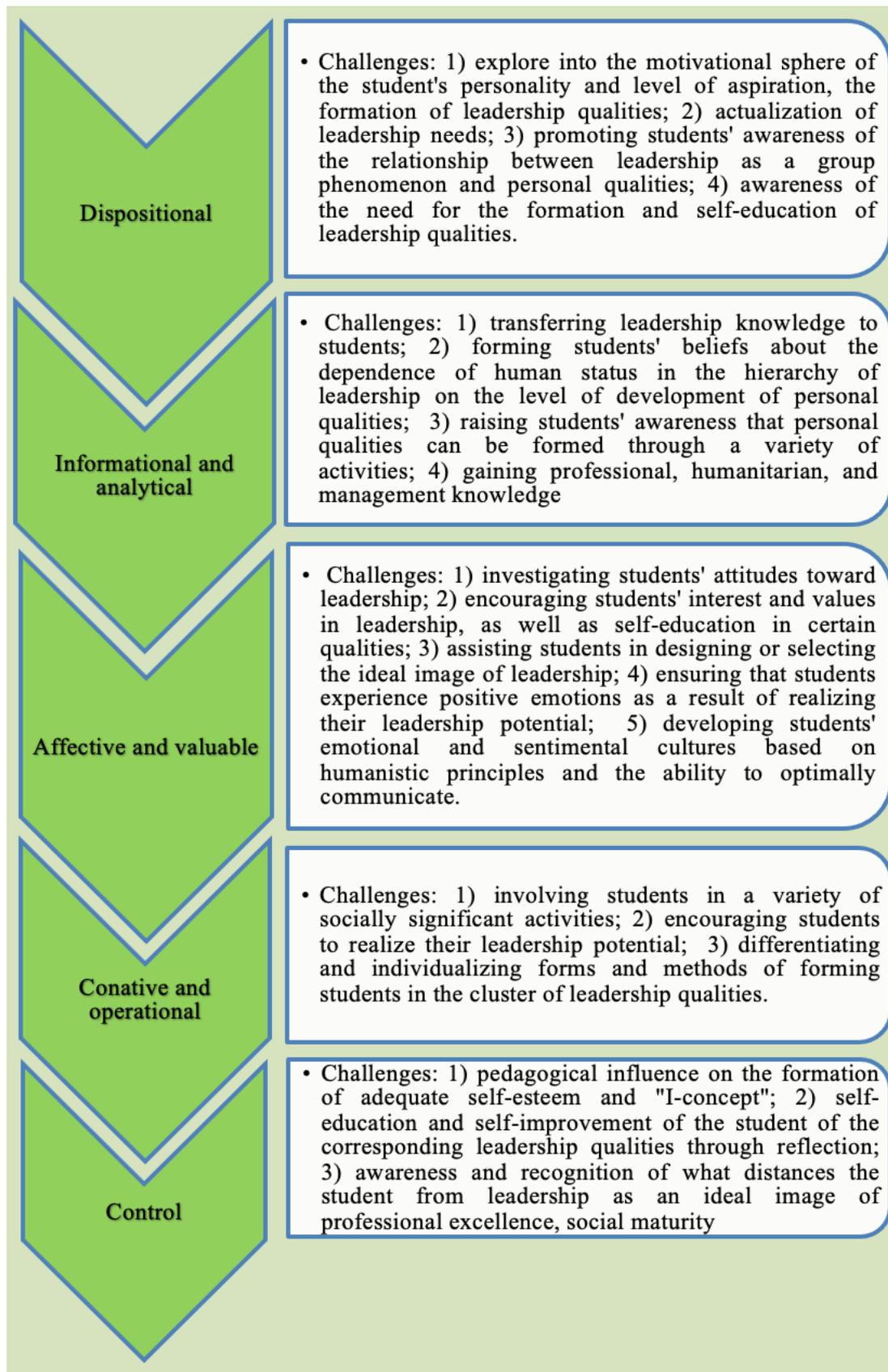
Figure 1. Stages and challenges of forming student leadership qualities.

The model of student leadership qualities development (Fig. 2) is a complex structural formation, a system with interconnected components that determine its integrity and effectiveness.

Figure 2. Model of formation of student leadership qualities.

The proposed model's components are the result of a review of the scientific literature and its interpretation (Krichevsky, 2007; Sopovnik, 2012): social need; purpose and objectives; content; methodological approaches and principles; psychological and pedagogical conditions; stages of formation, forms, and methods; leadership development criteria and levels; self-diagnosis, self-correction, and self-education of qualities.

The implementation of the student's stages and challenges for developing leadership qualities must be considered in conjunction with the components of the model for developing leadership qualities. As a result, the informational and analytical stage enables to concentrate on the development of intelligence, professional knowledge, the ability to anticipate and evaluate changing natural factors, environmental culture, and creativity. Morality and empathy are examples of affective and valueable behaviors. The conative and operational stage entails the application of leadership qualities in practice, as well as their verification and correction at the control stage of the self-education process. The actual directions for further development of the outlined problem are the substantiation of features and methods of forming separately taken leadership qualities of students.

Conclusions

1. We state that under the psychological content parameters of student leadership we understand a set of qualities and psychodiagnostic dimensions that were able to relevantly reflect the phenomenon of student leadership.
2. The terminal values "Development" ($\sum$=18; p=1) and "Freedom" ($\sum$=12; p=2) were found to be important for student leaders. The terminal values in the student sample were "The presence of good and loyal friends" ($\sum$=225; p=1) and "Material support of life" ($\sum$=214; p=2).
3. It has been established that the results of prevailing terminal values, particularly in the student sample, are quite typical for our society, as we are forced to admit that the hedonistic orientation and consumer philosophy of young people frequently prevail.
4. The instrumental values "Courage in defending one's thoughts and views" ($\sum$=17; p=1) and "Education" ($\sum$=14; p=2) were found to be important for student leaders.

The instrumental values in the student sample were "Independence" ($\sum$=221; p=1) and "Liberality" ($\sum$=215; p=2).

5. The stages and challenges of developing leadership qualities were outlined, and a student's model of forming leadership qualities was graphically constructed and substantiated.

6. It is substantiated that the obtained results of empirical research on psychological content parameters of student leadership contain significant scientific facts and that they should be implemented into the educational process.

Bibliographic references

Arbeláez-Campillo, D., Tatsiy, V., Rojas-Bahamón, M., & Danilyan, O. (2020). Contributions of critical thinking as a form of participation and political deliberation. Amazonia Investiga, 9(27), 5-12. https://doi.org/10.34069/AI/2020.27.03.1

Blynova, O., Kisil, Z., Tkach, T., Semenova, N., Semenov, O., Kamisnka, S., & Popovych, I. (2020a). Psychological manifestations of professional marginality of future social welfare professionals. Revista Inclusiones, 7(SI), 218–233. http://www.revistainclusiones.org/index.php/inclu/article/view/1229

Blynova, O., Moiseienko, V., Los, O., Burlakova, I., Yevdokimova, O., Toba, M., & Popovych, I. (2020b). Assertiveness as a Factor of Students' Choice of Behavior Strategies in Social Interaction. Revista Inclusiones, 7(4), 259-272. http://www.revistainclusiones.org/index.php/inclu/article/view/1551

Hudimova, A. Kh. (2021a). Behavioral Patterns of Social Media Users as a Condition of Their Psychological Well-being. (PhD thesis), Odesa National I.I. Mechnikov University. Odesa National I. I. Mechnikov University Online Repository. Retrieved from http://onu.edu.ua/pub/bank/userfiles/files/science/razovi_spec_vcheni_rady/df41051014/diss_GudimovaAH.pdf

Hudimova, A. Kh. (2021b). Psychological well-being and social media users' behavioral online patterns in everyday life and during COVID-19 pandemic. Insight: the psychological dimensions of society, 5, 133-147. https://doi.org/10.32999/2663-970X/2021-5-9

Hudimova, A., Popovych, I., Baidyk, V., Buriak, O., & Kechyk, O. (2021). The impact of social media on young web users' psychological well-being during the COVID-19 pandemic progression. Revista Amazonia Investiga, 10(39), 50–61. https://doi.org/10.34069/AI/2021.39.03.5

Khmiliar, O., Popovych, I., Hrys, A., Pavliuk, M., Zavatska, N., Lytvynenko, O., & Blynova, O. (2020). Spatial Regulation of Personality Behavior in the Conditions of Progression of the COVID-19 Pandemic. Revista Inclusiones, 7(SI), 289-306. http://www.revistainclusiones.org/index.php/inclu/article/view/1760

Klenina, K. V. (2019). Theoretical and methodological analyzing of content characteristics of an individual's perfectionism". Insight: the psychological dimensions of society, 1, 84-89. https://doi.org/10.32999/2663-970X/2019-1-13

Krichevsky, R. L. (2007). Leadership psychology. Moscow: Status.

Ma, F., Shevchenko, R. P., & Karhina, N. V. (2020). Student you three presentation of psychological well-being: results of content analysis of works. Insight: the psychological dimensions of society, 3, 44-55. https://doi.org/10.32999/2663-970X/2020-3-3

Meneghetti, A. (2004). Psychology of a Leader. Moscow: NNBF Ontopsychologiya.

Moreno, J. L. (1958). Sociometry: an experimental method and the science of society. Moscow: Foreign Literature Publishing House.

Nosov, P. S., Popovych, I. S., Cherniavskyi, V. V., Zinchenko, S. M., Prokopchuk, Y. A., & Makarchuk, D. V. (2020). Automated identification of an operator anticipation on marine transport. Radio Electronics, Computer Science, Control, 3, 158–172. https://doi.org/10.15588/1607-3274-2020-3-15

Pinkovetskaia, I., Arbeláez-Campillo, D., Rojas-Bahamón, M., & Veas Iniesta, D. (2020). Motivation of new entrepreneurs in modern economies. Amazonia Investiga, 9(29), 368-373. https://doi.org/10.34069/AI/2020.29.05.41

Plokhikh, V., Popovych, I., Zavatska, N., Losiyevska, O., Zinchenko, S., Nosov, P., & Aleksieieva, M. (2021). Time Synthesis in Organization of Sensorimotor Action. BRAIN. Broad Research in Artificial Intelligence and Neuroscience, 12(4), 164-188. https://doi.org/10.18662/brain/12.4/243

Popovych, I., Arbeláez-Campillo, D. F., Rojas-Bahamón, M. J., Burlakova, I., Kobets, V., & Bokshan, H. (2021a). Time perspective in the professional activity of

specialists of economic sphere. Cuestiones Políticas, 39(69), 424-445. https://doi.org/10.46398/cuestpol.3969.27

Popovych, I., Chervinskyi, A., Kazibekova, V., Chervinska, I., & Machynska, N. (2021b). Empirical research of the typology of social expectations of the personality. Amazonia Investiga, 10(43), 112-122. https://doi.org/10.34069/AI/2021.43.07.11

Popovych, I., Kononenko, O., Kononenko, A., et al. (2020a). Research of the Relationship between Existential Anxiety and the Sense of Personality's Existence. Revista Inclusiones, 7(SI), 41-59. http://www.revistainclusiones.org/index.php/inclu/article/view/300

Popovych, I., Lymarenko, L., Tereshenko, N., Kornisheva, T., Yevdokimova, O., Koverznieva, A., & Aleksieieva, M. (2020b). Research on the Effectiveness of Training Technologies' Implementation in Student Theater". Revista Inclusiones, 7(2), 104-121. http://www.revistainclusiones.org/index.php/inclu/article/view/261

Popovych, I., Shevchenko, A., Galvez, L. M., & Klenina, K. (2021c). Research of the relationship between social desirability and value orientations of adolescents. Revista Notas Históricas y Geográficas, 26(1), 241–268. https://www.revistanotashistoricasygeograficas.cl/index.php/nhyg/article/view/339

Rokeach, M. (1979). Undestanding human values individual and social. New York: New York the Free press. https://lib.ugent.be/catalog/rug01:000031325

Semenov, O., Oleshko, P., Tsymbal, S., Liashko, V., Shevchenko, A., & Popovych, I. (2021). Research of social expectations of university students in the dimensions of psychological well-being. Revista Eduweb, 15(3), 124–138. https://doi.org/10.46502/issn.1856-7576/2021.15.03.10

Serkina, Y., & Logvinova, A. (2019). Administrative management of universities: background and consequences. Amazonia Investiga, 8(22), 673-683. Retrieved from https://amazoniainvestiga.info/index.php/amazonia/article/view/818

Shamir, B., & Eilam, G. (2005). "What's Your Story?" to Life-Stories Approach to Authentic Leadership Development. The Leadership Quarterly, 16, 395-417. https://doi.org/10.1016/j.leaqua.2005.03.005

Shevchenko, A. V. (2019). Research on the correlation between social desirability and value orientations in adolescence. Insight: the psychological dimensions of society, 1, 90-94. https://doi.org/10.32999/2663-970X/2019-1-14

Shevchenko, R., Cherniavskyi, V., Zinchenko, S., Palchynska, M., Bondarevich, S., Nosov, P., & Popovych, I. (2020a). Research of psychophysiological features of response to stress situations by future sailors. Revista Inclusiones, 7(SI), 566-579. http://www.revistainclusiones.org/index.php/inclu/article/view/1780

Shevchenko, R., Popovych, I., Spytska, L., Nosov, P., Zinchenko, S., Mateichuk, V., & Blynova, O. (2020b). Comparative analysis of emotional personality traits of the students of maritime science majors caused by long-term staying at sea. Revista Inclusiones, 7(SI), 538-554. http://www.revistainclusiones.org/index.php/inclu/article/view/1309

Shtoff, V.A. (1966). Modeling and philosophy. Moscow: Science. https://platona.net/load/knigi_po_filosofii/filosofija_nauki_tekhniki/shtoff_v_a_modelirovanie_i_filosofija/30-1-0-2949

Sopovnik, R. V. (2012). Education of leadership qualities of agricultural students educational institutions. Kyiv: Central Committee "Comprint".

Zanyuk, S. S. (2002). Psychology of motivation. Kyiv: Lybid. https://sociology.knu.ua/uk/library/psihologiya-motivaciyi-navchposibnik

Zinchenko, S., Ben, A., Nosov, P., Popovych, I., Mateichuk, V. & Grosheva, O. (2020). The vessel movement optimisation with excessive control, Bulletin of university of Karaganda. Physics, 99(3), 86-96. http://rmebrk.kz/journals/5983/46887.pdf#page=86

Zorina, A. V., Yarullina, A. S., Akhmetova, L. A., Shaimardanova, M. R., Nikishina, S. R. & Garipova, A. A. (2018). Leadership in the University Student Environment: How to Become a Person-Oriented Leader. International Journal of Instruction, 11(4), 271-286. https://doi.org/10.12973/iji.2018.11418a

Machynska, N., Yaremchuk, N., Korniat, V., Derkach, Y., Sirant, N., & Lozynska, S. / Volume 11 - Issue 51: 50-60 / March, 2022

50

Research of readiness of pedagogical workers for innovations

Дослідження готовності педагогічних працівників до інновацій

Written by:
Nataliia Machynska[13]
https://orcid.org/0000-0003-0309-7074
Nataliya Yaremchuk[14]
https://orcid.org/0000-0001-7218-6543
Vira Korniat[15]
https://orcid.org/0000-0002-6455-8199
Yuliia Derkach[16]
https://orcid.org/0000-0003-2367-8730
Nelya Sirant[17]
https://orcid.org/0000-0002-8075-1511
Svitlana Lozynska[18]
https://orcid.org/0000-0002-9413-5496

Abstract

The purpose is empirical research of the interdependence of variables and construction of the factor structure of the readiness of pedagogical workers for innovation. Research methods: theoretical analysis and generalization, valid test methods with standardized questionnaires, factor analysis. The structure of readiness of pedagogical workers for innovative pedagogical activity has been determined using ANOVA factor analysis with Varimax rotation. The most significant interdependencies of variables and researched relationships were established at the statistically significant level ($p \leq .01$; $p \leq .05$). The structure of readiness of pedagogical workers for innovations united five main factors. It has been found that the main is F2 "informational readiness", which is positively correlated with F1 "motivational operational readiness", F3 "sense readiness", F4 "procedural readiness" and F5 "distat-resulting preparedness". It is expedient to implement the

Анотація

Метою є емпіричне дослідження взаємозалежності змінних та побудова факторної структури готовності педагогічних працівників до інновацій. Методи дослідження: теоретичний аналізування та узагальнення, валідні методи тестування зі стандартизованими анкетами, факторний аналіз. Визначено структуру готовності педагогічних працівників до інноваційної педагогічної діяльності за допомогою факторного аналізу ANOVA з обертанням Varimax. Найбільш значущі взаємозалежності змінних і досліджуваних зв'язків встановлено на статистично значущому рівні ($p \leq .01$; $p \leq .05$). Структура готовності педагогічних працівників до інновацій об'єднала п'ять основних факторів (75.77%). Встановлено, що основним є F2 "інформаційна готовність" (9.38%), що позитивно корелює з F1 "мотиваційно-операційною готовністю" ($rs = .132$; $p \leq .01$), F3 "сенсовою готовністю"

---

[13] Doctor of Pedagogical Sciences, Full Professor, Head of the Department of Primary and Preschool Education, Ivan Franko National University of Lviv, Lviv, Ukraine.
[14] Candidate of Pedagogical Sciences, Associate Professor, Associate Professor of the Department of General Pedagogy and Pedagogy of Higher School, Ivan Franko National University of Lviv, Lviv, Ukraine.
[15] Candidate of Pedagogical Sciences, Associate Professor, Chairperson of the Department of Social Pedagogy and Social Work, Ivan Franko National University of Lviv, Lviv, Ukraine.
[16] Candidate of Pedagogical Sciences, Associate Professor, Associate Professor of Primary and Preschool Department, Ivan Franko National University of Lviv, Lviv, Ukraine.
[17] Candidate of Pedagogical Sciences, Associate Professor of the Department of Primary and Preschool Education, Ivan Franko National University of Lviv, Lviv, Ukraine.
[18] Candidate of Pedagogical Sciences, Associate Professor, Associate Professor of the Department of Primary and Preschool Education, Ivan Franko National University of Lviv, Lviv, Ukraine.

acquired knowledge into the program of reforms and development of primary and secondary education. The research of a specific type of readiness for innovation with the development of an implementation algorithm requires further attention.

Key words: primary education, education, upbringing, innovation, educational space, educational process.

(rs = . 201; p ≤ .01), F4 "процесуальною готовністю" (rs= .137; p ≤ .01) і F5 "дистатно-результуючою готовністю" (rs = .086; p ≤ .01). Набуті знання доцільно впровадити в програму реформ і розвитку початкової і середньої освіти.

Ключові слова: початкова освіта, навчання, виховання, інноватика, освітній простір, освітній процес.

Introduction

Researchers are paying increasing attention to the use of the latest innovative technologies in the educational process of primary and secondary schools as a result of dynamic educational changes that span a number of countries on different continents. According to N. Machynska (2018), the current stage of modernization of Ukraine's higher education system is marked by increased attention to personality, teachers' efforts to develop the creative potential of educational participants, combining traditions with new ideas related to Ukraine's entry into the European and global educational space. The use of innovative teaching technologies in higher education, the creative search for new or improved concepts, principles, and approaches to education, significant changes in content, forms, and methods of teaching, and the management of the pedagogical process are all required for the implementation of new vectors of educational development (Machynska, 2018; Machynska et al., 2021).

The present assures promotion of a healthy lifestyle, active forms of recreation, a combination of hobbies with sports activity. At the same time, the problem of reforming the school system of physical education becomes rapidly relevant. (Kachan, 2017). Such rhetoric leads us to consider that any educational institution requires pedagogical workers who will consider social changes, be willing to reorient one's own thinking, and recognize new requirements for innovative educational activities. Special attention should be paid to primary and secondary education institutions located in rural areas (Sirant, 2018). Remoteness from the center can cause slowing down and inhibiting innovation in this area.

Also, the relevance of the outlined issues is explained by a number of factors that are presented in the works of researchers of innovation (Dychkivska, 2012; Tsiuniak, 2019; Tsiuniak et al., 2020). The first factor is updating the content of education, rethinking the

technologies of teaching and education. The second one includes a significant expansion of the professional functions of a pedagogical worker of a modern school. The teacher must change the approach to learning, propose a model that will contribute to the formation of competencies required by modern realities. The subject of professional activity of such a teacher is education of a pupil with deep moral values of personality, citizen, patriot on the basis of innovative renewal and humanistic paradigm. The third factor includes innovation. This innovative activity is directly related to the educational and upbringing activities of pedagogical workers. Its essence is the continuous improvement of work, the search for new innovative forms and methods of teaching and education. These are landmarks of the main directions of modernization of education. The key is the ability to build conceptual principles of pedagogical innovations that combine diagnostics, prediction, psychocorrection, and reflection of innovative actions.

In primary and secondary education, according to the unanimous opinion of scientists and practitioners, the transition to a competency-based approach means a reorientation from the process to the result of education in the activity dimension. Consideration of this result, taking into account the needs of society, is the ability of a graduate of secondary education to meet the new demands of today, to have the appropriate potential for practical solutions of life's problems (obtaining a profession, starting a family, etc.). In this regard, it is worth talking about the new roles of pedagogical workers, not as a sole mentor and source of knowledge, but as a coach, facilitator, tutor, moderator in the individual educational trajectory of the child (Petrova, & Sivka, 2019).

The readiness of a pedagogical workers for innovative pedagogical activity is a special personal state, which presupposes that the teacher has motivational and value attitude to professional activity, a high level of responsible

attitude, effective ways and means to achieve pedagogical goals, ability to creativity and reflection (Halian, 2019; Halian et al., 2020; Tsiuniak, 2019). The results of the researcher I. Dychkivska (2012) show that the readiness for innovative pedagogical activity of a teacher is outlined by such indicators as awareness of the need to implement pedagogical innovations at the level of own pedagogical practice; awareness of the latest pedagogical technologies, knowledge of innovative methods of work; focus on creating own creative tasks, methods, conducting experimental work; readiness to overcome difficulties related to the content and organization of innovation activities; possession of practical skills of mastering pedagogical innovations and creating new ones I. Dychkivska (2012). Attracts the scientific interest research regarding different styles of teaching physical education by a teacher in which attention has been emphasized to the importance of conducting physical education lessons based on the purpose of the exercises. Teaching styles and their features were studied in a sample of 455 physical education teachers in primary and secondary schools. It has been found that the use of teaching styles differs depending on the pedagogical experience: teachers with experience (more than six years) use more traditional styles (such as team style), than teachers with less experience (from one to five years). In contrast, teachers with 1 to 5 years of teaching experience are more likely to use cognitive style as problem-solving than teachers with more than 21 years of experience. At the same time, senior teachers (over 31 years old) also use more traditional teaching styles (Fernández-Rivas & Espada-Mateos, 2019). This research suggests that teachers with more than six years of experience and not adults (more than 31 years) are more likely to tend to innovative technologies.

Modern research of online education in order to train teachers in a distance format is worth noting. Researchers have focused on creating a quality educational space, taking into account several aspects, such as curriculum development for online education, teaching and psychological support for teachers and students (Goad & Jones, 2017).

Summarizing the results of the analysis of scientific literature, we understand the pedagogical conditions of forming the readiness of pedagogical workers for innovation in the process of general, preventive and educational work with students as a set of external and internal circumstances. The implementation of

which will provide education for pupils with deep moral values as a personality, citizen and patriot.

Pedagogical workers, in addition to their readiness and desire to innovate, must be properly qualified to perform their duties. As practice shows, it often happens that a teacher can successfully implement the requirements of the program in the educational process, have a variety of methods of teaching and education, but do not feel the need for innovation precisely because of the lack of creative potential in the personality structure. Therefore, a necessary condition for effective innovation is special training of teachers, understanding of the experience of such activities, inner readiness to seek and master the new (Bartkiv, 2010), compliance with the demands and expectations of today (Popovych et al., 2021a; 2021b).

Hypothesis. We assume that the research of the interdependence of variables and the factor structure of the readiness of pedagogical workers for innovations in teaching will provide significant empirical results. So, it will contribute to the quality of change management in education; the application of the acquired knowledge will be of great importance during the educational and professional training of specialists in pedagogical.

Purpose of our study is to build a factor structure of readiness of pedagogical workers for innovations in teaching and to establish the interdependence of variables.

Material and methods

The following studies formed the methodological basis for empirical research on the interdependence of parameters and factor structure of pedagogical workers' readiness for innovations in pedagogical activity: age psychological patterns (Popovych et al., 2021c; 2021d), semantic parameters of the adaptation process (Blynova et al., 2020), self-regulatory capacity (Khmiliar et al., 2020; Plokhikh, 2021; Plokhikh et al., 2021), and the modern realities of educational and professional training (Hudimova, 2021; Hudimova et al., 2021a; 2021b; Ivanchuk et al., 2020; Kharytonov et al., 2021; Machynska & Dzikovska, 2020). The proposed empirical research is an algorithm of sequential measures using a number of psychodiagnostic methods. All outlined experimental and empirical researches are relevant in the context of studying the readiness

of teachers for innovations in pedagogical activity.

Participants. The study involved pedagogical workers of primary and secondary schools of Ukraine: Lyceum № 21 of Lviv City Council (n = 12); Lyceum № 28 of Lviv City Council (n = 14); Lyceum "Sykhiv" of Lviv City Council (n = 11); Secondary school № 42 (Lviv, Ukraine) (n = 23); Primary school "Pervotsvit" of Lviv City Council (n = 14); "Dyvosvit" Primary School of Lviv City Council (n = 9); Secondary school № 67 (Lviv, Ukraine) (n = 14); Secondary school I-III degrees №50 (Lviv, Ukraine) (n = 13); Secondary school № 60 (Lviv, Ukraine) (n = 8). The study involved 118 teachers aged 25 to 63 years, including 66.95% (n=79) female male and 33.05% (n=39) male. The mean age of the sample was 42.1 years (SD = 12.09).

Procedures and instruments. For the organization of empirical research, during the first half of the 2020-2021 academic year, questionnaires and psychodiagnostics techniques were used. The survey allowed to collect the necessary biographical information about respondents. The studied psychological parameters of pedagogical workers for innovative pedagogical activity were determined by the following psychodiagnostics tests: questionnaire "Readiness for Innovation" ("RFI") (Tsiuniak, 2019); method "Motivation of professional activity" ("MPA") (Zamfir, modification of Rean, 2008); "Purpose in Life Test" ("PIL") (Crambo and Maholik; adapted by Leontyev, 2006); the questionnaire "The level of subjective control" ("LSC") (Bazhin et al., 1984).

The "RFI" questionnaire (Tsiuniak, 2019) consisted of two parts. The first part contained ten test questions of the first level of difficulty. The second part also contained ten questions to which it was necessary to give a detailed answer. Each respondent received a questionnaire on which they voluntarily answered test questions. Next, the coefficient of knowledge about innovative pedagogical activity on test questions (Ctq) was determined as the ratio of the number of correct answers to the total number according to the formula. Ctq parameters have a range of values from .00 to 1.00.

The processing of the second part was more complex procedure that combined peer review of determining the correctness of answers and content analysis. Based on the analysis of the research context, the data were interpreted and verified. Determining the coefficient of knowledge about innovative pedagogical activities by expert assessment and content analysis (Cac) is the interpretation of the obtained data. This coefficient is the ratio of the number of features that characterize innovative pedagogical activities to the total number of such features. Our Cac parameters range from .00 to 1.00. It has been empirically determined and substantiated those values from .00 to .29 indicate a low coefficient of knowledge; from .30 to .71 are average values and from .72 to 1.00 indicate high values of the coefficient of knowledge.

The method "Motivation of professional activity" ("MPA") (Zamfir, modification of Rean, 2008) is recommended for the diagnosis of motivation of professional and pedagogical activities. The key parameters are internal and external motivation. The internal type of motivation can be traced when the content of activity is important for a person. If the motivation of professional activity is based on the desire to meet other external needs in relation to the content of the activity, in particular the motives of social prestige, salary, etc., then we state the external motivation. At the same time, external motives are differentiated into external positive and external negative. External positive motives are more effective and much more desirable from all points of view than external negative motives.

The "PIL" test (J. Crambo and L. Maholik; adapted by Leontyev, 2006) combined two groups of parameters. The first included the actually meaning-life orientations: goals in life, saturation of life and satisfaction with self-realization. It is worth noting that these three categories related to the purpose – the future, the process – the present and the result – the past. Respondents can learn the meaning of their lives in one, or in another, or in the third, or in all three components of life at the same time. These parameters are important in understanding the operational content of readiness for innovative pedagogical activities. The last two parameters characterize the internal locus of control. The meaningfulness of a teacher's life is closely connected with the general worldview belief that control is possible, and the second parameter reflects the belief in one's own ability to exercise such control – self-image. "Purpose in Life Test" ("PIL") (Leontyev, 2006): Life Goals (LG), Process (P), Result (R), Locus of Control – Life (LCL), Locus of Control – Self (LCS), General Awareness of Life (GAL).

The LSC questionnaire (Bazhin et al., 1984) allowed us to assess the degree of the activity of respondents in achieving goals, developing a sense of personal responsibility for everything that happens to them. The questionnaire "Level of subjective control" ("LSC") (Rotter, 1966): Internality in the Area of Achievements (IAA), Internality in Relationships (IR), Internality in the Area of Labor Relations (IALR), Internality in the Area of Failures (IAF), Internality Concerning Health and Illness (ICHI), General Internality (GI). The indexes of reliability of the methods used and the tests of Cronbach's alpha were within sufficient (.7) and high levels (.9).

Organization of research. The empirical research was conducted from September 2021 to December 2021. Respondents who voluntarily agreed to participate in the empirical study were randomly selected. Permission and consultations were obtained from the administrations of secondary education institutions. Each respondent voluntarily filled in all questionnaire forms and a questionnaire with socio-demographic characteristics. Participation in the study was confidential; data of participants for ethical reasons, were coded by the organizers of the research. Voluntary participation of respondents allowed avoiding casual answers.

Statistical analysis. Statistical processing of the obtained results and graphic presentation was carried out using the programs "Statistical Package for the Social Sciences" v. 23.0 and "Microsoft Office Excel 2007". Spearman's correlation coefficients (r_s) were used to find and determine the correlation between the indexes obtained. ANOVA (Analysis of Variance) factor analysis with Varimax rotation has been used. Arithmetic mean value of parameters (M) and square deviation (SD) were calculated. The differences between the values of the variables at the level $p \leq .05$ are considered statistically significant.

Results

The results of the research of descriptive characteristics of respondents' readiness for innovations in pedagogical activity according to psychodiagnostics methods: "RFI", "MPA", "PIL", "LSC" are presented in Table. 1.

Table 1.

Mean values and standard deviations of the scales of the researched parameters (n=118)

Scale	M	SD
"RFI"		
Coefficient of knowledge about innovative pedagogical activity on test questions (Ctq)	.55	.19
Coefficient of knowledge about innovative pedagogical activity according to detailed answers (Cac)	.53	.219
"MPA"		
Internal motivation (IM)	3.99	1.27
External positive motivation (EPM)	4.31	1.11
External negative motivation (ENM)	4.01	1.04
"PIL"		
Life Goals (LG)	31.44	7.18
Process (P)	31.54	5.91
Result (R)	25.43	5.11
Locus of Control – Life (LCL)	19.51	4.20
Locus of Control – Self (LCS),	30.31	4.27
General Awareness of Life (GAL)	102.45	13.12
"LSC"		
General Internality (GI)	192.76	19.98
Internality in the Area of Achievements (IAA)	51.67	7.71
Internality in Relationships (IR)	48.22	7.51
Internality in the Area of Failures (IAF)	38.56	6.63
Internality in the Area of Labor Relations (IALR)	34.56	5.17
Internality Concerning Health and Illness (ICHI)	17.88	4.22

Source: Personal elaboration, 2021.
Note: M – arithmetic mean; SD – mean-square deviation.

Comparing the obtained average values with the norms proposed by the authors of the methods "RFI", "MPA", "PIL" and "LSC", it should be noted that the obtained empirical data are within the norms.

It was necessary to establish relationships between the parameters of the "RFI" (Tsiuniak, 2019) with the key parameters of all other criteria. Correlation analysis was applied and the Spearman correlation coefficient (r_s) was determined. The purpose of correlation analysis was to establish the relationship between the indicators of the two coefficients of knowledge about innovative pedagogical activities (Ctq, Cac) with the parameters of other methods (Tabl. 2).

Table 2.

Correlation matrix of relationships of the researched parameters.

Scale	Coefficient of knowledge about innovative pedagogical activity on test questions (Ctq)	Coefficient of knowledge about innovative pedagogical activity according to detailed answers (Cac)
Internal motivation (IM)	.131**	.123*
External positive motivation (EPM)	.089*	.057
External negative motivation (ENM)	.060	.054
Life Goals (LG)	.059	.107*
Process (P)	.108*	.109*
Result (R)	.021	.041
Locus of Control – Life (LCL)	.059	.061
Locus of Control – Self (LCS),	-.029	-.051
General Awareness of Life (GAL)	.058	.062
General Internality (GI)	.161**	.139**
Internality in the Area of Achievements (IAA)	-.021	-.049
Internality in Relationships (IR)	-.021	-.011
Internality in the Area of Failures (IAF)	-.039	-.031
Internality in the Area of Labor Relations (IALR)	.109*	.131**
Internality Concerning Health and Illness (ICHI)	.034	.079

Source: Personal elaboration, 2021.

Note: ** – statistical significance of $p \leq .01$; * – statistical significance of $p \leq .05$.

Based on the obtained statistically significant correlation coefficients, it has been found that the knowledge coefficient (Ctq) has a positive significant relationship with internal motivation (r_s=.131; p<.01), external positive motivation (r_s=.089; p<.05).

Based on the obtained statistically significant correlation coefficients, it has been found that the knowledge coefficient (Ctq) has a positive significant relationship with the parameter "process" on the test "PIL": Process (P) (r_s=.108; p<.05) and parameters on the method "LSC": "General internality" (r_s=.161; p<.01) and "internality in the area of labor relations" (r_s=.109; p<.05). It has been found that the coefficient of knowledge (Cac) has a positive significant relationship with the parameters of the test "PIL": "life goals" (r_s=.107; p<.05) and "process" (r_s=.109; p<.05) and parameters according to the "LSC" method: "general internality" (r_s=.139; p<.01) and "internality in the area of labor relations" (r_s=.131; p<.01). The obtained results indicate that pedagogical workers consider that most of the important events that take place in their lives, in particular in the educational process are the result of their own actions. In accordance, they feel a personal responsibility for everything that happens to them, but not in all spheres of life, which is not a positive phenomenon. The indicator "internality in the area of labor relations" is a positive significant ((p<.05; p<.01) reflection of the level of subjective control of respondents in the performed production activities.

ANOVA factor analysis with Varimax rotation has been used for reducing the proportionality of the researched factors. The complex of seventeen factors is methodologically substantiated and

such that relevantly reflects the subject of the research of the readiness of pedagogical workers for innovation in teaching. The names of the factors reflect the essence of the studied parameters. The matrix of factor loadings of seventeen variables is determined by the method of the main component. Five factors have eigenvalues greater than one and explain 75.77% of dispersion variables (Table 3).

Table 3. Matrix of factor loads of factors of respondents' readiness for pedagogical innovative activity (n=118)

Factors	F1	F2	F3	F4	F5
Coefficient of knowledge about innovative pedagogical activity on test questions (Ctq)		.951			
Coefficient of knowledge about innovative pedagogical activity according to detailed answers (Cac)		.951			
Internal motivation (IM)				-.654	
External positive motivation (EPM)	.954				
External negative motivation (ENM)	.867				-.519
Life Goals (LG)			.621		
Process (P)	-.551			.648	
Result (R)	-.939				.508
Locus of Control – Life (LCL)	-.872				
Locus of Control – Self (LCS),	-.667				
General Awareness of Life (GAL)			.772		
General Internality (GI)	.742				
Internality in the Area of Achievements (IAA)	.938				
Internality in Relationships (IR)	.811				
Internality in the Area of Failures (IAF)	-.824				
Internality in the Area of Labor Relations (IALR)	.951				
Internality Concerning Health and Illness (ICHI)	-.507				
Dispersion, %	52.45	9.38	6.72	4.08	3.12
∑ dispersion, %	52.45	61.85	68.57	72.65	75.77
Value	14.85	2.53	1.91	1.51	1.09

Source: Personal elaboration, 2021.
Note: The loadings of the significant variables are given in bold type.

F1 "Motivational and operational readiness" of respondents reflects the dependence of innovative pedagogical activity on positively loaded values of parameters: EPM (.954), ENM (.867), IALR (.951), IAA (.938) and negatively loaded parameters: LCS (-.667), LCL (-.872), ICHI (-.507), IAF (-.824). F1 indicates the importance of the motivational component, the positive dependence on the general meaning of life and the general level of subjective control of their activities. This factor has the largest dispersion (52.45%) and is key in the factor structure of readiness for innovative pedagogical activity and is characterized by motivational and operational self-regulation of innovative pedagogical activity.

F2 "Informational readiness" of pedagogical workers reflects the dependence of innovative pedagogical activity only on significant positively loaded values of parameters: Ctq (.951), Cac (.951). All these parameters have a pronounced cognitive component, hence its name "informational readiness". F1 shows the importance of knowledge, awareness in the readiness of the subjects for innovation. This factor has a dispersion (9.38%) and is important in the factor structure of readiness for innovative pedagogical activity and has a high cognitive self-regulation of innovative pedagogical activity.

F3 "Sense readiness" of respondents reflects the dependence of innovative pedagogical activities as well as the previous one, only on significant positively loaded values of parameters: LG (.621), GAL (.772). These two parameters belong to the semantic-life orientation of the personality, obviously respondents see the meaning of their life in the chosen activity, hence the name "sense-life readiness". F3 shows the importance of semantic and vital parameters in the readiness of pedagogical workers for innovations. This factor has a dispersion (6.72%) and is important in the factor structure of readiness for innovative pedagogical activity and has a high semantic and vital self-regulation of innovative pedagogical activity.

F4 "Procedural readiness" of respondents reflects the dependence of innovative pedagogical activity on the positively loaded parameter P (.648) and the negatively loaded parameter IM (-.645). These two parameters outline the respondents' focus on training activity, which has procedural nature and is accompanied by a predominance of internal motivation. Hence, the name is "procedural readiness". F4 shows the advantage of the procedural component in the readiness of pedagogical workers for innovations. This factor has dispersion (4.08%) and is also important in the factor structure of the readiness of pedagogical workers of rural secondary schools for innovative pedagogical activities. F4 has high procedural self-regulation of innovative activities.

F5 "Distat-resulting preparedness" of respondents was the dependence of innovative pedagogical activity on the negatively loaded parameter ENM (-.519) and the positively loaded parameter R (.508). The respondent's readiness to innovate was determined by a combination of

these parameters. As though distancing themselves and responding pragmatically and moderately, such a respondent was goal-oriented and avoided working together. This factor had the least variance (3.12%) and was also significant in the factor structure of pedagogical workers' readiness for the innovative educational activity. Respondents who had a mental state of readiness F5 might have extremely high performance. Similarly, if the assignments entailed or necessitated teamwork, such pedagogical workers tended to separate themselves and became inactive.

Also, note that other factors have a load that was outside the total variance of the dispersion (less than .988). Thus, according to the results of mathematical processing, four main factors (75.77%) have been presented, which determined the factor structure of readiness of pedagogical workers of rural secondary schools for innovations in pedagogical activity (Fig. 1).
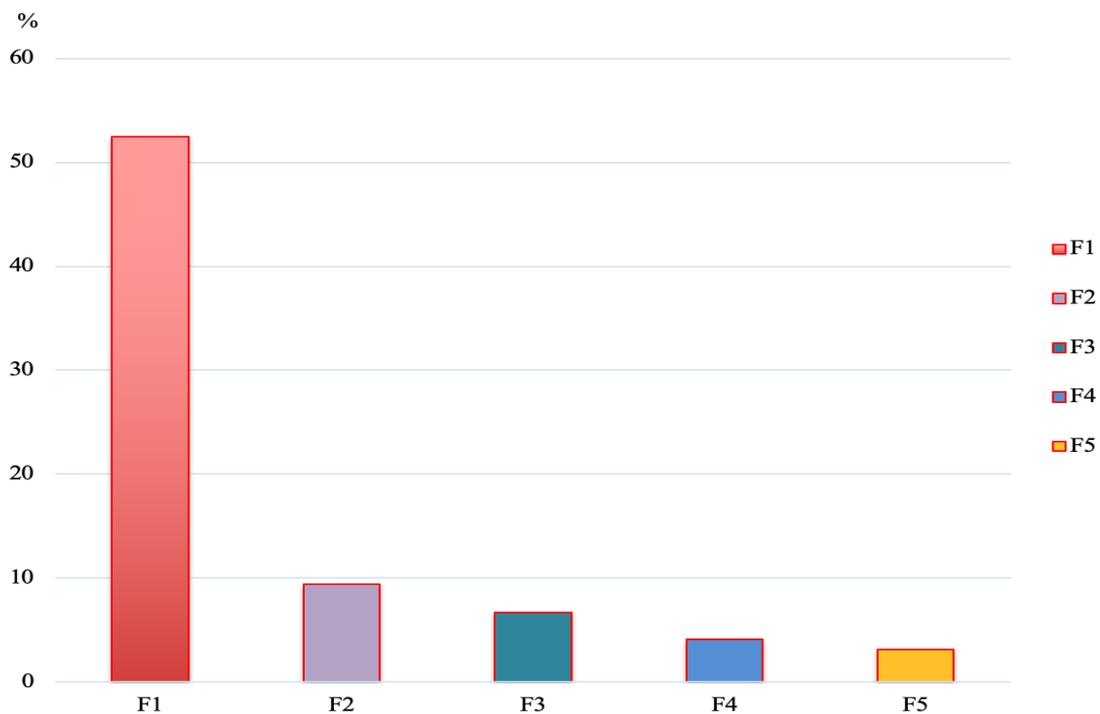
Figure 1. Factor structure of readiness of pedagogical workers for innovations in pedagogical activity.
Source: Personal elaboration, 2021.
Note: F1 – "motivational and operational readiness"; F2 – "informational readiness"; F3 – "sense readiness"; F4 – "procedural readiness"; F5 – "distat-resulting preparedness".

Let's analyze the interdependence of factors that determine the factor structure of the readiness of pedagogical workers for innovations in

pedagogical activity. Emphasis is placed on the strongest relationships between selected factors (Tabl. 4).

Table 4.

Correlation matrix of factor loads of readiness of pedagogical workers for pedagogical innovative activity (n=118)

Factors	F1	F2	F3	F4	F5
F1	1.000	.132**	-.119**	-.085*	.056
F2	.132**	1.000	.201**	.137**	.086*
F3	-.119**	.201**	1.000	.038	-.049
F4	-.085*	.137**	.038	1.000	.065
F5	.056	.086*	-.049	065	1.000

Source: Personal elaboration, 2021.

Note: ** – statistical significance of $p \leq .01$; * – statistical significance of $p \leq .05$.

The most significant ($p \leq .01$) are the ratios of F2 and F3 (.201), F1 and F2 (.132). F1 and F2 have the most significant connections with F1, F3, and F4, F5. All connections to F2 are positive. Thus, informational self-regulation is the most important in factor structure of the readiness of pedagogical workers for innovations in pedagogical activity. The most dependent factors in the factor structure are F2 and F1.

Discussion

The results of the research are confirmed by the facts established by other researchers. The implementation of innovative teaching technologies in primary and secondary schools allows for a deep transformation in the educational process and reform of the primary and secondary education systems, which is in line with previous research (Machynska et al., 2021; Tsiuniak et al., 2020). We agree that the efficacy of the adoption of innovative educational technologies will have a significant impact on the level of higher education in modern society. Innovation in education is necessary to solve those pedagogical problems that have been solved differently so far: as "the result of a creative search for original, non-standard solutions to various pedagogical problems"; as systemic neoplasms arising from various initiatives; as products of innovative educational activities, which are characterized by the processes of creation, dissemination, and use of new methods in the field of pedagogy and research (Machynska, 2018). The study that indicated that physical education teachers with 1 to 5 years of teaching experience are more likely to employ a cognitive teaching approach is empirically fascinating (Fernández-Rivas & Espada-Mateos, 2019). The obtained empirical results also resonate with the study of psychological semantic parameters of innovative states of masters of pedagogy (Tsiuniak et al., 2020). We have reason to say that the results obtained should be applied to pedagogical workers in order to develop a readiness to

innovate in teaching. This will help to improve the quality of change management in the primary and secondary school educational process. The implementation of acquired knowledge will be fundamental during future pedagogical workers' educational and professional training.

Conclusions

1. The results of research of interdependence of variables and factor structure of readiness of pedagogical workers to innovations in pedagogical activities operationalize the solution of problems in the field of providing educational services.

2. The proposed psychodiagnostic methods relevantly reflect the researched parameters of the subject's criteria: information-conceptual, personal-motivational, evaluation-reflexive, and operational-active.

3. The factor analysis determined the structure of readiness of pedagogical workers for innovations in pedagogical activity, which consists of five main factors (75.77%). It has been found that the main factor is F2 "informational readiness" (9.38%), which is positively interrelated with F1 "motivational and operational readiness" (r_s=.132; $p \leq .01$), F3 "sense readiness" (r_s=.201; $p \leq .01$), F4 "procedural readiness" (r_s=.137; $p \leq .01$) and F5 "distat-resulting preparedness" (r_s = .086; $p \leq .01$).

4. It has been substantiated that the structure, variables, and interdependence of factors' structure of readiness of teachers of pedagogical workers for innovations in pedagogical activity are important components of the effective organization of the qualitative and modern educational process. Also, the application of the acquired knowledge is essential during the educational and professional training of future specialists.

5. Further research will focus on a formative experiment of the research of readiness of pedagogical workers for innovations in

pedagogical activity. The research of a specific type of readiness for innovation with the development of an implementation algorithm requires further attention.

Acknowledgments

Bibliographic references

Bartkiv, O. (2010). Readiness of the teacher to innovate professional activity. Problems of Preparing a Modern Teacher, 1, 52-58. http://nbuv.gov.ua/UJRN/ppsv_2010_1_10

Bazhin, E. F., Golynkin, E. A., & Etkind, A. M. (1984). A method for studying the level of subjective control. Psychological Journal, 5(3), 152-162. http://base.psy.spbu.ru/index.php/klass1/sred stva-psikhodiagnostiki/item/91-oprosnik-urovnya-sub-ektivnogo-kontrolya-usk

Blynova, O., Kisil, Z., Tkach, T., Semenova, N., Semenov, O., Kamisnka, S., & Popovych, I. (2020). Psychological manifestations of professional marginality of future social welfare professionals. Revista Inclusiones, 7(SI), 218–233. http://www.revistainclusiones.org/index.php /inclu/article/view/1229

Dychkivska, I. M. (2012). Innovative pedagogical technologies. Kyiv: Akademvydav. https://eltutor.at.ua/Podskazki/Dychkivska.p df

Goad, T. & Jones, E. (2017). Training Online Physical Educators: A Phenomenological Case Study. Education Research International, Vol. 2017, Art ID 3757489, 1-12. https://doi.org/10.1155/2017/3757489

Fernández-Rivas, M. & Espada-Mateos, M. (2019). The knowledge, continuing education and use of teaching styles in Physical Education teachers. Journal of Human Sport and Exercise, 14(1), 99-111. https://doi.org/10.14198/jhse.2019.141.08

Halian, I. M. (2019). Personal determinants of responsibility of future educators. Insight: the Psychological Dimensions of Society, 1,

15-21. https://doi.org/10.32999/2663-970X/2019-1-2

Halian, I., Machynska, N., Lozynska, S., Nos, L., Derkach, Yu., Prots, M. & Popovych, I. (2020). Tolerance of uncertainty as a component of the process of life-creation of future educators. Revista Inclusiones, 7(SI), 512–528. http://www.revistainclusiones.org/index.php /inclu/article/view/1307

Hudimova, A. Kh. (2021). Psychological well-being and social media users' behavioral online patterns in everyday life and during COVID-19 pandemic. Insight: the Psychological Dimensions of Society, 5, 133-147. https://doi.org/10.32999/2663-970X/2021-5-9

Hudimova, A., Popovych, I., Baidyk, V., Buriak, O., & Kechyk, O. (2021a). The impact of social media on young web users' psychological well-being during the COVID-19 pandemic progression. Revista Amazonia Investiga, 10(39), 50–61. https://doi.org/10.34069/AI/2021.39.03.5

Hudimova, A., Popovych, I., Savchuk, O., Liashko, V., Pyslar, A., & Hrys, A. (2021b). Research on the relationship between excessive use of social media and young athletes' physical activity. Journal of Physical Education and Sport, 21(6), 3364-3373. https://doi.org/10.7752/jpes.2021.06456

Ivanchuk, M., Kostashchuk, O., Machynska, N., & Oliynyk, M. (2020). Professional Honor in the Pedagogical Activity of the Future Teacher. Revista Romaneasca Pentru Educatie Multidimensionala, 12(1), 291-310. https://doi.org/10.18662/rrem/214

Kachan, O. A. (2017). Introduction of innovative technologies in physical culture and health and sports activities of educational institutions. Slavyansk: Vytoky. http://umo.edu.ua/images/content/koncorciu m/repozitar_uvupo/navch_vydanya/%D0%9 F%D0%BE%D1%81%D1%96%D0%B1% D0%BD%D0%B8%D0%BA_%D0%9A%D 0%B0%D1%87%D0%B0%D0%BD%20% D0%9E.%20D0%90.pdf

Kharytonov, E., Kharytonova, O., Kolodin, D., Tkalych, M., Larkin, M., Tolmachevska, Y., Rojas-Bahamon, M.J., Arbeláez-Campillo, D.F., & Panchenko, O.I. (2021). Distance learning in the conditions of Covid-19: problems and prospects of their solution. Amazonia Investiga, 10(48), 157-169. https://doi.org/10.34069/AI/2021.48.12.17

Khmiliar, O., Popovych, I., Hrys, A., Pavliuk, M., Zavatska, N., Lytvynenko, O., & Blynova, O. (2020). Spatial Regulation of

Personality Behavior in the Conditions of Progression of the COVID-19 Pandemic. Revista Inclusiones, 7(SI), 289-306. http://www.revistainclusiones.org/index.php/inclu/article/view/1760

Leontyev, D. (2006). Test of life-meaningful orientations ("LMO"). Psychodiagnostic series. Moscow: Smysl. https://www.twirpx.com/file/83225/

Machynska, N., & Dzikovska, M. (2020). Challenges to Manage the Educational Process in the HEI during the Pandemic. Revista Romaneasca Pentru Educatie Multidimensionala, 12(1Sup2), 92-99. https://doi.org/10.18662/rrem/12.1sup2/251

Machynska, N. I. (2018). Formation of information and communication competence of elementary school teacher in the context of vocational training. Mountain School of Ukrainian Carpaty, 18, 103-107.

Machynska, N., Lozynska, S. V., Dekach, Y. Y., & Vinarchuk, N. M. (2021). Theoretical and Practical Aspects of Valeology – the Constituents of the System of Preschool Education. Revista Romaneasca Pentru Educatie Multidimensionala, 13(1), 447-461. https://doi.org/10.18662/rrem/13.1/381

Petrova, I. L., & Sivka, O. V. (2019). Development of innovative activity in educational organizations. Academic notes of the University "KROK", 3(51), 119–126. https://doi.org/10.31732/2663-2209-2018-51-119-126

Plokhikh, V. V. (2021). Assessment of subject's readiness for urgent actions using the variations of sensorimotor response tasks. Insight: the Psychological Dimensions of Society, 5, 46-65. http://doi.org/10.32999/2663-970X/2021-5-4

Plokhikh, V., Popovych, I., Zavatska, N., Losiyevska, O., Zinchenko, S., Nosov, P., & Aleksieieva, M. (2021). Time Synthesis in Organization of Sensorimotor Action. BRAIN. Broad Research in Artificial Intelligence and Neuroscience, 12(4), 164-188. https://doi.org/10.18662/brain/12.4/243

Popovych, I., Arbeláez-Campillo, D. F., Rojas-Bahamón, M. J., Burlakova, I., Kobets, V., & Bokshan, H. (2021a). Time perspective in the professional activity of specialists of economic sphere. Cuestiones Políticas, 39(69), 424-445. https://doi.org/10.46398/cuestpol.3969.27

Popovych, I., Chervinskyi, A., Kazibekova, V., Chervinska, I., & Machynska, N. (2021b). Empirical research of the typology of social expectations of the personality. Amazonia Investiga, 10(43), 112-122. https://doi.org/10.34069/AI/2021.43.07.11

Popovych, I., Pavliuk, M., Sirant, N., Zhigarenko, I., & Serhieienkova, O. (2021c). Research of relationship of functional-role positions (ego-states) with indicators of future specialists' independence. Revista Amazonia Investiga, 10(41), 85-95. DOI: https://doi.org/10.34069/AI/2021.41.05.8

Popovych, I., Shevchenko, A., Galvez, L. M., & Klenina, K. (2021d). Research of the relationship between social desirability and value orientations of adolescents. Revista Notas Históricas y Geográficas, 26(1), 241–268. https://www.revistanotashistoricasygeograficas.cl/index.php/nhyg/article/view/339

Rean, A. A. (2008). Psychology of personality adaptation. St. Petersburg: Prime-EUROSNAK.

Sirant, N. (2018). Child as a subject of aesthetic education in the context of today's challenges. Mountain School of Ukrainian Carpaty, 19, 18-22. https://doi.org/10.15330/msuc.2018.19.18-22

Tsiuniak, O., Pyslar, A., Lialiuk, G., Bondarenko, V., Kovtun, O., Los, O., & Popovych, I. (2020). Research of interdependence of variables and factor structure of masters' readiness for innovative pedagogical activity. Revista Inclusiones, 7(3), 427-452. https://revistainclusiones.org/index.php/inclu/article/view/1645

Tsiuniak, O. P. (2019). The role of educational space of a higher education institution professional preparation of future masters of primary education. Psychological and Pedagogical Problems of Modern School, 125, 138-144. https://doi.org/10.31499/2706-6258.1.2019.178255

Media coverage of the Olympic Games

Висвітлення Олімпійських ігор у медіа

Written by:
Sydorenko Natalia[19]
https://orcid.org/0000-0003-4622-2779
Volobuieva Anastasiia[20]
https://orcid.org/0000-0002-8126-7107

Abstract

The Olympic Games have always occupied a special place in the information environment. Coverage of the preparation of these important competitions in modern media discourse deserves more detailed consideration. This is due to the development of new media, in particular, social networks and a kind of competition with traditional media. Accordingly, the aim of the work is to analyze the peculiarities of the coverage of the Olympic Games in the media. As a result of the study, it was concluded that since the London Olympics in 2012, traditional media have experienced strong competition from social networks (eg, Facebook, Twitter). As a result, new media promote active communication, which allows individual consumers to create content in a very specific way. At the same time, there are alarming trends in the use of the media in information or political confrontation, which is a threat to freedom of expression. In order to analyze the coverage of the Olympic Games in the media, general theoretical research methods are used, including analysis and synthesis. The conclusions conclude that modern media contribute to the promotion of the Olympic movement in the world, and the use of the latest media opportunities significantly democratize and diversify this process.

Keywords: Olympic Games, mass media, social networks, information.

Анотація

Олімпійські Ігри в інформаційному середовищі завжди посідали окреме важливе місце. Висвітлення підготовки, проведення та особливостей організації цих важливих змагань у сучасному медіадискурсі заслуговує докладнішого розгляду. Це спричинено розвитком нових медіа, зокрема, соціальних мереж та своєрідною конкуренцією із традиційними ЗМІ. Відповідно, метою роботи є аналіз особливостей висвітлення Олімпійських ігор у медіа. Реалізація мети передбачає виконання завдань: аналізу ролі сучасних медіа у інформаційному супроводі олімпійських змагань, дослідження політичних маніпуляцій. В результаті проведеного дослідження підсумовано, що уже від Олімпіади в Лондоні у 2012 р. традиційні ЗМІ відчули потужну конкуренцію зі сторони соціальних мереж (наприклад, Facebook, Twitter тощо). Внаслідок цього нові медіа сприяють активній комунікації, яка дозволяє окремим споживачам цілком конкретно створювати контент, тобто виступати творцями цінностей. Водночас, тривожними є тенденції щодо використання ЗМІ в інформаційному чи політичному протистоянні, що є загрозливим для свободи слова явищем. Із метою аналізу висвітлення Олімпійських ігор у медіа ресурсах застосованими є загальнотеоретичні методи дослідження, поміж яких індукція, дедукція, аналіз та синтез. Вагому увагу займає історичний метод дослідження, за допомогою якого ми охарактеризували розвиток цього змагання у цілому. У висновках підсумовано, що сучасні засоби інформації сприяють популяризації олімпійського руху в світі, а використання новітніх можливостей медіа значно демократизують та диверсифікують цей процес.

Ключові слова: Олімпіада, засоби масової комунікації, соціальні мережі, інформація.

[19] Department of History of Journalism Taras Shevchenko National University of Kyiv Educational and Scientific Institute of Journalism, Kyiv, Ukraine.
[20] Department of History of Journalism Taras Shevchenko National University of Kyiv Educational and Scientific Institute of Journalism, Kyiv, Ukraine.

Introduction

Physical culture and sports are the most relevant and universal factors that unite all spheres of life of any social group, every person as an individual, collective, and nation as a whole. One of the components of physical culture is a sport. Its presence and development are determined by the needs of society in a specific sphere of educational and game activities of people, the need to have such a space, in which a person could show their physical and intellectual abilities. It is in sport, in the process of competing by the rules, that a person finds one of the ways of self-assertion of a personality, defeating his own flaws, age, rivals, and in the end, triumphing over himself, developing his abilities. Olympic sport is one of the phenomenal phenomena, unparalleled throughout the world. Its culminating event is the unification of the world's athletes in the great sporting festival that is the Olympic Games. They are covered by a lot of modern media, demonstrating the achievements of certain athletes. At the same time, like any value judgments, media reports have a considerable amount of subjectivity. It is important, however, to distinguish between meaningful actions that mislead content consumers and the personal preferences of certain observers. Without excusing the latter, we should note that meaningful manipulations that can be found in the media are much more damaging. Our study aims to analyze the media coverage of the Olympic Games with a focus on the sports and socio-political components.

Theoretical Framework or Literature Review

The Olympic Games are the largest multi-sport event in the world, regularly attracting billions of viewers from all over the world. Live sports coverage is viewed by viewers from hundreds of countries around the world. The topic of the Olympic Games has received a lot of attention in the studios of scientists. So, to analyze the peculiarities of media coverage of the Olympic Games, we will conduct a systematic review of current professional literature. Specifically, Geurin & Naraine (2020) analyzed in detail the problem of Olympic Games research from 1999-2018. The scholars carefully reviewed 221 articles that exposed the problem of athletic competition through a theoretical, methodological, or contextual lens. Their results revealed a significant amount of research focused on the Summer Olympics, shaped by U.S. newspaper reports. Yan (2020) explored the relationship between professional sports and media through the example of media coverage of

the Olympics. The author paid much attention to newspaper and magazine reports about the competition. Salido-Fernández & Muñoz-Muñoz (2021) conducted a systematic review of the literature on women's coverage in the Olympics. Their results showed that such scholarly studios were mostly conducted among American researchers. The latter predominantly analyzed media reports and with close attention to television. Mauro (2020) analyzed media coverage of the Olympic Games and their influence on the formation of nationalist principles. So, the mentioned problem is not new in scientific circles but still requires further research, taking into account the politicization of the media, the peculiarities of the functioning of the information society (Geurin, & Naraine, 2020).

At the same time, we believe that the main directions of further development of the Olympic media space should include a broad coverage and justification of previous theoretical research, diversification of the research context (application of various methodological and analytical approaches), and further analysis of the Olympic Games as part of the growth of the overall Olympic movement.

Methodology

The work is based on the use of general theoretical methods of research, in particular, the article uses the principles of analysis, synthesis, induction, and deduction. Equally important was the method of comparison, through which we were able to compare the practice of coverage of the Olympic Games in the world media. In the work, we also used the method of abstraction, which involves ascending from the abstract to the concrete. It was used in the analysis of general theoretical approaches and positions, and the formation of recommendations for further coverage of the Olympic Games in academic circles. The article also used the historical method of research, which shows the development of the modern Olympic Games. Separate attention in the work is focused on empirical methods of collecting and interpreting information. In particular, this problem is investigated based on newspaper, magazine reports, television coverage of the Olympic Games in the world. Note that our study is formed based on the analysis of European and American media. Also, the study is formed as a result of using the statistical method, which

consisted of a qualitative analysis of the experimental data.

We analyzed the Olympic Games took part last twenty years. It shows the main tendency of evolution of its perception in the social media.

The data used in this study are gathered from newspapers such as *The New York Times, Los Angeles Times, The Washington Post, and China Daily*, four powerful newspapers that are popular in the United States and China. In addition, the work is shaped by an analysis of new media resources. We are talking about the social networks Facebook, Twitter, and YouTube. Particular attention was paid to the analysis of sports messages in the social platform Weibo. We are talking about the Chinese communication network microblogging, which has recently been gaining in popularity. Also, the Russian media resource Sport24.ru was used to highlight the problem of manipulation in the media. The study was formed based on the analysis of data from other resources, in particular, Ukrinform (Ukrainian news site), YahooSport (American sports media platform), etc. were analyzed.

Results

Since its founding in 1896, the modern Olympics have become the largest sporting event in the world. For example, 2,833 athletes from 92 countries and 11,238 athletes from 207 countries participated in the last such competitions held in Pyeongchang, South Korea, in 2018, Rio de Janeiro, Brazil, in 2016, respectively. Despite this, we note that, in general, a small proportion of the world's population can attend these competitions in person, so most learn about the progress of the Olympic Games through media resources (Gerrard, 2022). According to research by contemporary scholars, on average, at least 4.5 billion of the world's population watch the Olympics. (Yan, 2020). Traditionally, a flame is lit before the opening of the Olympic Games, symbolizing good freedom and unity among nations. Numerous runners carry it into the main Olympic Stadium. On the way to the stadium, the flame should not be extinguished, so it is symbolically passed from torchbearer to torchbearer.

At the same time, the current literature notes that coverage of Olympic events can influence (and manipulate) the nation's goals in different ways, hence the importance of now critically examining the sports media. Specifically, Eagleman et al. (2014) noted that media coverage of such games plays an important role in shaping attitudes toward them, those who cannot visit them with their own eyes. Thus, how the media represent the Olympics can have a powerful influence on the views of certain citizens about the Olympics. The development of television has influenced how Olympic sports have begun to be broadcast on different channels (Yan, 2020). At the same time, such a showing of these sporting events gave the sport the popularity that put its main characters on a par with the world's stars. The latter is due to both a certain material interest and social prestige. A striking example is the 2004 Olympic Games, held in Athens. It was at that time when television coverage of the Olympic competitions was particularly developed; with the help of the comparative table, one can trace the popularity of their broadcasting, which can be traced in the amounts of payment for television rights (Tabl. 1).

Table 1.
Television coverage of the Olympic Games. Official partners at the 2004 Athens Olympics.

State	TV network	The cost of television rights to broadcast the Olympics, $ million
United States	NBC	793
Canada	CBC	37
Latin America	OTI	17
Puerto Rico	WKAQ	1
Japan	AOJC	155
UAE	ASBU	5
Korea	AOKP	15
Europe	EBU	394
Australia	Seven	51
Africa	URTNA	1
Total		1469

Source: IOC 2006 Marketing Fact File

New Media in Olympic Coverage

At present, coverage of the Olympic Games takes place in numerous resources of mass communication. A notable place in this is occupied by the Internet, which has extensive multilateral communication capabilities. As a relatively new means of mass communication, the Internet has such characteristics as interactivity, virtuality, spatial immensity, openness, etc. (Yan, 2020). In order to watch the Olympic Games a person does not need to be in a particular place or at a particular time, it is enough to own different media, as well as to have access to the Internet. At the same time, we note that the increase in the number of sources of information in sports communication is due to: the promotion and quality filling of official websites of sports clubs, federations, or other organizations, the formation of sites of sports TV channels; the activity of athletes on their own pages in various social networks (we are talking about Facebook, Instagram, Twitter, YouTube, etc.) (Gerhart, 2017). We agree with the view that as a result of technological advances, media and technology have, on the one hand, spread into social life and, on the other hand, have become more diverse (Yan, 2020). At the same time, compared to traditional media, online media have quite a huge potential, because users can get certain unlimited access to resources, and they also act as a kind of tool for shaping public opinion (Geurin, 2019). Online media became especially relevant during the Covid-19 pandemic, including (as now) sports mass communication sites worked to form broader content creation and digital activation strategies. Several major leagues in Europe and the NBA in North America are known to have significantly multiplied digital engagement in sports by more than 10%. We are talking about the period from spring 2020 to April 2021. At the same time, many official Olympic sites have recorded a marked increase in activity on well-known social platforms such as Twitter, YouTube, and Instagram. The recent Tokyo Olympics (Horne & Whannel 2020) is a prime example of this. Facebook and Twitter were the most-watched and analyzed by Internet users of these competitions (Litchfield & Kavanagh, 2018). In last place is the TikTok network, due to its more sensible content. Recently, the number of sports audiences on a social platform such as Weibo has grown. We are talking about the Chinese microblogging communication network. The authors of this network also paid noticeable attention to the Olympic Games in Tokyo (Tabl. 2).

Table 2.
Weibo Hot Topics Classification

Sports' event (by sport)	Number of messages
Table Tennis	64
Athletics	21
Shooting	20
Swimming	19
Diving	19
Opening Ceremony	19
Total	162

Source: database was calculated by Chen (2022).

The table shows the most popular topics (with at least 50,000 likes on Weibo) in July and August 2020 during the Tokyo Olympics. Apparently, table tennis was the most popular event from this point of view, while the other competitive disciplines, along with the opening ceremony, garnered roughly the same number of views. The popularity of ping-pong can be explained by the great activity of Asian media resources, where this game is the national sport. Obviously, the trends in the popularity of the sport in Asia will not only continue but also grow in the future.

The task of modern media is to inform the general public. As a result of the development of marketing relationships, sports federations have established contacts with media providers (Geurin, & Naraine, 2020). Accordingly, media resources enjoy the mass popularity of sports to stimulate audiences, readers, advertising display revenue, sales, and royalties. The traditional media model has now shifted to new patterns of interaction using modern digital platforms and tools that develop interactive interaction between the consumer and media providers.

New media is the use of digital developments and technological innovations to convey information according to consumer requirements, usually within real-time and space. The formation of

modern media content significantly democratizes the process of information resources, significantly different from outdated media models (Byun & Leopkey, 2020). New media facilitate active communication that allows individual consumers to create content quite specifically, i.e., these transformations have influenced organizational paradigms of interaction and information control. Organizations and organizing committees must collaborate with various media agencies, but also consider collaboration with other, sometimes even independent, content producers. New media involve revenue generation incentives (e.g., merchandising related products or tickets, etc.), take into account consumer opinions and criticism, promote the growth of trade brands, etc. (Mauro, 2020). Their individual organization allows for more effective journalism, a better viewer or media experience, and feedback.

In fact, all subsequent Olympic competitions from the Atlanta Olympics in 1998 introduced powerful innovations using the latest digital techniques. As early as the 2008 Beijing Olympics, for the first time in history, a separate Internet broadcast was used and sold separately from television rights (Yan, 2020). At the 2010 Winter Olympics, the Cultural Olympics Digital Edition (CODE) was created with the goal of highlighting the role of modern digital technologies in art and communication. The next Summer Games in London in 2012 were new - at that time, social media had already become the dominant mode of content production and were quite capable of competing with traditional media resources (in particular, television) and became an object of special interest to viewers. According to available calculations, more than 1 billion people watched the Games in 2012 on Facebook alone. Likewise, the London Olympics was an important event on Twitter because the expansion of this social communication platform dramatically increased during 2010-2012, creating its own content that promotes the brand of the sports movement in the world.

Harmonizing East-West Relations - Media Resources on the 2008 Beijing Olympics.

The start of the 2008 Summer Olympics in Beijing was accompanied by reservations from many U.S. policymakers, military officials, and experts about China's participation and hosting of the upcoming competition. Many observers picked up on this trend and used the media to replicate it in the American media space, pointing to the new dangers of Communist Chinese domination and the rise of authoritarian

political systems. Such sentiments did not contribute to the spirit of the Olympics but were present in the coverage of the main events of the Olympics at the time (Martínez-Abajo et al, 2020).

At the same time, the success of the Olympics has changed the general discourse somewhat. For example, American columnist David Brooks published an article entitled "Harmony and the Dream" (Fomenko et al., 2020). He thought that the start of the Beijing Olympics ceremonies allowed a detailed comparison of the two concepts of social organization, collectivism, and individualism (between China and the United States, respectively). In particular, different peoples who preferred individualistic thinking were significantly better developed than those societies based on collectivist consciousness (Geurin, & Naraine, 2020). At the same time, the current economic and political development of China or Japan indicates the possibility of establishing a new order in the world based on a dialogue between East and West based on mutual trust. Perhaps the 2008 Olympics could act as a strong bridge for the establishment of new political contacts. At the same time, the structure of the Chinese social model may provide some alternative to democratic values. For example, a 2009 New York Times Magazine report stated, "China's rise is not only the result of economic development but also a cultural triumph". Consequently, the ideal of a harmonious society based on a philosophy of collectivism can become as attractive an ideal as the idea of American democracy. This will certainly be a useful lesson of inspiration for other autocratic regimes. So, there have been several images of the Olympic competition linked to images of China in the media.

In particular, journalists close to the Republican Party, The Washington Post portrayed the Middle Kingdom in negative colors. It is unlikely that relations between democratic and authoritarian regimes will change and that Sino-American relations will not improve, and the democratization of Eastern societies will not occur. The future relationship was portrayed differently by employees of the more liberal media resources The New York Times and Los Angeles Times (Mauro, 2020). Here, it was considered normal to establish relations with an authoritarian China, acknowledging the country's authority (while also pointing to shortcomings and tangible shortcomings). There was more positive (or neutral) coverage of China in these papers.

Thus, the media coverage of the organization of the Olympic Games can be considered through the prism of the socio-political component. It should be noted that such materials have a fairly detailed analytical component related to the coverage and conduct of the competitions, as well as their consequences. They are formed in accordance with the preferences and subjective reflections of certain observers but contain a serious layer of objective data.

Media machinations and "simulacra" - Sochi 2014 Winter Olympics.

For example, the process of preparing and organizing the XXII Olympic Winter Games in Sochi in 2014 received a wide response in the media environment, ranging from many controversial stories related to the previous stages, as well as other aspects of the political and socio-economic existence of the modern Russian Federation. This proves the unity of international relations and sports competitions. In particular, a brief analysis of the English-language media (The New York Times, The Washington Post, The Economist) and other media resources demonstrates this interest. Naturally, much attention was paid to the English-language news agencies, which have a high degree of citation. This is due to the authority of these publications and the wide interest of the English-speaking audience. At the same time, consideration of media materials from other regions made it possible to assess the holding and consequences of the 2014 Winter Games from different points of view.

According to official statistics, up to 2 million people came to watch the competitions in Sochi. On the other hand, the volume of attracted television viewers was about 3 billion. Consequently, the media audience of the XXII Olympic Winter Games outweighed the real one by 1500 times - respectively, such a striking difference between the real and virtual presence of viewers led to the fact that the main events were mainly learned about. Obviously, this is also how the idea of these 2014 Games was formed - by the work of journalists, Internet observers, etc.

In his time, the French postmodern philosopher Jean Baudrillard expressed an original concept of forming a specific picture of reality, which creates in a mass audience only an illusion of what is happening. The scholar called this illusion "simulacra" - imitation of something that does not exist and has never existed in real-time and space. The viability of this concept (which is still used in postmodernism) has been proven in practice (Mauro, 2020). In particular, during the 1991 Gulf War, the main focus of the world's media was on the region. Broadcasts from the bombing and war scenes were virtually live, leading viewers to an image of the conflict that did little to correspond to reality. The reality was replaced by "simulacra," that is, certain images of events.

On the example of the XXII Olympic Games in Sochi, it is possible to trace the use of such simulacra. In particular, its "innocent" illustration was the well-known episode with a large symbolic snowflake, which for technical reasons could not open in time. The vast majority of viewers did not see this little misunderstanding, because during the broadcast they did not notice the inoperative mechanism of the huge snowflake (which had been turned into one of the Olympic rings, as the organizers had intended), because the live broadcast video was replaced in time by a previously prepared clip from the dress rehearsal. So, already on this example, it is noticeable that the media was not so much shown with reality, but with a certain simulacrum, which was shown to the audience as reality. It was only later that the technical problems became known to the general public.

As it turned out, the entire 2014 Winter Olympics was a kind of simulacrum. From the very beginning, the media demonstrated the victories of Russian athletes, who, as it turned out, defeated all competitors in the medal standings at the time. This victory was widely replicated by the leading Russian media, which were financed (directly or indirectly) from the state budget of the Russian Federation. This served as the basis for the narrative that the authorities needed about the growth of Russia's power, which had achieved incredible heights in sports. It is worth recalling that at the same time the annexation of the Crimean Peninsula was taking place and aggressive actions were unfolding in Ukraine. All this created a tangible simulacrum of political orientation, aimed primarily at the formation of victorious sentiments and exalted Russian patriotism among Russian consumers (Organista & Mazur, 2017). The Sochi Winter Olympics became an element of the "Russian Spring" - the mental beginning of the revival of the glory of former Czarist-Soviet Russia. It should be noted that many international organizations and politicians protested against the violation of the main Olympic principle of peace during the Games. At the same time, as it turned out later, the results of the Russian Olympians had been fabricated. The use of prohibited substances

(doping) had become systematic. As a result of the investigation: doping samples and analyses of quite a number of athletes had been replaced at the appropriate moments through special holes in the laboratories. Accordingly, the new analyses contained no traces of doping. This created a misleading impression of Russian athletes winning and leading in the overall medal standings. In fact, the simulacrum was exposed, many of the "victories" were reversed and the athletes and attendants responsible were suspended. In general, the Russian Federation Olympic team was banned from participating in official competitions under its own flag, and many other sporting events that were supposed to take place within that country were canceled.

However, the Russian government, through the media, began to more actively impose the idea of an "island of Russia" surrounded on all sides by enemies. Sports and blatant manipulation of the Olympians' analyses were used by Russian politicians for their own purposes - media disinformation was the driving tool. It should be noted that similar algorithms were used in other authoritarian countries, in particular Nazi Germany. Thus, media resources can perform not only informational functions but also to a certain extent propaganda functions. These negative phenomena are a cause for concern because the dissemination of pre-biased testimony in the media is an extremely threatening practice.

The 2020 Olympics in a manipulative narrative

As is well known, many media resources do not often attempt to speak objectively on certain issues. This is especially true of the Russian media. Although Russia did not formally take part in the last competitions (because its Russian athletes were banned until December 2022 to compete under their flags, the anthem, or the name of the country at large-scale sporting events. The ban in question was related to the doping problem, organized not just by the coaches, but also by Russian officials and their intelligence services. However, many media outlets further assessed this situation critically. "A ban that means nothing," the British edition of the Evening Standard declared the situation. Russia is announced as Russians... And it seems that nothing happened - neither systematic use of doping, nor cover-up operations, whose traces

lead to the Kremlin, nor the absence of apologies for the violation." The American specialized website Yahoo Sports noted on this point: "It's amazing that Vladimir Putin has not yet appeared in downtown Tokyo on horseback and shirtless ... but with a false mustache and a document named Pladamir Vutin."

However, while in the Western media the authors expressed their dissatisfaction with this punishment of Russian athletes, the Russian media spread information about the so-called "humiliation of Russia. In addition, the Russian media disseminated slanted information about the participants of the competition, especially about the participants from Ukraine. In particular, the site Sport24.ru published a news story on July 28th titled: "A Ukrainian wrestler at the Olympics bit his opponent's hand. It shocked everyone...". The reason for the publication was an incident that had happened during a boxing match between the boxers from Morocco and New Zealand. At that time a Moroccan wanted to bite his opponent's ear. However, for unknown reasons, the Russian media wrote that it was the Ukrainian who bit his opponent's ear. What is interesting is that it was not possible to watch the Olympics in all of Russia. In particular, in Crimea, annexed by Russia, residents could not watch these competitions live. We note that live broadcasts of the Olympic Games are provided by such services as the Olympic Broadcasting Services (Olympic Broadcasting Services). However, this service blocked the signal from Russia, as the International Olympic Committee has repeatedly pointed to this ban even before the competition. Since the International Olympic Committee, taking into account the current norm of international law believes that Crimea should be part of Ukraine.

Despite a certain politicization of the coverage of the Tokyo Olympics. A great deal of attention was paid to the sports component. The media coverage reached a large number of fans, actively communicating with each other using modern media technology. Thus, in general, the 2020 Olympics received extensive attention in the American and European media. In particular, the preferences of American observers and, consequently, readers highlighted the following list of popular topics (Tabl. 3).

Table 3.
Popular tags from American users on Twitter (during the Tokyo Olympics).

Sport time	Number of notifications
Basketball	42
Athletics	35
Swimming	22
Opening Ceremony	19
Rhythmic Gymnastics	16
Medal ceremony	15
Total	149

The table was made by authors.

Thus, according to the choice of content consumers, the most popular online interests of the American audience were basketball, athletics, and swimming (West, 2022). At the same time, according to statistical calculations, the level of interest of the American population in the 2020 Olympic Games is average. Predominantly U.S. citizens are only "somewhat interested" in the Games. But "very interested" 24% (compared to "not at all interested" 22%). (Fig. 1).
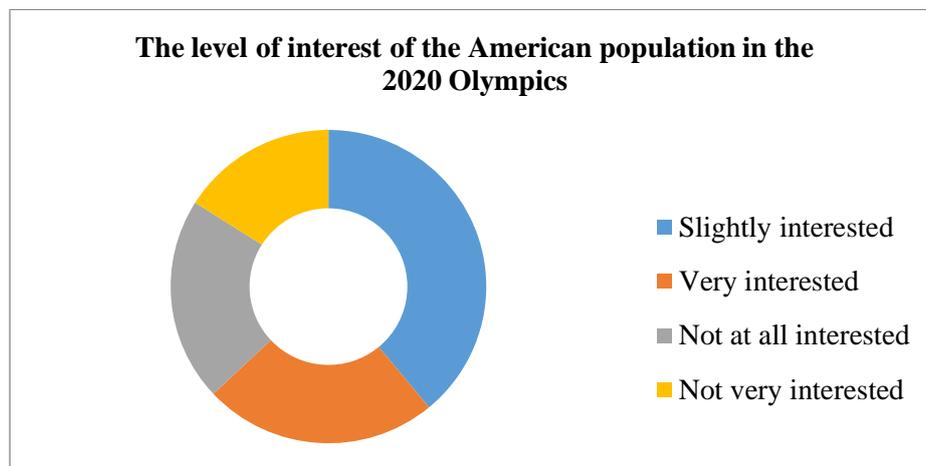
Figure 1. *The level of interest of the American population in the 2020 Olympics*

Discussion

The modern digital transmission of media content has very official implications for the development of the information society, including coverage of the Olympic Games. Diversification processes in the formation of communication platforms and their growth using social media can shake the dominance of traditional media and their practices in covering truly large-scale events such as the Winter or Summer Olympic Games (as well as the need for powerful financial injections into these media structures). It is possible that the media market associated with large-scale sporting events, in general, is undergoing a dramatic change in favor of contracting with smaller organizations or even individuals.

Consequently, many sports fans are increasingly turning their attention to social media, preferring the use of mobile devices and apps on the go rather than conventional TV at home. On the one hand, this leads to possible threats to traditional Olympic programs, since the structure of their broadcasts implies a focus on television screens. In order to use the full potential of digital technology, however, the existing infrastructure will have to be significantly upgraded. However, this can hardly be considered a negative side - it is more about the further evolution of media technologies, which is an objective process of human development.

The presence of a large layer of information about the Olympics on social media greatly democratizes these competitions. In particular, the official media focus primarily on the positives, while criticism is very often hidden.

Reviews on the Internet and personal impressions allow us to look at the competitions from a different perspective. This creates a greater representation of opinions. These thoughts and impressions demonstrate the Olympics as a social organism, which cannot be covered by traditional media. In the same way, these processes introduce people to the life and work of sports journalists, after all, many amateurs also try to become them by covering various social topics. Since quite a few ordinary users have been covering Olympic sports events through social media, they have also contributed in their own way to expanding the popularity of these powerful competitions. The expansion of media channels thanks to new media technologies and the growing value of content created by ordinary users has changed attitudes toward the Olympics and in some ways allowed viewers to become a source of information themselves.

At the same time, the problems of traditional media are evident. This was especially evident when the Olympics were held in countries with authoritarian regimes. For example, Beijing 2008 showed the strength and orderliness of Chinese administrators, but this was used not to showcase a sporting celebration, but for political purposes. Western observers warned against this, but also understood political motives in sports. Probably the Russian media were the most prominent in this field, launching a real campaign to distort reality.

While the traditional media continue to be the mainstay of Olympic coverage, such a policy does not make them popular and forces them to verify their information. Such distrust destroys the perception of the Olympic Games as a sporting celebration and brings political motives to the fore, which we believe is a negative manifestation in the formation of the Olympic sporting spirit.

Conclusions

So, the Olympic Games are one of the most popular topics in various sports communication media. It is true that with the development of the latest communications, the influence of traditional media on the coverage of major sporting events is diminishing. Attention is also drawn to the destructive political influence of political confrontation, which does not allow sports to be completely free of politics. Separate attention should be paid to dangerous trends regarding targeted manipulation, which has recently been demonstrated in Russian traditional media directly or indirectly financed by the state budget. At the same time, modern media contribute to the popularization of the Olympic movement in the world, and the use of the latest media opportunities significantly democratizes and diversifies this process. The costs of infrastructure projects (associated with the preparation of facilities) can be offset by the interest of billions of people in the Olympic Games. In addition, the paper notes that manipulation in the sports media is quite common. Consequently, further scientific studios on this subject should be guided solely by a scientific-critical vision.

Bibliographic references

Byun, J., & Leopkey, B. (2020). Exploring issues within Post-Olympic games legacy governance: The case of the 2018 PyeongChang winter Olympic Games. Sustainability, 12(9), 3585. https://doi.org/10.3390/su12093585

Chen, H. (2022). A study on hot topics in social media of Tokyo 2020 Olympic Games. Technium Social Sciences Journal, 27, 680-686. https://doi.org/10.47577/tssj.v27i1.5451

Eagleman, A. N., Rodenberg, R. M., & Lee, S. (2014). From 'hollow-eyed pixies' to 'team of adults': Media portrayals of Olympic women's gymnastics before and after an increased minimum age policy. Qualitative Research in Sport, Exercise and Health, 6(3), 401-421. https://doi.org/10.1080/2159676x.2013.877961

Fomenko, T., Bilotserkovets, M., Klochkova, T., Statsenko, O., Sbruieva, A., Kozlova, O., & Kozlov, D. (2020). Overcoming Barriers in Intercultural Communication: A Case Study on Agricultural Idioms in English, Ukrainian and Chinese. Academic Journal of Interdisciplinary Studies, 9(6), 157-166. Doi: 10.36941/ajis-2020-0120

Geurin, A. N. (2019). Media coverage of women athletes during the Olympic Games. Routledge Handbook of the Business of Women's Sport. Routledge, 529-539. https://doi.org/10.4324/9780203702635-42

Gerhart, N. (2017). Technology addiction: How social network sites impact our lives. Informing Science: The International Journal of an Emerging Transdiscipline, 20, 179-194. https://doi.org/10.28945/3851

Gerrard, Y. (2022). Social media moderation. The Social Media Debate, 14, 77-95. doi: 10.4324/9781003171270-6

Geurin, A. N., & Naraine, M. L. (2020). 20 years

of Olympic media research: Trends and future directions. Frontiers in Sports and Active Living, 2. https://doi.org/10.3389/fspor.2020.572495

Horne, J., & Whannel, G. (2020). Tokyo and the Olympics. Understanding the Olympics. Routledge, 3-29. https://doi.org/10.4324/9780429345272-2

Litchfield, C., & Kavanagh, E. (2018). Twitter, team GB, and the Australian Olympic team: Representations of gender in social media spaces. Sport in Society, 22(7), 1148-1164. https://doi.org/10.1080/17430437.2018.1504775

Martínez-Abajo, J., Vizcarra, M., & Lasarte, G. (2020). How do sportswomen perceive the way they are treated in the media? Apunts Educación Física y Deportes, (139), 73-82. https://doi.org/10.5672/apunts.2014-0983.es.(2020/1).139.10

Mauro, M. (2020). Media discourse, sport and the nation: Narratives and counter-narratives in the digital age. Media, Culture & Society, 42(6), 932-951. https://doi.org/10.1177/0163443720902910

Organista, N., & Mazur, Z. (2017). Sports press coverage of Polish female athletes during the Olympic Games in Rio de Janeiro. Studies in Sport Humanities, 22, 39-48. https://doi.org/10.5604/01.3001.0012.6522

Salido-Fernández, J., & Muñoz-Muñoz, A. M. (2021). Representación mediática de las deportistas en los Juegos Olímpicos: Una revision sistemática. Apunts Educación Física y Deportes, (146), 32-41. https://doi.org/10.5672/apunts.2014-0983.es.(2021/4).146.04

West, S. M. (2022). Social media as social infrastructures. The Social Media Debate. Routledge, 5-19. https://doi.org/10.4324/9781003171270-2

Yan, W. (2020). Olympic Games as a digital media product. Marketing and Management of Innovations, (3), 306-318. https://doi.org/10.21272/mmi.2020.3-22

Determinants and methods of diagnosing criminal proceedings participants false testimony in Ukraine

Детермінанти та засоби діагностики неправдивих показань учасників кримінального провадження в Україні

Written by:
Leonid Mohilevskyi[21]
https://orcid.org/0000-0002-6994-6086
Vlada Husieva[22]
https://orcid.org/0000-0001-8614-1573
Stanislav Perlin[23]
https://orcid.org/0000-0001-9397-2738
Ruslan Chycha[24]
https://orcid.org/0000-0003-3267-2840
Iryna Shynkarenko[25]
https://orcid.org/0000-0001-7136-3333

Abstract

The purpose of the article is to determine the procedural and non-procedural methods of diagnostics false testimony of criminal proceedings participants', which can be used in the investigation in Ukraine. The authors use general and special methods that allow obtaining scientifically sound conclusions and suggestions. The dialectical method, system-structural, generalizing, logical and statistical methods were used in the study. According to the results of the study, the number of criminal offenses initiated in Ukraine in connection with the provision of false testimony by victims and witnesses is quite large. If a person is convicted based on false testimony, a new criminal trial must be ordered in connection with the newly discovered circumstances. The authors determined that procedural methods of diagnostics false testimony include investigative (search) actions and forensic examinations, and non-procedural - various types of research, in particular, the use of polygraph and physiognomic research, as well as methods of analyzing nonverbal information. Re-interrogation, additional and simultaneous interrogation of previously interrogated persons, investigative experiment are the most effective procedural means of diagnosing false testimony. Non-procedural means of diagnosing false indications

Анотація

Метою статті є визначення процесуальних та непроцесуальних засобів діагностики неправдивих показань учасників кримінального провадження, що можуть бути застосовані під час розслідування кримінальних правопорушень в Україні. Автори використовують загальнонаукові та спеціальні методи, що дозволяють отримати науково обґрунтовані висновки та пропозиції. Зокрема, застосовуються такі наукові методи, як діалектичний, системно-структурний, узагальнюючий, логічний, а також статистичні методи (групування, аналіз кількісних показників). За результатами проведеного дослідження установлено, що кількість кримінальних правопорушень, розпочатих в Україні у зв'язку з наданням потерпілими та свідками неправдивих показань є досить великою. У разі засудження особи на підставі отриманих неправдивих свідчень, має бути призначений новий судовий розгляд кримінального провадження у зв'язку з нововиявленими обставинами. Визначено, що до процесуальних засобів діагностики неправдивих показань належать слідчі (розшукові) дії та судові експертизи, а до непроцесуальних – різного роду дослідження, зокрема, використання поліграфу та фізіогномічні дослідження, а також методики

---

[21] Vice-Rector of Kharkiv National University of Internal Affairs, Doctor of Law, Professor, Honored Lawyer of Ukraine, Kharkiv, Ukraine.

[22] Professor of the Department of Criminalistics, Forensic Science and Pre-medical care of Kharkiv National University of Internal Affairs, Doctor of Law, Associate Professor, Kharkiv, Ukraine.

[23] P.h.D., Kharkiv, Ukraine.

[24] Doctoral Student of the Department of the Organization Educational and Scientific Training of Kharkiv National University of Internal Affairs, PhD, Associate Professor, Kharkiv, Ukraine.

[25] Ass. Professor of the of Investigative Activities and Crime Solution of Kharkiv National University of Internal Affairs, P.h.D, Kharkiv, Ukraine.

require further research and scientific substantiation, including the development of a mechanism for training relevant specialists.

Keywords: interrogation, testimony, reliability, diagnostic methods, polygraph.

аналізу невербальної інформації. За результатами проведеного аналізу слідчо-судової практики України встановлено, що найефективнішими процесуальними засобами діагностики неправдивих свідчень є: повторні, додаткові та одночасні допити раніше допитаних осіб, а також слідчі експерименти. Наголошено, що непроцесуальні засоби діагностики неправдивих показань потребують подальшого дослідження та наукового обґрунтування, у тому числі розроблення механізму підготовки відповідних фахівців, які будуть уповноважені на здійснення таких досліджень.

Ключові слова: допит, показання, установлення достовірності, засоби діагностики, поліграф.

Introduction

The testimony of a person is one of the procedural sources of evidence in the criminal proceedings of Ukraine. An investigator or coroner may obtain the testimony of victims, suspects and witnesses during the investigation of criminal offenses.

The victim's testimony in the criminal procedures is important to prove in different categories of criminal cases. Quite often, it is the only direct evidence of the accused's guilt. The victim gives evidence regarding the circumstances to be proved (Law of Ukraine No. 4651- VI, 2012). An integral part of the victim's testimony is his or her opinions and the assumptions made during the interrogation. This is admissible given that the victim is in most cases an eyewitness to a criminal offense, directly confronted with the criminal offense or the offender himself, and therefore more than anyone aware of the circumstances of the criminal offense causing him harm (Boiarov et al., 2020).

Eyewitness testimony is not always as reliable or as accurate as might be expected, given the weight that decision makers often attach to it (Nash et al, 2015, p. 642). Such theses are enshrined in the case law of the European Court of Human Rights. Thus, in Doorson v. The Netherlands, the ECtHR stated that a conviction could not be based solely or decisively on evidence, which the defense could not deny. In the case of Kornev and Karpenko v. Ukraine, the ECtHR stated that limited to the extent that it is incompatible with the guarantees provided for in Article 6 of the Convention". Thus, the testimony of witnesses is not conclusive evidence of the guilt of another person.

It should be borne in mind that when it comes to a witness or victim, they are warned of criminal liability for giving false testimony (Law of Ukraine No. 2341-III, 2001). According to the

Office of the Prosecutor General of Ukraine, 684 criminal proceedings in this category of criminal offenses were registered in 2016, in 2017 - 724, in 2018 - 777, in 2019 - 902, in 2020 - 755, for the period from January to September 2021 - 517 criminal proceedings.

Obviously, when it comes to the victim witness, they are warned of criminal responsibility for giving deliberately false statements. However, it is not always possible to prove, since the testimony of a person may contain bona fide error, and a mandatory criterion of proving a criminal offense on the part of the witness or the victim is testimony given knowingly (Ponomarenko et al., 2020). Thus, establishing false testimony and recording it in procedural form is the main task of investigators and investigators during the investigation, in order to prevent the perpetrators from avoiding responsibility.

At the same time, the urgency of timely detection of false testimony is due to the fact that according to the current criminal procedure legislation of Ukraine in case of establishing the fact that the verdict is based on knowingly false testimony of witnesses, victims, suspects, criminal proceedings should be reviewed on the basis of newly discovered circumstances.

As for the suspects, they often give false testimony. According to our analysis of the materials of investigative and judicial practice, such actions of suspects are recognized by the court as a way of protection during the evaluation of evidence (in 67% of criminal proceedings). However, it should be emphasized that when a suspect gives evidence that does not correspond to the established circumstances in the criminal proceedings, such versions of the defense must also be verified and refuted. In this case, it can be

argued that the prosecution has made an objective assessment of the testimony received.

False testimony is not always intentional, so a separate study requires factors that affect the ability to objectively perceive the circumstances and provide a person with full credible testimony. The issues of modern possibilities of those means that can be used to verify the accuracy of the testimony of participants in criminal proceedings also remain debatable. Therefore, the authors investigated the means of verifying the testimony of participants in criminal proceedings, which can be used by investigators during the pre-trial investigation, taking into account the theoretical works of domestic and foreign scientists, as well as foreign experience, based on analysis of criminal proceedings and questionnaires.

Methodology

The study used a set of general and special methods, which was the key to achieving this goal. The logical method became the basis of this study and allowed to determine what procedural and non-procedural measures can be used to diagnose false testimony of victims, witnesses suspected at the stage of pre-trial investigation of criminal offenses. The system approach determines the order of application of these methods and allows to study the researched problems. The dialectical method allows to establish the purposes of research in dynamics and interrelation, to find out separate aspects of realization of investigated means of diagnostics of false testimonies of participants of criminal proceedings. The method of systematic analysis of legal provisions allowed to classify the means of diagnosis of false indications into procedural and non-procedural. The method of generalization and statistical methods (grouping, analysis of quantitative indicators) were used to determine the most effective investigative (search) actions that should be used to establish false testimony. In addition, the method of generalization allowed to determine the determinants that affect the ability of a person to give true, complete and objective testimony.

Literature Review

Methods of verifying the testimony of participants in criminal proceedings, as well as evaluating their testimony have been the subject of research by many scholars. Among Ukrainian scientists should be noted the works of Kolesnikova (2017); Liash (2017); Lozynska & Shekhavtsov (2020), Lushpiienko (2017), who

studied the issues of determining the reliability of witness statements. The issue of establishing false testimony and neutralizing conscious untruth studied Pavliuk (2020); Prodanets & Horbanov (2021).

Ukrainian scientists make a significant contribution to the study of the problems of verifying the testimony of criminal proceedings participants. Scientists are concentrating their efforts on the study of tactical features of interrogations, investigative experiments, certain types of forensic examinations. Kohut (2018) and Pasko (2021) studied certain features of interrogations, Protsenko (2020) and Nehrebetskyi (2021), studied certain aspects of verification and evaluation of testimony by conducting investigative experiments, and others.

Ukrainian scientists make a significant contribution to the study of the problems of verifying the testimony of criminal proceedings participants. Scientists are concentrating their efforts on the study of tactical features of interrogations, investigative experiments, certain types of forensic examinations. Kohut (2018) and Pasko (2021) studied certain features of interrogations, Protsenko (2020) and Nehrebetskyi (2021), studied certain aspects of verification and evaluation of testimony by conducting investigative experiments, Husieva, Oderiy, Petrova, Fomina, Vuima (2021) identified the possibility of testifying to a person with mental disorders and the peculiarities of their assessment, and others.

Foreign scientists have repeatedly studied similar problems. Thus, Sheahan, Pica, Pozzulo & Nastasa (2017), Wilcock, Crane, Hobson, Nash, Kirke-Smith & Henry (2019), Budyakova (2020), Longstaff, & Belz (2020), Henry, Crane, Fesser, Harvey, Palmer & Wilcock (2020) and others are devoted to the study of determinants influencing the process of identification and provision of complete and objective indications.

Possibilities of separate researches in questions of diagnosis of a lie are opened by Street, C. N. H. (2015), Howgego (2019), Polubinskaya (2021). Some aspects of the analysis of nonverbal information were revealed by Metenková and Metenko (2014). Some aspects of the survey were studied by Swanner, Meissner, Atkinson, and Dianiska (2016). Thus, some aspects of our research have been repeatedly studied in the studies of some scholars, but a comprehensive study taking into account the investigative and judicial practice of

Ukraine has not yet been carried out, which actualizes the topic we raised.

Results and discussion

Interrogation is a complex investigative (search) action, which consists in carrying out a set of cognitive and certifying operations that can be conducted by an investigator, prosecutor, employee of an operational unit, a judge and in some cases an investigating judge. Studies of typical interrogation situations allowed researchers to establish such types of testimony as reporting true testimony, conscientious error of the interviewee, inconsistencies in the testimony of the interviewee, reporting false testimony, refusal to testify (Kohut, 2018).

The subject of our study is false testimony. These include all those that do not meet or do not fully meet the criterion of reliability. In turn, we understand the reliability of the testimony as their property, which consists in their compliance with the real facts and circumstances relevant to the criminal proceedings and in full agreement with other evidence obtained during the investigation and which during their evaluation by the subject of evidence are beyond reasonable doubt.

False testimony is not always intentional, as there are determinants that affect a person's ability to adequately perceive the circumstances and reproduce them objectively and fully. The investigator should be aware of and consider them when assessing a person's testimony. These include gender, age, mental characteristics of the person, being in a state of alcohol or drug intoxication, etc.

Researchers who studied gender differences in witness memory and related differences in perceptions and feelings, in a neutral but potentially threatening context, found that women were more accurate than men in details about strangers, and less accurate than men on the details of the environment. Women are more anxious, but they are more receptive to the sex of a stranger in such conditions (Longstaff, & Belz, 2020).

Researchers are studying the relationship between people's age and their memory. According to a study conducted by Canadian scientists, adolescent witnesses reported fewer descriptors of offenders than adults, with adults reporting facial features more accurately, and adolescent eyewitnesses being more accurate in describing clothing. At the same time, the researchers found that no age differences were found in the study of the accuracy of

identification (Sheahan et al., 2017). An important factor influencing the possibility of perception and further reproduction of the circumstances of the event is the state of alcohol or drug intoxication. So far, little is known about the underlying mechanisms responsible for the harmful effects of alcohol on memory performance, but most studies have shown that mild or moderate alcohol intoxication can lead to less complete, but not necessarily less accurate memory data. Higher doses of alcohol can increase the number of error messages. In this regard, we support the position of scientists, who emphasize that police officers should interrogate intoxicated witnesses as soon as possible after the incident, because studies have shown that the detrimental effects of time are greater than the effects of alcohol on data eyewitnesses (Gawrylowicz, & Bartlett, 2021, p. 379). Marijuana also has a negative effect on memory and the ability to be identified by eyewitnesses (Pezdek et al., 2020).

In addition to these factors, the ability to perceive certain circumstances and further provide objective evidence may be affected by some features of the psyche such as: suggestion, especially in the case of minors (Lozynska & Shekhavtsov, 2020, p. 155), shock, stress, mental disorders (Henry et al., 2020), conformity, features of memory (Budyakova, 2020), etc.

Methods of diagnosing untruths in the testimony of victims, witnesses and suspects may be different. Some scholars point out those investigative actions, covert investigative (search) actions, judicial procedural actions of a search-cognitive nature and other procedural actions, due to which testimonies are obtained and verified, are means of determining the authenticity of testimonies. The search and cognitive potential of procedural actions should be determined and used in not only the direction of gathering evidence, but also their verification. Moreover, tactics, their combinations that are used during their conduct and tactical operations are ways to determine the reliability of the testimony (Lozynska & Shekhavtsov, 2020, p. 174). In general, we support this position, but we believe that covert investigative (investigative) actions cannot be considered a means of establishing false testimony, as the procedure for conducting them involves restricting certain legal rights and interests of persons against whom they are conducted. In addition, covert investigative (search) actions are carried out in cases where information about the criminal offense and the person who committed it cannot be obtained in any other way (Law of

Ukraine No. 4651- VI, 2012). That is, the purpose and procedure of carrying out covert investigative (search) actions makes it impossible to carry them out in order to diagnose the reliability of the testimony.

The most common means of establishing false testimony is interrogation. Interrogations can be repeated, additional, and to clarify the contradictions of already interrogated persons - simultaneous interrogations of two or more persons. In our opinion, interrogations, in order to neutralize a person's insincerity, should be conducted only by an investigator or an investigator in charge of an investigation or by a senior group of investigators. In addition, taking into account the above determinants that may lead to a conscientious error of the interrogated, the investigator must take into account the individual typological features, typological qualities, mental state of the interrogated at the time of interrogation and his life experience, etc. (Kohut, 2018), which if possible should be established before the interrogation.

Repeated and additional interrogations should be aimed at clarifying the testimony of the interrogated, eliminating gaps and inaccuracies in case of a good faith error of the interrogated, updating the information forgotten in the memory of the interrogated. Investigators or investigators may ask a person during an interrogation the cause of his or her internal mental tension, increased nervous activity, or inappropriate behavior. The maximum detail of the testimony contributes to the detection of untruths; in particular, the meticulous attitude of investigators to obtaining testimony during the initial interrogations proves its effectiveness. Detailed readings are an important information field for verifying readings.

The sequence of interrogations during an investigation is important to determine the veracity of a whistleblower's testimony (Lozynska & Shekhavtsov, 2020). The investigator or coroner should not be prejudiced against the testimony of a person. The fact that a person has acquired the procedural status of a victim does not mean that his testimony is true. The same applies to witnesses, conditionally speaking, on the part of the victim, and vice versa - in no case the testimony of witnesses who are close, familiar to the suspect, and the testimony of the suspect, which contradicts other testimony, should not automatically be perceived as untrue. It is possible to claim the presence of false information in the testimony of a particular participant in criminal proceedings only based on

the results of the assessment of the totality of evidence obtained in criminal proceedings.

The purpose of conducting simultaneous interrogations of several already interrogated persons is to obtain additional factual data that highlight the true course of the circumstances of the criminal offense related to the subject of evidence, on which there are significant discrepancies in the testimony of previously interrogated persons (Kotiuk, 2016). Before deciding to conduct a simultaneous interrogation, the investigator must be satisfied that one of the two persons to be interrogated at the same time has given truthful testimony. It is not possible to conduct a simultaneous interrogation between two persons whose testimonies differ significantly, but the investigator has grounds to believe that they do not correspond to reality. During the simultaneous interrogation, the person who gives truthful testimony must be the first to answer the question, in which case a strong psychological influence will be exerted on the person who knowingly gave false testimony. At the same time, it should be noted that of the simultaneous interrogations we analyzed, only in 44% of cases the person who, according to the investigator, gave false or erroneous testimony, changed his position and confirmed the testimony of another person.

A search can also be a means of diagnosing false testimony. In the criminal proceedings studied by us, the situation with negative results, when material objects weren`t found in the place indicated by the interrogated or the wanted person appeared in 37% of cases of searches. At the same time, a negative search result should not automatically be considered as an argument for the falsity of a person's testimony about the presence in a particular home or other property of material objects relevant to criminal proceedings, connection of that person with a criminal offense or wanted person. Only after confirmation through other investigative actions that the seized material object is an instrument of a criminal offense, there are the grounds for determining the testimony of the person are reliable (Lozynska, & Shekhavtsov, 2020).

Identification allows solving several important tasks. The first task is to obtain data on the relationship of a person, object or corpse with the event of the criminal offense under investigation. The second task is to check the testimony of the previously interrogated person about the appearance and signs of the person who committed the criminal offense, the victim, the witness, the thing, as well as about the

circumstances under which he saw this person or thing.

Such an investigative (investigative) action as an examination can also be used to establish false information in a person's testimony. The investigator or coroner must interrogate person in detail, focusing on the possibility find answers to different questions to verify a person's testimony through this investigative action. For example, whether there are special signs, injuries, if so, what exactly and where; whether there are particles on the body of certain substances that a person could take out of the scene or bring to it; whether there are signs on the body of the person being examined that indicate his / her professional affiliation and traces of struggle; what is the number of lesions, their type, shape, nature and location, etc. (Topchii & Karpenko, 2015).

An investigative experiment is quite effective in diagnosing lies in the testimony of interrogated persons.

During the investigative experiment is often checked: a) the probability of the existence of individual phenomena in the past; b) whether a certain person in certain conditions could perceive this or that event or object (for example, whether the witness in the conditions described by him and from the specified distance could see the fact of transfer of a certain object from one person to another, whether the person being in one room, hear a conversation that took place in another room, etc.); c) the ability to perform certain actions in these conditions (in general or by a specific person), including professional and other human skills (to penetrate a certain way into the room, to make a certain object, to determine by ear the nature of damage to units, etc.); d) the objective probability of an event or action (whether a certain substance may spontaneously ignite under appropriate conditions, whether the object may fall from a height to the very place where it was found); e) the establishment of individual circumstances - the mechanism or sequence of an event in general or its individual stages, how a certain event occurred, the time required to perform a certain action (Balitskyy, 2015). In addition, given the fact that most crimes are committed under the influence of alcohol and drugs, the investigative experiment often manages to restore the person's memory so much that the investigator receives detailed information about seemingly completely forgotten facts. The person not only recalls certain facts, but also corrects them, rejecting everything that does not agree with the real

situation, clarifies certain information, and gives a justification for what was reported during the interrogation (Kuntii, 2019, p. 393).

It is important during the investigative experiment that the actions of the interrogated person are independent, and hints and leading questions from other participants in the investigative action are completely excluded. Observation, interview, experiment, comparison, audio and video recording methods are used during data verification. The application of these methods provides an opportunity to verify existing and new data on criminal offenses (Protsenko, 2020). The need for video recording is because the results can be useful for verification of data by experts during a comprehensive forensic psychiatric examination, because with video viewing experts will be able to analyze the behavior of the suspect (victim), his movements and gestures that may affect the results. Video recording during an investigative experiment is used to conduct a procedural action in general, but also to verify data transmitted non-verbally, which may contain at the disposal of the investigation or the court important forensic information. If necessary, an appropriate specialist can be involved in explaining the content of such messages (Protsenko, 2020).

In order to establish false evidence, the appointment and conduct of such forensic examinations as psychological examination using a polygraph should be considered promising. In our opinion, such an approach in the investigative practice of Ukraine is not yet sufficiently tested. At the same time, some foreign scholars emphasize that polygraphs (lie detectors) have completely discredited themselves (Howgego, 2019). Some point out that people make for poor lie detectors. They have accuracy rates comparable to a coin toss, and come with a set of systematic biases that sway the judgment. (Street, 2015).

It should be noted that currently in the practice of law enforcement agencies in many countries around the world are used not only traditional lie detectors (polygraphs), which measure certain physiological indicators that indicate a strong emotional reaction of the subject when he lies (pulse rate, blood pressure, sweating). etc.), but also lie detectors, which are aimed at studying cognitive processes that are studied using functional magnetic resonance imaging. That is, they do not investigate secondary emotional reactions, and this makes this type of lie detector virtually unaffected by possible attempts to deceive him. In addition, this method establishes

neurobiological correlates of lies and untruths, rather than their external manifestations, which makes its results more accurate (Polubinskaya, 2021). Thus, given that the judicial authorities of Ukraine as procedural sources of evidence do not recognize the results obtained from the use of the polygraph, we believe that they can be used to verify the testimony of a person to diagnose false testimony and the implementation another task.

At the same time, along with the indicated areas of psychological examinations in the context of our study, we cannot avoid psychological studies of individual characteristics of perception, attention and memory of the victim, witness and suspect. The methods of such examinations registered by the Ministry of Justice of Ukraine include the Complex technique of research of psychological features of attention and sensorimotor reactions, the Complex technique of research of psychological features of memory (test of visual and auditory memory, short-term, operative memory, memory for numbers, images etc.), a comprehensive method of studying the psychological characteristics and individual properties of perception (volume, constancy, illusions, identification, etc.). Psychological examination of these methods can provide data on individual characteristics of perception, memory and reproduction of information by a person (Lozynska, & Shekhavtsov, 2020). Moreover, if in the criminal proceedings there is information about the presence of psychiatric pathologies in the interrogated, then to address the ability of a person to correctly perceive the circumstances relevant to the criminal proceedings and give truthful testimony about them, a psychiatric examination is conducted.

Physiognomic researches should be considered as a perspective direction in research of false indications. Psychologists have proved that in the process of communication between the investigator and the person he interrogates the character traits of the latter are manifested differently, depending on the type of personality. Sanguine more often than other representatives are friendly to the investigator, instantly respond to questions asked, make comments, make suggestions. Melancholic are hostile to the investigator, afraid, unwilling to communicate, introverted. Choleric are persistent, they try to end the conversation as soon as possible, irritable, react violently to the stimulus. Phlegmatic are slow in the interview, the psyche is slow, and the reaction to the proposal to describe the circumstances of the event in detail is slow (Savchenko & Korolyshyn, 2016). At the same time, the lack of scientifically substantiated

information on this topic makes it impossible to use such research as a procedural form of means of diagnosing false evidence.

Conclusion

Summing up, it should be emphasized that a person may give false testimony intentionally, and in some cases - due to a good faith mistake of the interrogated. The process of perception of certain circumstances of a criminal offense in each individual is individual, which is influenced by certain factors. Gender, age, mental disorders, alcohol or drug intoxication, predisposition, stress, conformity, memory, etc. may be determinants of defective and biased evidence of a criminal offense.

Diagnosis of untruth in a person's testimony can be made through the use of procedural and non-procedural means. Procedural means include investigative (search) actions and forensic examinations provided by the current criminal procedural legislation. The most effective of them are interrogation (repeated, additional, simultaneous interrogation of several already interrogated persons) and investigative experiment. Searches, examinations, identification, comprehensive forensic psychiatric and forensic psychological examinations may also be conducted for this purpose. Non-procedural means of establishing false indications in Ukraine at present are: the use of polygraphs, physiognomic studies, as well as various types of research aimed at analyzing nonverbal information.

Thus, the researched issues are relevant and therefore require further thorough research. Special attention should be note to non-procedural forms of diagnosis of false indications, as well as the development of methods for training relevant specialists who will be authorized to conduct such research.

Bibliographic References

Balitskyy, T. M. (2015). Investigative experiment in system of investigative (search) actions in criminal proceedings of Ukraine. Irpen: University of the State Fiscal Service of Ukraine, 216 p.

Boiarov, V., Larkin, M., Dudorov, O., Pyrozhkova, Y., & Legkykh, K. (2020). Interrogation of the victims during the investigation of crimes committed by youth extremist groups. Amazonia Investiga, 9(28), 281-287. https://doi.org/10.34069/AI/2020.28.04.31

Budyakova, T. P. (2020). Memory errors in eyewitness identification testimony. International Journal of Psychosocial Rehabilitation, 24(3), 2931–2942. https://doi.org/10.37200/ijpr/v24i3/pr2020326.

Gawrylowicz, J., & Bartlett, B. (2021). The Handbook of Alcohol Use. Chapter 17 - Alcohol and the legal system: Effects of alcohol on eyewitness testimony. Understandings from Synapse to Society, 379-398. https://doi.org/10.1016/B978-0-12-816720-5.00016-5.

Henry, L. A., Crane, L., Fesser, E., Harvey, A., Palmer, L., & Wilcock, R. (2020). The narrative coherence of witness transcripts in children on the autism spectrum. Research in Developmental Disabilities, 96, 103518. https://doi.org/10.1016/j.ridd.2019.103518.

Howgego, J. (2019). The truth about lie detectors. New Scientist, 242(3231), 18–19. https://doi.org/10.1016/s0262-4079(19)30925-x.

Husieva, V., Oderiy, O., Petrova, I., Fomina, T., & Vuima, A. (2021). Features of the investigation of premeditated murders committed by persons with mental disorders in the practice of Ukraine. Amazonia Investiga, 10(46), 109-117. https://doi.org/10.34069/AI/2021.46.10.10.

Kohut, A. A. (2018). Theoretical analysis of psychological compositions definition of legal measures in the process of consequential action. Actual Problems of Psychology, 9(11), 98-105. Retrieved from http://appsychology.org.ua/data/jrn/v9/i11/11.pdf.

Kolesnikova, I. A. (2017). The tactical model of the process of assessing the reliability of testimonial evidence. Juridical Scientific and Electronic Journal, 6, 340-343. Retrieved from http://lsej.org.ua/6_2017/100.pdf.

Kotiuk, O. (2016). The objective, factual and procedural grounds of simultaneous interrogation of two or more persons are questioned need clarification. Bulletin of Criminal Judiciary, 1, 26-32.

Kuntii, A.I. (2019). Tactics of an investigative experiment in the investigation of premeditated murder committed in a state of great emotional excitement. Comparative and Analytical Law, 4, 393-396. https://doi.org/10.32782/2524-0390/2019.4.108.

Law of Ukraine No. 2341-III. Criminal Codes of Ukraine. Official Web site of the Verkhovna Rada of Ukraine, October 04, 2021. Retrieved from https://zakon.rada.gov.ua/laws/show/2341-14. [In Ukrainian]

Law of Ukraine No. 4651-VI. Criminal Procedure Codes of Ukraine (2012). Web site of the Verkhovna Rada of Ukraine, October 04, 2021. Retrieved from https://zakon.rada.gov.ua/laws/show/4651.

Liash, A. O. (2017). Assessment of the reliability of the witness's testimony in the current Criminal Procedure Code of Ukraine: some problematic issues. Electronic scientific journal of the National University of "Ostroh Academy", 2 (16), 1-13. Retrieved from https://lj.oa.edu.ua/articles/2017/n2/17laodpp.pdf.

Longstaff, M. G., & Belz, G. K. (2020). Sex differences in eyewitness memory: Females are more accurate than males for details related to people and less accurate for details surrounding them, and feel more anxious and threatened in a neutral but potentially threatening context. Personality and Individual Differences, 164, 110093. https://doi.org/10.1016/j.paid.2020.110093.

Lozynska, Yu. I. & Shekhavtsov, R. M. (2020). The reliability of the testimony of a witness and its clarification in criminal proceedings: a monograph. Lviv: Universidad Estatal de Asuntos Internos de Lviv. Retrieved from http://dspace.lvduvs.edu.ua/handle/1234567890/3481.

Lushpiienko, V. M. (2017). Reliability of witness testimony in criminal proceedings in Ukraine and the United States. Law and Society, 2, 213-216.

Metenková, Z., & Metenko, J. (2014). The detection psychological manifestations of non-verbal communication by interrogator. Procedia - Social and Behavioral Sciences, 114, 564–573. https://doi.org/10.1016/j.sbspro.2013.12.748

Nash, R., Hanczakowski, M., & Mazzoni, G. (2015). Eyewitness Testimony. International Encyclopedia of the Social & Behavioral Sciences (Second Edition), 642-649. https://doi.org/10.1016/B978-0-08-097086-8.51033-2. Retrieved from https://www.sciencedirect.com/science/article/pii/B9780080970868510332.

Nehrebetskyi, V. (2021). Use of modern information technologies during an investigative experiment. Entrepreneurship, Economy and Law, 2, 267-271. https://doi.org/10.32849/2663-5313/2021.2.47.

Pasko, O. M. (2021). Forensic, organixational-tactical and psychological features of the interrogation. Law Bulletin, 18, 188-195.

https://doi.org/10.32850/LB2414-4207.2021.18.25.

Pavliuk, N. V. (2020). Tactical and psychological features of counteracting the perjury. Theory and Practice of Jurisprudence, 2(18), 1-10. https://doi.org/10.21564/2225-6555.2020.18.217654.

Pezdek, K., Abed, E., & Reisberg, D. (2020). Marijuana impairs the accuracy of eyewitness memory and the confidence–accuracy relationship too. Journal of Applied Research in Memory and Cognition, 9(1), 60–67. https://doi.org/10.1016/j.jarmac.2019.11.005

Polubinskaya, S. V. (2021). The neuro lie detector. Union of criminalists and criminologists, 1, 7-14. https://doi.org/10.31085/2310-8681-2021-1-204-7-14.

Ponomarenko, A., Havryliuk, L., Anheleniuk, A.-M., & Drozd, V. (2020). Inadmissibility of Evidence in Criminal Proceedings in Ukraine. Amazonia Investiga, 9(29), 147-155. https://doi.org/10.34069/AI/2020.29.05.17.

Prodanets, N. M., & Horbanov, I. M. (2021). Mechanism for detecting and overcoming false testimony of a juvenile suspect during interrogation. The South Ukrainian Law Journal, 1, 193-198. https://doi.org/10.32850/sulj.2021.1.33.

Protsenko, O. O. (2020). Role and Place of the Verification Method during the Investigative Experiment. Legal Psychology, 1 (26), 85-95. https://doi.org/10.33270/03202601.85.

Savchenko, V. A., Korolyshyn, I. M. (2016). As to possibility of physiognomy use at detection and investigation of crimes. Subcarpathian Law Herald, 3 (12), 119-122.

Sheahan, C. L., Pica, E., Pozzulo, J. D., & Nastasa, C. (2017). Eyewitness recall and identification abilities of adolescent and Young-Adults. Journal of Applied Developmental Psychology, 53, 86–95. https://doi.org/10.1016/j.appdev.2017.09.008.

Street, C. N. H. (2015). Alied: Humans as adaptive lie detectors. Journal of Applied Research in Memory and Cognition, 4(4), 335–343. https://doi.org/10.1016/j.jarmac.2015.06.002

Swanner, J. K., Meissner, C. A., Atkinson, D. J., & Dianiska, R. E. (2016). Developing diagnostic, evidence-based approaches to interrogation. Journal of Applied Research in Memory and Cognition, 5(3), 295–301. https://doi.org/10.1016/j.jarmac.2016.07.001

Topchii, V. V., Karpenko, N. V. (2015). Problematic issues of investigation and application of coercion for its implementation. International Legal Bulletin, 1(2), 43–52.

Wilcock, R., Crane, L., Hobson, Z., Nash, G., Kirke-Smith, M., & Henry, L. A. (2019). Eyewitness identification in child witnesses on the autism spectrum. Research in Autism Spectrum Disorders, 66, 101407. https://doi.org/10.1016/j.rasd.2019.05.007.

Legal regulation of state support of agribusiness

ПРАВОВЕ РЕГУЛЮВАННЯ ДЕРЖАВНОЇ ПІДТРИМКИ АГРОБІЗНЕСУ

Written by:
Inna Kovalchuk[26]
https://orcid.org/0000-0002-1804-4189
Olesia Melnyk[27]
https://orcid.org/0000-0003-1714-6957
Anna Pakhomova[28]
https://orcid.org/0000-0003-2292-9315
Oksana Sokyrynska[29]
https://orcid.org/0000-0001-5171-2372
Liudmila Melnyk[30]
https://orcid.org/0000-0002-1299-5610

Abstract

The article is devoted to the study of public relations in the agricultural sector as a direct object of state and legal regulation. This is characterized by several features, among which the most significant is the wide range of activities covered by this type of regulation and in itself, the specific legal regulation of the agro-industrial complex as a branch of the economy.

The methodological basis of the article is modern methods of scientific knowledge, which are today used by legal science in conducting research. The authors of the article combined general scientific and special methods for the best achievement of the goal set in the article. All methods were used in combination and complementarity, which provided objectivity of conclusions.

According to the authors, the peculiarity of a modern state and legal regulation of the agricultural sector is that a significant role in the choice of legal instruments should play incentives to ensure sustainable development of agriculture and related industries. Also to increase the profitability of agricultural producers and other agribusiness entities. To

Анотація

Стаття присвячена дослідженню суспільних відносин в аграрній сфері як безпосереднього об'єкта державно-правового регулювання. Державне регулювання характеризується кількома ознаками, серед яких найбільш суттєвою є широка сфера діяльності, що охоплюється цим видом регулювання, і саме по собі специфічне правове регулювання агропромислового сектору як галузі економіки. Методологічною основою статті є сучасні методи наукового пізнання, які сьогодні використовуються юридичною наукою при проведенні досліджень. Автори статті поєднали загальнонаукові та спеціальні методи для найкращого досягнення поставленої у статті мети. Усі методи були використані в поєднанні та взаємодоповнюваності, що забезпечило об'єктивність висновків.

На думку авторів, особливістю сучасного державно-правового регулювання аграрного сектору є те, що значну роль у виборі правових інструментів мають відігравати стимули забезпечення сталого розвитку сільського господарства та суміжних галузей, з метою підвищення   прибутковості

[26] PhD in Law, Associate Professor, Professor of the Department of Public Law of the Faculty of Social and Human Sciences of Bila Tserkva National Agrarian University, Ukraine.

[27] PhD in Law, Associate Professor, Professor of the Department of Constitutional Law and Theoretical and Legal Disciplines of the Faculty of Social and Human Sciences of Bila Tserkva National Agrarian University, Ukraine.

[28] PhD in Law, Associate Professor, Head of the Department of Civil Law of the Faculty of Social and Human Sciences of Bila Tserkva National Agrarian University, Ukraine.

[29] PhD in Law, Associate Professor, Head of the Department of Public Law of the Faculty of Social and Human Sciences of Bila Tserkva National Agrarian University, Ukraine.

[30] PhD in Political Science, Associate Professor, Head of the Department of Philosophical and political sciences of the Faculty of Social and Human Sciences of Bila Tserkva National Agrarian University, Ukraine.

provide a sufficient scientific base to increase efficiency and social usefulness of state and legal regulation in the agricultural sector is possible only with a detailed study of each of the components of regulation, among which the most important is the basics of legal regulation.

And, as is known, the food security of the country and the functioning of the domestic food market, and providing the rural population with jobs and social stability in society, depending on the development of the agro-industrial complex.

Keywords: agribusiness, legal regulation, state support, protection of home industries, agricultural industry, grants-in-aid, governmental grant.

сільськогосподарських товаровиробників та інших суб'єктів агробізнесу. Забезпечити достатню наукову базу для підвищення ефективності та соціальної корисності державно-правового регулювання в аграрному секторі можливо лише при детальному вивченні кожної зі складових регулювання, серед яких найважливішою є основи правового регулювання.

А, як відомо, продовольча безпека країни, функціонування внутрішнього продовольчого ринку, забезпечення сільського населення робочими місцями та соціальною стабільністю в суспільстві має пряму залежність від розвитку аграрної сфери.

Ключові слова: агробізнес, правове регулювання, державна підтримка, захист вітчизняної промисловості, аграрна галузь, дотації, державна допомога.

Introduction

The agro-industrial complex is characterized by seasonality of production, relatively slow capital turnover, production risks due to instability of climatic conditions, large investments, and energy intensity, and therefore, quite often needs specific state regulation and support.

The complex nature of agricultural production, a massive improvement of land and property ownership, which is currently taking place in the agro-industrial complex, requires the creation of an appropriate system of state and legal regulation of agricultural entrepreneurship, which includes general economic legislation and special regulatory provisions that form the basis of agricultural legislation.

Today, the implementation of effective administrative and legal regulation of the agro-industrial complex is impossible without real state and legal regulation and the creation of conditions conducive to economic entities in the agricultural sector. In particular, by establishing a new state and legal regime and strengthening measures to ensure food security, as well as reducing the cost of manufactured products, which is achieved, inter alia, by simplifying and reducing management and tax costs.

Development of more effective than existing forms and methods of state and legal regulation of the agro-industrial complex is possible only if: a study of the genesis of this type of regulation; analysis of the reasons for insufficient effectiveness of previously applied measures; rather-legal analysis of models of state and legal regulation of the agricultural sector in foreign countries; study of the requirements of the international acts and treaties ratified by our state and implemented into Ukrainian legislation; clear classification and analysis of existing forms and methods of state and legal regulation of the agroindustrial complex.

Purpose and objectives of the research

The purpose of the article is to study the state and legal regulation of the agricultural sector as a complex and multifaceted process of regulating the influence of the state on the subjects of the agro-industrial complex, through legal and economic instruments of regulation that combine organizational, management, and market elements.

State and legal regulation is always aimed at streamlining the industry, and important conditions for its effectiveness are control of compliance of the achieved results with the set tasks, and also constant updating of the purposes of such regulation.

Methodology

The methodological basis of the article is modern methods of scientific knowledge, which are today used by legal science in conducting research. The authors of the article combined general scientific and special methods for the best achievement of the goal set in the article. All methods were used in combination and

complementarity, which provided objectivity of conclusions.

The formal-legal method was used in the study of scientific sources, devoted to the problems of legal regulation of state support for agribusiness in various foreign countries. The authors managed to rethink the issue, raised in the article, more thoroughly thanks to the analysis of various scientific points of view, in particular on the legal regulation of state support for agribusiness.

Using the hermeneutic method, the texts of scientific works in the field of legal regulation of state support of agribusiness in Ukraine and some foreign countries are interpreted. The authors also clarified the relationship between the norms that explain the essence and certain norms concerning the legal field of state support of agribusiness.

The analytical method was used to analyze and substantiate the positions of some theories of authors, for example, on the expediency of borrowing the experience of European countries to improve Ukrainian legislation in the field of legal regulation of state support for agribusiness. The deduction method helped to investigate the relationship between changes at the international level and their possible implementation in the legislation of Ukraine concerning the legal regulation of state support for agribusiness. This method was used mainly in combination with the comparative legal method, which allowed to identify of common and distinctive features of the legal regulation of state support for agribusiness and agricultural industry. The authors compared the legislation of different countries regarding the legal regulation of state support for agribusiness to identify the advantages, disadvantages, risks, and prospects of agribusiness development; offered favorable ways to integrate the international experience into Ukrainian practice.

Literature Review

Sources of agrarian law serve as external forms of expression and consolidation of law-making activities of the state as an important factor that influences the formation and development of legal institutions in the field of regulation agrarian legal relations.

Thus, P. Safonov (2005) analyzing the current agricultural legislation and the current state of agriculture, determines that state support as a multidimensional purposeful activity has several components: first, it is the establishment and operation of agricultural producers; secondly, the adoption of relevant laws and regulations; third, the creation of the system and definition of tasks, functions, competencies of bodies that have to perform state support for the agricultural industry.

Verzun A. (2017) notes that food security issues in different countries have both common features and significant differences, which means that they are related to the mentality of the residents, national traditions, the level of development of productive forces and production relations, and, in general, the place that the country occupies in world politics. The stability of agrarian business development at the expense of own production is of strategic importance and is the main function of state support, as it affects not only food security, but is also an important factor in the country's national security.

The scientific and theoretical basis of the article is also works of domestic scientists who considered the researched problem, such as Verzun A. (2017), Kurilo V. (2011), Melnyk A. (2014), Poznyakov S. (2017), Safonov P. (2005), Shumilo I. (2005) and others.

State support in the agricultural sector today can be implemented under the Laws of Ukraine "On state support of investment projects with significant investments in Ukraine" (Law No. 1116-IX, 2020), "On public-private partnership" (Law No. 2404-VI, 2010), "On concessions" (Law No. 155-IX, 2019) and "On production sharing agreements" (Law No. 1039-XIV, 1999), etc.

Results and discussion

The agricultural sector of the economy is a rather complex set of relations, which must take into account natural, technological, economic, social, and other factors. One of the defining forms of state support for agribusiness is legal regulation. Political interest is an important motivation in allocating to a complex branch of law norms that determine modern agricultural policy. Indeed, the more the state is interested in the normal development of agrarian relations, the more it will seek to regulate them by legal norms.

Legal regulation in the agricultural sector includes focusing on: agrarian and land reform, which provides for antitrust policy; to increase the prestige of rural labor and rural livelihoods; on the transformation of structural, investment, tax policy, which ensures the priority development of the agroindustrial complex. Also

the formation of market socio-economic structures that operate based on various forms of ownership and management.

The complex of land, property, labor and organizational-managerial relations in agricultural activity is regulated by the norms established as a result of the law-making activity of competent public authorities as a result of the implementation of agricultural policy. As a whole, the above-mentioned relations constitute agrarian relations, which in turn are separate types of social relations (Law No. 254k/96-VR, 1996).

Land relations have a special place among agrarian relations, as the land is the main means of agricultural production. The norms of agrarian law determine mainly the rights and obligations of agricultural commercial organizations regarding the rational use of agricultural land.

Property relations relate to the legal regime of property of agricultural commercial and non-commercial organizations, organizational and legal form, and their contractual relations.

Labor relations arising within the enterprises of the agrarian sphere are mostly regulated by the norms of local legal acts, and they are an important part of agrarian relations.

Organizational and managerial relations governed by the rules of agrarian law are relations within agricultural formations.

Today it is difficult to imagine the development of the agricultural sector without the involvement of innovation.

The innovation process is the transformation of scientific knowledge into innovation and includes the following stages: "science - technology - production-consumption." In the agroindustrial complex, the innovation process involves a constant stream of transformation of research and development into new or improved products, materials, new technologies, new forms of organization and management, as well as their introduction into production to obtain an economic effect. Availability of natural resources, significant scientific and educational potential, the interest of agricultural producers, the possibility of attracting public-private partnership, as well as a clear legal framework and targeted support from the state are the conditions and factors that contribute to the innovative development of the agricultural industrial complex (Law No. 2404-VI, 2010).

Production and commercial activity in the field of agriculture is one of the most important subject matters to the legal regulation of the sphere of agrarian law. However, mainly issues related to the organizational forms of activity of agricultural producers themselves, processors of agricultural products, economic entities engaged in the provision of services in the field of agriculture (including logistics, marketing, and others), and the sale of agricultural products are subject to legal regulation in this production and economic activity.

Such relations depend to the greatest extent on the quality of legal regulation, since their formalization is a necessary condition for the state's influence on these entities directly, and as a consequence, on agricultural production.

Optimization of organizational and legal forms of agricultural producers is the most important and complex link in the legal regulation. All others are natural, technological, and economic factors of agribusiness, they accumulate in the activities of each enterprise in the agricultural sector, highlighting the problem areas, as well as the potential opportunities presented by its organizational and legal mechanisms.

It's plainly obvious that economic, technological, and, especially, natural factors of agricultural production need much less mediation through legal relations because each of them is under the influence of their laws. However, the specifics of the agricultural sector is its heavy reliance on natural and climatic conditions. In this regard, state influence on agricultural production becomes objectively necessary.

The extent and scope of legal regulation of such interaction are determined by the need to take into account these factors in the regulation of social relations. Thus, natural factors affect the seasonal nature of agriculture and its organization, and in the legal regulation of various meteorological, agronomic, veterinary, and other services that study and use these natural factors for their purposes, etc. Technological processes find their legal embodiment in the form of rules, instructions for the organization of these processes, which exclude irrational approaches to agricultural production, causing material damage to agriculture, environment, harm to human health and life, and more. Economic processes need legal regulation to combine and optimize the economic interests of the state, agricultural producers, and consumers of agricultural products. All this is also taking place through a

system of taxes and other payments to the state budget, which is regulated by relevant legal norms. Also, this process occurs through various forms of economic incentives and forms of interaction between participants in agricultural production, regulation of pricing policy, quotas for the purchase of grain, grants-in-aid, used in agricultural enterprises, forms of strategies and tactics of economic development, etc. (Law No. 1555-VII, 2014).

In this case, economic relations are unified (provides interaction and mutual understanding of participants in agricultural production) and mandatory, due to legal norms and it is effective and acceptable to all parties to agricultural production. According to many researchers, industrial relations are central to the subject of agrarian law, but many other relations are directly related to agriculture. But we should not limit ourselves to the production feature of these social relations. Issues related to paying state pensions or the provision of certain social benefits to agricultural workers are outside the agricultural relationship. However, those social relations that should not be excluded from the sphere of agricultural legal relations which are defined by household and other social living conditions of workers in the agricultural sector of the economy in a particularly rural area, as the entire social infrastructure of a single united territorial community is objectively subordinated to the task of agricultural production.

For the efficiency of agricultural production is important not only those social conditions for workers, which are formed directly in production, but also, first of all, the social conditions of their place of residence, which ensure the full existence and development of workers and their families (Safonov, 2005). The difference between these relations and the general state social policy and the measures taken on their basis is the local nature of their manifestation. These social relations are built into the system of agricultural relations on the territory of a separate united territorial community and are one of its necessary elements. However, the main consolidating role in this process is played by local governments. They build a specific model of these relations, which should embody the balance of social and economic interests of the people through their powers.

Characterizing the field of legal regulation of agricultural relations, along with the production and social sphere, it is necessary to mention the area related to the proper maintenance and use of

the natural environment. Many scholars consider this problem to be the subject of an independent branch of environmental law. There is no doubt that the actions of local governments on such an important object of natural resources as land, have a complex nature, which is manifested, on the one hand, in the organization of land management and land use for agricultural production, on the other - in the protection of land resources as an ecological object from corrosion, pollution, and other harmful effects.

Natural resources are an important component of the technological process in agriculture, without which agricultural production is impossible (Kulinich, 2006).

It is natural resources that determine the objective opportunities for the development of a particular agricultural sector. And taking into account the properties and manifestations of these natural resources, the appropriate technological processes of production are selected. Of course, not all types of natural resources have equally integrated social relations of people. As a result, legal relations in the field of land management are regulated not only in the Land Code but also are the subject of an independent branch of land law.

The peculiarities of certain natural resources are that in addition to environmental, they may have production value. As a consequence, there is an emerging of strengthening comprehensive and systematic legal regulation and influence on these relations, which can be provided only through appropriate institutions of power, including through local governments. The balance of legal regulation of these relations is achieved through regulations of public authorities, also eliminates distortions that invariably arise in different, sometimes opposed tasks, on the one hand, conservation, on the other - in the use of natural resources.

The consolidating role of government is manifested in both legal and organizational acts – national and regional levels (programs, concepts, plans, etc.). In this case, an attempt is made to combine technologically and economically unrelated agricultural enterprises that are scientifically substantiated by the organizational activities of the authorities (Shulsky, 2014).

Features of the legal regulation of agricultural relations are manifested in the substantive regulation of these relations. Quite often, the legislator seeks to thematically comprehensive

coverage of a particular area of agricultural production, contrary to the rules of legislative technique. This approach to legal regulation is inherent to environmental relations, it is due to the necessity of comprehensive and detailed accounting of the conditions of protection and use of any other type of natural resources (Kovalchuk, 2020).

In all the diversity of legal relations in the field of agriculture and natural resources, it is important to highlight the group of public relations that is mediated by the powers of local governments. The importance of these relations is due not only, as noted above, to the consolidating role of local governments, which bring together diverse and multifaceted issues of agriculture and environmental protection, but also in the fact that partially, local governments are in a position that provides the shortest and fastest contact between the parties in the decision-making process, actions and obtaining the result (Kovalchuk, 2019a).

This is the most saturated, dynamic, and developed area of legal relations, which also covers the majority of subjects of agricultural and natural resource relations. The powers of local governments give a negative result, which confirms or denies the correctness of the chosen solution in its practical implementation.

Availability in each united territorial community regulatory entities, law enforcement entities, and entities that directly produce services and products, makes the united territorial community a kind of laboratory, where certain models of agriculture and natural resources management are validated. Meanwhile, since Soviet times, the economy has focused on centralized agricultural management, so it takes little account of the peculiarities and specifics of agricultural production on the site. Of course, in some issues, both agriculture and natural resources require common approaches and requirements, but in a market economy is very difficult, and it is not necessary to regulate in detail the organization of agricultural production in a particular local government. In this situation, only the municipal government can objectively take into account all the nuances in the organization of agricultural production in its territory and make appropriate decisions to this situation, to balance the interests of all participants in agricultural relations and natural resource relations (Kovalchuk, 2021).

Thus, the regulation and consideration of issues of agricultural and natural resource relations in this perspective has not been properly reflected

in the current legislation, nor, moreover, in the scientific and legal literature. Traditionally, since the existence of local councils of people's deputies, municipal authorities have now been given the role of auxiliary government agencies that perform certain state functions on the site.

As a rule, the current agrarian and natural resource legislation does not provide for any special functions for local governments, does not provide opportunities for independent additional regulation of their respective legal relations (Regulation (EU) no 1379/2013). Meanwhile, this hidden potential of law-making and organizational capabilities of local self-government bodies under the skillful leadership of the competent state structures could contribute to solving many problems of effective management of agriculture and natural resources. Of course, solving such problems by local governments is possible only in close coordination with government agencies, agricultural enterprises, and organizations (Kovalchuk, 2019b).

It is extremely important to provide state support for significant large-scale investment projects, which, by current Ukrainian legislation, can be provided to investors with large investments in the following ways:

1) exemption from payment of certain taxes and fees under the Tax Code of Ukraine;
2) exemption from tax on the import of new equipment (equipment) and imported parts for the implementation of investment projects under a special investment agreement under the Customs Code of Ukraine;
3) preferential use of state and public lands for large-scale investment projects - to grant the right to use (rent) state and public lands for large investment projects. The investor has the preemptive right to own such land and real estate after the expiration of the investment and special investment agreement (except for early termination), provided that the obligations are determined taking into account the special investment agreement. The scope of the right is specified in a special investment agreement;
4) providing the infrastructure necessary for the implementation of the investment project (highways, communication lines, heating, gas, water, electricity, engineering networks, etc.) at the expense of state and local budgets and other sources that are not prohibited by law.

If a large investment project requires connection to networks such as heating, gas, water, electricity, and housing and communal services, such as networks related to the economy, government, and other property laws and/or telecommunications, the state provides funds to natural monopolies, helps investors to make significant investments in the merger process, according to the law.

The total amount of state support for the implementation of large-scale investment projects consists of the following:

1) all funds that are exempt from taxation - the amount of taxes and fees that have not been paid to the budget and remain at the disposal of the investor with large investments under the terms of an exclusive investment agreement. In the case of allocation or lease of land to implement an investment project, local self-government pays a fee for land less than the amount established for land belonging to a certain category. All features are taken into account when determining the total amount of state support for the implementation of investment projects with significant investments in a particular area;
2) the total cost of all relevant infrastructure required for the implementation of large investment projects and the construction of special investment agreements from the date of commissioning.

The total amount of state support for the implementation of large-scale investment projects is determined in a special investment agreement and should not exceed 30 percent of the planned significant investment in the main investment project. The Cabinet of Ministers of Ukraine determines the methodology for calculating the amount of state support for the implementation of large-scale investment projects. To the register of investment projects with significant investments, the procedure for which is determined by the Cabinet of Ministers of Ukraine has included information on large-scale investment projects, supported by the state under the law, including information on the investor's fulfillment of its obligations under the special investment agreement, on large investments in investment objects and large investment projects, start-up of such investment objects, as well as the amount of state support for investors with large investments under the legislation and special investment agreements. Information, which is included in the register of significant investment projects, is open to the public (except for information with limited access). The competent authority, central executive body, which implements the state tax policy, and the central customs authority of the executive power, can automatically exchange information, which is included in the register of investment projects, with large investments to the extent and according to the procedure, as established the legislation of Ukraine.

An investment project that can be supported by the state, under Ukrainian legislation, must meet all of the following requirements:

1) to implement investment projects in the processing industry (except for the production and circulation of tobacco, ethyl alcohol, cognac, fruits, and alcoholic beverages), further processing and/or production in Ukraine (minerals, lignite, fossil oil, natural gas processing), waste management, transport, storage, postal services, logistics, education, science and technology, health care, art, culture, sports and tourism, resorts;
2) a large-scale investment project that includes real estate development, reconstruction, technical and/or technological processing of the investment object, purchase of the necessary equipment and details that are necessary for the implementation of investment projects with large investments in infrastructure facilities;
3) large-scale production with at least 80 new working places with the average salary of employees during the implementation of the investment project, the amount of which must be at least 15 percent higher than the average salary in the region;
4) the number of large investments in investment objects during the implementation of large-scale investment projects exceeds the equivalent of 20 million euros at the official exchange rate of the National Bank of Ukraine, set on the first working day of the quarter, and for special investment agreements – the date of actual investment;
5) the term of implementation of large-scale investment projects should not exceed five years.

Assistance in the preparation and implementation of large-scale investment projects, as well as assistance in the implementation of special investment agreements by the state and local governments (if such organizations provide state support), is carried out by specially authorized bodies (Kurilo, 2011).

Functions of such a competent authority include:

1) to implement measures to attract potential applicants for large-scale investment projects;
2) to provide organizational, informational, and advisory assistance to investors in the development and implementation of large-scale investment projects on a gratuitous basis under the requirements of the legislation of Ukraine, in particular for the provision of other documents required for the submission and implementation of applications for large-scale investment projects;
3) to maintain contact with public authorities and local governments on issues related to support in the preparation and implementation of large-scale investment projects;
4) to prepare and submit to the competent authority periodic (quarterly, annual) and operational (at the request of the competent authority) reports on the status of support for investment projects with significant investments;
5) to create and to develop departments for the preparation and implementation of large-scale investment projects for state administrative organizations, local governments, and their officials;
6) to perform other functions, related to the development and implementation of large-scale investment projects defined by law and powers of the competent authority.

The Cabinet of Ministers of Ukraine shall establish procedures for communication between applicants and the competent state and local self-government bodies, investors with large investments, public administration bodies, and territorial communities to support the preparation, organization, and implementation of large-scale investment projects.

The current legislation of Ukraine prohibits illegal interference or obstruction of the competent authority and its employees, in particular, negatively affecting or impairing the performance of the functions on attracting investments and implementing investment projects.

To ensure an effective mechanism for implementing measures aimed at strengthening social responsibility, the functions of the state and private agrarian business should be redistributed. Internal goals of stakeholder social responsibility policy represented by the state and enterprises of the agricultural sector are aimed at achieving financial and social indicators to create an effective innovation infrastructure of the agricultural sector, and external goals - to improve the image of Ukraine and agricultural at the international level. In the framework of social responsibility, agro holdings can form strategies of their social partnership with territorial communities, by signing memoranda, creating projects, programs, launching grants, skills contests, and other social agreements with local authorities with the involvement of a third stakeholder – the rural population.

Methods of state regulation to increase social responsibility of enterprises of the agricultural sector can be:

1) normative - formation of unified approaches to understanding the social responsibility of business in Ukraine; introduction of management systems and standards, related to social responsibility; development of a regulatory framework for the implementation of eco-labeling and social labeling;
2) organizational and information - the formation of institutions whose competence would belong to the comprehensive analysis of the current situation of the agricultural sector in Ukraine and promoting its further development;
3) financial - promotion and encouragement of agrarian business through clear signals in government programs on its long-term importance, both at the state level and at the regional and community level. In particular, financing of joint projects on introduction of new forms of social responsibility, support of scientific researches in the field of social responsibility of business, etc.

Measures at the state level, which it is desirable to implement to build a model of state regulation of agricultural sector enterprises to identify large vertically integrated agribusiness structures in the processes of sustainable rural development, are:

1) introduction of an open market and settlement of agricultural land ownership relations;
2) attracting investment in the modernization of the agricultural sector, for example, production of organic farming and products of its refining;
3) improvement of the taxation system of agricultural enterprises;

4) introduction of innovative forms of cooperation between business, science, and the state.

State regulation of agricultural sector enterprises should be carried out through the introduction of a new tax mechanism. First, it is worthwhile to group agricultural producers and fix separate tax regimes for each of them; secondly, keep the current mechanism of the simplified taxation system, accounting and reporting in the form of a single tax for agricultural enterprises that are part of the agricultural holding structure, but only on vegetable growing, gardening, viticulture, livestock husbandry; thirdly, to introduce a social tax to be paid to local budgets for the actual activities of agricultural enterprises to solve the problems of rural areas. From the standpoint of determining the tax base, we offer a normative monetary valuation of agricultural land, provided that the rate of this tax must be not less than 1% of the normative monetary value per unit area of agricultural land (Law No. 2518-VIII, 1997).

State regulation of agricultural sector enterprises at any stage of its development should be reproductive, which means offset the negative consequences of the functioning of agricultural sector enterprises. And forecasts of crises in the agricultural sector, which are caused by the activities of agricultural holding structures or use of the positive aspects of their activities, give the management the nature of reproductive regulation of business processes in combination with sustainable development of rural areas.

Conclusion

To substantiate further directions of agricultural development in Ukraine it is necessary to develop a fundamentally new methodological approach that would provide an opportunity to manage and regulate the field of state support for agricultural production for the future.

These areas are imperfect for today. One of the main reasons is non-compliance with the requirements of the laws of Ukraine, which has led to non-fulfillment of such strategic tasks as the development of agricultural machinery and providing agricultural producers with agricultural machinery, mineral fertilizers, and plant protection products; protection and improvement of agricultural land use; regulation of agricultural markets; crop and risk insurance; development of plant breeding and animal breeding; fisheries development, construction of social facilities in rural areas; development of agricultural science and education, etc.

Application and implementation of the concept of state regulation of the agricultural sector of the economy, based on methods of state regulation of agriculture, should also be included in the areas of state regulation of agriculture. Otherwise, it is impossible to develop approaches to the organization of agricultural markets and effective pricing, tax, credit, investment, and other policies. And, as is known, the food security of the country and the functioning of the domestic food market, and providing the rural population with jobs and social stability in society, depending on the development of the agro-industrial complex.

Bibliographic References

Kovalchuk, I. (2019a). European experience of normative-legal provision of the concept of policy of sustainable development of rural territories: ecological aspect. Environmental Policy and EU Law and Their Implementation in the Legal System of Ukraine, pp. 188 - 189.

Kovalchuk, I. (2019b). Regulatory and legal support of the concept of sustainable rural development policy. Agrarian policy of the European Union: challenges and prospects: monograph Kyiv: Center for Educational Literature.

Kovalchuk, I. (2020). Commercial and Legal Regulation of Advisory Services in the Ukrainian Agrarian Business Prospect Reform. European Journal of Sustainable Development, 9(3), pp. 538-548. DOI https://doi.org/10.14207/ejsd.2020.v9n3p538

Kovalchuk, I. (2021). Legal Regulation of Agricultural Taxation. European Journal of Sustainable Development, 10(1), pp. 479-494. Doi: https://doi.org.10.14207.ejsd.2021.v10n1p479

Kulinich, P. (2006). Organizational and legal principles of development of agricultural and land markets in Ukraine. K.: Law opinion, p. 215-219.

Kurilo, V. (2011). Legal bases of foreign economic activity of agribusiness entities. K.: Master – XXI century, 2011. 368 p.

Law No. 254k/96-VR. The Constitution of Ukraine of June 28 of 1996. Available online. https://zakon.rada.gov.ua/laws/show/254%D0%BA/96-%D0%B2%D1%80#Text. Consultation date: 09/01/2022.

Law No. 1039-XIV. On Production-Sharing Agreements of September 14 of 1999. Available online. https://zakon.rada.gov.ua/laws/show/1039-

14?lang=en#Text. Consultation date: 09/01/2022.

Law No. 1116-IX. On state support of investment projects with significant investments in Ukraine of December 17 of 2020. Available online. https://zakon.rada.gov.ua/laws/show/1116-20#Text. Consultation date: 09/01/2022.

Law No. 1555-VII. On Government Aid for Business Entities of July 1 of 2014. Available online. https://zakon.rada.gov.ua/laws/show/1555-18?lang=en#Text. Consultation date: 09/01/2022.

Law No. 155-IX. On concession of October 3 of 2019. Available online. https://zakon.rada.gov.ua/laws/show/155-20?lang=en#Text. Consultation date: 09/01/2022.

Law No. 2404-VI. On State-Private Partnership of July 1 of 2010. Available online. https://zakon.rada.gov.ua/laws/show/2404-17?lang=en#Text. Consultation date: 09/01/2022.

Law No. 2518-VIII. On State Regulation of Import of Agricultural Products of July 17 of 1997. Available online. https://zakon.rada.gov.ua/laws/show/468/97-%D0%B2%D1%80?lang=en#Text. Consultation date: 09/01/2022.

Melnyk, A. (2014). Asymmetry of structural development of the regions of Ukraine and its socio-political consequences. Socio-economic problems of the modern period of Ukraine, Vip. 3, pp. 54-66 [In Ukranian]

Poznyakov, S. (2017). Legal regulation of infrastructural support of economic development of agrarian sector of economy of Ukraine: ways of improvement. International Scientific Journal "Internauka" Series: Legal Sciences, № 2. pp. 55 – 59. [In Ukranian]

Regulation (EU) no 1379/2013. On the common organization of the markets in fishery and aquaculture products, amending Council Regulations (EC) No 1184/2006 and (EC) No 1224/2009 and repealing Council Regulation (EC) No 104/2000, of the European parliament and of the council of 11 December 2013. Available online. https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32013R1379&rid=6. Consultation date: 09/01/2022.

Safonov, I. (2005). Legal problems of the state support of agricultural producers. Law of Ukraine, № 6, pp. 56-58.

Shulsky, M. (2014). The efficiency of agricultural production in various organizational and legal forms of management. Scientific Bulletin of Lviv National University of Veterinary Medicine and Biotechnology. Gzycki, 16(3(5)), pp. 228 - 234.

Shumilo, I. (2005). Problems of harmonization of the legislation of Ukraine on state support of agriculture with WTO rules. Status and prospects of agrarian law development. International. K .: Master of the XXI century, pp. 291 - 293. [In Ukranian]

Verzun, A. (2017). Evolution and prospects of development of the mechanism of preferential crediting of agrarian enterprises. Bulletin of LNAU: Economics of Agriculture, 24(1), pp. 68-75. [In Ukranian]

Using Space Syntax Technique to Enhance Visual Connectivity in Hospitals

استخدام تقنية قواعد تركيب الفضاء لتعزيز الاتصال البصري في المستشفيات

Written by:
Tara Azad Rauof[31]
https://orcid.org/0000-0002-8707-316X
Nahedh Taha Al-Qemaqchi[32]
https://orcid.org/0000-0003-2708-7807

Abstract

The design of healthcare buildings as hospitals is a rather complex architectural task and is being considered as projects of high cost, but indispensable, given their role in preserving human health. The sustainability of services offered by healthcare projects is a paramount necessity for human societies; therefore, in addition to architectural standards applied in a design process, new tools are introduced by the space syntax community in the form of specified programs to provide an advanced method of assessing the effectiveness of any design configuration.

This research aims to evaluate the effect of applying the software of (Depthmap X) on a selected new hospital design to measure the nature of visual communication between the different wards of the most active floor (the ground floor) and the connectivity of various kinetic systems of the ground floor with the main entrances.

The paper identifies the efficiency of the hospital performances in terms of visual connectivity. It also shows that a slight change made in the hospital configuration in the design alternatives could lead to a significant impact on the visual relationship between the hospital domains.

Keywords: Space Syntax, Depthmap X, Hospital Design, Visual Connectivity, Design Enhancing.

ا المستخلص

يعد تصميم مباني الرعاية الصحية كالمستشفيات مهمة معمارية معقدة إلى حد ما اذ انها مشاريع ذات تكلفة عالية، ولكن لا غنى عنها، نظرًا لدورها في الحفاظ على صحة الإنسان. وتعتبر استدامة الخدمات التي تقدمها مشاريع الرعاية الصحية ضرورة قصوى للمجتمعات البشرية لذلك فبالإضافة إلى المعايير المعمارية التي يتم اتباعها في عملية التصميم، يتم تقديم أدوات جديدة من قبل المهتمين والباحثين في برمجيات قواعد تركيب الفضاءات على شكل برامج توفر طرقا متقدمة لتقييم فعالية أي تكوين تصميمي.

يهدف هذا البحث إلى تقييم تأثير تطبيق برنامج (Depthmap X) على تصميم مستشفى جديد مختار لقياس طبيعة الاتصال المرئي بين الأجنحة المختلفة للطابق النشط (الطابق الأرضي) وترابط مختلف اجزائه حركيا مع المداخل الرئيسية.

استطاعت الورقة تحديد كفاءة أداء المستشفى من حيث الاتصال البصري. كما اوضحت أن التغيير الطفيف الذي تم إجراؤه في تكوين بدائل تصميمية للمستشفى يمكن أن يؤدي إلى تأثير كبير على العلاقة البصرية بين اجزاء المستشفى.

الكلمات المفتاحية: قواعد تركيب الفضاء، برمجية (Depthmap X)، تصميم المستشفيات، الاتصال البصري، تعزيز التصميم.

Introduction

Hospital building designs follow numerous standards and regulations and take into account a variety of economic, social, and cultural factors in their environment, making them one of the most complex design processes. As a result of technological advancements, hospitals' design and operations evolve continuously. As a result, the design process for hospital buildings must

---

[31] M.Sc. in Hybrid Building. Lecturer, Department of Architectural Engineering, Cihan University-Sulaimaniya, Iraq.
[32] PhD. in Theory of Design & Design Methodology. Assistant Professor, Department of Architectural Engineering, Cihan University-Sulaimaniya, Iraq.

include analytical stages that will reinforce design decisions.

Due to the complexity of the kinetic system of hospital buildings (Pachilova, 2015), it suffers from a fundamental problem of wayfinding, especially on the ground floor, which is the most effective floor in the hospital. Most designers usually research and redesign the spatial configuration multiple times to make this system as easy as possible for patients. Designing a recognizable spatial arrangement with a simple structural pattern and even providing indicative signs guiding the routs, to specify visual fields, which conversely determine the circulation fields of users are the most challenging duties of hospital design. Here comes the importance of resorting to the meaning of visual communication as a dominant factor in organizing and designing main functions in hospitals. Dalton (2001) defines it as a measure of the number of direct visual contacts to enhance the way occupants use the building.

The World Health Organization (WHO) and international standards emphasize the importance of creating a visual organization between the parts of any hospital to ensure visual fluidity, which in turn ensures the flow of circulation (Rosenfield, 1971). The absence of this organizational factor results in unpleasant reactions that affect the patient who moves within the building and provoke a sense of isolation or loss, and thus affects the hospital efficiency as a whole. Visual isolation is a crucial criterion required for design processes of health care units (Antony & Philip 1990) especially hospitals, to determine the visual area of what the patient sees, and determine the functional areas in which the patient can move. The high visual contact between the wards, which require an amount of isolation, will necessarily lead to their physical connection with each other and thus require the creation of insulators and obstacles to limit the movement of patients that will affect the functionality of those wards (Rosenfield, 1971).

This study aims to measure the nature of visual communication between the different wards on the active floors (ground floor) of hospitals on one hand, and the connection of different systems within those floors with the main entrances on the other hand. To assess, the amount of isolation provided by the chosen space configuration between different hospital wards (Fig 1).
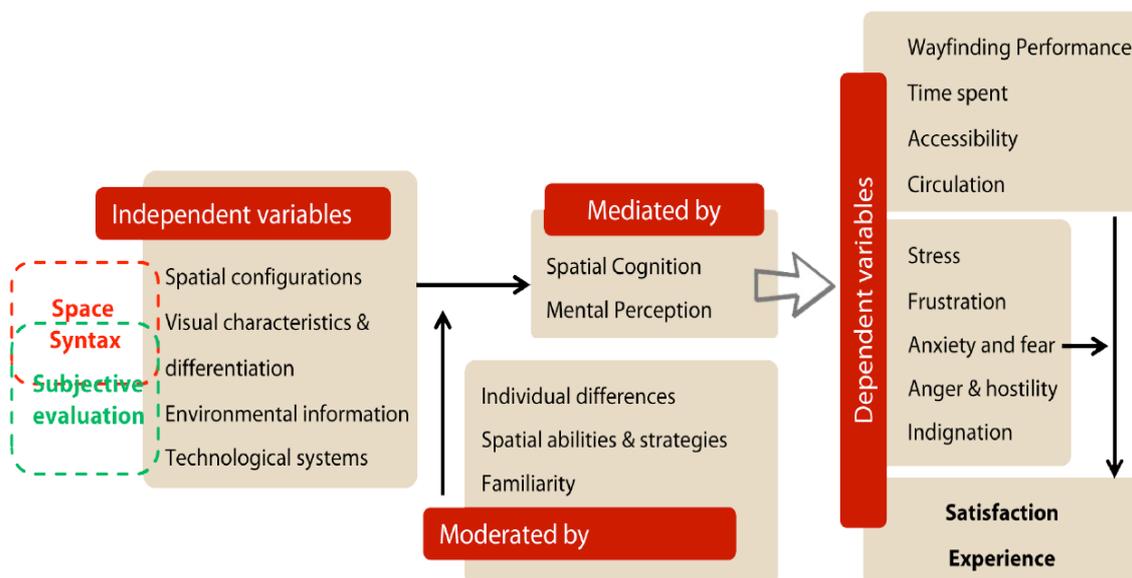
Figure 1. Illustrates the relationship between the measures of visual communication identified by Bill Hillier and the performance of hospitals (Sadek, 2015).

Table 1.

Hospitals Standards Design Consideration (Researcher according to World Health Organization (WHO), 1996).

No.	Section	Visibility %	Step depth %
1	The Reception	80-100	60-80
2	Main Entrance Hall	80-100	60-80
3	Public Lounge	80-100	60-80
4	Secondary Entrance Hall	60-80	40-60
5	VIP lounge	0-20	0-20
6	Clinics	80-100	60-80
7	Management	60-80	20-40
8	EMERGENCY	80-100	60-80
9	Engineering Service	0-20	0-20
10	Laundry Service	0-20	0-20
11	Morgue	0-20	0-20
12	Central Kitchen	0-20	0-20
13	Staff dining Area	0-20	0-20
14	Central Laboratory	20-40	0-20
15	Imaging and MRI	20-40	0-20
16	Shops	20-40	20-40
17	Cafeteria	40-60	40-60
18	Inpatient Pharmacy	40-60	60-80
19	Central Housekeeping	0-20	0-20
20	Blood Bank Laboratory	0-20	0-20
21	Vertical Connections	80-100	60-80

Different analyses offered by the (Depthmap X) software are applied, and finally determining the efficiency of hospitals' performance (Sadek, 2015). Based on the instructions of the (WHO) and hospital design considerations (World Health Organization (WHO), 1996), a set of criteria are addressed, which will be adopted in the practical part of the research as extracted in (Table. 1).

Theoretical framework

Depthmap X Software

(Depthmap X) is a visual and spatial network analysis software that can be used at various levels, ranging from a single building layout to an entire city (SSN). The software generates a map of spatial elements and connects them using visual network relationships such as visibility, intersection, or adjacency, followed by various conclusions drawn using graph analysis of the resulting network. The analysis objective is to derive variables that may have social or experiential significance. The software is developed by Alasdair Turner (Pachilova, & Sailer, 2020) from the Space Syntax group and is now available as open source. The basic idea of the program crystallized from two points of view:

Isovist analysis (Benedikt, 1979): Benedikt created isovist diagrams of the visual field at specific points within the system. He highlighted the boundaries of equal visual areas within the system where Benedikt believed that these diagrams would give a clear view of how people move and experience the system. He emphasized the overlapping visual areas which refer to the decision points inside the building because they express the rapid change in the visual field.

Space Syntax (Hillier & Hanson, 2009): Hillier and Hanson produced multiple graph analyses of the space components. For instance, Visibility graph Analysis VGA, Step Depth graph Analysis, and Axial Analysis, including Connectivity Analysis and Line Length. These analyses are the results of a critical study of relationships of space components with each other, performing a graph analysis of the resulting network. It is worth mentioning most frequently used type of analysis is the axial map.

Among many Analyses offered by the program, the following was of interest to the research problem.

1. Visibility graph analysis (VGA):

The VGA represents analyzing a grid of points spread throughout the plan by making a graph of each visible point connected to every other point in that system. The analysis will give a good indication of how people might interact with a space by moving through (Desyllas & Duxbury,

2003) or standing, discussing, and generally occupying it (Turner, 2004a). Isovists are the core element behind Visibility Graph Analysis (VGA), acting as the joining mechanism that converts a dense grid to a graph of indivisible points (a visibility graph), which may then be analyzed using various graph measures. (Depthmap X) provides local measures of visibility such as the isovist area and perimeter. In addition to that global ones quantify building traversal and space centrality (Turner, 2004a).

2. Step Depth graph Analysis:

The visual integration of any point is determined by the number of visual steps required to move from one point to another within a given configuration. (Depthmap X) simulates various types of pedestrian behaviour by allowing an agent to choose where to walk, such as towards larger spaces, long lines of sight, or occluded parts of their view. The paths of the agents and their numbers passing through gates can be counted, and compared to the actual behaviour of pedestrians passing through gates (Turner, 2004a).

3. Axial analysis:

As previously stated, this is the most popular but also the most complex analysis, consisting of drawing a group of lines throughout any open area in any given configuration. Hillier and Hanson's notable addition was to consider the nodes formed by line intersections as a connection between the two lines. As a result, calculating the number of steps required to connect one line to any other line drawn on the axial map determines the line's integration with the entire system. The integration of axial lines is of particular interest to researchers as it correlates well with the number of users found to be walking along the axial line (Hillier & Hanson, 2009). Among many attributes of Axial Analysis two are chosen, which are serving the research problem.

- Connectivity Analysis: Analyze the integration/segregation of a route to the whole system utilizing a direct connection of nodes to each node (Nubani, & Wineman, 2005).
- Line Length: Analyze how easily a route is accessible by calculating the number of turns made (Nubani, & Wineman, 2005).

Axial maps can also be converted to segment maps by segmenting long axial lines into a series of segments that connect junctions. These can be analyzed using many depth-accumulating techniques, such as the degree of angle change from one segment to the next, metric distance, or segment steps. Calculating the number of shortest angular paths through a segment or the average metric distance from each segment to all others are two examples (Nubani, & Wineman, 2005). The segment analysis is not taken into account in this paper.

Methodology

Visibility and Step Depth analysis measure the number of direct visual connections occurring in the system but Connectivity and Line length analysis measures the physical integration or separation as both kinds of communication enhance the way occupants use the building. That significantly affects the use of active social spaces such as the foyer space in public areas and increases the value of spaces by strengthening or limiting (as needed) the visual and physical connections between different parts (Hatfield, 2012). Visual and physical communication also adds perceptions of a new level and provides new experiences in the visual environment of different spaces through the spatial arrangement of these spaces. As so it is possible to control the flow of occupants by promoting a sense of movement in certain spaces or a sense of limitation in other spaces, thus emphasizing the spatial planning characteristics of hospitals. In this study, four different types of graphical analyzes will be executed on the project of Faruk Medical City FMC in Sulaymaniyah city.

Faruk Medical City (FMC)

The case study is a realistic model, and it is considered the largest and most modern hospital in Sulaymaniyah City (FMC), lending more validity to the study. Farouk Medical City was established in Sulaymaniyah in 2015 on an area of 7 hectares and a total of 7 floors with international specifications (FMC). The FMC includes 210 beds, 11 advanced operating rooms, 21 modern suites outfitted with world-class medical equipment, 3 presidential suites equipped with devices for the disabled, 6 open-heart intensive care beds, 6 general intensive care beds & 6 coronary care beds, 5 neonatal (premature new-born) intensive care beds, More than 190 high-calibres and board-certified physicians.
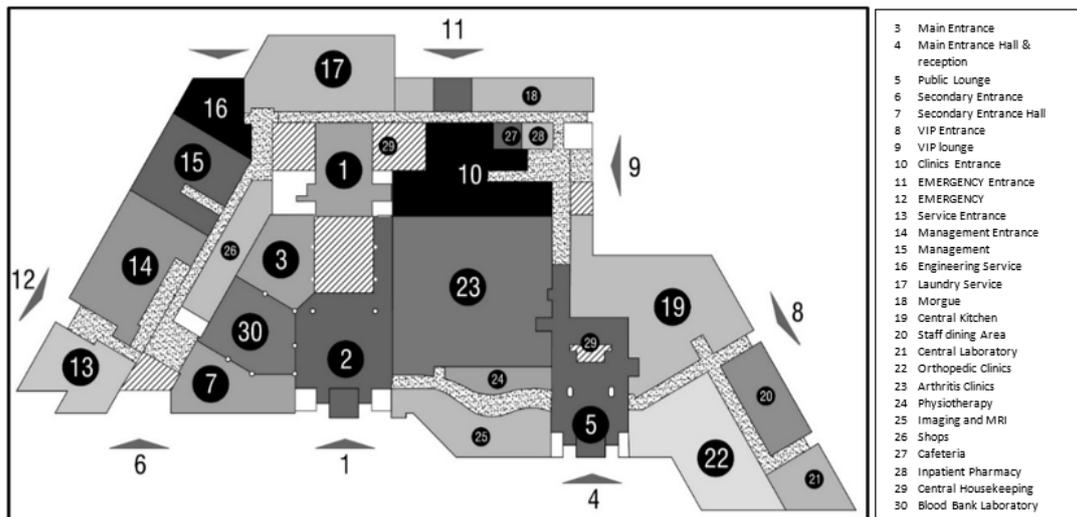
Fig. 2. Faruk Medical City (FMC) ground floor plan (Researcher according to (about FMC, 2021).

The design of the building is a central space organization, in which activities revolve around a central focus point, and then the pattern turns into a closed-loop (Fig. 2). This design approach is appropriate for sites with limited space and is more efficient than other patterns such as linear or radial organization in terms of isolating activities from one another, but it is not in terms of concentrating all activities around a single focal point, which limits the ability to establish specific visual fields for different areas (Pachilova, 2015).

Since entrances are the first spatial elements that a person encounters when entering any building, the first impression is made, which is very important in sensing the functions it leads. There are some considerations identified by the World Health Organization in the design of hospital entrances (FMC). First, the movement sequence must be observed, second the visual communication between the entrance and the major spaces that a patient needs when entering from the main gate. Hospital often has separate entrances for horizontal and vertical movement lines. In the chosen model, there are eight entrances, namely, the Main Entrance, Secondary Entrance, VIP Entrance, Clinics Entrance, Emergency Entrance, Service Entrance, Morgue Entrance, and Staff Entrance.

In this study, the focus will be on the main entrance of patients and visitors, due to its importance. The relationship between the person's visual range while entering the main entrance and the hospital spaces will be measured, besides the relationship between the main entrance and the other secondary entrances).

The study is divided into four stages to accomplish the objectives:

1. Creating an abstract plan for the (FMC) ground floor using AutoCAD, which aids in clarifying the areas of the hospital under study, stripping the schemas of unnecessary details and preparing them to meet the requirements of (Depthmap X) for producing graphic analysis, and stripping the structural elements and converting the individual functional spaces to numbered readable domains (Fig. 2).
2. Applying four kinds of analysis to the effective floor plan will help in clarifying the topography of visual communication.
3. The previous four Analyses will present a specific pattern of the nature of functional overlap based on visual communication and the relationship with the entrance, which helps in reaching analytical procedures as follows:

a) Comparing the values of the case study and the basic criteria that the research has already extracted, which clarify the relationships between hospital districts.
b) Comparing the relationship of each domain with the entrance, which is also determined by standards, to know the amount of functional overlap and the level of priority in communication between the domains and the entrance.

Results and Discussion

A- The first stage: Analyzing the actual existing configuration of the mentioned scheme's ground floor, as all the corridors and links between different departments of the

hospital are separated with closed private doors that clearly define the visual and physical communication between the main entrance and the departments and between departments. Four types of these analyses will be applied as follows:

1. Visibility graph Analysis VGA: The visibility grid represents a sensible choice of spacing related to the maximum dimension of the existing configuration ranging from ten times. This sensible choice to one-tenth of it, in this case, we chose [0.7m x 0.7m]. Then produce the visibility graph calculation from the very centre of the grid square of these locations, and finally analyse the graph at eye level.

2. Step depth graph Analysis: by selecting a specific location inside the configuration to calculate the distance of every single node one step away from our selected location point, which will be considered as directly visible from that location and measured at depth one, then everything visible from that at depth two…etc. The analysis is consisting of the visual depth of each point calculated by the 'shortest path' throughout the graph, worth mentioning that all those nodes are falling in the isovist of the starting point [the polygon which contains all the visible area from a particular location] (Benedikt, 1979).

3. Connectivity Analysis: which is mentioned by (Hillier, & Hanson, 2009). To run the analysis, Depthmap needs first to realize the big open spaces or wide streets being prioritised in terms of integration (Turner, 2001b). Accordingly, the integration/ segregation will be measured and evaluated as some routes of the hospital should have much higher integration than others.

4. Line Length: The second attribute of Axial map analysis depending on the idea of the fewest number of turns needed is the shortest path. Accordingly, the shortest path represents the easiest route available.

The values generated from Depth map X are measured by d-value [meant to represent the fact that axial map graphs grow] (Hillier, & Hanson, 2009). To have a comparable system and make the measurements clearly defined we had to apply the principle of normalisation since each analysis produced a different range of values. All the d values are turned into percentages to uniform the quantities.
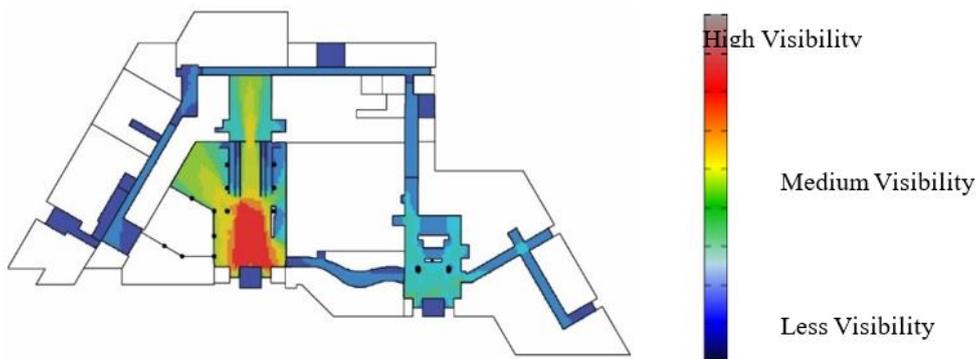
Fig 4. Visibility Analysis of Actual Configuration (Researchers)
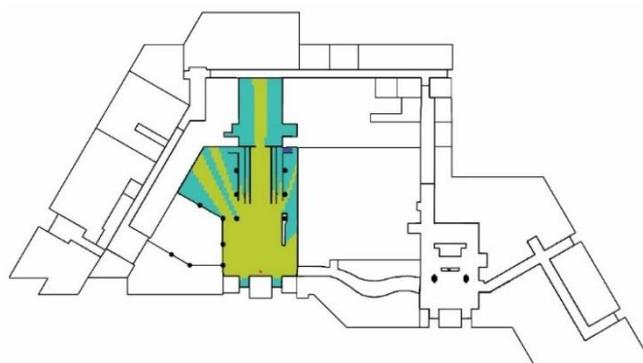
Fig 5. Step depth Analysis of Actual Configuration (Researchers)

Fig 6. Connectivity Analysis of Actual Configuration (Researchers)
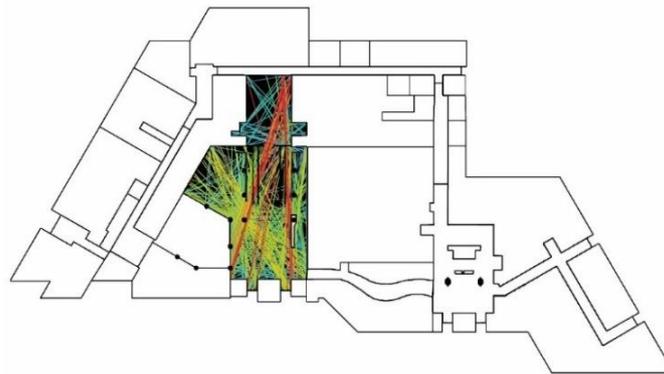
Fig 7. Line Length Analysis of Actual Configuration (Researchers)

Table 2.
b values conducted by analyzing the actual configuration (Researchers)

No.	Section	Visibility b-value 1-14 %		Step depth 4-1 %		Connectivity 1-24 %		Line Length 1-60 %	
1	The Reception	10	71	100	100	15	63	58	97
2	Main Entrance Hall	14	100	100	100	20	83	59	98
3	Public Lounge	8	57	88	88	10	42	42	70
4	Secondary Entrance Hall	4	29	0	0	0	0	0	0
5	VIP lounge	9	64	100	100	17	71	36	60
6	Clinics	2	14	0	0	0	0	0	0
7	Management	1	7	0	0	0	0	0	0
8	EMERGENCY	0	0	0	0	0	0	0	0
9	Engineering Service	1	7	0	0	0	0	0	0
10	Laundry Service	0	0	0	0	0	0	0	0
11	Morgue	1	7	0	0	0	0	0	0
12	Central Kitchen	2	14	0	0	0	0	0	0
13	Staff dining Area	2	14	0	0	0	0	0	0
14	Central Laboratory	2	14	0	0	0	0	0	0
15	Imaging and MRI	2	14	0	0	0	0	0	0
16	Shops	2	14	0	0	0	0	0	0
17	Cafeteria	2	14	0	0	0	0	0	0
18	Inpatient Pharmacy	7	50	88	88	7	29	39	65
19	Central Housekeeping	2	14	0	0	0	0	0	0
20	Blood Bank Laboratory	2	14	0	0	0	0	0	0
21	Vertical Connections	2	14	88	88	6	25	18	30

The Visual Step Depth Analysis, Physical Integration / Separation Analysis, and Line Length Analysis are shown in (fig 4,5,6, & 7). A comparison between the visual b-values of the case study and the values of standard criteria that the research extracted from previous studies as well as the relationship of each domain with the entrance is made, to define the amount of functional overlap and degrees of priority in visual communication (Table.2).

B- The second stage: testing three different levels of design alternatives as follows:

1.   Spatial Adaptation

A basic level of modification through simply opening the existing doors separating each segment inside the given configuration to allow vision possibility (Fig 8, 9, 10, & 11), the results showed a change in the visual integration (Table 3), as values of visual and physical communication of the hospital areas with the entrance increased slightly, which means that those adaptations that are taken, made a simple change In the visual and physical connection.
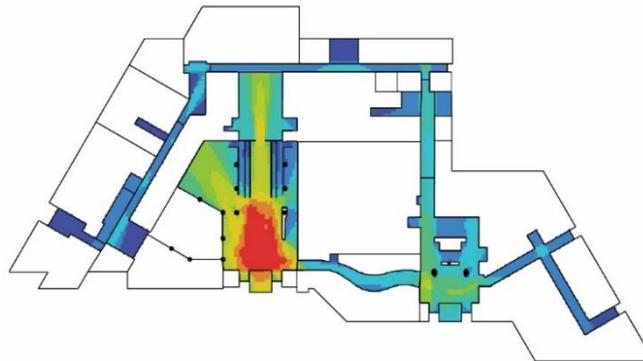
Fig 8. Visibility Analysis of Spatial Adaptation (Researchers)
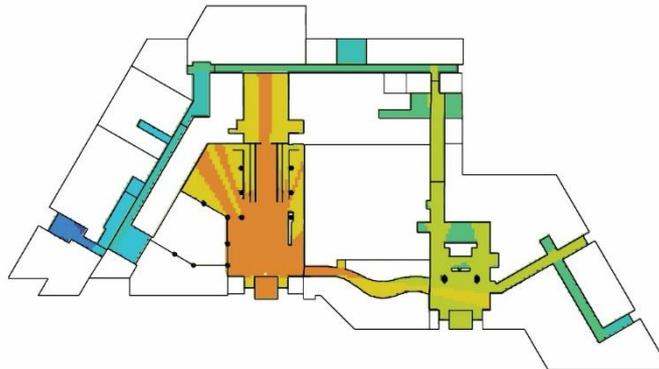
Fig 9. Step Depth Analysis of Spatial Adaptation (Researchers)
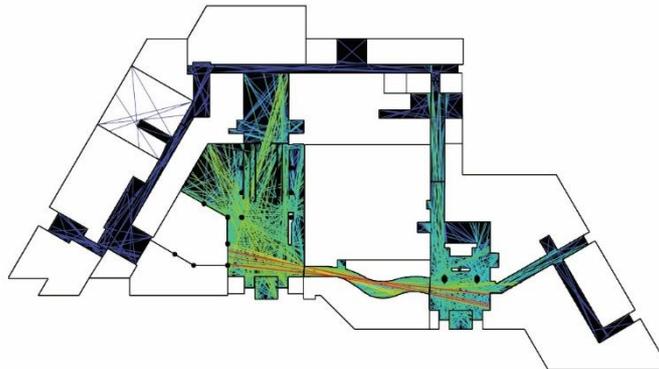
Fig 10. Connectivity Analysis of Spatial Adaptation (Researchers)
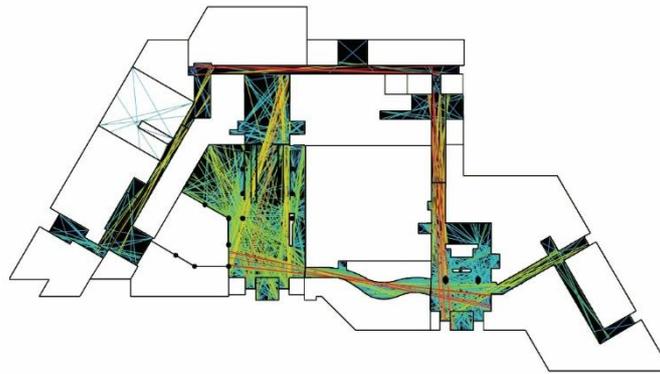
Fig 11. Line Length Analysis of Spatial Adaptation (Researchers)

Table 3.
b values conducted by analyzing the Spatial Adaptation (Researchers)

No.	Section	Visibility b-value 1-16 %		Step depth 8-1 %		Connectivity 1-34 %		Line Length 1-75 %	
1	The Reception	10	63	2	88	18	53	55	75
2	Main Entrance Hall	16	100	2	88	34	100	72	99
3	Public Lounge	9	56	3	75	18	53	43	59
4	Secondary Entrance Hall	8	50	4	63	9	26	72	99
5	VIP lounge	7	44	2	88	21	62	21	29
6	Clinics	4	25	4	63	11	32	45	62
7	Management	1	6	8	13	1	3	25	34
8	EMERGENCY	2	13	5	50	14	41	54	74
9	Engineering Service	2	13	7	25	3	9	57	78
10	Laundry Service	1	6	7	25	1	3	57	78
11	Morgue	4	25	5	50	3	9	73	100
12	Central Kitchen	3	19	5	50	3	9	73	100
13	Staff dining Area	3	19	3	75	3	9	73	100
14	Central Laboratory	3	19	4	63	12	35	26	36
15	Imaging and MRI	2	13	5	50	9	26	20	27
16	Shops	5	31	3	75	34	100	72	99
17	Cafeteria	3	19	3	75	34	100	72	99
18	Inpatient Pharmacy	7	44	3	75	18	53	43	59
19	Central Housekeeping	3	19	5	50	3	9	73	100
20	Blood Bank Laboratory	3	19	5	50	3	9	73	100
21	Vertical Connections	4	25	5	50	11	32	55	75

1. Spatial Reconfiguration

Spatial reconfiguration is a level that contains a medium degree of modification while preserving the external shape of the building. The modification should be in a way that ensures increasing the level of communication for the patient and includes the following (Fig.12):

a) Rotating the reception element 90 degrees.
b) Rotating the vertical connection 90 degrees.
c) Increasing the width of the connecting corridor between the primary & secondary entrance, eventually leads to more openness and more visibility between the two entrances.
d) More space is opening at the clinic's entrance.
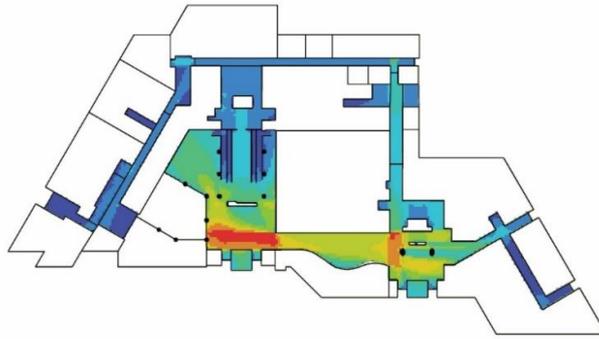
Fig 12. Line Length Analysis of Spatial Adaptation (Researchers)
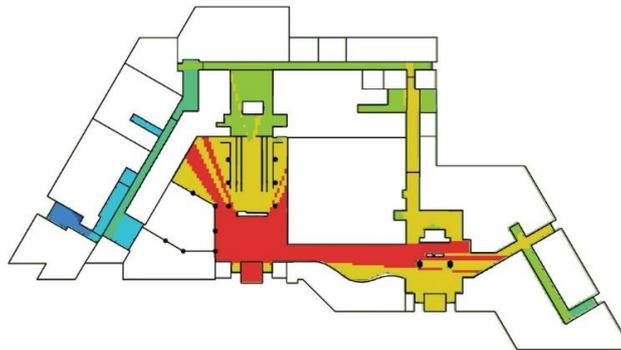
Fig 13. Step Depth Analysis of Spatial Adaptation (Researchers)
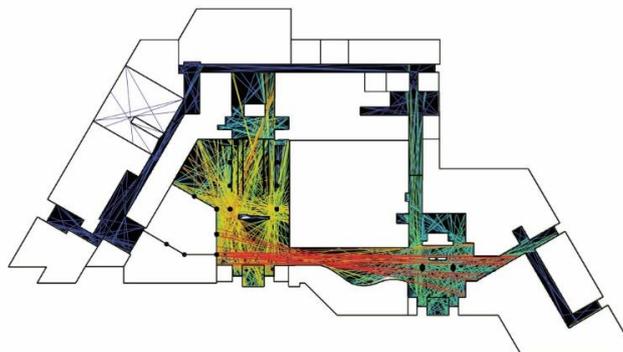
Fig 14. Connectivity Analysis of Spatial Adaptation (Researchers)
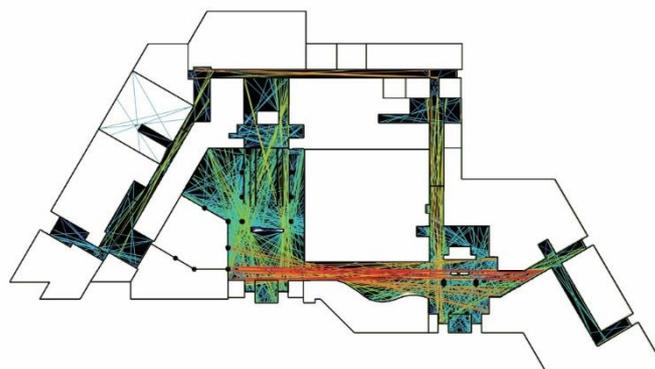
Fig 15. Line Length Analysis of Spatial Reconfiguration (Researchers)

After performing the second level of spatial reconfiguration (Figure No.12, 13, 14, & 15) and according to the same procedures explained previously, the results showed a higher improvement in the visual and physical integration (Table 4). The values of visual and physical communication between the hospital domains and the entrances increased (large-sized numbers) compared with the first level which indicates that applying such a modification makes it easier for visitors to realize the scheme and thus move to those activities without visual obstacles and eventually increase the efficiency of the scheme's performance in general.

Table 4.
b values conducted by analyzing the Spatial Reconfiguration (Researchers)

No.	Section	Visibility b-value 1-16 %		Step depth 8-1%		Connectivity 1-28%		Line Length 1-85 %	
1	The Reception	11	69	2	88	18	64	60	71
2	Main Entrance Hall	16	100	2	88	28	100	85	100
3	Public Lounge	10	63	3	75	14	50	50	59
4	Secondary Entrance Hall	13	81	2	88	18	64	73	86
5	VIP lounge	15	94	2	88	25	89	53	62
6	Clinics	9	56	2	88	18	64	73	86
7	Management	1	6	7	25	1	4	25	29
8	EMERGENCY	6	38	3	75	14	41	54	64
9	Engineering Service	3	19	5	50	3	11	57	67
10	Laundry Service	3	19	5	50	1	4	57	67
11	Morgue	4	25	4	63	2	7	73	86
12	Central Kitchen	3	19	4	63	2	7	73	86
13	Staff dining Area	3	19	4	63	2	7	73	86
14	Central Laboratory	4	25	3	75	7	25	23	27
15	Imaging and MRI	7	44	4	63	7	25	54	64
16	Shops	12	75	2	88	18	64	85	100
17	Cafeteria	6	38	3	75	18	64	85	100
18	Inpatient Pharmacy	7	44	3	75	14	50	23	27
19	Central Housekeeping	4	25	4	63	2	7	73	86
20	Blood Bank Laboratory	4	25	4	63	2	7	73	86
21	Vertical Connections	5	31	3	75	15	54	57	67

1. Spatial Rearrangement

This includes changing the locations of the hospital departments while preserving the general shape of the building. The rearrangement includes: switching the location of the Shops with the location of the Pharmacy and switching the location of Emergency with the location of the VIP Lounge and Management.

Table 5.
b values conducted by analyzing the Spatial Rearrangement

No.	Section	Visibility b-value 1-16 %		Step depth 8-1 %		Connectivity 1-28 %		Line Length 1-85 %	
1	The Reception	11	69	2	88	18	64	60	71
2	Main Entrance Hall	16	100	2	88	28	100	85	100
3	Public Lounge	10	63	3	75	14	50	50	59
4	Secondary Entrance Hall	13	81	2	88	18	64	73	86
5	EMERGENCY	15	94	2	88	25	89	53	62
6	Clinics	9	56	2	88	18	64	73	86
7	VIP lounge	1	6	7	25	1	4	25	29

8	Management	6	38	3	75	14	41	54	64
9	Engineering Service	3	19	5	50	3	11	57	67
10	Laundry Service	3	19	5	50	1	4	57	67
11	Morgue	4	25	4	63	2	7	73	86
12	Central Kitchen	3	19	4	63	2	7	73	86
13	Staff dining Area	3	19	4	63	2	7	73	86
14	Central Laboratory	4	25	3	75	7	25	23	27
15	Imaging and MRI	7	44	4	63	7	25	54	64
16	Inpatient Pharmacy	12	75	2	88	18	64	85	100
17	Cafeteria	6	38	3	75	18	64	85	100
18	Shops	7	44	3	75	14	50	23	27
19	Central Housekeeping	4	25	4	63	2	7	73	86
20	Blood Bank Laboratory	4	25	4	63	2	7	73	86
21	Vertical Connections	5	31	3	75	15	54	57	67

Table 5 shows that the high values of visual and physical communication belong now to the more critical functions in the hospital and the low values belong to less critical functions in terms of a visual and physical connection.

Conclusions

The research shows the importance of visual communication as a critical factor in realizing complicated scheme of Hospitals by patients, and thus their ability to deal with those schemes easily and conveniently, which lead to increasing the efficiency of hospital system performance as a whole. The effectiveness of the scheme helps in managing those hospitals without the need to put up many obstacles or signs or alerts which the World Health Organization (WHO) focused on in its charters, in which it evaluates the health sector's building efficiency. The following recommendations are concluded:

1. Neglecting the visual connectivity as a design consideration in hospitals can lead to serious design consequences in terms of confusing the internal circulation that will affect the use of those spaces by patients, especially those who do not have experience or prior knowledge of the building's scheme.
2. The permeability and visual integrity are supposed to be at the forefront of design determinants that are taken into consideration when designing a hospital's most effective level (the public floor) since they contain main activities related to outpatients and visitors, who often don't have much knowledge of the building.The study shows the cruciality of a clear relationship between the entrance lobby as the main space and the rest of the spaces in terms of visual and physical connectivity. Therefore, designers must choose suitable locations for entrances and their visual

connectivity with other activities considering the patient's weak physical condition having no ability to walk long distances or search for the space he needs.
3. Designers have to deal with visual connectivity as a design consideration in isolating other spaces that have limited uses by patients; therefore, the level of visual integration must be according to the degree of space's generality in the hospital.
4. A slight change made in the hospital configuration as shown in the design alternatives could lead to a significant impact on the visual relationship between the hospital domains. Leading to raising the building's functional performance. Therefore, a designer must consider using a tool such as the one used in this research (Depthmap X) in the initial design stages.

Bibliographic references

About FMC. (2020, October 27). Faruk Medical City, recovered from: https://www.farukmedicalcity.com/fmc/about-fmc/

Antony, C., & Philip, G. (1990). Hospitals & Health Care Facilities – Design & Development Guides. London: Butterworth & Co. Ltd, ISBN: 0408031891.

Benedikt, M, L. (1979). To Take Hold of Space: Isovists and Isovist Fields, Environment and Planning B: Planning and Design, 1, pp 47-65. DOI: https://doi.org/10.1068/b060047

Dalton, N. (2001). Fractional configurational analysis and a solution to the Manhattan problem. In Space Syntax 3rd International Symposium, Atlanta.

Desyllas, J., Duxbury, E., Ward, J., & Smith, A. (2003). Pedestrian demand modelling of large cities: an applied example from London. London, UK: Centre for Advanced Spatial Analysis University College London.

Hatfield, G. (2012). Visual Experience: Sensation, Cognition, and Constancy, Oxford University, retrieved at (1-6-2021) from: https://www.ucl.ac.uk/bartlett/architecture/research/space-syntax/depthmapx/

Hillier, B. & Hanson, J. (2009). The Social Logic of Space. Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511597237

Nubani, L., & Wineman, J. (13-17 June 2005). The role of space syntax in identifying the relationship between spaces. Long paper II, In Space Syntax 5th International Symposium, Delft, Holland. 13-17.

Pachilova, R., & Sailer, K. (2020). 'Providing care quality by design: a new measure to assess hospital ward layouts'. The Journal of Architecture, 25(2), 186-202. https://doi.org/10.1080/13602365.2020.1733802

Pachilova, R. (13-17 July 2015). Size and complexity of hospitals matter for quality of care: A spatial classification of NHS buildings, Proceedings of the 10th International Space Syntax Symposium, UCL, London.

Rosenfield, I. (1971). Hospital Architecture: Integrated Components. NY: Van Nostrand Reinhold. ISBN 10: 0442780109

Sadek, H. (13-16 July 2015). A comprehensive approach to facilitate wayfinding in healthcare facilities. Proceedings of the Third European Conference on Design 4 Health 2015, Sheffield. UK. ISBN 978-1-84387-385-3.

Turner, A. (2004a). Depthmap 4, A Researcher's Handbook. UCL, London: Bartlett School of Graduate Studies.

Turner, A. (2001b) "Depthmap: a program to perform visibility graph analysis", in Proceedings of the 3rd International Symposium on Space Syntax, Georgia Institute, (31), 13-31.

World Health Organization (WHO) (1996) District hospitals: guidelines for development (2nd Ed) Western Pacific Series No.4, ISBN: 9290611170.

The role of digitalization in the development of regions and the use of their potential in terms of sustainable development

Роль цифровізації у розвитку регіонів та задіювання їх потенціалу в умовах сталого розвитку

Written by:
Nataliia Kondratenko[33]
https://orcid.org/0000-0003-3305-9570
Vasyl Papp[34]
https://orcid.org/0000-0003-3749-7623
Mykhailo Romaniuk[35]
https://orcid.org/0000-0002-1468-4226
Olha Ivanova[36]
https://orcid.org/0000-0002-3656-2473
Liudmyla Petrashko[37]
https://orcid.org/0000-0002-5319-3155

Abstract

The study substantiates the determining role of digitalization and its tools in the development of regions and the use of their potential in terms of sustainable development. The methodological basis of the study was a systemic and process approach, as well as a dialectical method of scientific knowledge. Clarification of the main features of the potential of the regions and its properties made it possible to highlight the importance of digitalization for the economic development of regions and the achievement of sustainable development goals. The directions of increasing the efficiency of the information and communication environment of the regions are substantiated. The role of digitalization development in increasing the involvement of potential opportunities of regions in their development to ensure the achievement of sustainable development goals and ways to stimulate the activation of the potential of regions through digitalization. It is proved that digitalization contributes to the activation and

Анотація

У дослідження обгрунтовано детермінуючу роль цифровізації та її інструментів у розвитку регіонів та задіювання їх потенціалу в умовах сталого розвитку. Методологічним базисом дослідження виступили системний та процесний підхід, а також діалектичний метод наукового пізнання. З'ясування головних ознак потенціалу регіонів та його властивостей дало можливість виокремити значення цифровізації для економічного розвитку регіонів та досягнення цілей сталого розвитку. Обгрунтовано напрями підвищення ефективності функціонування інформаційно-комунікаційного середовища регіонів. Виокремлено роль розвитку цифровізації у підвищенні залучення потенційних можливостей регіонів у їх розвиток для забезпечення досягнення цілей сталого розвитку та напрями стимулювання активізації потенціалу регіонів за рахунок цифровізації. Доведено, що цифровізація сприяє активізації та трансформації потенціалу регіонів, його

[33] Dr. of Economics, Professor, Professor of the Department of Management and Public Administration, O.M. Beketov National University of Urban Economy in Kharkiv, Ukraine.
[34] Dr. of Economics, Professor, Professor of the Department of Management, Management of Economic Processes and Tourism, Mukachevo State University, Ukraine.
[35] Dr. of Economics, Professor, Head of the Department of Management and Marketing, Vasyl Stefanyk Precarpathian National University, 57 Shevchenko Str., Ivano-Frankivsk, Ukraine.
[36] Dr. of Economics, Associate Professor, Head of the Departmen of Macroeconomic Policy and Regional Developmentt, Research Center for Industrial Problems of Development, Ukraine.
[37] Dr. of Economics, Professor of the Department of International Management, Kyiv National Economic University named after Vadym Hetman, Ukraine.

transformation of the potential of regions, its transformation into capital and the formation of new potential that raises social, economic, environmental living standards of all segments of the population, increasing the competitiveness of regions.

Keywords: sustainable development, digitalization, regional economic systems, potential, information and communication technologies.

перетворенню у капітал та формуванню нового потенціалу, що підвищує соціальні, економічні, екологічні стандарти життя всіх верст населення, підвищенню конкурентоспроможності регіонів.

Ключові слова: сталий розвиток, цифровізація, регіональні економічні системи, потенціал, інформаційно-комунікаційні технології.

Introduction

Current challenges of regional development raise the issue of managing their potential to increase the competitiveness, self-sufficiency of regions and reduce the asymmetry of development in the social, economic and environmental spheres. The principles of sustainable development have shown that economic growth does not lead to automatic social progress and does not solve environmental problems, nor does it help reduce the asymmetry of development between regions. The potential of the region is a complex system that includes natural, intellectual, industrial, labor, social, economic, creative, investment, cultural, educational, recreational and tourist and many other types of potential areas. The potential of the region reflects the ability and willingness of regional systems to use it to enhance the social, economic and environmental aspects of development. Readiness is reflected in the availability of certain potential opportunities of the regions, sufficiency and balance of opportunities to transform capacity into a resource, and capacity reflects certain incentives to turn potential into an efficiently used resource of regional development.

Each potential of the region has its own characteristics and conditions for its use, which contributes to achieving the goals of sustainable development. But today the main powerful impetus for activating the potential of regions and achieving the principles of sustainable development is the digitalization of the economy. This and others call for a more detailed study of the role of digitalization in the development of regions and the use of their potential in the context of sustainable development.

Literature Review

The publications of scientists of national and international levels are devoted to various aspects of regional development in the context of sustainability and the impact of digitalization processes on regional development, namely:

Arefieva O. et al (2021); Bahn R.A. et al (2021); Birnbaum L. et al (2021); Cosmulese C. G. et al (2019); Derhaliuk M. et al (2021); Gonzalez O. et al (2021); Ivanova N. & Butko, M (2016); Kholiavko N. et al (2020); Khubiev B. et al (2021); Pestryakov A. et al (2021); Popelo O. et al, (2021a); Revko A. et al (2020); Samoilovych A. Et al (2021); Shkarlet S. et al (2020); Smirnova O. & Ponomaryova (2021); Suraeva M.O. et al (2022); Trubetskaya O.V. (2021); Tulchynska S. et al (2021); Unbehaun D. et al, (2021); Yankovskaya V.V et al, (2021) and others.

The aim of the article (Suraeva et al., 2022) is to study the impact of digital technologies on approaches to economic security. Scientists have developed a strategy for economic security in the regions, proposed measures to protect information security. According to the results of the study, a system of measures to ensure the country's information security in the field of domestic policy was developed.

In the article (Trubetskaya, 2021), scientists analyze the main provisions of sustainable progress of the country through the factors of regional development. The authors proved that digital technologies can significantly affect the economic and social condition of the region. The article notes that digitalization provides endless opportunities for improving the efficiency of economic processes, increases the competitiveness of the region.

The authors of the article (12) propose a methodological approach to assessing the impact of cultural infrastructure on the regional development of Poland and Ukraine. The aim of the authors' article (13) is to study the theoretical and practical issues of infrastructural development of the region. In the research of scientists (14) the system of economic security in the conditions of transformation of power is analyzed.

The authors (Birnbaum et al., 2021) investigated the attachment to the place in the times of digitization in rural areas. Researchers suggest that the analysis be based on a three-dimensional structure that includes concepts of attachment, space / place, and digitization. The results of the study show that digitization is really important, in particular with regard to abstract, non-localized spatial references to rural areas.

The aim of the article (Reynolds et al., 2021) is to analyze the differences in the digital capabilities of basic and non-core enterprises in urban and rural parts of the region. The authors study that while investing in digital infrastructure and digital technologies can support the fundamental economy, digital barriers run the risk of undermining the benefits of embedding its sectors and widening spatial gaps.

The article (Samoilovych et al., 2021) examines the world experience and Ukrainian realities of digital transformation of regions in the context of information economy development. The works of scientists (Popelo et al., 2021b) is dedicated modeling and forecasting of the integrated index of innovation activity of regions. The authors analyze the functions of state management of regional development in the context of digital transformation of the economy. Scholars (Derhaliuk et al., 2021) study the peculiarities of the state policy of transformation of potential-creating space in the context of intensification of regional development. Within the framework of the research (Ivanova & Butko, 2016), the authors analyzed the current trends in the development of the region's infrastructure, as the basis of its development.

The article (Unbehaun et al., 2021) is based on the processes of digitalization and improving the quality of life in rural and industrialized regions. These processes have been shown to be transformative, essentially dependent on the ability of regions to meet the challenges of modernizing their industrial base, improving their skills, compensating for job losses in key industries, improving welfare and living standards, and improving their contribution to national work. and creating more inclusive and sustainable societies. The authors identify interdisciplinary perspectives on regions in industrial and digital transition in order to achieve sustainability in the context of major shifts caused by globalization, decarburization and current technological changes.

Digitization determines the development of all processes in the economic and social spheres, including, as the authors argue (Pestryakov et al., 2021), the issue of strengthening economic security. Researchers are studying the problem of digitization of one of the economic activities of the region. The authors analyze the indicators that determine the economic security of the region and identify problems. As a result of the analysis, the authors developed recommendations for solving these problems and calculated the benefits of implementing certain digital technologies.

In the framework of scientific work (Bahn et al., 2021), the authors analyzed the potential and current contribution of digital technologies in the agri-food sector. It has been studied that digital agriculture is promising in solving the key problems facing the agri-food sector in the countries. The authors are convinced that public policy should not only promote the introduction of digital technologies in the Middle East and the North, but also ensure equal access, transparency, data protection and labor protection.

Scientists (Smirnova & Ponomaryova, 2021) have devoted their article to the study of aspects of sustainable economic development in the light of the development of digital technologies. The authors are convinced that in order to progressively and evenly develop digitalization in the real sector, it is necessary to intensify innovation activity in the regional industrial sector. According to the authors, the government should share the risks of introducing fundamentally new technologies and high technologies with industrial enterprises.

Also, a significant number of scientists dedicate their research to the study of higher education in the context of digitalization as one of the priorities of sustainable development of the regions. Thus, the articles considers the priority areas of increasing the adaptability of universities to the conditions of the digital economy. The authors analyze the role of higher education in the development of the digital economy. Scientists analyze the adaptation of higher education to the digital economy. The authors investigated the investment aspects of the impact of higher education on sustainability. Scientists (Tulchynska et al., 2021) have studied the role of higher education institutions in the development of eco-industrial parks in terms of sustainable development. The article (Cosmulese et al., 2019) is devoted to the analysis of the impact of the digital revolution on the educational system of the EU.

Methodology

For a thorough study of the spatial aspects of regions' sustainable development, it is most appropriate to use a systematic approach. The application of a systems approach makes it possible not only to consider the potential of regions as part of more global and microsystems at the same time, but also to assess the effectiveness of digital impact on spatial development in accordance with the principles of sustainability. The systems approach makes it possible to simultaneously study a large set of constituent subsystems of the regional economy, their diversity and multivectority, taking into account specific properties and relationships, as well as to take into account the impact of the external environment. A systematic approach to determining the role of digitalization in the development of regions and the use of their potential in the context of sustainable development is complemented by a process approach, as the object of study has a branching development processes. It is the process approach that makes it possible to combine multi-vector actions in the direction of obtaining the desired effect on the regions. The interconnectedness of processes and actions gives an overall positive result not only in the spread of digitalization, but also in enhancing the involvement of the potential of regions in achieving the goals of sustainable development.

The dialectical method is also a fundamental method of studying the role of digitalization in the development of regions and the use of their potential in conditions of sustainable development. Which makes it more thorough to identify in the ways of dividing and combining the whole and parts of regional development, determining and secondary, regular and random, abstract and concrete.

The purpose of this study is to substantiate the theoretical and methodological principles of the role of digitalization in the development of regions and the use of their potential in terms of sustainable development in modern conditions.

Results and Discussion

The role of digitalization in the development of regions affects the use of the potential of regions as it affects such vital factors of economic development of regional economic systems as employment, business development. In fact, digitalization is of great importance for the economic development of regions because it not only helps to increase GRP, but also ensures the achievement of sustainable development goals. World practice proves that digitalization has a positive effect on the growth of GRP and the economies of countries and the world as a whole, it is achieved by reducing production costs, better use of resources, creating new modern sectors of the economy. But in order to have an effect on the sustainable development of the regions, it is necessary to implement the principles of digitalization in all spheres of life. Due to such digital integration, actions and initiatives provide an opportunity to unleash the potential of the region and ensure its use.

Digitalization with the help of information and communication technologies, which are its tool for implementation in everyday life, provide an opportunity to guarantee a higher level of security of regional development and its inhabitants, including economic, social and environmental.

Today, digitalization has become a powerful impetus for the development of culture, education, science, public administration because the use of information and communication technologies provides access to information and knowledge, which improves the quality of educational services, increases the effectiveness of research and innovation, improves governance at all levels of economic systems and ensures the proper quality of social services.

The potential of regions is a dynamic system characterized by the constant transformation of proportions and relationships between its components in both time and space. The transformation of the proportions and dependencies of the components of the potential of the regions leads to constant changes in other proportions of the functional and territorial nature of sustainable development of the regions. Since the potential is represented by a certain system, the transformation of subsystems as a result of digitalization leads to constant changes in regional systems. Also, each region has its own unique specific potential on which the ability of regions to form their own competitive advantages depends. The formation of the region's potential depends on the availability of natural resources, available production capacity and the possibility of their modernization, labor, scientific, technical and innovative potential, etc. That is, from the accumulation of national wealth in the region as a whole.

The potential of the region as a whole is a diverse set of potentials that depend on the historical

features of the development of a particular area, mechanisms and tools for its involvement in regional development to achieve sustainable development goals. Increasing the use of the region's potential in sustainable development increases competitiveness and ensures social, economic and environmental development of the region.

The potential of the region at a certain time under certain conditions can be involved in sustainable development, one of the significant and decisive impulses in activating potential regional opportunities may be digitalization (Fig. 1).

DIGITALIZATION OF THE ECONOMY

Information and communication environment

Information and communication technologies   **Cybersecurity**

SUSTAINABLE DEVELOPMENT OF REGIONS

POTENTIAL OF THE REGION

Natural	Innovative	Scientific
Production	Financial	Intellectual
Cultural	Labour	Educational
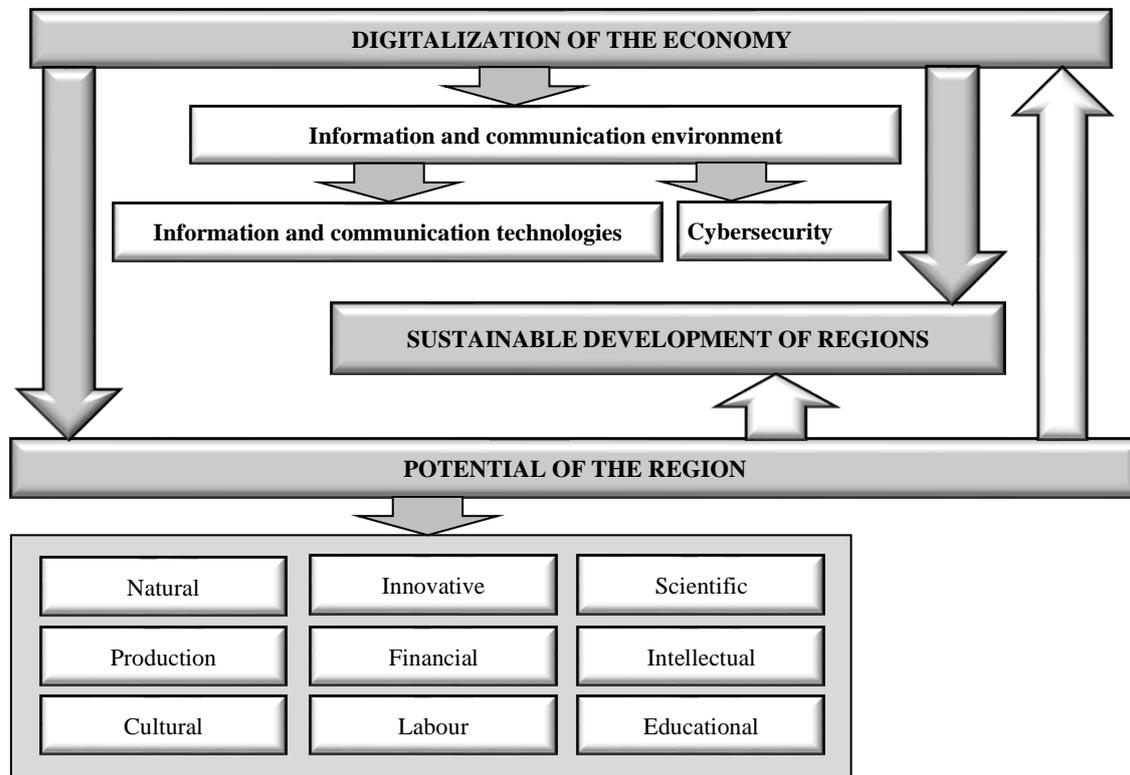
Figure 1. Relationships of digitalization with sustainable development and potential of regions.
Source: suggested by the authors.

Digitalization through the introduction of modern information technologies in all spheres of life, development of e-democracy, use of e-government tools increases the efficiency of regional actors, forms an open and transparent system of communication between business, government, households. Thus, the use of e-government tools simplifies people's access to administrative services, not only improving the quality of social life, but also stimulates the intensification of entrepreneurial activity and so on.

The role of digitalization in regional development to tap into the potential of all territories depends on the current information and communication environment, which is provided by information and communication technologies and cybersecurity. The information and communication environment provides an opportunity to attract modern technologies,

software products, specialized networks and systems.

Indicators of the functioning of information and communication environment are increasing the competitiveness of the regional economy, establishing new mutually beneficial relationships between regional actors, forming transparent and virtuous relations between different levels of government and regional actors, reducing economic shadowing, preventing monopolies and transparency of market relations.

To increase the efficiency of the information and communication environment it is necessary (Fig. 2):

- to expand the domestic market of information services, as well as saturation of its domestic information product;
- attracting investment resources to ensure the innovative development of this market segment;
- dissemination of the potential of spatial and structural competition in the information and communication sector;
- increase the level of digital literacy of all segments of the population;

- introduction of electronic document management in all spheres and ensuring the implementation of public services in electronic form;
- introduction of open data at the regional and local levels and their maximum popularization;
- branching out of digital infrastructure by providing quality access to the Internet, telecommunications, etc.;
- development of e-business and e-commerce;
- ensuring the development of e-democracy.

DIRECTIONS FOR IMPROVING THE EFFICIENCY OF THE INFORMATION AND COMMUNICATION ENVIRONMENT

expansion of the internal market of information services and its saturation with information product

attraction of investment resources to ensure innovative development of the information market

dissemination of the potential of spatial and structural competition in the information and communication sector

increase the level of digital literacy of all population

implementation in all areas of electronic document management and ensuring the sale of public services in electronic form

implementation at the regional and local levels of open data and their maximum popularization

branching of digital infrastructure

development of e-business and e-commerce

IMPROVING THE EFFICIENCY OF THE INFORMATION AND COMMUNICATION ENVIRONMENT WILL CONTRIBUTE TO

Development of information and communication environment

Improving the competitiveness of the regional economy

Establishment of new mutually beneficial relations between regional entities

Formation of open, virtuous relations between different levels of government and regional entities

Reducing the shadowing of the economy, preventing the growth of monopoly, increasing the transparency of market relations

Figure 2. Directions for improving the efficiency of the information and communication environment
Source: developed by the authors

In turn, improving the efficiency of the information and communication environment will contribute to the formation of the digital economy and the use of new potential opportunities to achieve sustainable regional development.

To ensure the development of information and communication technologies, financial and resource support is needed, which can be quite diversified and provided by attracting such diversified sources as own provision of regional systems, attracting credit resources, as well as the use of public-private partnerships and budget funds. different levels.

The role of digital development in increasing the potential of the regions is reflected in the following factors (Fig. 3):

– providing conditions for accelerating and increasing the efficiency of scientific and innovative activities and innovative and technological development of territories. In this direction, digitalization provides conditions for unlimited access to knowledge and information and stimulates innovation through the introduction of new technologies;
– attracting investment resources in the system-forming spheres of economic activity. The use of information and digital technologies provide an opportunity to increase the efficiency of resource use and provide a focus on the use of renewable sources;
– improving the quality of social services and attracting investment capital in the implementation of social programs of local development. Involvement of digitalization in the social sphere improves the quality of human potential and ensures its embodiment in intellectual, creative, labor and other types of capital;
– increase the level of economic security and resilience of regions to negative external and internal influences and mitigate the manifestations of adverse global trends. This is possible due to the introduction of the latest methods of analysis and monitoring of the environment, prevention and prevention of hybrid and information wars, etc.;
– increasing the level of competitiveness of the environment. This is possible by increasing the transparency of the market environment, democracy of economic processes, which is achieved by achieving absolute transparency of relations and processes, leveling all preferences and balancing the capabilities of all regions in all economic processes, which has a positive impact on market competitiveness and monopolization.
– optimization and automation of processes of regulation of economic processes. Optimization of management processes through the use of information technology tools and providing authorities and businesses with relevant information.

THE ROLE OF DIGITALIZATION DEVELOPMENT IN INCREASING THE ATTRACTION OF POTENTIAL OPPORTUNITIES OF REGIONS	
Factors of activation of capacity attraction	**Engaging digitalization tools**
acceleration and increase of efficiency of scientific and innovation activity and innovation and technological development of territories	creating conditions for unrestricted access to knowledge and information and stimulate innovation through the introduction of new technologies
attraction of investment resources in the system-forming spheres of economic activity	improving the efficiency of resource use and ensuring the direction to use renewable sources
improving the quality of social services and attracting investment capital	attracting digitalization to the social sphere increases the quality of human potential and ensures its embodiment in intellectual, creative, labor and other types of capital
improving the level of economic security and the resilience of regions to negative external and internal influences	implementation of the latest methods of analysis and monitoring of the external environment, prevention and prevention of hybrid and information wars
improving the level of competitiveness of the environment	increasing the transparency of the market environment, democracy of economic processes, absolute transparency of relations and processes, leveling preferences and balancing the capabilities of all subjects of the regions
optimization and automation of processes of regulation of economic processes	optimization of management processes through the use of information and technological means, providing regional entities with up-to-date information

Figure 3. The role of digitalization development in increasing the attraction of potential opportunities for regions to achieve sustainable development goals.
Source: built by authors

To ensure the development of information and communication technologies, it is important to support regional authorities and local governments, which must be strategically balanced and consistent. To promote digitalization at the regional level, it is necessary to provide it with intellectual and human resources, innovation and production and financial and investment components. In turn, the digitalization and use of these components has a synergistic effect on their development and the potential of the regions.

The implementation of the digital economy in the sustainable development of regions can stimulate the potential of regions through:

– establishing closer mutually beneficial cooperation of the territories, including access to foreign partners;
– optimization of the structure of regional development management with the use of geographic information systems;
– improving the efficiency of decentralization and directing the efforts of local and regional authorities to solve local problems and improve the quality of meeting the social needs of the population;
– increasing the economic capacity and self-sufficiency of territorial communities;
– development of entrepreneurial potential of the region with an emphasis on promotion in rural areas;

- development of a system of support, dissemination and activation of innovation activities and involvement of startups;
- introduction of information-analytical systems for regional development management in order to increase the effectiveness of strategic planning of territorial development and achieve sustainable development goals;
- creation of an integrated information space and electronic document management;
- intensification of processes for smart specialization to increase the efficiency of production capacity.

These and other impulses of the digital economy contribute to the activation and transformation of the potential of regions to transform potential into capital and the formation of new potential that raises social, economic, environmental living standards of all segments of the population, increasing the competitiveness of regions.

Conclusions

The digitalization of the economy and the development of its tools in the form of information and digital technologies can enhance and increase the effectiveness of the potential of regional systems, as well as to form a new powerful capacity to achieve sustainable development goals. The use of digitalization makes it possible to increase the competitiveness of regions in domestic and foreign markets, optimize the use of resources and increase their efficiency, improve the quality of life of all segments of the population in all areas.

The scientific novelty of the study is to substantiate the theoretical and methodological foundations of the role of digitalization in regional development and use of their potential in sustainable development, based on systemic and process approaches and dialectical methods of scientific research, highlighting the importance of digitalization for economic development in general , the importance of the development of digitalization tools in regional development, which together made it possible to identify ways to improve the efficiency of information and communication technologies and its role in the activity of the potential of regions to achieve sustainable development goals.

It is substantiated that the implementation of the digital economy in the sustainable development of regions can stimulate the potential of regions

and ensure the achievement of sustainable development goals in the economic, social and environmental spheres.

Further research requires issues related to the development of organizational and economic mechanism for activating the potential of regions in the digital economy to achieve the goals of sustainable development.

Bibliographic references

Arefieva, O., Tulchynska, S., Popelo, O., Arefiev, S., & Tkachenko, T. (2021). The Economic Security System in the Conditions of the Powers Transformation. IJCSNS International Journal of Computer Science and Network Security, 21(7), 35-42. https://doi.org/10.22937/IJCSNS.2021.21.7.4.

Bahn, R.A., Yehya, A.A.K., & Zurayk, R. (2021). Digitalization for sustainable agri-food systems: Potential, status, and risks for the Mena region. Sustainability, 13(6), 3223. DOI: 10.3390/su13063223.

Birnbaum, L., Wilhelm, C., Chilla, T., & Kröner, S. (2021). Place attachment and digitalisation in rural regions. Journal of Rural Studies, 87, 189-198. DOI: 10.1016/j.jrurstud.2021.09.015.

Cosmulese, C. G., Grosu, V., Hlaciuc, E., & Zhavoronok, A. (2019). The Influences of the Digital Revolution on the Educational System of the EU Countries. Marketing and Management of Innovations, 3, 242-254. http://doi.org/10.21272/mmi.2019.3-18.

Derhaliuk, M., Popelo, O., Tulchynska, S., Mashnenkov, K., & Berezovskyi, D. (2021). State policy of the potential-forming space transformation in the context of the regional development intensification. Cuestiones Políticas, 39(70), 80-93. DOI: 10.46398/cuestpol.3970.04.

Gonzalez, O.A., Koivisto, H., Mustonen, J.M., & Keinänen-toivola, M.M. (2021). Digitalization in just-in-time approach as a sustainable solution for maritime logistics in the baltic sea region. Sustainability, 13(3), 1-24. DOI: 10.3390/su13031173.

Ivanova, N., & Butko, M. (2016). The Modern Trends of Infrastructure Development. Baltic Journal of Economic Studies, 2(3), 37–41.

Kholiavko, N., Djakona, A., Dubyna, M., Zhavoronok, A., & Lavrov, R. (2020). The higher education adaptability to the digital economy. Bulletin of the National Academy of Sciences of the Republic of Kazakhstan, 4(386), 294-306. https://doi.org/10.32014/2020.2518-1467.130.

Kholiavko, N., Grosu, V., Safonov, Yu., Zhavoronok, A., & Cosmulese, C. G. (2021). Quintuple Helix Model: Investment Aspects of Higher Education Impact on Sustainability.

Management Theory and Studies for Rural Business and Infrastructure Development, 43(1), 111-128. https://doi.org/10.15544/mts.2021.10

Kholiavko, N., Popelo, O., & Tulchynska, S. (2021). Priority Directions of Increasing the Adaptivity of Universities to the Conditions of the Digital Economy. Revista Tempos E Espaços Em Educação, 14(33), e16383. https://doi.org/10.20952/revtee.v14i33.16383.

Kholiavko, N., Popelo, O., Melnychenko, A., Derhaliuk, M., & Grynevych, L. (2022). The Role of Higher Education in the Digital Economy Development. Revista Tempos E Espaços Em Educação, 15(34), e16773. https://doi.org/10.20952/revtee.v15i34.16773.

Khubiev, B., Atabieva, Z., & Reshetnikova, N. (2021). Human potential in the system of social and labor relations of the region in the context of the global digitalization of the economy (experience of sociological analysis). E3S Web of Conferences, 27322, 081071. DOI: 10.1051/e3sconf/202127308107.

Pestryakov, A., Sbrodova, N., & Titovets, A. (2021). Digitalization of crop production as a factor in strengthening the economic security of the region. E3S Web of Conferences, 262, 03028. DOI: 10.1051/e3sconf/202126203028.

Popelo, O., Garafonova, O., Tulchynska, S., Derhaliuk, M., & Berezovskyi, D. (2021a). Functions of public management of the regional development in the conditions of digital transformation of economy. Amazonia Investiga, 10(43), 49-58. https://doi.org/10.34069/AI/2021.43.07.5.

Popelo, O., Tulchynska, S., Tulchynckiy, R., Khanin, S., & Hrechko, A. (2021b). Modeling and forecasting of the integrated index of innovation activity of regions. Management Theory and Studies for Rural Business and Infrastructure Development, 43(2), 307-315. DOI: https://doi.org/10.15544/mts.2021.27.

Revko, A., Butko, M., & Popelo, O. (2020). Methodology for Assessing the Inflence of Cultural Infrastructure on Regional Development in Poland and Ukraine. Comparatie Economic Research. Central and Eastern Europe, 23(2), 21-39.

Reynolds, L., Henderson, D., Xu, C., & Norris, L. (2021). Digitalisation and the foundational economy: A digital opportunity or a digital divide for less-developed regions? Local Economy, 36(6), 451-467. DOI: 10.1177/02690942211072239.

Samoilovych, A., Garafonova, O., Popelo, O., Marhasova, V., & Lazarenko, Yu. (2021). World experience and ukrainian realities of digital transformation of regions in the context of the information economy development. Financial and credit activity: problems of theory and practice, (3(38)), 316–325.

Shkarlet, S., Ivanova, N., Popelo, O., Dubyna, M., & Zhuk, O. (2020). Infrastructural and Regional Development: Theoretical Aspects and Practical Issues. Studies of Applied Economics, 38(4). https://doi.org/10.25115/eea.v38i4.4002.

Smirnova, O., & Ponomaryova, A. (2021). Assessment of the Industrial Development Rates of Russian Regions in the Context of the Digitalization of the Economy. Lecture Notes in Information Systems and Organisation, 44, 283-290. DOI: 10.1007/978-3-030-73261-5_26.

Suraeva, M.O., Afonasyev, M.A., & Kucheryavenko, D.M. (2022). The Impact of Digitalization on Innovative Approaches to Economic Security in Regions. Lecture Notes in Networks and Systems, 304, 337-344. DOI: 10.1007/978-3-030-83175-2_43.

Trubetskaya, O.V. (2021). Digitalization as the Main Development Condition of the Samara Region. Lecture Notes in Networks and Systems, 304, 727-732. DOI: 10.1007/978-3-030-83175-2_89.

Tulchynska, S., Shevchuk, N., Kleshchov, A., Kryshtopa, I., & Zaburmekha, Ye. (2021). The Role of Higher Education Institutions in the Development of EcoIndustrial Parks in Terms of Sustainable Development. IJCSNS International Journal of Computer Science and Network Security, 21(10), 317-323. https://doi.org/10.22937/IJCSNS.2021.21.10.45.

Unbehaun, D., Wulf, V., Schädler, J., Lewkowicz, M., Bassetti, C., & Ackerman, M. (2021). The role of digitalization in improving the quality of live in rural (industrialized) regions. In CHItaly 2021: 14th Biannual Conference of the Italian SIGCHI Chapter (pp. 1-2). DOI: 10.1145/3464385.3467686.

Yankovskaya, V.V., Osipov, V.S., Zeldner, A.G., Panova, T.V., & Mishchenko, V.V. (2021). Institutional matrix of social management in region's economy: stability and sustainability vs innovations and digitalization. International Journal of Sociology and Social Policy, 41(1-2), 178-191. DOI: 10.1108/IJSSP-03-2020-0088.

The Use of Social Media as a Tool for Learning: Perspectives of Masters in Educational Technologies students at Bisha University, Saudi Arabia

<div dir="rtl">

استخدام وسائل التواصل الاجتماعي كأداة للتعلم: وجهات نظر طلاب الماجستير في تقنيات التعليم في جامعة بيشة ، المملكة العربية السعودية

</div>

Written by:
Omar Abdullah Alshehri[38]
https://orcid.org/0000-0003-0713-1153

Abstract

The current research examines the attitudes towards the use of social media sites to support the learning process among Master's in Educational Technologies students at the University of Bisha in the Kingdom of Saudi Arabia, including perceptions of educational benefits as well as disadvantages and barriers. Forty two students participated in this study and completed a web-based survey. The findings revealed a largely positive attitude toward the usage of social media sites in the classroom, attributing to it many advantages, such as increasing the quality and efficiency of communication between students and teachers, greater access to information, as well as stronger social connections and ease of collaboration among classmates. However, the participants also mentioned cyberbullying, privacy issues and distractions as some difficulties associated with using these tools.

Keywords: Saudi Arabia, social media in education, Attitudes, Benefits of social media use, Barriers to social media use.

<div dir="rtl">

الملخص

يبحث البحث الحالي في المواقف تجاه استخدام مواقع التواصل الاجتماعي لدعم عملية التعلم لدى طلاب الماجستير في تقنيات التعليم في جامعة بيشة في المملكة العربية السعودية ، بما في ذلك تصورات الفوائد التعليمية وكذلك العيوب والحواجز. شارك اثنان وأربعون طالبًا في هذه الدراسة وأكملوا استطلاعًا على شبكة الإنترنت. كشفت النتائج عن موقف إيجابي إلى حد كبير تجاه استخدام مواقع التواصل الاجتماعي في الفصول الدراسية ، وعزت إليها العديد من المزايا ، مثل زيادة جودة وكفاءة الاتصال بين الطلاب والمعلمين ، وزيادة الوصول إلى المعلومات ، فضلاً عن روابط اجتماعية أقوى وسهولة التعاون بين زملاء الدراسة. ومع ذلك ، ذكر المشاركون أيضًا التنمر عبر الإنترنت وقضايا الخصوصية والمشتتات باعتبارها بعض الصعوبات المرتبطة باستخدام هذه الأدوات.

الكلمات المفتاحية: المملكة العربية السعودية؛ وسائل التواصل الاجتماعي في التعليم ؛ الاتجاهات؛ فوائد استخدام وسائل التواصل الاجتماعي ؛ معوقات استخدام وسائل التواصل الاجتماعي.

</div>

Introduction

As an instructor of educational technology courses at Bisha University (BU) in the Kingdom of Saudi Arabia (KSA), I have observed the large extent to which students rely on social media sites (SMS) in almost all aspects of their lives. The situation is similar in other Saudi institutions of higher education (Alshehri, 2020). SMS, especially Twitter, Facebook, YouTube,

WhatsApp, have become an integral part of the daily lives of their users and have transformed the way individuals throughout the world, including in the KSA, interact and communicate. This integration of SMS in people's daily lives is only likely to continue to grow.

---

[38] Assistant Professor of E-Learning in the Department of Educational Technologies, College of Education. University of Bisha, Saudi Arabia.

The statistics on internet penetration and social media use in KSA support this observation. According to the Data Reportal (2021), the rate of internet penetration in KSA was 95.7% in January 2021 with 33.58 million internet users, an increase of 1.3 million users (+4.2%) since 2020 (Data Portal, 2021; Data Portal, 2020). In addition, there are very high rates of social media use specifically. This is especially the case with YouTube, with active users exceeding 24.71 million users, the highest use per capita in any country in the world (Data Portal, 2020). With 24.37 million users, WhatsApp was the second most popular app in Saudi Arabia, followed by Facebook with 20.99 million users. According to the same report, Saudi Arabia has the highest proportion of Twitter users in the Arab world, with 18.96 million users (Data Portal, 2020).

However, what I have also observed in the classroom is the scarcity of student use of SMS to support them on their educational paths, including among students in the Master's in Educational Technologies program. This is despite the commitment of the Saudi government and the funds being allocated to the integration of technology, including SMS, in education in order to facilitate and enhance the teaching and learning process. One of the strategic goals of the vision of the KSA for the year 2030 (Vision 2030) is dedicated to education in the kingdom, including strengthening educational curricula and methods; creating a more stimulating educational environment to encourage creativity and innovation; and building students' basic values and talents to meet the needs of national development and the requirements of the labor market.

There are important implications to the widespread access to and use of technology for the field of education. SMS, according to Naguib et al. (2018) and others, alters how people learn, share knowledge, collaborate with peers and professors, and generate innovative ideas. SMS can favorably help to teaching and learning, according to empirical studies undertaken in various parts of the world. (Naguib et al., 2018; Alshehri & Lally, 2019; Alyoussef, Alamri & Al-Rahmi, 2019; Lin et al., 2020). Given the great influence of modern technology and SMS on the current generation of youth in Saudi Arabia (KSA), the Saudi higher education sector must adapt to this reality and capitalize on the potential of these technologies as effective tools in education.

This study aims to contribute to the latter objective as well as resolve the contradiction that

I have observed in the classroom between the heavy reliance of students on SMS in their daily lives and apparently little use of these tools for learning. As a starting point, the current study focuses on the students themselves and their perceptions and attitudes. More specifically, it seeks to uncover the attitudes of Educational Technologies students at the UB towards the use of SMS to support learning, in relation to both the educational potential of SMS and the challenges and barriers. Understanding students' attitudes would provide tutors and university administrators valuable information that would support the effective integration of SMS as tools of teaching and learning. In addition, this study would supplement and expand the still relatively small body of research on students' attitudes to the use of SMS in education in Saudi universities.

This study poses the following main research question:

- What are the attitudes of Master's in Educational Technologies students at the UB towards the use of SMS to support learning?

More specifically, the study addresses the two following research objectives:

- What are student perceptions of the advantages and educational benefits of using SMS for learning?
- What are student perceptions of the disadvantages of using SMS for learning and the potential barriers to their effective integration in education?

Literature Review

Before discussing the research I conducted, I will present a review of the most relevant literature, starting with the educational uses of SMS before moving on to a discussion of student engagement with SMS, their perceptions of the educational advantages of such sites and, finally, the disadvantages of and barriers to the use of SMS in education as identified by scholars and students participating in various empirical studies. The studies discussed in this section originate from various parts of the world although I also focus in each section on studies conducted in KSA.

SMS and their educational uses

Kaplan and Haenlein (2010) define social media as a set of interactive sites that strengthen the relationships of one person to another within a

group. SMS are increasingly being recognized by educational institutions across the world for their role in enhancing the educational experience. This includes facilitating teaching and learning (Collins & Halverson, 2018), supporting communication, collaboration, and critical thinking (Zgheib, 2014) improving teaching quality, making educational content available, motivating students, and fostering collaborative learning. (Manca & Ranieri, 2013).

Nowadays, most students own the latest technical devices and use them transparently, whether in education or other fields (Jukes et al., 2010). Technology offers them a variety of learning tools, allows them to connect with their peers and their teachers, encourages critical thinking, and improves speaking and academic writing skills (Saha and Karpinski, 2018). However, not all students may have the necessary skills to use these new technologies or be able to access them.

In a study conducted by Dickie and Meier (2015), they found that SMS, including Facebook, can play an essential role in classrooms in higher education. They argue that "the evidence given reinforces the idea that such networks have untapped potential capable of making a significant contribution to the learning and teaching process" (p .1). In the past ten years, there has been much scholarly attention devoted to the specific ways in which social media platforms can contribute to, support and enhance learning (van Dijck, 2013). The specific educational benefits highlighted in these studies include their potential to connect and enhance communication among students, between students and tutors as well as with experts in the field; their usefulness in providing access to valuable information; their contribution to strengthening student skills, including expressive, creative and creative thinking skills; increasing student motivation and engagement and promoting greater independence and self-learning among students.

In a study conducted by Lin et al. (2020), the researchers found that SMS sites allowed the creation and sharing of information, the exchange of ideas, the seeking and provision of peer support, and users' engagement in discussions on an unlimited variety of topics (Lin et al., 2020). In another study, Imlawi et al. (2015) note that students use SMS to develop diverse skills, attitudes, and hobbies and advance their educational development through sharing links, engaging in online learning, and seeking jobs. Furthermore, scholars such as Basu (2017) believe that integrating SMS into education encourages educational independence, self-learning and self-motivation, and that these tools can become an integral part of learners' experiences (Basu, 2017). SMS can be used in education to create a learning environment that enables students to interact and exchange with their colleagues, access educational programs, and communicate with experts on various topics (Al-Khalifa & Garcia, 2013). Bergmann & Sames (2008) found that technology can enhance teaching by allowing teachers to spend class time interacting with students rather than delivering traditional lectures, as the latter can be sent by video to learners beforehand.

In a study they conducted at the Balochistan University of Information Technology, Jogezai et al (2021) found that SMS are being used as social learning resources for students, providing opportunities for validation and admiration of creative work, peer alumni support, and college task-related aid. Roopchund, Ramesh and Jaunky (2019) discovered that using SMS in classroom instruction in Mauritian higher education increased student engagement, assignment quality, and a sense of control over their education. In a similar vein, Blankenship (2011) argues that social media helps learners learn because it promotes "more engagement, higher curiosity, and students assuming more control and responsibility for their education" (p. 40).

In Saudi Arabia, the use of SMS for education is still in its infancy. However, some Saudi Arabian institutions have started to capitalize on the educational uses of SMS. For example, during lectures, tutors would play YouTube videos while Twitter and WhatsApp have been used as open channels for students, instructors, and professionals to ask questions and receive responses.

Several research in the Saudi context have documented the frequent use of SMS, especially WhatsApp, YouTube, and Twitter by the current generation and the influential role they are playing in education. They are being used to build personal relationships, cooperate with other learners, exchange opinions and experiences, develop critical thinking skills, and obtain feedback by teachers (Alshehri & Lally, 2019; Naguib et al., 2018; Hashim et al., 2019).

Student engagement with SMS and perceptions regarding their educational benefits

A number of research studies have examined the use of SMS among students for educational ends as well as their attitudes towards the integration

of SMS in teaching and learning and the educational benefits they perceive. Over 1,600 publications were surveyed, and 396 documents were studied using bibliometric analysis from the Scopus database to investigate students' use of social media as a language learning environment by Barrot (2021). He found that students use social media for learning abundantly but in an incidental and informal way and have positive attitudes towards the use of these applications in education. Their diverse and flexible communication affordances, vast geographical spread, and the big number of active users were credited with this result (Barrot, 2021).

Some studies have investigated the degree of social media use and the most popular apps among students in the Arab Gulf region specifically, with findings showing varying amounts of social media use at various colleges, with Facebook, YouTube, and Twitter being the most popular and frequently used apps. Guraya et al. (2018) conducted a quantitative study in one Kuwaiti and two Saudi Arabian medical schools, finding that the majority of students used SMS for educational purposes such as sharing educational content and lectures, and that these tools were beneficial. According to another quantitative study conducted by Alsurehi & Youbi. (2014), the usage of social networking programs, particularly Facebook, Twitter, YouTube, and WhatsApp, is fairly common among students in Saudi Arabia.

Rajeh et al. (2021) conducted a quantitative study on SMS use among 1034 students at three governmental dentistry schools in Saudi Arabia. According to the findings, students use WhatsApp (97.5%), Snapchat (90.5%), Twitter (85.2%), and Instagram (83.4%) to search for general information (63.3%), dental learning (70.8%), exchanging general ideas (63.1%), and community general conversation (63.1%). In their opinion, the most significant benefits of using social media in learning was that they enabled them to get information on a number of subjects and access new resources, made education more engaging, and enhanced their creativity, innovation, and research abilities.

As is clear from the featured research studies, students tend to have a predominantly favorable opinion of SMS as tools for facilitating learning, encouraging cooperation, enhancing critical thinking, and supporting brainstorming sessions (Wingo, Ivankova, and Moss, 2017; Alshehri & Lally, 2019). In another study, Bista (2015) conducted a quantitative study at a public institution in the southern United States to explore undergraduates' impressions of using Twitter as a teaching tool. The participants claimed they enjoyed using Twitter, feeling that it provided them with the space and opportunities to participate in academic activities such as getting real-time course information, asking mentors questions, and sharing beneficial information with their peers. In a similar manner, Henderson and Aston (2017) discovered that 1658 undergraduate students from two Australian universities were enthusiastic about using digital technologies (e.g., SMS, multimedia and mobile phones) to 'organize their work and manage academic demands,' as well as support creative collaborative and hyper-connected practices (p. 7). Returning to the Saudi context, Hashim et al. (2019), Saudi students felt that using SMS for learning allowed them more flexibility in accessing online resources, allowing them to work and learn more autonomously than in traditional approaches to learning.

Students' perceptions regarding the disadvantages of and barriers to using SMS for learning

While students' sentiments toward SMS in education are generally good, they do not always have positive experiences with these tools. In a number of studies, they identify a number of disadvantages or obstacles to the effective utilization of current technologies. In a quantitative study conducted by Rajeh et al. (2021) among students in 3 governmental dental schools in Saudi Arabia, predominant issues raised by the students were SMS acting as distractions from studying, the increased time spent on these sites and their addictive potential and concerns over no direct contact with the instructors. The students' concern over distraction echo those of scholars such as Lederer (2012); Haand and Shuwang (2020) and Chen et al. (2020) who argue that using social media can be a source of distraction in the classroom. According to Lederer (2012), "Facebook and Twitter divert students' attention away from what's happening in class and are ultimately disruptive to the learning process" (p. 1).

Having said that, the most commonly raised concern in the literature is privacy. Jones and Soltren (2005) conducted a statistical analysis of Facebook data of University of Oklahoma students. They found that over 70% of users actively upload enormous amounts of very personal and private information, such as age, gender, location, and interests, and show

contempt for privacy settings and maintaining the terms of service on Facebook.

While concerns over privacy and personal information on SMS appear to be universal, researchers still need to be aware that privacy means different things to different people and cultures around the world. In Saudi society, privacy is an especially sensitive issue, particularly for women. Furthermore, it is both a social and personal concern. In a broad sense, any action taken by individuals, whether positive or negative, will have an impact not just on those individuals but on their families. The actions of any of its members could bring pride or shame upon the entire family (Alsolamy, 2017). This makes it especially critical for Saudi users of SMS to protect their privacy.

Alsurehi & Youbi (2014) conducted a study to look into the use of SMS among Saudi students. The findings revealed that privacy and security issues continue to be a major barrier to male and female students using social media for educational purposes. Due to fears of defamation and harassment on social media, most women in Saudi Arabia do not use their real names or personal images on their profiles on SMS. In another study conducted by Alshehri (2020), the female participants stated that they use nicknames or pseudonyms and symbolic photos to promote themselves online for the same reasons. They wanted to be able to freely use SMS without suffering any negative effect on their academic or social status.

Another concern that emerged from studies conducted by researchers in Saudi Arabian, Asian, and American contexts relate to the nature of material posted on social media profile pages. This includes material that violates user privacy, discussions of illegal behavior, jokes about religion, and pornographic and sexual material (Gao et al. 2012; Odom et al., 2013; Rashid, 2017)

In some studies, student expressed concerns not about the perceived disadvantages of SMS but about the barriers that stand in the way of their effective integration in teaching and learning. One such barrier is the lack of necessary understanding or experience among both teachers and students. In some cases, the tutors are not knowledgeable on the optimal use of new technologies in their classrooms. In other cases, it may be students who lack this knowledge. For example, Malaysian students at an Australian institution evaluated online debate as "difficult and boring" due to their lack of familiarity with

this type of learning environment (Chew, 2015, p. 591).

Previous studies in the KSA have examined the use of SMS for learning, and the aim of this study is to add to the existing literature, especially with regards to the use of SMS for learning from the perspective of students from an emerging university such as the UB. The current study investigated Saudi Arabian students' current use SMS for learning, as well as their assessments of their educational benefits and concerns about their use in education. In this way, the study was able to create a comprehensive image of the subject from all angles.

Methodology

In order to investigate the current use of and attitudes towards the use of SMS for learning among Master's of Education Technology students in the College of Education at the UB, I chose a quantitative method, more specifically a web questionnaire, for data collection. The questionnaire was created taking into account existing literature on the topic and the study's setting. The study was conducted between September and November 2021.

At the start of the questionnaire, I explained the research objectives before asking participants to voluntarily take part in the study after providing their consent. Participant were asked to click on an icon to indicate that he/she agreed to voluntarily participate in this study. Otherwise, he/she will not be able to proceed with the survey. Participants were told that their personal information would be used for research purposes only and that they could withdraw from the study at any time.

The questionnaire, itself, was divided into three sections: 1) demographic data and data related to social media use and access (e.g., use of social media in education, gender, age, social media application used, and means of access to SMS such as laptop, smartphone, iPod/ iPad, or computer). 2)I used Yes-No answers to see whether they agreed with various statements presenting common ideas related to the educational advantages of SMS use for learning with a focus on potential to facilitate access to knowledge as well as communication with peers, tutors and experts (8 items). 3) I used Yes-No answers to see whether they agreed with various common ideas related to the educational disadvantages of SMS use for learning (4 items).

While the literature identifies a range of educational benefits to the use of SMS, I decided to focus, in the second part of the questionnaire on several main aspects, mainly benefits related to enhanced communication, greater self-reliance and access to information. In relation to the first aspect, I have often noted that Saudi students tend to be shy and hesitant to communicate with peers and teachers while also being dependent on their teachers. As for the second aspect, it relates to the rich information that SMS provide access to, which can be harnessed to improve and develop student education. As for the third part of the questionnaire, the statements addressed the main disadvantages and barriers mentioned in relevant studies.

Before conducting the study, institutional permission was obtained from the College of Education at the UB. I held a meeting with the Dean of the college of education, and the research aim, content, and method were explained to him. An announcement was made on the first page of the college website and the link to the survey was posted there. Prior to the questionnaire distribution phase, there was a validation process in which various specialists from the College assessed the content of the questionnaire. Later, the questionnaire was pre-tested with a small set of respondents.

The target of the study was Master's students in the College of Education at the UB, due in part to my special interest in them as their instructor. More importantly, they are potential future educators who will go on to teach students themselves. Accordingly, I was interested in investigating whether they were aware of the importance of these tools in the current digital age, and their potential to act as sites of information, enhance the learning experience, improve their mental and social skills of students, broaden their horizons and them culturally.

In this regard, the College of Education is the first nucleus of the UB established in the year 1985, and it aims to prepare qualified personnel to work in public and private educational institutions, to raise the professional efficiency of teachers, and to guide faculty members, students and administrative staff in the translation of educational and Islamic values to positive behavior that emanates from the Islamic faith. The college has a number of departments including one dedicated to educational technologies and offers a number of diplomas, Bachelor's and Master's degrees in various educational specializations including in

Educational Technologies. The college of Education has nearly 150 employees, 100 of whom are faculty members, who come from the KSA, Africa, the Middle East, and Asia. Both Arabic and English are used as languages of instruction.

The University of Bisha is considered an emerging university by virtue of its recent establishment. The University of Bisha is located in the southern region of the Kingdom of Saudi Arabia. Bisha, one of the oldest cities in the Arabian Peninsula and the Asir region, is the source of its name. King Abdullah bin Abdulaziz Al Saud ordered the transition of King Khalid Institution's branch in Bisha and the surrounding regions into an autonomous university in April 2014. "University of Bisha" was the name given to this new university. It is a public university that receives funding from the Ministry of Education, which represents the government. This study will help students, faculty members, and administrators at the University of Bisha to know the opinions and attitudes of graduate students towards using social networking sites to support the learning process. They tend to use these techniques in all their practical and educational tasks.

The population of this research was Master's of Educational Technologies students who were registered in 2019, 2020, and 2021, regardless of gender or age., The questionnaire link was sent to 42 students (29 males and 13 females) who responded and consented to completing the questionnaire. None of the responses obtained were ruled improper or invalid due to the nature of the questions included in the questionnaire, all of which were necessary for completion (participants could not move to the next section without first completing the current one).

The data collected was analyzed using the Statistical Package for Social Sciences (SPSS) software. To address the research questions, descriptive statistics such as frequencies, percentages, means, and standard deviations were employed, as well as correlation tests and One-Way ANOVA. Cronbach's alpha was 0.89, indicating strong reliability, and the questionnaire's dependability was also tested.

To analyze the demographic data, present an overview of its distribution, and get broad patterns for all responses, the researcher used descriptive statistics with frequencies and percentages. The study's basic statistical ideas revealed which scores were the most and least frequent. To help clarify metadata using tables,

SPSS V.21 was employed. These questions were investigated using descriptive statistical tests. This type of study provides frequencies and percentages.

Parametric techniques analyses were not acceptable in this data set since the normality requirements were not met. Non-parametric tests were utilized as a consequence since they do not rely on assumptions about basic population characteristics and distribution. They were utilized to investigate if there were statistically significant differences in SMS learning usage based on gender, age, and the device that provided SMS access. Non-standard variance tests allowed me to evaluate if there were any significant differences in the use of SMS in the educational process across the sample groups in each category, and to call attention to those differences.

To begin, the Mann-Whitney test (often known as the t-TEST) was used to examine if any statistically significant differences existed between the variables of social media use, gender, and social media access. In non-normative statistics, the Mann-Whitney test is the most acceptable method for detecting differences between independent samples (MacFarland & Yates, 2016).

The questionnaire was then subjected to the non-normative Kruskal-Wallis test. The Kruskal-Wallis test is a nonparametric rating-based test that can be used to see if two or more groups (age, use of SMS) have significant differences. The Mann-Whitney U test is an extension of the one-way ANOVA that allows the comparison of more than two independent groups.

Results

The socio-demographic data indicated that 69% of the participants were male, while 31% were female. The 22-25 years of age made up the largest percentage of the sample (50%). Moreover, 56.9% of the students owned smartphones, while 30.6% owned a laptop.

Furthermore, the vast majority of the participants in the study had social media accounts (95.2 %) with WhatsApp (24.8%), YouTube (19.9%), Twitter (18.0%), Facebook (17.4%), Instagram (13.7%), and Snapchat (6.2%) being the most popular SMS among students. This is most likely a result of the large extent of their spread, the ease of their use, as well as the techniques that they adopt.

Moreover, the survey found that the rate of social media usage in education among students was extremely high, as shown in Table I. (94.6%). This result confirmed the opposite of my impression of student use of SMS in the classroom.

Table 1.
Participants' Demographic Information.

Variables	Frequency	Percent
Use of social media for learning		
Yes	38	94.6
No	4	5.4
Total	42	100%
Means of access to SMS		
Smartphone	21	56.9
Laptop	10	30.6
Computer	6	6.9
iPod/ iPad	5	5.6
Total	42	100%
Sex groups		
Male	29	69
Female	13	31
Total	42	100%
Age groups		
22- 25 years old	21	50
26- 28 years old	17	40.5
29- 32 years old	3	7.1
33 years old and above	1	2.4
Total	42	100%
SMS used		

WhatsApp	12	24.8
YouTube	9	19.9
Twitter	8	18.0
Facebook	7	17.4
Instagram	4	13.7
Snapchat	2	6.2
Total	42	100%

(Source: Own authorship)

Table 2 reveals that items 1 & 2 were the most often reported benefits, with frequencies and percentages of (n=40, 95.2 percent, n=38, 90.5 percent, respectively). Participants agreed that SMS is important (item 1) and plays a role in information dissemination among students (item 2). Participants said that one of the major benefits of SMS was that it allowed them to share course-related messages, photos, graphics, sounds, and video files (item 3) with frequencies and percentages of (n=37, 88.1%). With frequencies and percentages of (n=20, 49%), over half of the sample (n=26, 61.9 percent) agreed that SMS facilitate collaborative learning with other learners (item 4) and that these tools lessen students' reliance on their teachers (item 5) However, less than half of the respondents (n=21, 49%) agreed that accessing these sites in the classroom lessens students' dependency on their professors (item 8).

This finding suggests that SMS provides a high-quality learning environment and an acceptable learning environment for learners to exchange knowledge, ideas, and experiences in order to advance their academic level. They also have significant positive evaluations of SMS's role in aiding efficiency in obtaining feedback, boosting collaborative learning, and encouraging self-learning and more independence among students.

Table 2.
Perceptions of Participants Regarding Educational Benefits of SMS

Statements	Answers	Frequency	Percentage
I think that SMS are important for learning	Yes	40	95.2
	No	2	4.8
	Total	**42**	**100%**
I believe that social media application participates in the dissemination of knowledge among learners	Yes	38	90.5
	No	4	9.5
	Total	**42**	**100%**
I believe that SMS enable me to publish different multimedia related to the course content (e.g., texts, images, graphics, sounds, and videos files)	Yes	37	88.1
	No	5	11.9
	Total	**42**	**100%**
I believe that SMS provide instant feedback on my course's questions which help to solve educational problems that may occur.	Yes	32	76.2
	No	10	23.8
	Total	**42**	**100%**
I feel that SMS support collaborative learning with other learners	Yes	29	69
	No	13	31
	Total	**42**	**100%**
I think that using social media in teaching is effective in supporting students' learning processes	Yes	26	61.9
	No	16	38.1
	Total	**42**	**100%**
I feel that SMS support self-learning	Yes	26	61.9
	No	16	38.1
	Total	**42**	**100%**
I think that using social media in teaching decreases the dependency of students on their instructors	Yes	21	50
	No	21	50
	Total	**42**	**100%**

(Source: Own authorship)

Although the majority of Master's of Education in Education Technologies students have overwhelmingly favorable views of the use of SMS to aid the educational process, they expressed a number of concerns that could potentially limit their use of these platforms in the classroom. As shown in Table 3, the participants found distraction to be the most significant disadvantage to the use of SMS in education (item 1) with frequencies and percentages of (n=29, 89.9%) and that some of the content on SMS opposes Islamic religious teachings (item 2) with frequencies and percentages of (n=29, 89.9%). In addition, over half of the sample felt concerned about the dangers of cyberbullying (item 4) with frequencies and percentages of (n=26, 61.9%) and privacy issues (item 3) with frequencies and percentages of (n=24, 59.9%).

Table 3.
Disadvantages of Using SMS for Learning.

Statements	Answers	Frequency	Percentage
Social media usage could distract students' focus away from academic learning	Yes	29	89.9
	No	13	10.1
	Total	**42**	**100%**
Some contents of social media oppose Islamic religious teachings	Yes	29	89.9
	No	13	10.1
	Total	**42**	**100%**
I feel concerned about the dangers of cyberbullying when using social media	Yes	26	61.9
	No	16	38.1
	Total	**42**	**100%**
I am concerned about privacy issues related to the use of social media tools	Yes	24	59.9
	No	18	40.1
	Total	**42**	**100%**

(Source: Own authorship)

Differences in students' perceptions based on study variables

The Mann-Whitney test and the Kruskal-Wallis tests were used to see if there are statistically significant differences in the actual use of SMS and perceived advantages and disadvantages of these platforms in the educational process, based on the variables of gender, age, device providing social media access, and social media use for education. The results are shown in the table (4) below.

Table 4.
Mann-Whitney Test and Kruskal-Wallis Test.

		Use of SMS for learning	The perceptions of students regarding the advantages of using SMS for learning	The perceptions of students regarding the advantages of using SMS for learning
Asymp. Sig. (2-tailed)	Gender	.604	.468	.928
	Age	.006	.000	.008
	Social media access	.002	.000	.015
	Social media use	.081	.196	.498

The Mann-Whitney test showed that there was a statistically significant difference in students' perceptions in terms of the variables of age and access to social media. On the other hand, there was no statistically significant difference in the variables of sex and use of social media for education. Statistically, perceptions were significantly higher for age group (22-25 years = n = 21, 50.0%) followed by age group (26-28 years= n = 17, 40.5%) while age group (33 and above = (n = 1, 2.4%) at the lowest percentage of using SMS in the classroom environment.

In general, younger students perceived a greater use of SMS in the educational process, finding that it enriches the study process; enhances students' abilities, encouraging them to participate and express their opinion; encourages dialogue, and promotes collaborative group work.

Furthermore, the Kruskal-Wallis test results (see Table 5) revealed that there were statistically significant differences in students' perceptions of the benefits of using SMS in the educational process based on age, with perceptions statistically significantly more positive among students whose r age ranged between (22-25 years = n = 21, 50.0 percent) years, followed by the age group (26-28 years = n = 17, 40.5 percent). In general, the majority of students who responded perceived SMS as having significant benefits when used correctly in the learning process. They believed that by using these platforms, students would be more motivated to learn and that collaborative learning with other students would be easier.

At the same time, the statistics showed that the age group (33 and above, n = 1, 2.4%) had negative perceptions of the use of SMS in the educational process and considered that its harms outweigh its benefits in the classroom.

The Kruskal-Wallis test found that there are statistically significant differences in students' perceptions based on the type of social media access (see Table 5). Students were statistically substantially more positive about using smartphones to browse social media (n=21, 56.9%), followed by laptops (n=10, 30.6 percent). The majority of students who responded perceived SMS as having a positive impact when used correctly in the learning process.

At the same time, statistics showed that students are not inclined to use SMS via iPod/iPad (n=5, 5.6%). Perhaps the availability of smart devices in addition to the laptop made many students not care about using the iPad because the smartphone accompanies the student everywhere and helps students complete the required tasks with ease. Providing requirements for the effective use of iPad and computers in capitalizing on SMS in education may increase students' enthusiasm to expand their use in the classroom.

Table 5.
Kruskal-Wallis Test.

Variables of the study	Age	Percent
Use of SMS for learning	22 - 25 Years	50%
	26 - 28 years	40.5%
	29 - 32 years	7.1%
	33 years or more	2.4%
The perceptions of students regarding the advantages of using SMS for learning	22 - 25 Years	50%
	26 - 28 years	40.5%
	29 - 32 years	7.1%
	33 years or more	2.4%
The perceptions of students regarding the advantages of using SMS for learning	22 - 25 Years	50%
	26 - 28 years	40.5%
	29 - 32 years	7.1%
	33 years or more	2.4%
	Social Media Access	**Percent**
Use of SMS for learning	Computer	6.9%
	Laptop	30.6%
	Smartphone	56.9%
	iPod/ iPad	5.6%
The perceptions of students regarding the advantages of using SMS for learning	Computer	6.9%
	Laptop	30.6%
	Smartphone	56.9%
	iPod/ iPad	5.6%
The perceptions of students regarding the advantages of using SMS for learning	Computer	6.9%
	Laptop	30.6%
	Smartphone	56.9%
	iPod/ iPad	5.6%

Table 6.
The Correlations between the study variables.

		Use of SMS for learning	Advantages of using SMS for learning	Disadvantages of using SMS for learning
Gender	Pearson Correlation	.071	-.061-	-.039-
	Sig. (2-tailed)	.581	.635	.760
	N	63	63	63
Age	Correlation Coefficient	-.390-**	-.517-**	.393**
	Sig. (2-tailed)	.002	.000	.001
	N	63	63	63
Social media access	Correlation Coefficient	-.432-**	-.445-**	.352**
	Sig. (2-tailed)	.000	.000	.005
	N	63	63	63
Social media use	Pearson Correlation	.256*	.162	-.084-
	Sig. (2-tailed)	.043	.204	.515
	N	63	63	63

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

From the results of the Pearson Correlation test in Table 7, it can be concluded that there are no statistically significant differences based on gender on whether students use SMS in the educational process as well as their perceptions of the advantages and disadvantages of these sites. The test, on the other hand, revealed that there are statistically significant differences between the variables of SMS use in general and SMS use for learning (.043). Furthermore, the test found that there are statistically significant differences in students' opinions of the extent to which social media sites are employed in the educational process based on age and devices used to access social media (.390), in addition to perceptions of the advantages (.517) and disadvantages of using those social platforms in the classroom environment (.393). This indicates that the higher the age, the less that SMS and the devices used to access these sites are used in the educational process and the greater the perception that that these sites have no educational advantage and that they mainly distract students from focusing on lessons.

Discussion

Unlike my impression in the classroom, the students participating in this study had almost all utilised at least one SMS in education. As the result results indicate that students believe that these tools provide a means to transform the traditional passive classroom into an interactive space that fosters collaboration, reflection, dialogue and independence, the question becomes how can these tools be further integrated to enhance the teaching and learning process? These include a greater and more central use of SMS to share educational programs and content as well as a channel for communication among students, between students and teachers and with people specializing in specific topics from all over the world. However, this needs to be done in a systematic as opposed to the haphazard way it is currently done with the integration of SMS in education being guided by the teachers and in a consistent manner across courses.

Almost all the students had positive feelings about using social media as a learning aid in school with frequencies and percentages of (n=38, 94.6). Given that they live in a world of internet and SMS penetration for so much of the time, it is possible that this familiarity contributed to the students' positive perceptions of using SMS in education.

The most popular SMS was WhatsApp, which was followed by YouTube. Instagram and Snapchat, on the other hand, were the least popular social media platforms among students. This outcome is consistent with previous research which found that the highest two sites used by learners whether for personal or professional reasons are WhatsApp and YouTube (Guraya et al. 2018; Alshehri and Lally 2019).

The majority of students believed that their self-learning and collaborative learning abilities are aided and enhanced by using SMS in the

classroom. In this manner, they are similar to peers whose attitudes toward social media technologies in education have been investigated in similar results in various parts of the world (Bista 2015; Gao et al. 2012; Guraya et al. 2018; Naguib et al. 2018; Saha and Karpinski 2018; Zgheib 2014). However, although they represent a small minority, not all students (n=4, 5.4 %) had positive feelings about using SMS for learning. This finding is reminiscent of the results of a study conducted by Due to a lack of familiarity with this type of learning environment, Malaysian students at an Australian institution had negative opinions about utilizing SMS in education, according to Yee (2015).

According to the findings, there were statistically significant differences in students' judgments of the benefits of using SMS in the educational process based on age, with younger students' perceptions being much more positive. In average, younger students thought SMS was used more frequently in the educational process. This is in line with Alshehri's findings (2020).

These findings provide a new dimension to our understanding of the effectiveness of modern technologies like SMS in terms of creativity, cooperation, and interactivity, all of which are essential goals of higher education in the twenty-first century (Alshehri 2020 & Henderson et al. 2017). According to the findings, 90.5 % of students say that SMS is a useful tool for supporting their learning, facilitating connections with peers, disseminating knowledge among learners, and making learning a more integral part of their daily activities. This finding is congruent with findings from Saudi studies (Alshehri 2019; Alshehri and Lally 2019; Guraya et al. 2018; Wingo et al. 2017), which found that SMS improve students' learning development and academic performance.

The results revealed that most of the study participants (88.1%) believed that SMS enabled them to create different multimedia related to the course content (e.g., texts, images, graphics, sounds, and videos files). This finding is in line with results from studies undertaken at other Saudi universities (Gao et al. 2012; Naguib et al. 2018; Alshehri and Lally, 2019), which indicated that students used SMS to share files that contain information relating to their courses, exchange images, graphics, and videos to get more experiences and information by cooperating with other learners. It has become easier for students to post, tweet, film a clip, create a video and disseminate information to a specific group or the public through these many networks. All of this served as motivation for them to include these platforms in their teaching and learning activities.

According to the study results, 50% of students believed that using SMS in the educational process decreases students' reliance on tutors and encourages self-learning and autonomy. When learning is driven by the student's own needs, interests, motivations, and preferences, as is the case when using social media platforms, personalization becomes essential to the learner and learning becomes a personal undertaking (Gruzd et al. 2018). It is fortunate for the current generation that it was born with the emergence of modern technologies, which undoubtedly contributed to the development of their digital skills and made them able to enhance their self-learning through employing these technologies and skills in fruitful ways. However, the other half of the sample believe that the teacher is irreplaceable or indispensable to provide lectures and guidance, whether or not they rely on technology. They believe that a teacher guides students and provides them with the necessary information that contributes to the development of their knowledge and learning skills instead of dispensing with the teacher and relying completely on technology.

One of the most important outcomes of this study is that most learners feel that using SMS to enhance collaborative learning with other students is beneficial. In this regard, the majority of students (69%) agreed that using SMS to encourage student involvement and collaboration with their peers to share and discuss content is an effective way to do so. This is in exact agreement with prior studies' findings, which came to the same conclusion (Alsurehi & Youbi. 2014; Henderson et al. 2017; Saha and Karpinski 2018). Students would be able to support collaborative learning, communicate and learn from one another.

Despite the advantages of using SMS for education, Saudi students expressed some reservations about using SMS for learning. According to the findings, the majority of the students (89.9%) were concerned that SMS was a distraction in the classroom and could create a lack of focus, preventing meaningful discourse. Other research (Lederer 2012; Odom et al. 2013; Alshehri and Lally 2019; Haand & Shuwang, 2020; Chen et al. 2020) has indicated that students are discouraged from using SMS in the classroom due to the disruptions it causes.

According to the findings, the majority of the participants had a good understanding of the function that SMS play in today's digital age. However, 89.9% of the participants reported that some SMS content contradicts Islamic religious principles. This result is consistent with those of Alshehri (2020) & Rajeh et al, (2021) that mentioned that most users stated that some social media content contradicts Islamic religious beliefs. As a result. it is critical to tell students that the development of these new technology has facilitated access to fresh information in a variety of sectors while being consistent with their values and religious beliefs. As a result, increasing awareness and giving various training courses that clarify guidelines, instructions, or consent forms for the use of these learning sites, or contacting professionals who can help set them up and get them in place. Also, students must protect their personally identifiable information and its confidentiality and understand the cookies of the sites they use and review any pictures shared before posting.

Although students have predominantly positive perception of SMS use for education, privacy was another frequently mentioned threat. This could have implications in terms of limiting their use of social media platforms. When using social media in the classroom, most of the participants in this survey (59.9%) expressed concern regarding privacy. This finding is consistent with prior research (Alshehri 2020; Alsurehi & Youbi 2014; Manca and Ranieri 2013), which found that the most major hurdles to accessing social media platforms, particularly among female students, are privacy and security concerns.

Saudi students may be especially concerned about their privacy due to their society's customs and morals based on the application of Islamic teachings of treating people with good morals and respecting the privacy of others. In a restricted and conservative society like Saudi Arabia, there is growing concern about how SMS allows Saudis to obtain and use other people's personal information, as well as how this information is shared. This is an issue that higher education institutions, administrators, teachers, and researchers must pay particular attention to. Greater need to be done to protect students' privacy, and educational institutions can play a critical role in providing students with the fundamental skills required for the safe and effective use of digital technologies. In particular, training about privacy, managing one's online identity, controlling their privacy settings and the dangers of sharing personal information with strangers is required (Prescott,

2014; Saini & Abraham, 2015; Misman et al., 2019; Alshehri, 2020). As Bolkan (2015) argues, "it is critical to provide teachers with digital citizenship training so that they can teach kids about the need of maintaining their online integrity. A single blunder can have long-term consequences " (p.13). Universities and instructors can play a similar role in a Saudi Arabian context.

Cyber-bullying has also been identified as a significant obstacle to students' usage of SMS for educational purposes. According to the data, 61.9 percent of students were concerned about the dangers of cyberbullying, which can lead to serious psychological consequences like reputation damage, depression, anxiety, severe isolation, and even suicide. According to Lederer (2012), around 22% of Dominican University students in the United States have experienced online abuse, with 25% of this group reporting harassment through social media platforms. As a result, students will require considerable training on how to successfully use these modern technologies in the educational process, similar to the above-mentioned privacy training. Additionally, educational institutions should create policies and measures to handle cyberbullying, such as a special department to handle complaints related to cyberbullying.

Conclusions

The goal of this study was to investigate the attitudes and perceptions of Master's of Education Technologies students toward using SMS for learning in the College of Education at the UB. This study concluded that students have positive attitudes towards SMS use for learning because they believe these tools are effective in supporting students' learning processes, supporting collaborative learning with other learners, decreasing the dependency of students on their instructors while promoting self-learning, contributing to the dissemination of knowledge among learners, and allowing instructors to provide instant feedback on courses' questions, although they also indicated some concerns such as cyber-bullying, distraction, inappropriate content and privacy.

These data can assist UB teachers in gaining a clear understanding of the degree of SMS use among university students, as well as the most used and favored SMS. The study's findings have implications for using SMS to help alleviate the challenge of spatial gender segregation in the Saudi school system while also upholding Islamic standards. In the university setting,

teachers and students of all genders can communicate virtually during online teaching and learning sessions. It is important to remind that the finding of this study revealed that there was no statistically significant difference in the variables of gender.

In the KSA, the lecturing technique is the most common type of instruction, in which students have no choice except to listen to and memorize the material provided by the teacher (Bergmann & Sames, 2008). As a result, explicitly incorporating SMS into academic situations at UB would result in a significant shift in teaching methods and learning styles. SMS would enable collaborative learning, allow students to develop and improve content, and improve students' communication and self-learning skills, according to this study. Students would be more likely to use SMS for education if they were more aware of the benefits.

Considering the findings of the study, the researcher suggests activating the use of SMS in the educational environment in order to develop and develop collective cooperative work among students to keep pace with the technologies of the digital age in which the current generation of students has grown up. Finally, the researcher suggests training students and teachers on the skills of dealing with SMS and using them optimally to develop their academic achievement.

The findings of this study open the door for the exploration of new issues. This includes conducting studies to reveal the tangible effects of SMS, especially with regard to student cooperation and social interaction among them in the learning environment. Also, the negative effects of SMS Also, Also, it is possible to investigate the negative effects of SMS and how it affects the students' impairment due to their preoccupation with following these websites and their addiction to using them for long hours and thus affecting their academic achievement.

Bibliographic references

Al-Khalifa, H. S., & Garcia, R. A. (2013). The state of social media in Saudi Arabia's higher education. International Journal of Technology and Educational Marketing, 3(1), 65-76. DOI: 10.4018/ijtem.2013010105

Alshehri, O., and Lally, V. (2019). Students' perceptions of the use of social media in higher education in Saudi Arabia. International Journal of Educational and Pedagogical Sciences, 13(1), 28–31.

Alshehri, O.A. (2020). The perceptions of female students at a new university in Saudi Arabia to use social media as e-learning tools to support learning. International Journal of Research-GRANTHAALAYAH, 8(10), 77–83. DOI: https://doi.org/10.29121/granthaalayah.v8.i10.2020.1766

Alshehri, O.A. (2019). Usage and perceptions of social media tools among higher education instructors," International Journal of Information and Education Technology, 9(7), 493-497. http://www.ijiet.org/vol9/1252-JR347.pdf DOI: 10.18178/ijiet.2019.9.7.1252

Alsolamy, F. (2017). Social networking in Higher Education: Academics' attitudes, uses motivations and concerns (Doctoral dissertation), Sheffield Hallam University, England.

Alsurehi, H. A., & Youbi, A. A. A. (2014). Towards applying social networking in higher education: Case study of Saudi universities. International Journal of Academic Research, 6(5), 221-229.

Alyoussef, I. Y., Alamri, M. M., & Al-Rahmi, W. M. (2019). Social media use (SMU) for teaching and learning in Saudi Arabia. Int. J. Recent Technol. Eng, 8, 942-946.

Barrot, J. S. (2021). Social media as a language learning environment: a systematic review of the literature (2008-2019). Computer Assisted Language Learning, 1-29. DOI: 10.1080/09588221.2021.1883673

Basu, B. (2017). Analyzing the perception of social networking sites as a learning tool among university students: Case study of a business school in India. World Academy of Science, Engineering and Technology: International Journal of Educational and Pedagogical Sciences 11(7), 1697–1703. DOI: 10.5281/zenodo.1131399

Bergmann, J. & Sams, A. (2008). Remixing chemistry class: Two Colorado Teachers Make Vodcasts of Their Lectures to Free Up Class Time for Hands-On Activities. Learning & Leading with Technology, 36(4), 22-27.

Bista, K. (2015). Is Twitter a pedagogical tool in higher education? Perspectives of education graduate students. Journal of the Scholarship of Teaching and Learning, 15(2), 83-102. DOI: 10.14434/josotl.v15i2.12825

Blankenship, M. (2011). How social media can and should impact higher education. Education Digest: Essential Readings Condensed for Quick Review, 76(7), 39-42.

Bolkan, S. (2015). Intellectually stimulating

students' intrinsic motivation: The mediating influence of affective learning and student engagement. Communication Reports, 28(2), 80-91.

Chen, I. H., Pakpour, A. H., Leung, H., Potenza, M. N., Su, J. A., Lin, C. Y., & Grifths, M. D. (2020). Comparing generalized and specific problematic smartphone/internet use: Longitudinal relationships between smartphone application-based addiction and social media addiction and psychological distress. Journal of Behavioral Addictions, 9(2), 410–419. DOI: 10.1556/ 2006.2020.00023

Chew, R.S.Y. (2015). Perceptions of online learning in an Australian university: Malaysian students' perspective – support for learning. International Journal of Information and Education Technology, 5(8), 587–92. DOI: 10.7763/IJIET.2015.V5.573

Collins, A. & Halverson, R. (2018). Rethinking Education in the Age of Technology: The Digital Revolution and Schooling in America. New York: Teachers College Press.

Data Reportal. (2021). Digital 2021: Saudi Arabia. Retrieved from (https://datareportal.com/reports/digital-2021-saudi-arabia).

Data Reportal. (2020). Digital 2020: Saudi Arabia. Retrieved from (https://datareportal.com/reports/digital-2020-saudi-arabia).

Dickie, V.A. & Meier, H. (2015). The Facebook tutor: Networking education. Ubiquitous Learning: An International Journal, 8(2), 1–12. DOI: 10.18848/1835-9795/CGP/v08i02/40400

Gao, F., Luo, T. & Zhang, K. (2012). Tweeting for learning: A critical analysis of research on microblogging in education published in 2008-2011. British Journal of Educational Technology, 43(5), 783–801. DOI: 10.1111/j.1467-8535.2012.01357.x

Gruzd, A., Haythornthwaite, C., Paulin, D., Gilbert, S. and del Valle, M.E. (2018). Uses and gratifications factors for social media use in teaching: Instructors' perspectives. New Media & Society, 20(2), 475–94. DOI: 10.1177/1461444816662933

Guraya, S.Y., Almaramhy, H. Al-Qahtani, M.F., Guraya, S.S, Bouhaimed, M. & Bilal, B. (2018). Measuring the extent and nature of use of social networking sites in medical education (SNSME) by University Students: Results of a Multi-Center Study." Medical Education Online, 23(1), 1505400. DOI: 10.1080/10872981.2018.1505400

Haand, R., & Shuwang, Z. (2020). The relationship between social media addiction and depression: A quantitative study among university students in Khost, Afghanistan. International Journal of Adolescence and Youth, 25(1), 780–786. DOI: 10.1080/02673843.2020.1741407

Hashim, K., Al-Sharqi, L., & Kutbi, I. (2019). Perceptions of Social media impact on the social behavior of students: A comparison between students and faculty. In Multigenerational Online Behavior and Media Use: Concepts, Methodologies, Tools, and Sites (pp. 92-103). IGI Global. DOI: 10.29333/ojcmt/2574

Henderson, M., Selwyn, N., and Aston, R. (2017). What Works and Why? Student Perceptions of 'Useful' Digital Technology in University Teaching and Learning. Studies in Higher Education, 42(8), 1567–79. DOI: 10.1080/03075079.2015.1007946

Imlawi, J., Gregg, D. & Karimi, J. (2015). Student engagement in course-based social networks: The impact of instructor credibility and use of communication. Computers & Education, 88(1), 84–96. DOI: 10.1016/j.compedu.2015.04.015c

Jukes, I., McCain, T. & Watanabe-Crockett, L. (2010). Understanding the Digital Generation: Teaching and Learning in the New Digital Landscape (The 21st Century Fluency Series). Corwin Press.

Jogezai, N. A., Baloch, F. A., Jaffar, M., Shah, T., Khilji, G. K., & Bashir, S. (2021). Teachers' attitudes towards social media (SM) use in online learning amid the COVID-19 pandemic: the effects of SM use by teachers and religious scholars during physical distancing. Heliyon, 7(4), e06781. DOI. 10.1016/j.heliyon.2021.e06781

Jones, H., and Soltren, J. (2005). Facebook: Threats to Privacy. Project MAC: MIT Project on Mathematics and Computing, 1(1)

Kaplan, A.M., and Haenlein, M. (2010). Users of the World, Unite! The Challenges and Opportunities of Social Media. Business Horizons, 53(1), 59–68. DOI: 10.1016/j.bushor.2009.09.003

Lederer, K. (2012). Pros and cons of social media in the classroom. Campus Technology, 25(5), 1-2.

Lin, K.-C., Lee, I.C, Cheng, C.-F. & Hung, H-C. (2020). The effects of adopting tablets and Facebook for learning badminton skills: A portfolio-based WISER model in Physical Education. Educational Technology & Society, 23(4), 89–105. DOI: 10.2307/26981746

MacFarland, T. W., & Yates, J. M. (2016). Mann–whitney u test. In Introduction to nonparametric statistics for the biological

sciences using R (pp. 103-132). Springer.

Manca, S., & Ranieri, M. (2013). Is it a tool suitable for learning? A critical review of the literature on Facebook as a technology-enhanced learning environment." Journal of Computer Assisted Learning, 29(6), 487–504. DOI: 10.1111/jcal.12007

Misman, J., Gafar, S. Z., Atan, M. A., & Nordin, N. A. (2019). Integrating Social Media Platforms in the 21st Century Classrooms: Recommendations for English Educators. International Journal of Language Education and Applied Linguistics, 15-25.

Naguib, G. H., Alyamani, I. Alnowaiser, A. M. & Hamed, M. T. (2018). Social media usage and self perception among dental students at King Abdulaziz University, Saudi Arabia. Journal of Medical Education, 17(2), e105614. DOI: 10.22037/jme.v17i2.21416

Odom, S., Jarvis, H., Sandlin,M. & Peek, C. (2013). Social media tools in the leadership classroom: Students' perceptions of use." Journal of Leadership Education, 12(1). DOI: 10.12806/V12/I1/R3

Prescott, J. (2014). Teaching style and attitudes towards Facebook as an educational tool. Active Learning in Higher Education, 15(2), 117-128.

Rajeh, M. T., Sembawa, S. N., Nassar, A. A., Al Hebshi, S. A., Aboalshamat, K. T., & Badri, M. K. (2021). Social media as a learning tool: Dental students' perspectives. Journal of Dental Education, 85(4), 513-520. DOI: 10.1002/jdd.12478

Rashid, H. A. (2017). Social media and its relationship to aggressive behavior among secondary school students in Al-Ardah Governorate, Jazan Region. Arab Studies in Education and Psychology, 88 (88), 269-291.

DOI: https://doi.org/10.1007/978-94-007-4563-6

Roopchund, R., Ramesh, V., & Jaunky, V. (2019). Use of social media for improving student engagement at Université des Mascareignes (UDM). In Information Systems Design and Intelligent Applications (pp. 11-20). Springer. DOI: 10.1007/978-981-13-3338-5_2

Saha, N. & Karpinski, A.C. (2018). The influence of social media on international students' global life satisfaction and academic performance. In Student Engagement and Participation (Pp. 1255–75). IGI Global.

Saini, M. C., & Abraham, J. (2015). Using Social media for educational purposes: Approaches and Challenges. In International Education Conference 2015 on Learning Technologies in Education.

van Dijck, J. (2013). The Culture of Connectivity: A Critical History of Social Media. Oxford: Oxford University Press. DOI: 10.7146/mediekultur.v30i56.16314

Wingo, N.P., Ivankova, N.V. & Moss, J.A. (2017). Faculty perceptions about teaching online: Exploring the literature using the technology acceptance model as an organizing framework. Online Learning, 21(1). DOI: 10.10.24059/olj.v21i1.761

Yee, R. Ch. S. (2015). "Perceptions of Online Learning in an Australian University: Malaysian Students' Perspective – Support for Learning." International Journal of Information and Education Technology, 5(8), 587–92.

Zgheib, G. (2014). Social media use in higher education: An exploratory multiple-case study. British Journal of Psychiatry, 112(483), 211–12.

Self-education culture of future music teachers: diagnostic and formative methods

Формування культури самоосвіти майбутніх учителів музичного мистецтва

Written by:
Yuliia Savchenko-Shlapak[39]
https://orcid.org/0000-0002-1217-3190
Rehina Savchenko[40]
https://orcid.org/0000-0002-4380-8777
Antonina Lendiel-Syarkevich[41]
https://orcid.org/0000-0002-4735-1743
Tetyana Strohal[42]
https://orcid.org/0000-0002-6149-5540
Yuliia Pavliuk[43]
https://orcid.org/0000-0002-3646-9279

Abstract

The article highlights the results of an experimental study on the formation of a culture of self-education of future music teachers in vocal and choral training. The purpose of the study is to evaluate the developed methodology for the formation of a culture of self-education of future teachers of musical art in the process of studying vocal and choral disciplines. The study was carried out by the method of paired comparisons, based on the results of which a scale of comparative assessments was built in the control and experimental groups. The effectiveness of the proposed technique is confirmed by the results of statistical processing of experimental data. Criteria for monitoring the formation of a culture of self-education of future teachers of musical art in vocal and choral training are indicated. The effectiveness of the applied technique was assessed by a series of tests comparing the results at the ascertaining and formative stages of the study. The authors argue that the data of the formative experiment showed significant positive changes in the levels of formation of the culture of self-education of future teachers of musical art according to all the established criteria.

Анотація

У статті висвітлено результати експериментального дослідження з формування культури самоосвіти майбутніх учителів музичного мистецтва у вокально-хоровому навчанні. Мета дослідження – оцінити розроблену методику формування культури самоосвіти майбутніх вчителів музичного мистецтва у процесі вивчення вокально-хорових дисциплін. Дослідження виконано методом парних порівнянь, за результатами якого побудовано шкалу порівняльних оцінок у контрольній та експериментальній групах. Ефективність запропонованої методики підтверджена результатами статистичної обробки експериментальних даних. Позначено критерії моніторингу формування культури самоосвіти майбутніх вчителів музичного мистецтва у вокально-хоровому навчанні. Ефективність застосовуваної методики оцінювалася серією тестів, що порівнюють результати на констатувальному та формувальному етапах дослідження. Автори стверджують, що дані формувального експерименту показали суттєві позитивні зміни у рівнях сформованості культури самоосвіти майбутніх учителів

[39] Lecturer at the Kiev University named after Borys Grinchenko, Ukraine.
[40] Doctor of Pedagogical Sciences, Professor of the National Pedagogical University named after M.P. Dragomanov, Ukraine.
[41] Ph.D, Associate professor of the Mukachevo State University, Ukraine.
[42] Ph.D, Associate professor of the National Pedagogical University named after M.P. Dragomanov, Ukraine.
[43] Postgraduate of the National Pedagogical University named after M.P. Dragomanov, Ukraine.

музичного мистецтва за всіма встановленими критеріями.

Introduction

Modern society in the field of education is aimed at a professionally competent, mobile, creatively active and socially responsible teacher, ready for independent decision-making, capable of self-improvement of his personality and self-educational activities. In pedagogical science, there is a transition from traditional forms of education to innovative ones, which are focused on equipping the future teacher with self-education technologies that allow for continuous professional and personal development. A modern teacher of musical art must have a certain amount of knowledge, skills, master the synthesis of general cultural, professional and special competencies, carry out professional self-education and personal growth, design a further educational route and professional career. However, modern conditions in higher education are characterized by a decrease in the number of classroom hours and an increase in the number of hours devoted to the independent training of a future music teacher, which leads to a dangerous tendency to reduce the professional level of a music student. The situation is also complicated by the introduction of combined teaching in both full-time and distance learning formats. At the same time, in higher education institutions, as practice shows, the formation of a culture of self-education of a future teacher of musical art is carried out mainly spontaneously, without a systemic organization, as evidenced by Savchenko-Shlapak et al (2021).

Theoretikal Framework or Literature Review

The problem of self-education has attracted the attention of researchers from various fields of science - philosophy, psychology and pedagogy (Beznisko, 2007; Bekh, 2003; Babych & Vitvitska, 2014; Eraut, 1985); Evans, 1981; Nalyvaiko, 2011; Rodríguez, 2019, etc.). In Ukraine, dissertations in recent years (Tolstova, 2018; Hai, 2019; Huang, 2018; Yao, 2018, etc.) address the formation of self-educational activities of teachers of musical art. The problems of development and improvement of musical and pedagogical self-education, taking

into account the specifics of artistic didactics, were considered by Gribkova, 2010; Sharnenkova, 2017; Vishpinska, 2012, etc. The formation of the professional culture of a teacher of musical art and various aspects of vocal and choral training of a future teacher of musical art were considered in the works of Vasilenko, 2016; Wang, 2017; Zhang, 2019; Merezhko & Kichenko, 2019. Despite the fact that the problem of personality self-education is in the center of attention of modern pedagogical science, this direction has not been the subject of special study. There is a lack of necessary research, suggesting the development of new methods and ways of effective professional training of future teachers of musical art, based on self-educational activities. The scientific novelty of the research lies in an attempt to fill the gap in research between the need for high-quality training of a music teacher with a high level of self-education culture formation, and the absence of a developed methodology for its formation in the system of higher music and pedagogical education; Also, the insufficient development of the possibilities of the pedagogical conditions of vocal and choral disciplines in the formation of a culture of self-education of the future teacher of musical art. The research is theoretically substantiated, the essence and content of the concept of "culture of self-education of a teacher of musical art" is revealed, the structure, criteria and indicators of its formation are developed; revealed the pedagogical potential of vocal and choral training in the formation of a culture of self-education of the future teacher of musical art (the experience of the previous vocal and choral training of the student, taking into account the possibilities of each of the disciplines of the vocal and choral cycle and their complex application in the educational process; a variety of forms of organization of vocal and choral training - individual and collective, classroom and extracurricular; conditions as close as possible to the professional activity of the future teacher of musical art; introduction of innovative methods of work into the educational process, providing for the independent activity of future

specialists in musical art); substantiated the pedagogical conditions for its provision (systematization of the content of the student's independent work in vocal and choral training; methodological support and provision of the process of forming a culture of self-education of a future specialist on an individual educational route, the implementation of the process of forming a culture of self-education of a future teacher of musical art in the mode of targeted individual education, based lies the creative interaction of a student and a teacher; developed and experimentally tested the effectiveness of the methodology for the formation of a culture of self-education of a future teacher of musical art in vocal and choral teaching. The purpose of the article is to highlight the results of experimental research work on testing the methodology for the formation of a culture of self-education of a future teacher of musical art in the process of mastering the disciplines of the vocal and choral cycle.

Methodology

The methodology for the formation of a culture of self-education of future teachers of musical art in vocal and choral training implemented the following tasks: awareness of the personal and professional importance of musical and pedagogical self-education; stimulation of self-educational activities of students in all areas of vocal and choral training (disciplines "Voice Production", "Choral Class", "Basics of Conducting", "Choral Studies", "Methodology of Working on a School Song"); formation of readiness for the implementation of musical and pedagogical self-education; organization of conditions for self-development and self-realization of the student. The proposed technique includes three groups of methods. The first group - methods of stimulation, motivation and self-motivation of learning, as part of this group: methods of forming cognitive interest and methods of forming educational and professional duty. The second group - methods of organization and self-organization of educational and cognitive activities. This group includes perceptual methods aimed at transmitting and perceiving educational and professional information received according to feelings (verbal, visual, audiovisual, practical methods); logical methods (organization and implementation of logical operations); gnostic methods (organization and implementation of mental operations) and methods of self-management of educational and cognitive actions. The third group - methods of control and self-control of the effectiveness of educational

and cognitive activity, in the composition - methods of intermediate and final control. It was found that discussions, disputes, thematic conversations, preparation of thematic messages and their discussion, visiting, discussing and participating in concert and scientific events, creating independent projects, master classes became effective formative methods. The range of forms of training in vocal and choral disciplines covers individual and collective lessons, classroom and out-of-class forms of students' independent work. In the educational process, they are implemented in a complex manner, which allows one to actively form educational communications, to carry out interdisciplinary connections (Glukhova, 2010). Experimental verification of the proposed methodology lasted for 2017-2020. The results of the study were introduced into the educational process of students studying a cycle of vocal and choral disciplines at the Faculty of Arts of the National Pedagogical University named after M.P. Dragomanova; in the educational process of the Faculty of Arts of Kryvyi Rih State Pedagogical University and Mukachevo State University. The total number of participants in the experiment at all stages (ascertaining, formative, final) was 389 students. In checking the results of the implementation of the developed methodology for the formation of a culture of self-education of future teachers of musical art, the method of ascertaining tests was used (Podolyak & Yurchenko, 2008).

Results and Discussion

To conduct an experimental study, a diagnostic toolkit was developed, aimed at identifying the levels of formation of the culture of self-education of a teacher of musical art in vocal and choral disciplines. At the stage of the ascertaining experiment, the following methods were used: pedagogical observation of the results of students' independent work; conversations with students and teachers; questioning of students, aimed at identifying indicators of the culture of self-education of the future teacher of musical art according to three criteria: value-orientation, cognitive-activity, reflexive. The results of the ascertaining experiment showed that the general level of formation of the culture of self-education of future teachers of musical art does not meet the requirements established by regulatory documents. This is manifested, in particular, in the inability of the majority of the respondents. students to link self-education with personal and professional interests; insufficient understanding of the need to master the methods of scientific knowledge; inability to connect

basic knowledge of the disciplines of the vocal and choral cycle; lack of skills for self-educational activity (lack of understanding of the ideals, meanings, aspirations necessary for the personality of a teacher of musical art; insufficient possession of the skills of personal and professional introspection, self-assessment of the level of self-educational activity in the field of musical pedagogy and performance; episodic manifestation of possession of the mechanisms of self-control and self-regulation of self-educational activity). The study involved students with different basic training: both graduates of higher educational institutions (colleges) and graduates of music and art schools. The results of a comparative analysis of the first test, which was carried out in the diagnostic block, showed that the difference in the levels of self-education culture formation among students of different basic training is insignificant, therefore, further we did not differentiate students by this criterion and evenly distributed them into 2 groups (two choral groups): experimental (EG) - 37 people and control (CG) - 39 people.

Orientation of future teachers of musical art to constant personal and professional self-improvement, the formation of the need for a systematic increase and deepening of knowledge, the ability to quickly and effectively assimilate information that is constantly updated, process and creatively apply it in educational, cognitive, research and professional activities, the formation of readiness for self-education throughout life is an urgent problem (Robert, 1992). We consider the formation of a culture of self-educational activity in him as the leading condition for the personal and professional development of a future teacher of musical art. The problem of professional self-education, the peculiarities of preparing future teachers of musical art for independent creative activity were studied by Abdullin, 2012; Rodríguez, 2019; Vysochkina, 2008 and others. However, the forms of organization, methods and techniques of forming a culture of self-educational activity of future teachers of musical art in modern pedagogical practice have not been studied (Savchenko-Shlapak et al, 2021). The formative stage of the experimental research work was aimed at increasing the initial level of the culture of self-education of the teacher of musical art by means of vocal and choral disciplines. Achievement of the set goal was determined by the solution of the following tasks: creation of students' mindset on the awareness of the personal and professional significance of musical and pedagogical self-education; stimulating self-

educational activities of students in all areas of vocal and choral training; formation of readiness for the implementation of musical and pedagogical self-education; organization of conditions for self-development and self-realization of a music student. The implementation of the tasks in the educational process was carried out according to the developed program, which included three stages: 1) the stage of motivation (group and individual educational work with students of the experimental group as the leader of the choir); 2) the stage of organization (development of individual routes for students; 3) the stage of implementation (testing of pedagogical support for the formation of a culture of self-education of the future teacher of musical art in the process of mastering vocal and choral disciplines) (Zhang, 2019). During the stage of motivation, methods of stimulation, motivation and self-motivation of learning were used - methods of forming cognitive interest and methods of forming educational and professional duty: discussions, disputes, thematic conversations, preparation of thematic messages and their discussion, visiting and discussing concert and scientific events. The topics of disputes and conversations concerned the issues of the current state of musical culture and pedagogy, music education and science, the role of a teacher of musical art in society. With the students from the EG in the form of a polylogue, topical issues of the current state of the teacher of musical art in the field of performance, music and pedagogical education, in society were discussed. Here are examples of disputes and conversations: "The role of a teacher of musical art in a school of the XXI century", "The mission of a teacher of musical art as a bearer of musical heritage", "Choirmaster - the specifics of the profession of a teacher of musical art", etc. - pedagogical self-education, students were offered a list of topics for the preparation of messages and their public discussion. In their reports on outstanding conductors-choirmaster, students traced the paths of professional development of outstanding carriers of the profession. Examples of such student reports were the following: "Conductor of the present Anatoly Avdievsky", "Creative portrait of choral conductor Yevgeny Savchuk", etc. In further work, the most interesting student reports took part in the student scientific and practical conference, the best of which were recommended for publication. During the experimental research work, the students from the EG regularly attended concerts and scientific events held in the institution of higher education and outside it. Discussion and exchange of the received impressions were carried out both in

group and in individual conversations with students. In addition, we regularly conducted individual educational work with students, aimed at strengthening students' confidence in their own capabilities, stimulating their cognitive activity in self-educational activities. As a result of complex systematic work of students from the EG, a stable value-orientational criterion of musical-pedagogical self-education was formed.

At the second stage of the formative experiment - the stage of organization, based on the student's established attitude of readiness for musical and pedagogical self-education, methods of organizing and self-organizing educational and cognitive activity were used, in particular, the method of planning self-educational activity, which includes perceptual methods aimed at transferring and perception of educational and professional information through the senses (verbal, visual, audiovisual, practical methods); logistic methods (organization and implementation of logical operations); gnostic methods (organization and implementation of mental operations) and methods of self-management of educational and cognitive actions). The planning of self-educational activities required the development of individual educational routes for students from the EG. This was accompanied by the solution of the following tasks: compensation for shortcomings, additions, deepening, expansion and systematization of basic music education; organization of work to comprehend the best practices of music teachers and choirmaster; formation of an individual style of professional activity. The students from the EG carried out the planning of their self-educational activities in all areas of vocal and choral training - theoretical, technological, research, performing, pedagogical. The goal of the implementation stage was to create and regulate the relationships between the self-educational activities of future music teachers and their acquisition of professional experience, that is, the actual functioning of musical and pedagogical self-education. In educational practice, the decision on the formation of a culture of self-education of a future teacher of musical art was carried out in the process of vocal and choral training and was based on the student's independent activity. The methods of control and self-control of the effectiveness of educational and cognitive activity (methods of intermediate and final control) were used, in particular, the method of educational and methodological support and the method of systemic organization of self-educational activity. For the purpose of

educational and methodological support and systematic organization of self-educational activities of a teacher of musical art, students were offered educational and methodological developments in electronic format: guidelines for the implementation of annotations on vocal and choral works (Nazarenko, 2012; Suta, 2021), guidelines on practical work with a vocal-choir group (Karas, 2017) and the distance course "Choral culture" (Martyniuk, 2010). Each student of the EG had to choose a concert repertoire for the student choir independently. The methodological recommendations considered the issues of performing written annotations for vocal and choral works in accordance with course requirements, proposed a plan for annotating a school song, a detailed plan for annotating a choral work, samples of information sources, a terminological dictionary. The proposed recommendations orient the student towards the adaptation of professional theoretical and practical knowledge and skills in relation to a specific creative pedagogical situation. Solving in the process of executing instructions the tasks of mastering operations, such as: analysis, comparison, systematization of facts, synthesis and generalization of various sources of information obtained from them (notes, electronic texts, audio and video recordings), future teachers of musical art acquire self-educational competence.

The methodological recommendations for practical work with a vocal-choir collective, proposed in electronic form, systematize the process of self-mastering of a choral work by a future teacher of musical art from the stage of choosing a choral score to the stage of preparing for a concert performance. Students were offered an algorithm for preliminary work on a choral score, which is a guide for independent research activities of students in the process of mastering a choral work, and a plan for a comprehensive analysis of a choral work.

The objectives of the distance course "Choral culture" is the development of the most important qualities of a future teacher of musical art, namely: mastering the basic knowledge, skills and abilities necessary for a teacher of musical art for successful professional activity; mastering the skills of searching, studying, selecting, analyzing, generalizing information material (text, music, audio, video), that is, mastering the skills of research work; the acquisition of strategic skills in working on a choral score from the stage of selecting a repertoire to a concert performance. In independent work, the students from the EG mastered the curriculum in stages,

created a musical-pedagogical project and carried out preliminary training, according to the following sections: selection of vocal-choral exercises for the singing of the choral collective; selection of song and choral repertoire; vocal, instrumental, manual mastering of vocal-choral exercises, song and choral repertoire; a comprehensive analysis of a choral work; creation of a performing interpretation of a choral work; development of a rehearsal plan for a choral piece. In individual lessons, the students from the EG received the teacher's advice, in the lessons on voice and choral class - they started to implement musical and pedagogical projects. This organization of the educational process made it possible to simulate the real working conditions of a music teacher. Such effective mastering of individual curricula allowed the students from the EG to carry out the circulation of musical and pedagogical self-education and form the experience of professional activity. Work was organized to involve students from the EG in research work. Students were offered a choice of such topics for writing essays, for example: "Higher art than choral singing, I don't know" (N. Mishukov) "What is a choir, and is not a choir, but only a collection of singers; what is choral sonority, and what is only the sound of human voices" (P. Chesnokov). "Of all the musical professions, the profession of a choirmaster, in my opinion, is the most synthetic" (G. Struve). "Every class is a choir! - this is the ideal to which aspirations should be directed " (D. Kabalevsky) and others. As the results have shown, the majority of students in the form of free reasoning convincingly express their position, however, the examples given were unconvincing, the style of presentation can be characterized as literary and everyday. The carried out work allowed us to form readiness for

research activity among the students from the EG. In the future, the research work of students was continued in the form of preparing reports at student scientific and practical conferences. All stages of work on the preparation of a scientific report, from choosing a topic, collecting and processing material, preparing the text of a speech, students carried out independently with the consulting support of a teacher. The research interests of students were reflected in the topics of the reports, for example: "The use of innovative pedagogical technologies in the development of musical and plastic skills of preschool children", "Features of the vocal intonation of primary school children", "The initial stage of work on polyphony in a junior children's choir", "Features of the choirmaster work of a teacher of musical art in a Sunday parish school", "Choral music of the Baroque era", "Genre peculiarities of Ukrainian choral music", "Formation of vocal and performing technique in a choir collective", "Ways of solving inaccurate vocal intonation in children of primary school age", "Modern performing direction in the style of" Music a cappella " and etc.

During the experiment, in the control group (CG), the formation of a culture of self-education was carried out in the usual conditions of the educational process, while the experimental group (EG) of students was trained according to the methodology developed by the authors. At the final stage of the experiment, repeated measurements of the achieved levels of self-education culture of students from the EG and CG were organized and carried out using the previously developed diagnostic tools at the ascertaining stage (see Table 1).

Table 1.

The levels of the formation of the value-orientational criterion of the culture of self-education of the future teacher of musical art based on the results of the final stage.

Groups	Value-orientational criterion					
	Levels					
	Low		Medium		High	
	People	%	People	%	People	%
EG 37 people	7	18,9	20	54,1	10	27,0
KG 39 people	17	43,6	17	43,6	5	12,8

As can be seen from Table 1, a low level of self-education culture according to the value-orientational criterion was revealed at the end of the experiment in 18.9% of students from the EG and 43.6% of students from the CG. The average

level in the EG was revealed by 54% of students, in the CG - 43.6%, and a high level of indicators of self-education culture formation at the final stage was shown by 27.0% of EC students and 12.8% of CG students. After analyzing the results

of this table, we conclude that the level of formation of the culture of self-education according to the value-orientation criterion among the students of the experimental group is significantly higher than that of the students of the control group.

Determination of the levels of formation of the cognitive-activity criterion was carried out according to the results of the repeated research tasks "Annotation for a vocal-choral work" and "Rehearsal work with a vocal-choral work" (see Table 2).

Table 2.
Levels of formation of the cognitive-activity criterion of the culture of self-education of the future teacher of musical art according to the results of the final stage of the experiment.

Groups	Cognitive activity criterion					
			Levels			
	Low		Medium		High	
	People	%	People	%	People	%
EG 37 people	7	18,9	20	54,1	10	27,0
KG 39 people	17	43,6	17	43,6	5	12,8

The results obtained allow us to conclude that the traditional methodology aimed at the formation of a meaningful attitude and an adequate assessment of vocal and choral works, according to which the students of the CG were trained, is not effective enough and requires more detailed revision, and the presented author's methodology is aimed at the formation of readiness for the implementation of musical and pedagogical self-education; organization of conditions for self-development and self-realization of the student.

The results of the questionnaire survey and the fulfillment of the creative task "Concert performance of a choral work" of students from the EG and CG to determine the levels of formation of the reflexive criterion at the final stage of the experimental work are shown in Table 3.

Table 3.
Levels of formation of the reflexive criterion of the culture of self-education of the future teacher of musical art at the final stage.

Groups	Reflexive criterion					
			Levels			
	Low		Medium		High	
	People	%	People	%	People	%
EG 37 people	7	18,9	20	54,1	10	27,0
KG 39 people	17	43,6	17	43,6	5	12,8

According to the results of this table, the students from the CG overtake the students from the CG in terms of the level of self-education culture formation according to the reflexive criterion: a low level was recorded in 46.2% of students in the CG, in contrast to 27.0% of students in the EG, the average - in 35.9% of students in the CG against 43, 2% of EC students, a high level of 17.9% of CG students versus 29.8% of EC students. For example, good results of students from the EG were obtained on the development of the ability to interpret vocal-choral works, which was systematized throughout the experiment according to the developed methodology. The general level of the formation of the culture of self-education of the future teacher of musical art in the composition of three criteria: value-orientation, cognitive-activity and reflexive students of the experimental and control groups was determined by the formula:

$$Q = \frac{K1 + K2 + K3}{n}$$

The summary data from the EG and CG according to the results of the final stage of the experimental work (see Table 4).

Table 4.
Levels of formation of the culture of self-education of the future teacher of musical art according to three criteria at the final stage of the experiment.

Levels	Experimental group (37 people 100%)		Control group (39 people 100%)	
	People	%	People	%
Low	10	27,0	20	51,3
Medium	18	46,6	14	35,9
High	9	24,4	5	12,8

The results of the table demonstrate a higher level of self-education culture development according to three criteria of students from the EG in comparison with students from the CG. A low level of self-education culture development is present in 27.0% of students from the EG, while in the CG it is 51.3%; average level in the EG – 46.6%, in the CG – 35.9%; high level was shown by 24.4% of students from the EG and 12.8% of students from the CG. Further, we give a comparative table of indicators of the levels of self-education culture formation among students from the EG and the CG at the ascertaining and final stages of the experiment (see Table 5).

Table 5.
Dynamics of increasing the levels of self-education culture formation among students from the CG and the EG before and after the experimental work.

Levels	Stating stage				Final stage			
	EG (37 people)		CG (39 people)		EG (37 people)		CG (39 people)	
	People	%	People	%	People	%	People	%
Low	24	64,9	25	64,1	10	27	20	51,3
Medium	10	27	10	25,6	18	48,6	14	35,9
High	3	8,1	4	10,3	9	24,4	5	12,8

So, the information obtained at each stage of the experimental work on the application in the educational process of the developed methodology for the formation of the culture of self-education of future teachers of musical art in vocal and choral training, reflect the positive dynamics among students from the EG towards increasing the level of self-education culture of the future teacher of musical art by all criteria. During the formative stage, 24.4% of students from the EG reached a high level of self-education culture formation (it was 8.1%); the number of students who have reached the average level has significantly increased - 48.6% (it was 27%); the situation of a relatively low level has improved, at which still 27.0% (it was 64.9%) of students from the EG. Insignificant positive changes are observed among the students of the CG: a high level of self-education culture formation was recorded in 12.8% (it was 10.3%); an average level of 35.9% (it was 25.6%); 51.3% remained at a low level (it was 64.1%). However, such dynamics is spontaneous, since the majority of students remained at a low level of self-education culture formation. Positive dynamics took place not only in quantitative, but also in qualitative indicators of students from the EG. For example, in the choral class of the students from the EG, there is an increased professional interest in the process of rehearsal work, which consists in cognitive activity and methodological questions. It should be noted that most of the students from the EG began to use interdisciplinary connections: for example, the acquired rehearsal skills in a choir class, when a student is in the role of a singer, in the role of a choirmaster. The students from the EG have a significant increase in professional self-esteem. In pedagogical conversations, many students note that their previous fears of being unprofessional in such activities as choirmaster work, writing annotations on choral works, preparing messages and scientific reports have disappeared. In addition, the students from the EG increased their research interest: prepared theoretical and methodological messages for seminars formed the basis of reports at scientific and practical events. Some competitive works on

the implementation of annotations on choral works of students of the experimental group are recommended for publication. Note that students from the EG began to systematically carry out preliminary independent preparation for lessons in vocal, choir, choral conducting and other disciplines of the vocal-choral cycle, which allows us to state an increase in the level of formation of the culture of self-education of the future teacher of musical art.

Conclusions

It is shown that the formation of a culture of self-education contributes to an increase in the level of competence, mobility, creative activity and social responsibility of students. The conclusions on the experimental-research verification of the methodology for the formation of a culture of self-education of future teachers of musical art on the example of mastering vocal and choral disciplines by students of the experimental group convincingly illustrates the high efficiency of the methodology introduced into the educational process. The dynamics of the achievements of high results of the students of the experimental group testifies to the effectiveness of the proposed methodology for the formation of a culture of self-education of future teachers of musical art in the process of studying the disciplines of the vocal and choral cycle. Thus, the author's method of forming a culture of self-education was substantiated and experimentally tested. Criteria and levels of formation of this phenomenon among students in the process of vocal and choral training are given. The results of the formative experiment are analyzed and their reliability is proven. According to the above, the upbringing of individual independence in educational activities is taken as the basis in the formation of a culture of self-education as a leading indicator of the competence of a specialist in the 21st century.

Bibliographis references

Abdullin, E.B. (2012). Music education as an object of scientific research: a textbook for undergraduates. Moscow: Gnome.

Babych, M. & Vitvytska, S. (2014). Pedagogical culture of a higher education teacher. Modernization of higher education in Ukraine and abroad. Zhytomyr: ZhSU Publishing House. I. Franko, S. 77-80. http://eprints.zu.edu.ua/32510/1/Тарасюк_Д ен_гаева_тези.pdf

Beznisko, E. D (2007). Self-education as a condition for personal and professional growth of a teacher (PhD dissertation). Rostov-on-Don, Russia. https://docplayer.com/37132652-Beznisko-elena-dmitrievna-samoobrazovanie-kak-uslovie-lichnostno-professionalnogo-rosta-uchitelya.html

Bekh, I.D. (2003). Education of personality. Personality-oriented approach: scientific and practical principles. Kyiv, Ukraine: Lybid.

Eraut, M. (1985). Educational Technology: Conceptual Frameworks and Historical Developments. The International Encyclopedia of Education, v.1-10, v.3, Oxford: Pergamon Press, 1604-1616.

Evans, N. (1981). The knowledge revolution: Making the link between learning and work. L.: Mc Intyre.

Glukhova, E.A. (2010). Interdisciplinary communication as a means of self-education students in high school (PhD thesis), Chelyabinsk State Pedagogical University, Chelyabinsk, Russia. https://www.dissercat.com/content/mezhpre dmetnye-svyazi-kak-sredstvo-samoobrazovaniya-studentov-v-vuze

Gribkova, O.V. (2010). Theory and practice of the formation of the professional culture of a teacher-musician (doctoral dissertation). Moscow City Pedagogical University, Moscow.

Hai, Y. (2019). Formation of skills of artistic and creative self-realization of future teachers of music art in the process of professional training. (PhD thesis), Sumy State Pedagogical University named after AS Makarenko, Sumy, Ukraine, https://www.google.com/url?sa=t&rct=j&q= &esrc=s&source=web&cd=&ved=2ahUKE wiIp5-Cldr2AhWnl4sKHeXQAu8QFnoECAUQA Q&url=https%3A%2F%2Fsspu.edu.ua%2Fi mages%2F2019%2Fmanual%2Fdis_han_yu ycen_3acb3.doc&usg=AOvVaw2O61V2yB asVT9aVCjKCjdR

Huang, Y. (2018). Methods of developing self-expression of future music teachers in the process of performing and instrumental training (abstract). (PhD thesis) South Ukrainian National Pedagogical University named after K.D. Ushinsky, Odessa, Ukraine. http://enpuir.npu.edu.ua/handle/123456789/ 33647

Karas, G.V. (2017). Methodical recommendations for the study and organization of independent work of students in the course "History of vocal and choral performance". Ivano-Frankivsk, Ukraine: Vasyl Stefanyk Precarpathian National University State Higher Educational Institution, https://kmvd.pnu.edu.ua/wp-

content/uploads/sites/15/2019/10/МЕТОДИ
ЧНІ-РЕКОМЕНДАЦІЇ-ДЛЯ-ВИВЧЕННЯ-
ТА-САМОСТІЙНОЇ-РОБОТИ-З-
ДИСЦИПЛІНИ-ІСТОРІЯ-ВОКАЛЬНО-
ХОРОВОГО-ВИКОНАВСТВА.pdf

Martyniuk, A.K. (2010). Mykola Leontovych's artistic heritage in the mirror of culturological paradigms of modern music education. Musicological thought of Dnipropetrovsk region. Dnipropetrovsk, Ukraine: Collection of scientific works, No. 5.: Yuri Serdyuk, 87-97. http://dk.dp.ua/wp-content/uploads/2019/04/Збірка-педагогічна-V.pdf

Merezhko, Y.V., & Kichenko, T.O. (2019). Formation of skills of independent work of future teachers of music art at classes on voice staging. Theory and methods of art education. Kyiv, Ukraine: Publishing House of the National Pedagogical University named after M.P. Dragomanova, 26, 75-83.

Nalyvaiko, G. (2011). Features of self-educational activity of primary school teachers classes in the intercourse period of the advanced training system. Kyiv, Ukraine: DVNZ University of Education Management" NAPS of Ukraine. https://www.sportpedagogy.org.ua/html/journal/2011-08/11ngvbtc.pdf

Nazarenko, M. (2012). Analysis of a choral work as a means of preparing a future music teacher for choir work. Scientific notes of Kirovohrad State Pedagogical University named after Volodymyr Vynnychenko, 103,205-212. http://nbuv.gov.ua/UJRN/Nz_p_2012_103_29.

Podolyak, L.G., & Yurchenko, V.I. (2008). Psychology of higher education: schools: a textbook. Kyiv, Ukraine: Caravela.

Robert, E. (1992). Encyclopedia of educational research. L.: Collier-Macmillan. https://www.abebooks.com/Encyclopedia-Educational-Research-Ebel-Robert-MacMillan/2867751829/bd

Rodríguez, O. (2019). Music education and social development. Innovare: Revista de ciencia y tecnología, 8(2), 124-127. https://www.camjol.info/index.php/INNOVARE/article/view/9089

Savchenko-Shlapak, Y., Savchenko, R. & Pan, Q. (2021). Vocal ensemble: organization and functioning in the educational environment. Laplage em Revista (International), 7(3), p. 71-79, https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwixuvvn0tn2AhULCRAIHdcXBkQQFnoECAMQAQ&url=https%3A%2F%2Flaplagee

mrevista.editorialaar.com%2Findex.php%2Flpg1%2Farticle%2Fdownload%2F1258%2F1134%2F2138&usg=AOvVaw2Aa68i_NBibOrKeJlweEra

Sharnenkova, T. (2017) Organization of teacher self-education in domestic theory and practice (end of XIX – first third of XX century). (PhD dissertation) Zhytomyr state university named after Ivan Franko. Zhytomyr, Ukraine. https://core.ac.uk/download/pdf/78394673.pdf

Suta, B. (2021). Current problems of analysis of a musical work: theory, methodology, practice. Kyiv, Ukraine: Tchaikovsky National Academy of Music. https://knmau.com.ua/wp-content/uploads/025_Aktualni_problemi_analizu_muzichnogo_tvoru_teoriya_metodologiya_praktika_.pdf

Tolstova, N.M. (2018). Formation of readiness of future music teachers for professional self-improvement in voice-setting classes. (PhD thesis), Sumy State Pedagogical University named after AS Makarenko. Sumy, Ukraine. https://repository.sspu.sumy.ua/bitstream/123456789/6855/1/aref_tolstova_e9a12_424518723.pdf

Vasilenko, L.N. (2016). Student satisfaction with educational activities as a factor in the success of their training. Pedagogical education: theory and practice. Kamenets-Podolsky, Ukraine: Kamenets-Podolsky National University named after Ivan Ogienko, 21(2), 38-44.

Vishpinska, J. (2012). The role of self-education in the professional development of a music teacher. Lviv, Ukraine: Visnyk of Lviv National University, 28, 43–53.

Vysochkina, N.E. (2008) Formation of the intonational thinking of the future teacher-musician in the process of learning: on the material of musical and performing training in a pedagogical university. (PhD dissertation) Volgograd State Pedagogical University. Volgograd, Russia. https://www.dissercat.com/content/formirovanie-intonatsionnogo-myshleniya-budushchego-pedagoga-muzykanta-v-protsesse-obucheniy

Wang, T. (2017). Methods of preparing future music teachers for the formation of the foundations of singing culture of primary school students (PhD dissertation). National Pedagogical University named after MP Drahomanova, Kyiv. http://enpuir.npu.edu.ua/bitstream/handle/123456789/14830/Vang_Tianqi.pdf?sequence=1

Yao, Y. (2018). Methods of self-organization of educational space of future teachers-musicians in pedagogical universities of Ukraine (PhD dissertation). National Pedagogical University named after MP Drahomanova, Kyiv. https://npu.edu.ua/images/file/vidil_aspirant/dicer/D_26.053.08/dis_Yao_Yaming.pdf

Zhang, T. (2019). Methods of forming a culture of self-education in the vocal and choral education of future teachers of music. Theoretical issues of culture, education and upbringing. (PhD dissertation) Kyiv: Ed. Center, National Pedagogical University named after MP Drahomanova. https://npu.edu.ua/images/file/vidil_aspirant/Doctor_filosofii/Diser/Cgan_Tanlin1204.pdf

The nature and characteristics of the evolution of the phenomenon of geopolitics

Природа та характеристики еволюції феномену геополітики

Written by:
Oksana A. Omelchenko[44]
https://orcid.org/0000-0001-6539-2445
Oleksandr V. Kononenko[45]
https://orcid.org/0000-0002-8029-9852
Victor M. Livinsky[46]
https://orcid.org/0000-0002-4475-6884
Sergey V. Evminov[47]
https://orcid.org/0000-0003-3270-8479
Iryna A. Olendiy[48]
https://orcid.org/0000-0002-4704-1569
Mikhail A. Ovramets[49]
https://orcid.org/0000-0001-7078-5921

Abstract

The article has revealed the nature of the phenomenon of geopolitics as being the basis of the international relations and serving both as a scientific methodology to explain the behavior and relationships of a state with other countries in accordance with the geographical location and the interests. The concept of modern geopolitics is multifaceted, and scientists disagree regarding the definition of geopolitics as an independent science. Geopolitics is a methodology of international relations and foreign policy. Ultimately, the key to modern understanding of geopolitics is the policy and the image of a state within its geographical location, which can impact other subjects / objects of international life to ensure their national interests and national security. A number of conceptual approaches have been formed in the scientific discourse aiming to ensure the geopolitical advantage of a state. New processes and conflicts have been associated with the expansion of the Internet space and information technology. Recently, geopolitical theories have taken into account the latest tools and capabilities to influence used by

Анотація

У статті розкрито природу феномену геополітики як основи міжнародних відносин і одночасно слугує науковою методологією для пояснення поведінки та взаємовідносин держави з іншими країнами відповідно до географічного положення та інтересів. Поняття сучасної геополітики багатогранне, і вчені розходяться щодо визначення геополітики як самостійної науки. Геополітика — це методологія міжнародних відносин і зовнішньої політики. Зрештою, ключем до сучасного розуміння геополітики є політика та імідж держави в межах її географічного положення, які можуть впливати на інших суб'єктів/об'єктів міжнародного життя для забезпечення своїх національних інтересів та національної безпеки. У науковому дискурсі сформувався ряд концептуальних підходів, спрямованих на забезпечення геополітичної переваги держави. З розширенням простору Інтернету та інформаційних технологій пов'язані нові процеси та конфлікти. Останнім часом геополітичні теорії врахували новітні інструменти та можливості впливу, які

[44] PhD in Political Sciences, Head of the Special Department, Academy of the Foreign Intelligence of Ukraine, Kyiv, Ukraine.

[45] PhD in Political Sciences, Rector of the Academy of the Foreign Intelligence of Ukraine, Kyiv, Ukraine.

[46] PhD in Political Sciences, Vice-Rector of the Academy of the Foreign Intelligence of Ukraine, Kyiv, Ukraine.

[47] Postgraduate student, The Academy of the Foreign Intelligence of Ukraine, Kyiv, Ukraine.

[48] PhD in Psychology, Associate Professor, Special Department, Academy of the Foreign Intelligence of Ukraine, Kyiv, Ukraine.

[49] PhD in Political Sciences, Associate Professor, Special Department, Academy of the Foreign Intelligence of Ukraine, Kyiv, Ukraine.

leading states, including use of information, "hybrid" and "semantic" warfares. One of most urgent problems of the modern world is information warfare targeting creation of favorable conditions to gain geopolitical and geo-economic priority.

Keywords: Geopolitics, geopolitical theories, geopolitical influence, geopolitical space, international relationships.

використовуються провідними державами, включаючи використання інформаційних, "гібридних" та "семантичних" війн. Однією з найактуальніших проблем сучасного світу є інформаційна війна, спрямована на створення сприятливих умов для отримання геополітичного та геоекономічного пріоритету.

Ключові слова: геополітика, геополітичні теорії, геополітичний вплив, геополітичний простір, міжнародні відносини.

Introduction

The modern world is an arena of global transformations in all spheres of human existence. It intertwines the trends of globalization, regionalization, fragmentation, integration, democratization of international relations, information technology development, rapid population growth, intensification of global terrorism, etc. Objectively, the contradictions of these phenomena impact the behavior of the international relations participants, determine the transformation of the international system, make it difficult to apprehend and forecast the development of events.

The era of globalization and, at the same time, regionalism is an example of the world development paradoxes. This era creates new challenges for the world players: the world order transformation, the interaction of states and other international actors in a multipolar world, the world leading states' ranking decline, significant claims to the world leadership of regional centers of influence, confrontation between western and eastern civilizations, intensification of global terrorism, targeted steps of many political forces to reach imbalance of the modern world, threats to the information sphere and cyberspace, etc.

All these geopolitical challenges lead to the geopolitical balance disruption – transformational shifts, deformations and emergence of new threats to the national security. Under these circumstances, each state in the world should assess its own development risks clearly and, if necessary, adjust its actions at the international level, in accordance with its geopolitical and international status.

Returning to the logic of the global geopolitical transformation stages, it is obvious that the fundamental clarifications should be made to their dynamics. The analysis of modern geopolitical changes requires the apprehension that in the process of its evolution, moving from one stage to another, the geopolitical world order changes not only its external characteristics, but also its nature. Accordingly, the theoretical-methodological apprehension of geopolitics changes with the initial (basic) matrix of geopolitical patterns acquiring specific features. Taking into account the above, the purpose of the article is to analyze the state and prospects of modern geopolitical trends in the context of modern transformations of a cross-border nature.

Materials and methods

In the modern world the geopolitical evolution studies are based on three groups of methods: general scientific – systemic, socio-psychological, comparative, historical, functional, institutional and others; logical – analysis and synthesis, induction and deduction, modeling; empirical – document analysis, polling, direct observation, political games theory, etc.

The systemic method used in the research of Parsons (1950) enables us to consider any sphere of public life, including geopolitics, as an integral organism being inextricably linked with the environment. The scientist stated that geopolitics reveals the interdependence between its constituent parts, elements and processes in such a way that it becomes possible to establish patterns of relations between its components. Any political system seeks self-preservation and it performs its own characteristic functions, with the most important of which being the distribution of values and resources. Thus, in the article the systematic method was used in identifying the theoretical foundations and doctrines of geopolitics as a science.

The socio-psychological method focuses on studying the dependence of individuals' or social groups' behavior on their place and role in the system of more global communities. This method also studies the psychological characteristics of nations, classes, small groups, etc. In the article

the socio-psychological method is covered in the process of comparing the factors of geopolitical transformations in modern realities.

The comparative method involves comparing similar (the same type) life phenomena to define their common features and specificity. Owing to this method, it becomes possible to thoroughly study the experience of other nations and states. Thanks to the comparative method, the results of comparative studies of the phenomenon of geopolitics in different countries were taken into account.

The historical method requires the study of all social life phenomena in a consistent historical development, following the scheme "past - present - future". The historical method was tested in the context of highlighting the gradual formation of modern understanding of geopolitics through the prism of the genesis of state-building processes and socio-cultural changes.

The normative-value method (a moral and legal method) adds a human dimension to geopolitics, introducing a certain moral principle into it. It is thanks to the normative-value method that the moral and ethical context of modern geopolitical transformations has been revealed.

The functional method requires a detailed study of the relationships between various public life spheres, states at the global and regional levels. The functional method provided an opportunity to identify gaps in modern scientific approaches to the evolution of geopolitics.

The method of structural and functional analysis involves considering a society, a state and a union of states as a complex structure, each element of which performs specific functions. Thus, the method of structural and functional analysis allowed to substantiate methodological approaches to models of geopolitical transformation in the era of digitalization, the realities of society, integration processes of national and regional innovation development.

The institutional method is aimed at studying the institutions activities through which a political activity is carried out. The institutional method made it possible to trace the fragmentary influence of institutional transformations in different jurisdictions on the phenomenon of geopolitics.

The anthropological method determines, first of all, not social factors, but the nature of an individual and his / her social needs. The anthropological method allowed to group the factors of direct influence of human nature on the geopolitical vectors of development of modern society and states.

In theoretical terms, empirical methods are crucially important for geopolitical researches, with the method of a political play prevailing. By using only overt information this method enables to assess political sustainability of the governmental establishments. It allows to consider the state mechanisms development through two factors – informational (more transparent) and economic, the consequences of which could be more serious than they seem at the beginning of the geo-economic study. The method of political game allowed, taking into account the complex results of comparative research, to reveal the transformational challenges of the dominant understanding of geopolitics through the prism of modern realities.

Literature Review

The problematic of geopolitics gained crucial importance already with the emergence of ideas on spatial and geographical substantiation of the behavior of states in the international arena. These studies were carried out by specialists representing different scientific fields: political scientists, sociologists, economists, military analysts, demographers and others. Works on geopolitics were being done even when it did not yet exist as a separate scientific branch and was not regarded as a science. The first studies of a predominantly ideological nature were conducted by the founders of various geopolitical trends trying to methodologically substantiate the foreign policy of states based on their geographical location. These studies include the works of Criekemans (2021), Dalby (1996), Devetak et al. (2012), Dittmer and Dodds (2008), Snyder (2017), Spang (2013), Umland and Yurchuck (2020) and others.

The methodology of geopolitics was used by well-known western political scientists and experts: Ankerl (2000, p. 51-56), Brzezinski (2004), Dalby (2008), Dittmer and Dodds (2008), Huntington (2016), O'Tuathail (1996), Owens (1999), Purchla (1996).

The problems and features of regional geopolitics were studied by Criekemans (2021), Devetak et al. (2012), Haas (2008), Mazgaj (2020), Rothkopf (2009) and others.

Many scientists study the fundamental laws of geopolitics and the principles of their implementation into the public life: Rohkraèmer (1999), Brandom (2016), etc.

Results

The need to explain a number of processes ongoing in the modern developing world has brought about the trend for geopolitics to turn into a fully independent science. It is the geopolitical studies that enhance apprehension of the status of a particular state in the modern world, making it possible to more clearly apprehend the motives of the national interests, as well as to apprehend the development of multi-level relations between various international actors in the context of upholding and asserting the national interests.

The methodological apprehension of all components of geopolitical issues allows us to determine new accents and the newest approaches in the transformation of geopolitical relations, as well as to reveal more deeply the multidimensionality and specificity of the global development asymmetry, taking into account the ideological background, the initial principles and laws, theories and concepts on which the modern geopolitics is based.

Taking into consideration the aforementioned, the aim of the study is to carry out a systemic analysis of main geopolitical ideas having made an important impact on the modern methodological base, comprising studies of international systems and peculiarities of international relations implementation by the world countries at a regional and global level.

Discussion

The concept of "geopolitics" is quite multifaceted and diverse. The world scientific community has developed different approaches to define the phenomenon of geopolitics. Frequently, geopolitics is interpreted as a political doctrine stating that superpowers (powerful large states), pursuing their foreign policy, seek to create spheres of influence, to change and establish a new world order. Such an interpretation of the term primarily characterizes the ideological substance of geopolitics, which in a certain way and to a certain extent justifies the political struggle for the revision of the world as a natural phenomenon of human civilization.

At the same time, geopolitics as a science involves an analytical assessment of "balances"

and "counterbalances" ensuring stability and interaction between states. Simultaneously, the term "geopolitics" can act as a kind of methodology for understanding and explaining the havior of states in the international arena, depending on their geographical location and national peculiarities. Geopolitics is a field of knowledge about the place and functioning of a state in the international community, depending on objective, primarily geographical factors.

Geopolitics is based on the concept of a national power as the main system-forming factor that determines the behavior of states in the international arena. The power indication of the geopolitical stature of the postmodern system of the world lies in the fact that it is determined primarily by the great powers, politically and economically powerful states. To a lesser extent, geopolitical changes are influenced by middle-income states, frequently upholding their national interests at the expense of small countries, economically underdeveloped, which are assigned the role of objects (observers) of the modern world.

In the last century, geopolitics was regarded as a component of international relations and a methodological basis for the analysis of these relations. However, for a long time, there have been discussions between social scientists and political scientists about what geopolitics really is: a science or an ideology.

Today geopolitics takes into account not only the interdependence of all subjects of international relations, but also the contradictions ongoing between them. Numerous scientific studies provide a semantic substantiation of the phenomenon of geopolitics as a science. This branch of knowledge focuses on a specific object – assessment of world and regional policies as interrelated processes with certain characteristics and dynamics of development.

Thus, we confirm the opinion that geopolitics is not identical to the concept of the "international relations" or the "foreign policy", although it is related to the foreign policy activity of a state or a system of states. The difference between geopolitics and public studies of the foreign policy and international relations lies in the enhanced attention to a geographical location of a state, its environment, its natural resources availability, its population and density size, ethno psychological characteristics of the population, the configuration and the state of the borders, its environmental indicators, etc.

The discussion on the need to substantiate geopolitics as an independent science and to determine the peculiarities of its development and functions in the modern world was conducted by many political scientists over the past century and it has been continuing until nowadays. This discussion began in the work of Dittmer and Dodds (2008), who upheld the classical principles of the political science. The theory was based on the concepts of a living space and it defined geopolitics as a political geography, as a scientific and methodological basis for analyzing the behavior of states in the international arena. While there were discussions in scientific circles about the distinction between "geopolitics" and "political geography", many scientists expressed an opinion about the contiguity of these concepts, about the possibility to consider them as a relationship between the fundamental and applied science.

In these discussions, the geopoliticians mainly focuses on individual political subspaces (separate regions), on possible changes in the geopolitical boundaries between the regions. The interest of geopolitical studies is also focused on issues of political influence and political ownership of certain territories, that is, on a spatially oriented foreign policy. The issue of the genesis and origins of the geopolitics of greater powers has become crucial nowadays, which is evidenced by the active discourse in the political science literature.

It is generally accepted that the geopolitical thought emerged as a theory of active external actions taken by states in accordance with their geographical location. The authors of this theory believe that the classical geopolitical thought is tied to a geographical map, it thinks by its components, and in fact, it itself is the most simplified geographical map in a political sense. At the same time, geopolitical theorists compared geography with the trends of political processes, created the concept of a holistic, panoramic overview of the world political space. Criekemans (2019), who coined the term "geopolitics", substantiated that geopolitics was an element related to economy, demography and social policy. He viewed geopolitics as the science of a state, which acts as a life-form developing in space. One of the most important achievements of Criekemans (2019) is the conceptualization of the subject of political research and the substantiation of the structure of political science (politology), where the leading place belongs to geopolitics. The scientist developed a theory of the problem of the geographical foundations of a strong state. Of

course, the idea of the power of the state in its ability to expand its territories through conquest and colonization has undergone significant changes in the modern world. However, the growing trends of interdependence of planetary political and economic processes have so far been transformed into new challenges and relate to a variety of global problems. One example of the existence of such theories is the study of a military-strategic nature, in particular, that scientific research that was carried out in the era of the bipolar world system.

Modern geopolitics deviates from the principles of traditional geopolitics inherent in the last century. It provides for the consideration of global problems and processes of globalization through the prism of foreign policy activity and the balance of state and national interests. Modern geopolitics studies the basic structures of subjects, global or strategic directions, external laws and principles of life, the functioning and evolution of the modern world society. It mainly studies the spatial aspect of international relations.

Rethinking of the methodological and conceptual apparatus of geopolitics has changed the meaning of two key categories: "space" and "borders" in the context of globalization, as well as economic and informational progress. Interpretation of geopolitics as a set of physical and social, material and moral resources of a state enables us to determine the potential which allows the state to achieve its goals in the international arena (Rohkraèmer, 1999).

The modern view of geopolitics is determined by the conflicting reality of global processes. The further development of geopolitics as a science is based on the recognition that the main object of study is the relationship between all actors in international relations, i.e. – between various elements of the system and the system as a whole. Dittmer and Dodds (2008) focused on economic potential as an integral characteristic of geopolitics. He emphasized the balance of foreign trade, the dynamics of migration processes, cultural and social factors.

The central subject of geopolitics is a state, which is a life-form in a geographical space with its natural laws of growth and development (Devetak et al., 2012). According to the concept given above, the state passes through the essential cycles of its existence: birth – development – old age – decline. Large/powerful states, according to the geopolitician, always fight for their living space, often contrary to and

at the expense of the interests (territories) of small states.

The civilizational approach to geopolitical research is the basis of a humanitarian methodology. The authors of this approach are Devetak et al. (2012), Mazgaj (2020), Rothkopf (2009) and other scientists. The debatable theory is the principle of a "clash of civilizations" done by Huntington (2016). This theory stems from geopolitical thinking about the struggle of a civilization as the meaning of existence of world civilizations and cultures.

Individual geopolitical theories and scientific directions are being actively developed by the leading scientific and analytical centers of the European Union and the United States. In particular, Hyndman (2008) pointed to the formation of a new analytical theory of geopolitics.

Nowadays, the information revolution has brought a number of new categories of geopolitical analysis, the central of which are: "information warfare", "hybrid warfare", "semantic warfare", "information weapons". One of the tasks of the modern information warfare is to create a favorable environment for any geopolitical and geo-economic operations (Huntington, 2016).

The use of the potential of geopolitics by leading world figures to increase its influence on the progress of international development is becoming increasingly active. Given the peculiarities of modern political evolution at the international level, this fact is quite justified. The rapid growth of the role of globalization, the expansion of political and cultural borders, the renewal of the range of strategic threats direct the efforts of analysts and political elites to solve complex international problems, where the main component is politics in its various manifestations: economic, informational, security, environmental, etc.

Active power players in the international arena demonstrate a high degree of applied use of geopolitical tools to achieve their national interests. Powerful actors are able to directly influence the world development through opportunities to intervene in the geopolitical order of the international relations. The national-state geopolitical potentials determine the features and dimensions of the international life. The most important aspect of success on the world stage is the ability to make competent strategic choices that guarantee productive

economic and political development. Thus, the vital historical necessity and desire to maintain strategic positions serve as an incentive for foreign policy managers to understand the achievements of geopolitics, their development and use.

Given the global foreign policy of the leading actors of the international community, geopolitics is becoming one of the ways in which political leaders view the world reality. Geopolitics is becoming kind of a method to navigate in the global space from the standpoint of ensuring the national security. In this context, the geopolitical basis for the formation of external strategies is one of the fundamental levers of influence on the global system of the world development. This basis is an important element of the international security.

Strategic analysts are increasingly distinguishing in the actions of international actors a simultaneous game within several spaces. They note that unipolarity is being replaced by a world in which many different strategic interactions coexist.

Many regional poles spring up, each with its own leading and influential actors, with whom it is necessary to maintain cooperation in order to address urgent international issues.

Geo-economics also occupies a prominent place in the subject of discussions within the framework of the new paradigm of geopolitics. In the new reality economic conflicts are among top potential international contradictions. Geo-economic analysis proponents state that many traditional geopolitical concepts and theoretical constructs have become obsolete due to the globalization deployment. The border protection and the struggle for control of the geopolitical space in its classical form are meaningless. The search for a new adaptive strategy, based on economic policy, is beginning to play a major role.

Of course, geo-economic competition is a positive phenomenon that should improve the environment for continuous and fairly dynamic economic growth, and geo-economic strategy is associated with attempts to conquer the economic territory of the future. A number of experts predict the onset of the era of "real economy" – a new stage of the world development, which will be characterized by tough economic actions done by the international actors to attain their political goals. Thus, geo-economics is to play a significant role in

analysing the international developments and processes.

Proponents of this conceptual choice stem from the fact that the geo-economic vision itself focuses on those forms of conflict that are dominant in the age of globalization. Global economists believe that geo-economic conflicts determine the content of political processes in the international arena. The United States of America, alongside the leading countries of Europe, is already actively experimenting with new directions of geopolitics and political approaches. In addition to geopolitical studies of new economic and strategic spaces, there exists, for example, "cosmopolitism" (Dussouy, 2010). There are programs involving functioning of innovative technologies focused on structural changes in the production and consumption. Serious importance is also attached to finding practical solutions to the problems of ecological safety, searching for mechanisms to stimulate development of a new ecological culture. In our opinion, benefits should be expected from long-term programs providing specific economic and political gains.

In addition to external influences and threats, the factors of domestic geopolitics of states also impact on the global future significantly. Destabilization of the way of life within a country leads to such dangerous consequences as violation of law and sovereignty and changes in the socio-political organization of societies. The most important issue of the dialogue between the leaders of the most developed countries of the world with other actors in the international system is the development of the energy market and access to energy resources. All tools of external influence, such as economic, political, military, cultural and civilizational, are made use of in solving these problems. The United States of America is leading in this process, implementing a program of comprehensive systemic transformation of the world policy actors located in geographical areas of the energy resources concentration or within the supply routes. At the same time, serious geostrategic tasks are being solved – through energy cooperation and development of energy transit relations, the basis for adequate political evolution in all directions of the global geopolitical space is being formed (O'Tuathail, 1996).

There are other trends: regional cooperation acceleration, entry of new partners into global markets, joining alternative energy supply routes and ensuring security of export routes. Activities of the US multinational corporations contribute to the development of the commercial sphere and the intensification of investment flows. The coverage of official events, social trends and the practical implementation of political strategies are the information sources of modern geopolitical realities (Figure 1).
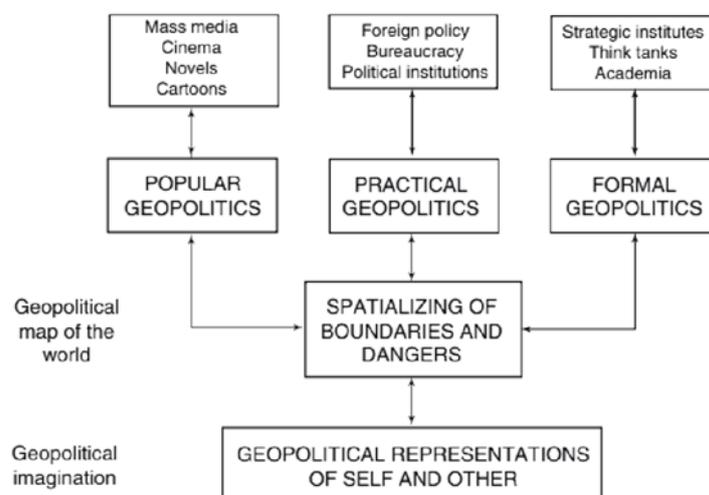
Figure 1. Formal, Practical and Popular Geopolitics. Source: Authors

Peculiarities of modern geopolitics are changes in historical traditions, transition from spatial to resource imperative, involvement of international players of different levels in geopolitical governance.

The dynamics of globalization has a significant impact on the global space of international cooperation. It requires states and state institutions to develop (create) a new spatial logic and new strategies. Today, geopolitics is aimed at the indispensable appropriation of resources of all kind; it is involved in the formation of new global forces. Geopolitics changes the methods of space control and forms new types of spaces. The structural factors of the world politics (presence and number of centers of power, global political processes), the impact of globalization and informatization processes transform the geopolicy and the realities of a society regarding security and new threats.

Conclusions

Today, in the context of globalization, the pursuit of expanding the territory of a state has lost its relevance, as the main condition for all international participants is equal participation in the competition for innovative technologies and intellectual capital. Therefore, the leading actors of the world politics in the post-imperial era have to solve completely different tasks, in particular to join the processes of gradual formation of a single global economic space and look for ways to deal with contradictions to raise the competitiveness of national economies.

The concept of geopolitics is multifaceted, and the experts working in this field still do not have a unanimous opinion regarding the definition of geopolitics as an independent science. Geopolitics is interpreted as a separate branch of knowledge and methodology of apprehending the international relations and foreign policy of statesin conformity with their status. Ultimately, the key to the modern understanding of geopolitics is the behavior and relations of a state within its geographical location that can be used to influence other subjects/objects of international life in order to assert its national interests. To date, a number of conceptual approaches ensuring the geopolitical advantages of states have been formed in the scientific discourse. The current geopolitical theories take into account the latest means and capabilities of influence used by leading (large) states, which are associated with the conduct of information, "hybrid" and "semantic" warfares.

Bibliographic references

Ankerl, G. (2000). Global communication without universal civilization. INU societal research, Vol. 1. Geneva: INU Press.

Brandom, E. (2016). Liberalism and rationalism. French Historical Studies, 39(4), 749-780. https://doi.org/10.1215/00161071-3602256

Brzezinski, Z. (2004). The Choice: Global Domination or Global Leadership. New York: Basic Books.

Criekemans, D. (2021). Chapter 3. Geopolitical Schools of Thought: A Concise Overview from 1890 till 2020, and beyond. Geopolitics and International Relations (pp. 97-155). Leiden, Boston: Brill. https://doi.org/10.1163/9789004432086_005

Criekemans, D. (2019). Rehabilitation and renovation in geopolitical thinking. The Political Space, 12(3). https://doi.org/10.4000/espacepolitique.1723

Dalby, S. (1996). Crossing disciplinary boundaries: political geography and international relations after the cold war. Globalization. Theory and Practice (pp. 29-42). London: Pinter.

Dalby, S. (2008). Imperialism, domination, culture: the continued relevance of critical geopolitics. Geopolitics, 13(3), 413-436. https://doi.org/10.1080/14650040802203679

Devetak, R., Burke, A., & George, J. (Eds.). (2012). An Introduction to International Relations. Cambridge: Cambridge University Press. http://dx.doi.org/10.1017/CBO97811391965 98

Dittmer, J., & Dodds, K. (2008). Popular geopolitics past and future: fandom, identities and audiences. Geopolitics, 13(3), 437-457. https://doi.org/10.1080/14650040802203687

Dussouy, G. (2010). Systemic geopolitics: A global interpretation method of the world. Geopolitics, 15(1), 133-150. https://doi.org/10.1080/14650040903420438

Haas, R. (2008). The age of nonpolarity. Foreign Affairs, 87(3), 44-56.

Huntington, S. (2016). The Clash of Civilizations. Remaking the World Order. New York: Simon and Schuster.

Hyndman, J. (2008). Mind the gap: bridging feminist and political geography through geopolitics. Political Geography, 23, 307-322. https://doi.org/10.1016/j.polgeo.2003.12.014

Mazgaj, P. (2020). Raymond Aron, the United States, and the early cold war 1945-1953. The International History Review, 43(4), 796-814. https://doi.org/10.1080/07075332.2020.1838 599

O'Tuathail, G. (1996). Critical Geopolitics: The Politics of Writing Global Space. Minneapolis: University of Minnesota Press.

Owens, M. (1999). In defense of classical geopolitics. Naval War College Review, 52(4), 59-76.

Parsons, T. (1950). The prospects of sociological theory. The American Sociological Review, 15(1), 3-16.

Purchla, J. (Ed.). (1996). The Historical Metropolis: A Hidden Potential. Krakow: International Cultural Center Krakow.

Rohkraèmer, T. (1999). Antimodernism, Reactionary, Modernism and National Socialism. Technocratic Tendencies in Germany. Cambridge: Cambridge University Press. Retrieved from: https://eprints.lancs.ac.uk/id/eprint/21039/1/download.pdf

Rothkopf, D. (2009). Superclass: The Global Power Elite and the World They Are Making. Krakow: Farrar, Straus and Giroux.

Snyder, T. (2017). On Tyranny: Twenty Lessons from the Twentieth. New York: Random House.

Spang, C. (2013). Karl Haushofer and Japan. The Reception of His Geopolitical Theories in German and Japanese Politics. Munich: Iudicium.

Umland, A., & Yurchuck, Y. (2020). Special section: issues in the history and memory of the OUN. Journal of Soviet and Post-Soviet Politics and Society, 2(3), 114-290.

Latest technologies in criminal investigation (testing of foreign practices in Ukraine)

Новітні технології у розслідуванні злочинів (апробація закордонних практик в Україні)

Written by:
Yuriy P. Tymoshenko[50]
https://orcid.org/0000-0002-9200-8792
Oleksandr I. Kozachenko[51]
https://orcid.org/0000-0003-1449-3670
Dmytro P. Kyslenko[52]
https://orcid.org/0000-0001-6929-4236
Maryna S. Horodetska[53]
https://orcid.org/0000-0002-3228-6299
Maryna V. Chubata[54]
https://orcid.org/0000-0003-3263-1010
Serhii S. Barhan[55]
https://orcid.org/0000-0002-1706-0355

Abstract

The aim of the article was to identify a set of innovative technologies in the field of investigation of crimes that can be tested in Ukraine. The leading research methods were the method of comparison, observation and comparative method. The activities of law enforcement agencies in the field of combating crime and ensuring the introduction of innovative technologies in the investigation of crimes were analyzed in the course of this research. It is substantiated that Ukraine is going through high-quality reform and legislative innovations, taking into account the best world practices. It is concluded that it is necessary to improve new sections of forensic science — digital forensics and develop a Strategy for investigating crimes in the digital age. These actions will promote the integration of the latest advances in science and

Анотація

Метою статті стало виявлення комплексу інноваційних технологій у сфері розслідування злочинів, які можуть бути апробовані на теренах України. Провідними методами дослідження виступили – метод співставлення, спостереження та компаративний метод. У процесі наукового пошуку було проаналізовано діяльність правоохоронних органів у сфері протидії злочинності та забезпеченні впровадження інноваційних технологій у процес розслідування злочинів. Обґрунтовано, що з боку України наразі приймаються рішучі заходи законодавчого характеру, які базуються на міжнародному досвіді. Зроблено висновок про необхідність вдосконалення нових розділів криміналістичної науки – цифрової криміналістики та розробки Стратегії

---

[50] PhD in Law, Associate Professor, Deputy director Educational and scientific Institute of Law Prince Vladimir of the Great, Interregional Academy of Personnel Management, Kyiv, Ukraine.

[51] PhD in Law, Professor, Law Enforcement and Anti-Corruption Activities Department, Educational and scientific Institute of Law Prince Vladimir of the Great, Interregional Academy of Personnel Management, Kyiv, Ukraine.

[52] PhD in Law, Associate Professor, Law Enforcement and Anti-Corruption Activities Department, Educational and scientific Institute of Law Prince Vladimir of the Great, Interregional Academy of Personnel Management, Kyiv, Ukraine.

[53] PhD in Law, Associate Professor, Department of Organization of Pre-trial Investigation of Kryvyi Rih Educational and Scientific Institute, Donetsk Law Institute of the Ministry of Internal Affairs of Ukraine, Kryvyi Rih, Ukraine.

[54] PhD in Law, Associate Professor, Department of Theory and History of Law and State, Institute of Law, Taras Shevchenko National University of Kyiv, Kyiv, Ukraine.

[55] Lecturer, Department of Criminal Law, Faculty № 2 Kryvyi Rih Educational and Scientific Institute of Donetsk State University of Internal Affairs, Kryvyi Rih, Ukraine.

Tymoshenko, Y.P., Kozachenko, O.I., Kyslenko, D.P., Horodetska, M.S., Chubata, M.V., Barhan, S.S. / Volume 11 - Issue 51: 149-160 / March, 2022

150

technology into criminology, the development of certain theoretical positions, and optimize the detection and investigation of crimes. Further research will be based on the gradual introduction of positive European experience in this area.

Keywords: innovations, investigative actions, digital traces, crime investigation, forensic algorithm.

розслідування злочинів у цифрову епоху. Наведені дії сприятимуть інтеграції в криміналістику останніх досягнень науки і техніки, розвитку окремих теоретичних положень й оптимізації розкриття і розслідування злочинів. Подальші наукові дослідження базуватимуться на поступовому впровадженні позитивного європейського досвіду у окресленій царині.

Ключові слова: інновації, слідчі дії, цифрові сліди, розслідування злочинів, криміналістичний алгоритм.

Introduction

The current state of computerization can be seen as a social phenomenon, a progressive stage of human development and a negative stimulus that provoked the emergence of new crimes. The advent of advanced criminal offenses related to the innovative component of society and information technology necessitates transformations in the methodology and approaches to the investigation of crimes. Analogue data has been replaced by digital data format, monofunctional means of cinematography — by universal means of digital videography due to dynamic scientific and technological progress (Baryshnikov & Chervyakov, 2018). The possibility, and in some cases the need, to use innovative technical means and technologies in the investigation of crimes have been gradually enshrined in various areas of law of different states.

Over the last decade, international forensic scientists have increasingly relied on digital technology to search for facts related to crimes, their detection and prevention (Agibalov, 2012). Initially, the use of innovative technologies was considered an inefficient and unproven practical innovation. At the same time, ways have gradually been devised to combine large volumes of online information and digital techniques to obtain data relevant to the investigation of various crimes around the world.

Moreover, rapid technological development has given rise to cybercrime. Most often, criminals use technology to plan and commit complex crimes. Computers, smartphones, flash drives, and cloud storage are some of the many types of devices that store digital data. This is why scientists and practitioners face a new challenge — updating approaches to the collection, analysis and storage of digital data and evidence (Singh, 2018). The legal nature of the use of this

data in court proceedings becomes especially relevant.

Scientists state that we can talk about the formation of a new branch of forensic science — digital forensics (Raina, 2020). It involves the recovery, analysis and storage of any information found on digital devices; this branch of criminology often deals with cybercrime. The term "digital forensics" was originally used as a synonym for computer forensics, but has now expanded to include information analysis on all devices that can store digital data (Khan et al., 2021). Digital forensics experts respond to cases such as server hacking or leaks of confidential information. Their specialized forensic tools help them investigate incidents, analyses traffic, and search for hidden data and other evidence. They collect, recover and store the data necessary for the investigation, prepare and submit them to the court. Depending on the type of information and its sources, digital forensics has its branches and requires special professional training. Testing of the best world practices in the investigation of crimes becomes especially relevant in the context of updating the preservation of financial and personal data, intensification of cross-border crime and recurrent mass leaks of confidential information.

The current positive trends in the fight against crime are fragmentary in Ukraine. A rather low efficiency of pre-trial investigation is mainly due to imperfect reforms of law enforcement and the judiciary, outdated methods of crime investigation, legal nihilism of society and the state's unwillingness to comprehensively integrate the innovation component into investigative mechanisms given significant financial costs. Despite these negative factors, the Ukrainian cyberpolice develops and successfully implements modern methods of detection, recording and research of digital

evidence (Cabinet of ministers of Ukraine, 2020). At the same time, the gradual introduction of foreign experience faces many practical obstacles and gaps in the legislation. The corruption component remains a particularly negative factor on the way to an effective fight against crime. During the years of independence in Ukraine, corruption was steadily formed at all levels of state power and local self-government, which led to difficulties in overcoming it.

This negative factor has its impact on the reform drive for change in the state, and the corruption schemes delay the European integration processes. Corruption is recognized by ordinary citizens as the most difficult and insurmountable problem of the state. The international community also shares the position of Ukrainian society. For example, according to Transparency International, Ukraine ranked 117th in the Corruption Promotion Index in 2020 (Transparency International Ukraine, 2020). In general, the Global Peace Index, edited by the Australian Institute of Economics and Peace, ranks Ukraine 152nd out of 163. The criteria are the level of social security, the degree of ongoing domestic and international conflict, and the level of militarization (Global Peace Index, 2020).

The Geneva-based World Economic Forum ranks Ukraine 127th out of 136 countries in terms of security. The criteria are business costs related to crime and violence, the reliability of police services, business costs related to the threat of terrorism, terrorism index and the homicide rate (World economic forum, 2020). The US Overseas Security Advisory Council (OSAC) assesses Ukraine as Level 2 risk country, and recommends Ukraine to be cautious against the background of crime and civil unrest. Kyiv is assessed as a place where there is a great threat of crime (Data center security systems, 2021).

Ukraine has recently taken significant progressive steps to ensure an effective fight against crime. In particular, the state implemented the main recommendations of relevant international organizations. Unfortunately, these measures have proved ineffective in the courts. Besides, the corrupt background of crime and the inextricable link with oligarchic clans remain insurmountable in Ukraine. This is manifested, among other things, in the control of criminality over electoral and state processes at various levels through the nomination of candidates to state and judicial bodies, executive bodies, as well as control and supervisory institutions. Unfortunately, the pressure of crime and oligarchic clans on all

spheres of public administration in Ukraine remains unchanged and stable despite the large number of reforms and legislative transformations. Such a set of variable criminal actions requires a qualitatively updated approach to the investigation of crimes. In this context, the tendency to improve approaches to the investigation of crimes seems reasonable (Yaacoub et al., 2021).

In view of the above, the aim of the article is to find the best foreign practices of using innovative technologies in the investigation of crimes for further testing in Ukraine. The aim involved the following objectives: 1) identify the leading innovations used by law enforcement agencies to investigate crimes abroad; 2) outline a list of priority reforms on the territory of Ukraine in order to ensure the most effective investigation of crimes taking into account foreign practice.

Literature review

The choice of research topic correlates with modern vectors of scientific research of representatives of the doctrine in different countries. The work of Perlin and Stepaniuk (2020) was the leading tools and basis for our article. In the process of research, scientists have summarized the grounds for defining the concept of forensic technology used by Ukrainian and European scientists, proposed their own definition of the concept. The work of Shepitko (2019) also had an impact on the formation of the authors position on the research topic. The work of these scientists made it possible to outline the vector of research on the transformation of strategies and policies of many countries in the field of the use of innovative technologies in the investigation of crime.

In addition, the article by Khan et al. (2021) revealed to the author the need for further implementation of machine learning programs in digital forensics in Ukraine.

The study also took into account the work of Raina (2020) in the field of confidentiality and integrity to include intelligence in the digital forensic examination. Particular attention during the writing of the article was focused on the scientific achievements of Baryshnikov and Chervyakov (2018) in the field of the need to use unmanned aerial vehicles during the inspection of the scene. In the same field, the work of Negrebetsky (2021) on the functions and possibilities of using biometric technologies in criminology has been studied.

In the scientific work of Shevchuk (2020), used in the article, the importance of prospects and innovations in the field of forensic science research is emphasized. This work helped to track the transformation of the main properties of the innovative forensic product: innovation (novelty), objectivity, subjectivity, purposefulness, demand, implementation in practice, efficiency.

Active research of certain aspects of the author's chosen topic confirms the fact that the use of forensic equipment should cover all activities (investigative, judicial, expert, prosecutorial, legal, investigative, operational and investigative, etc.), which takes into account the trend of expanding forensic knowledge in legal practice. Therefore, it is urgent to conduct research on new criteria of scientific research.

Methods

The study tested a set of practical and general methods of scientific knowledge, which is reflected in the consistently presented material of the article. The research design, which provides for a gradual use of methodological tools for the expression of author's positions and conclusions is shown in Figure 1.

Basic experiment
1) Outlining the vectors of debatability of the research topic, substantiation of innovative approaches to the investigation of crimes in the European Union.
2) Substantiation of epy reasonability of introduction of innovative practices of investigation of crimes in law enforcement in Ukraine.
3) Conclusions

First pilot research
1) Monitoring and generalization of the practice of updating the technological tools for the investigation of crimes in the European Union.
2) Comparative analysis of regulations of Ukraine and the European Union on the subject of the research.
3) Substantiation of the reasonability of complex transformations of legal regulation of Ukraine directed towards the implementation of the newest forensic methods and technologies.
4) Processing of the data obtained, their unification and formation of the author's position.

Main experiment
1) Outlining the prospects for the gradual introduction of artificial intelligence and DNA analysis during the investigation of crimes in Ukraine.
2) Study of the data obtained, their arrangement

Analytical stage
1) Comprehensive analysis of the data obtained in the research on the research topic.
2) Drawing sound scientific and practical conclusions

Figure 1. The research design. Source: authors.

The leading method of scientific research was observation, which allowed finding out and confirming the latest innovative technologies for the investigation of crimes in the European Union. This method allowed to reveal the leading problems of law enforcement agencies of Ukraine in the investigation of crimes with digital elements; features of new technological solutions in the studied area on the territory of the European Union; legal policy concepts and reform vectors of the European Union to ensure the most effective investigation of crimes and prevention. The observation method also allowed to choose a vector of promising reforms for law enforcement agencies in Ukraine in order to ensure a balance of testing positive European practices and taking into account the national realities of crime investigation. The method of observation was included as an integral part of the experimental procedure, and its results were interpreted in the article taking into account the need for further scientific research.

The main hypothesis of the study is the statement that certain methods of forensic research, tested in the EU in the context of digitalization, can be actualized in the framework of Ukraine's European integration only in fragments.

The case study and statistical methods of collecting and summarizing information were used to study the materials of criminological research. These methods also served as a basis for systematizing the practice of law enforcement agencies that fight crime in Ukraine and the European Union.

The inductive method helped to generalize the main factors of the impossibility of fully adapting European innovation practices in Ukraine. The

method of synthesis contributed to the formulation of new provisions, theoretical conclusions, proposals and practical recommendations in the field of effective investigation of crimes, provided opportunities to identify and summarize the relevant criminological approaches. The comparative legal method allowed to study the positive experience of investigating crimes in other jurisdictions in order to further substantiate the reasonability and further effectiveness of the adaptation of positive foreign experience in Ukraine.

The method of interpretation of international and national legal acts in the field of regulation of methodologies and techniques for the investigation of criminal acts was also used in the process of writing the article. The method of legal modelling was used in the search for necessary and urgent legislative innovations in order to ensure the greatest compliance of national legal regulation with criminological innovations, as well as the latest trends in the European space and the transformation of social relations.

The reliability of the obtained results, the soundness of conclusions and recommendations in law enforcement practice are confirmed by studying a sufficient number of primary documents that form the information background for identifying statistical patterns, scientific understanding of the problem and modelling the most optimal ways to solve it. This research involved 36 sources, which were analyzed and served as a stable basis for the author's conclusions and proposals in the field under study.

Results

Digital systems, as well as information and communication technologies have become critical in all areas of economic activity in Europe and beyond. Internet access and the uninterrupted information flow now underlie the day-to-day functioning of societies. The European Union pays more and more attention to the peculiarities and innovative approaches in the investigation of corruption crimes and crimes committed by organized groups. To date, the European Community has joined forces to develop and implement various international initiatives aimed at strengthening the law enforcement capacity of foreign governments in the fight against the growing link between crime and corruption. Moreover, multilevel work is under way to strengthen the international

network of laws and conventions against corruption, banditry and international organized crime, thus demonstrating the real value of cooperation built over the years.

For example, the Criminal Law Convention on Corruption (Council of Europe, 1999), has become a very important tool aimed at the coordinated criminalization of a large number of acts of corruption. It also provided for additional criminal law measures and improved international cooperation in the prosecution of corruption offenses. The Convention established enhanced international cooperation (mutual assistance, extradition and provision of information) in the investigation and prosecution of corruption offenses. However, given the latest forensic approaches and the complication of criminal activities with an innovative component, this document is gradually becoming archaic and needs a fresh view of cross-border investigation of crimes.

Today, effective law enforcement is a necessary tool to ensure the reliability of anti-corruption efforts and break the cycle of impunity both worldwide and in the EU. This led to the transformation of legal regulation in this area in Europe. On April 14, 2021, the European Commission presented a new EU Strategy to Tackle Organized Crime (European Union, 2021). The new strategy is part of the EU Security Union Strategy, European Union (2020), which aims to protect European citizens from terrorism, organized crime and ensure the effective investigation of crimes. This document is also largely based on Europol's 2021 Report (Europol, 2021).

The strategy addresses the threat posed by organized crime to European citizens, public institutions and the economy as a whole. The situation is exacerbated by the ability of organized groups to adapt quickly to the changing socio-economic environment. For example, some organized criminal groups in the EU made money on the COVID-19 pandemic by selling counterfeit vaccines (RFI, 2021). At the same time, one of the most resonant examples of coordination of inter-state crime investigations in the EU is the case of EncroChat. In 2020, French and Dutch police, with the assistance of Europol, conducted an extensive pan-European investigation, during which the forces managed to break the EncroChat-encrypted communication system used by gangs and other criminals (Covington Alert, 2021). This cooperation was also a driving factor in reviewing the specifics of the investigation of

crimes in the modern conditions. In turn, the above-mentioned Strategy for Combating Organized Crime identified guiding principles in

the investigation of crimes, which are shown in Figure 2.

The latest approaches to crime investigation in the digital age (according to the EU Strategy to Tackle Organized Crime)

Identification of technical and legal solutions at the national level to ensure lawful access of law enforcement agencies to encrypted information in the context of a criminal investigation

Creation of domestic and cross-border systems of digital exchange of electronic evidence, their content

Development of monitoring tools on the basis of the Joint Research Centre to collect information on illegal activities progressing in Darknet

Figure 2. Leading guidelines in the investigation of crimes in the EU (based on the results of the author's analysis of the EU Strategy to tackle Organized Crime 2021-2025)

At the same time, innovative approaches to the investigation of crimes in the EU also have more specific examples of less complex methods and approaches. Due to the fact that a crime can be committed in seconds or minutes, these critical moments generate valuable information for the court. Everything from blood spatter to defects caused by bullets must be carefully and thoroughly documented. At the same time, the control or integrity of the crime scene depends on a large number of factors, therefore, the collection and further processing of evidence from the crime scene becomes especially important.

Big data, along with algorithms and machine learning, has become a central theme in intelligence, security, defense, counterterrorism, and criminal policy, as computers help the military find targets, and intelligence services justify mass surveillance of public telecommunications networks. The following entities are increasingly using new tools: (1) intelligence agencies; (2) law enforcement agencies; (3) criminal courts and probation commissions. The 3D scanning and reality imaging increasingly provide the detailed documentation needed by investigators to analyses crime scenes. By storing information digitally, forensic investigators can view even the smallest details, share that information with team members, and return to the virtual crime scene again and again to evaluate the evidence.

The unmanned aerial vehicles or drones used by the military for many years are becoming more common in law enforcement. Many departments use them to monitor or gather evidence. Others

use them to photograph accident scenes and even to control the crowd. Drones are also useful for other areas of law enforcement, as they can monitor penitentiaries and track fugitives (European Commission, 2018).

Moreover, a qualitative update of forensic crime investigation mechanisms occurs almost daily and has tremendous results. European law enforcement agencies are increasingly using artificial intelligence for the most efficient and fast processing of digital data. Many surveillance cameras have been installed at railway stations, commercial facilities and in cities to prevent crime. However, with the increase in the number of cameras, the amount of video data has also become significant. This makes it virtually impossible for law enforcement agencies to track suspicious behavior and detect crime manually. Artificial intelligence ("AI") is used to solve this problem in the fight against crime.

AI supports remote monitoring around the clock, 365 days a year, improving the accuracy of video data analysis, allowing real-time detection and reporting of suspicious activity. Surveillance cameras, which were mainly set up to record and acted as a deterrent to crime, can now be used to predict, detect and prevent crime.

Moreover, police services around the world are actively working to use artificial intelligence to analyses video and investigate criminal cases, moving toward predictive crime detection and prevention based on the concept of proactive rather than reactive crime control. Fujitsu has developed a behavioral analysis technology called Actlyzer to solve the problem of

introducing artificial intelligence to prevent crime. Actlyzer recognizes complex behavior from several basic actions or movements without forcing AI to study large amounts of video data (Fujitsu, 2020).

With this technology, AI studies in advance about 100 types of movements as basic actions: from simple actions such as walking and stopping to more complex movements and actions such as turning head to the right and raising left hand. These basic actions can be recognized with an average accuracy of 90 percent. Actlyzer's AI can detect complex patterns of behavior by analyzing combinations of types, order, and location of key actions, as well as action goals. Fujitsu presented Actlyzer at the UN Congress on Crime Prevention and Criminal Justice (Kyoto Congress) in March 2021 (The Ministry of justice, 2021). Undoubtedly, this technology has useful applications for crime prevention and video surveillance, detecting actions related to picking locks, fraud with bank transfers, shoplifting and other criminal behavior.

The European practice of forensic innovations is quite extensive. One hair from one's head can now determine where that person lives and where he or she has travelled. It also seems possible to determine how a person looks in terms of height, age, race, hair color and eye color. If the investigation finds dust at the crime scene left by the suspect, one can create a history of where the suspect has been for the past few weeks.

Besides, the practice of using genomics together with the computer, where a forensic portrait of a person is created on the basis of a single DNA sample, is becoming more and more common. For example, one human cell contains 23 pairs of chromosomes that encode everything related to a person: hair color, eye color, skin color, face shape, and so on. Today, computers can generate probabilities of DNA-based traits that can be combined into a common sketch. Only one

sample of DNA phenotyping is enough to determine: 1) sex — almost 100% accuracy; 2) red hair — 98% accuracy; 3) brown eyes — 93% accuracy; 4) blue eyes — 91% accuracy; 5) light and brown hair — more than 90% accuracy; 6) adult height — up to 90%; 7) black hair — almost 90% accuracy. DNA phenotyping can also make predictions that are up to 70 percent accurate for these traits: a) skin color and freckles; b) dimples; c) male baldness; d) earlobe attachment or its absence, etc.

In Germany, the practice of research using the analysis of stable water isotopes (inFranken.de, 2021) is widespread. Each pond around the world has a different percentage and combination of hydrogen and oxygen isotopes. This information is used by forensic examination. Today, different percentages of oxygen and hydrogen isotopes are measured in samples, such as human hair, to determine where a person drinks water. If you compare this hair sample with known isotopic measurements in urban drinking water from cities across the country, you can associate hair with a particular city.

Forensic scientists across Europe have been using pollen to analyses evidence for decades. Recent advances in the latest technology have made forensic palynology even more useful. In the past, a forensic palynologist compared pollen spores collected as evidence with pollen from known plant species. DNA metacoding is now used. This allows the computer to perform all analytical work from the pollen sample. Computers can even simultaneously identify multiple pollen spores of different plant species from a single sample. These innovations are used to effectively analyse the evidence stained with pollen. These technological advances in forensic palynology are in their inception, but need to be taken into account in forensic science and practice. The analysis allowed us to identify the leading new technologies used by law enforcement agencies in the investigation of crimes, which is shown in Figure 3.
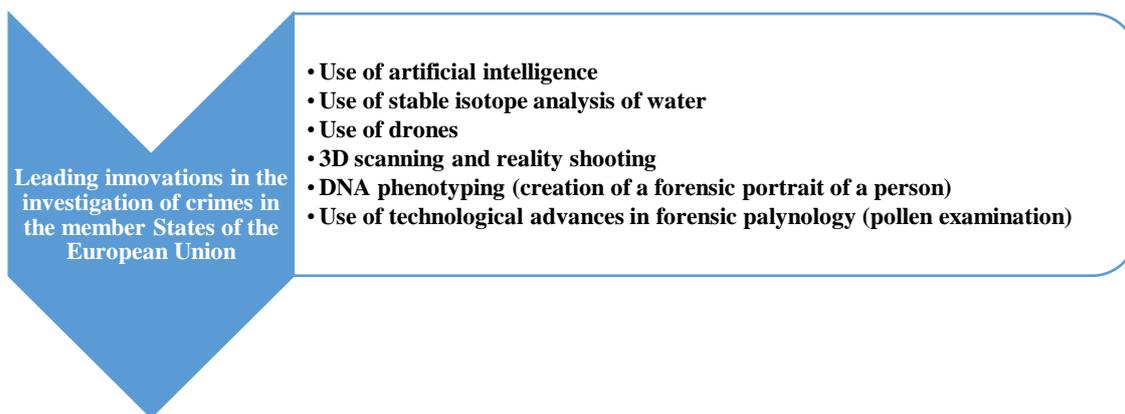
Figure 3. Leading innovations in the investigation of crimes in the European Union (based on the results of the author's analysis set out in the article)

Analysis of the structure of crime in Ukraine and its dynamics shows that against the background of reducing the total number of robberies, car thefts, burglaries, robberies, facts of intentional destruction of property (arsons), the number of thefts using information and telecommunications technology increased (Cabinet of ministers of Ukraine, 2020). The increase in the number of registered crimes is also due to the peculiarities of criminal activity in this area, namely: the active development of the use of information technology, the transition of many financial transactions into the field of e-commerce; victim behavior of victims; the constant emergence of new ways of committing illegal acts; increasing anonymity of criminals — which, in turn, necessitates the improvement of mechanisms for effective investigation of crimes and combating crime as such.

The study identified the leading problems that are mostly faced by law enforcement agencies in Ukraine during the investigation of qualitatively new crimes (Figure 4).

The analysis of crime statistics showed that in 2020 there was a significant increase in cyberspace-related crimes, mostly related to the use of electronic money (Interfax-Ukraine, 2021). At the same time, the investigation of this category of crimes is a rather difficult case for the law enforcement agencies of Ukraine. In particular, the perpetrators are characterized by the anonymity of activities, which is associated with the possibility of permanent removal of traces of the crime from the World Wide Web. Under these conditions, the investigation acquires signs of extraterritoriality and requires the involvement of operational units, among others, at the interstate level. Instead, Sweden has a unit that specializes in crimes committed through the use of virtual (electronic) money, moreover, a specialized system in the form of software creates the conditions for the relevant unit to intervene in criminal activities at different stages of the crime (ICLG, 2021). This high-tech solution would be appropriate for testing in Ukraine, however, requires the involvement of narrow specialists in addition to proper financial and technical support. It should be emphasized that the current legislation and existing methods of criminal investigation in Ukraine do not make such cooperation a prerequisite for investigative actions, despite the fact that joint actions can accelerate the search for a criminal and achieve efficiency in solving complex problems.

Figure 4. Leading problems of law enforcement agencies in Ukraine during the investigation of crimes in the digital age (based on the results of the author's analysis of empirical material and observation)

Besides, the practice of involving geographic information systems in investigations, in particular, the detection and tracking of crimes, is widespread in Ukraine. The results of this practice allow asserting the increasing effectiveness of pre-trial investigation of crimes, expanding the search capabilities of law enforcement agencies. Data collected with the help of geographic information systems are now actively used for tracking and control of people and vehicles, being gradually tested in customs control processes. Modern computer technology allows comparing the model image of the territory (variable recorded reflections of the earth's surface) with generalized criminological information collected during the investigation of the crime.

It is established that a rather progressive step of the state is the active involvement of Ukraine in the best world practices of introduction of intellectual and innovative technological solutions at the national level. In particular, 2020 in Ukraine was marked by the creation of a committee in the field of testing of artificial intelligence at the Ministry of Digital Transformation. A determinant event was publishing of the draft Artificial Intelligence Development Concept (Ministry and committee for digital transformation of Ukraine, 2020). Informatization and digitalization have changed the ways in which government agencies interact and exercise their powers. Besides, the Ministry of Justice of Ukraine announced the introduction of an innovative technological solution — Cassandra software application — in 2020". This program, thanks to the use of artificial intelligence and the latest technological innovations, will allow for the rapid detection of

the recurrence of criminal offenses by criminals (Ukrinform, 2020).

Intelligent criminal data analysis system — RICAS — was developed and implemented as part of a joint research conducted by scientists of the Kharkiv National University of Radio Electronics and specialists of the Main Directorate of the National Police in the Kharkiv region in the field of data mining. This system combines the basic and most modern methods and techniques of criminal analysis and analytical search in real time in a single space. The latest development, provided it is applied in practice, will be able to significantly increase the number of detected crimes. Moreover, the innovation can be used in the investigation of recently detected crimes, and will be useful in protracted investigations (Knure, 2019). Therefore, the use of the latest technologies of artificial intelligence in combating criminal acts in Ukraine is certainly the most relevant area of criminological research and further use in practice.

Discussion

The study revealed that the use of artificial intelligence if the most acceptable and already fragmentarily tested practice in the field of crime investigation in Ukraine. Gradual introduction of the newest technologies will allow providing more effective investigation of criminal acts. The moral implications of the use of many technological innovations in the investigation of crimes are actively discussed among scholars and practitioners (Horan & Saiedian, 2021). The benefits and risks are compared, but lawyers unanimously consider it appropriate to test the

use of innovative technologies in law enforcement agencies. According to scientists, this will increase the effectiveness of criminal investigations and guarantee public peace, law and order. In turn, state executive bodies should commit to initiating appropriate legislative changes and the application of innovative technologies at the regional level (King et al., 2020). The introduction of Safe City programmers in different cities of Ukraine is quite positive, which create conditions for real-time monitoring the situation on the streets and on the city's facilities (Kyiv Smart city, 2021).

As part of the scientific research, it was stated that high-tech forensic research (such as the use of DNA, including for phenotyping) cannot be used in Ukraine. This is substantiated by scientists who refer to the lack of technical capabilities, experienced specialists in these fields and the information limitations of existing databases (Perlin & Stepaniuk, 2020). Vuima (2020) argues that the creation of a DNA database will be an effective basis for the accelerated detection of criminals in the future. This position does not receive full support in the scientific community. On October 26, 2020, Draft Law of Ukraine No. 4265 "On State Registration of Human Genomic Information" (Verkhovna Rada of Ukraine, 2020) was proposed, which provides for the creation of a single domestic DNA genome database. At the same time, the proposed draft law has a number of gaps, including: 1) the requirements for the mandatory selection of genetic material do not correlate with the provisions of the Constitution of Ukraine and international regulations; 2) the conditions of storage and destruction of biological material are not outlined by the Draft Law; 3) maintaining the DNA database within the authority of one body carries significant corruption risks; 4) the Draft Law does not provide for access to the exchange of genomic information with other countries and international organizations. Given the above, the position is substantiated that even from the legislator's perspective, there is no single vector of reforms in the studied area, and the proposed innovations require significant revision (Negrebetsky, 2021).

At the same time, the forensic studies presented in the article with the latest elements are mostly innovative and cannot be fully adapted to all types of crimes in Ukraine now. There is no doubt that the interaction between all law enforcement agencies and regulatory bodies at the national level needs to be improved. Training of law enforcement agencies abroad seems to be quite relevant. Shevchuk (2020) emphasizes the development of an algorithm for interaction with the subjects of information technology relations, foreign information technology centers for the accumulation and storage of information, obtaining electronic evidence remotely, that is using automated crime investigation methods.

Technologization and digitalization of substantive and procedural law requires changes in the organizational and legal regime of collecting electronic evidence: its detection, recording, capture, research, storage, provision and use in the investigation and consideration of a criminal case (Shepitko, 2019, p. 148). Scientists and practitioners should develop new strategies in forensic activities during the investigation: 1) crimes in the field of computer information, 2) crimes committed with the use of computer technology (Kuzmichova-Kyslenko et al., 2021; Pavliuk, 2019). The above urges in-depth forensic study of computer information and its processing as a trace of crime. Scientists have noted the importance of increasing the role of scientific knowledge based on domestic and foreign experience in the use of computer technology in the fight against crime. It is obvious that the activity of investigation of crimes will remain ineffective without fundamental research of objective laws in this subject area.

Conclusions

While traditional types of crime remain a major concern, globalization and innovative technologies have laid the ground for new types of crime. Today, crime is reaching a qualitatively new level, using the latest developments in science, technology and digital space. Moreover, the COVID-19 pandemic has changed the world in many ways and created a comfortable background for transforming crime in 2020 just in a few months. These factors emphasize the need for a qualitative review of approaches and methods of crime investigation, taking into account innovative technologies around the world.

The analyzed foreign practice has shown that the most effective innovative technology in the effective investigation of criminal acts is the use of artificial intelligence. Moreover, computerized research, which forms a new science — digital forensics — is derived from this forensic solution. It is stated that the procedural application of digital evidence obtained through new technical solutions during the investigation of crimes remains uncertain.

This research identifies the leading innovations in the investigation of crimes in the European Union, and found that they cannot be fully adapted in Ukraine in the current conditions. Given the challenges faced by law enforcement agencies in investigating crimes in Ukraine, it is advisable to develop a comprehensive Strategy for Investigating Crimes in the Digital Age. The provisions of the Strategy should include: forensic investigation and use of electronic information, means of its processing; tactics of investigative actions aimed at obtaining electronic evidence and proper investigation of crimes; development of automated methods of crime investigation; introduction of electronic document management in criminal proceedings. The development of this content of the investigation strategy will ensure the effectiveness of the pre-trial investigation in the context of digitalization of society. The prospect of further research will also be the search for an appropriate procedural mechanism for involving narrow specialists in the process of forensic examination and crime investigation.

Bibliographic references

Agibalov, V. (2012). Virtual traces in criminology and criminal procedure: a monograph. Moscow: Yurlitinform. Retrieved from https://search.rsl.ru/ru/record/01005369749

Baryshnikov, K., & Chervyakov, M. (2018). On the use of unmanned aerial vehicles during the inspection of the scene. Retrieved from: https://cyberleninka.ru/article/n/k-voprosu-o-primenenii-bespilotnyh-letatelnyh-apparatov-v-hode-osmotra-mesta-proisshestviya/viewer

Cabinet of Ministers of Ukraine. (2020). Report of the National Police of Ukraine on the results of work in 2020. Retrieved from https://www.kmu.gov.ua/storage/app/sites/1/17-civik-2018/zvit2020/npu-zvit-2020.pdf

Council of Europe. (1999). Criminal Law Convention on Corruption. Retrieved from https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/173

Covington Alert. (2021). Cross-Border Criminal Cooperation in a Post-Brexit World. Retrieved from https://www.cov.com/en/news-and-insights/insights/2021/01/cross-border-criminal-cooperation-in-a-post-brexit-world

Data center security systems. (2021). Ukraine Country Security Report. Bureau of Diplomatic Security. USA. Retrieved from https://www.osac.gov/

European Commission. (2018). Smarter drones to support Europe's police forces. Retrieved from: https://cordis.europa.eu/article/id/233266-smarter-drones-to-support-europes-police-forces

European Union. (2020). EU Security Union Strategy. Communication from the commission to the European parliament, the European council, the council, the European economic and social committee and the committee of the regions. Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0605

European Union. (2021). EU Strategy to tackle Organised Crime 2021-2025. Communication from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions. Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0170&qid=1632306192409

Europol. (2021). European Union serious and organised crime threat assessment. Report. Retrieved from https://www.europol.europa.eu/activities-services/main-reports/european-union-serious-and-organised-crime-threat-assessment

Fujitsu. (2020). "Actlyzer" – AI innovation unlocks behavioural analysis (Transforming AI behavior analysis accessibility). Retrieved from https://www.fujitsu.com/global/about/research/article/202008-actlyzer.html

Global Peace Index. (2020). Measuring Peace in a Complex World, Sydney, June 2020. Institute for Economics & Peace. Retrieved from: https://www.visionofhumanity.org/wp-content/uploads/2020/10/GPI_2020_web.pdf

Horan, C., & Saiedian, H. (2021). Cyber crime investigation: Landscape, challenges, and future research directions. Journal of Cybersecurity and Privacy, 1, 580-596. https://doi.org/10.3390/jcp1040029

ICLG. (2021). Sweden: Cyber security laws and regulations. Retrieved from https://iclg.com/practice-areas/cybersecurity-laws-and-regulations/sweden

inFranken.de. (2021) University of Bayreuth: New laboratory planned for research into isotopes. Retrieved from: https://www.infranken.de/lk/bayreuth/uni-bayreuth-neues-labor-fuer-die-erforschung-von-isotopen-geplant-art-5233939

Interfax-Ukraine. (2021). Cybercrime, legal regulation. Retrieved from https://ua.interfax.com.ua/news/press-release/756785.html

Khan, H., Hanif, S., & Muhammad, B. (2021). A survey of machine learning applications in digital forensics. Trends in Computer Science and Information Technology, 6(1), 020-024.

King, T., Aggarwal, N., Taddeo, M., & Floridi, L. (2020). Artificial intelligence crime: An interdisciplinary analysis of foreseeable threats and solutions. Science and Engineering

Ethics, 26, 89-120 (2020). https://doi.org/10.1007/s11948-018-00081-0

Knure. (2019). On the assistance of artificial intelligence in the prevention and detection of crimes. Retrieved from https://nure.ua/pro-dopomogu-shtuchnogo-intelektu-u-zapobiganni-ta-vijavlenni-zlochiniv

Kuzmichova-Kyslenko, E., Horodetska, M., Smal, I., Hurina, D., & Pototskyi, M. (2021). Judicial Control over the Observance of Human Rights and Freedoms during the Detention of a Person. Cuestiones Políticas, 39(69), 643-665.

Kyiv Smart city. (2021). Safe city. Kyiv Smart City. Retrieved from: https://kyiv.digital/start

Ministry and Committee for digital transformation of Ukraine. (2020). The Ministry of Education and Science formed an expert committee on the development of artificial intelligence. Retrieved from https://thedigital.gov.ua/news/mintsifra-sformuvala-ekspertniy-komitet-z-pitan-rozvitku-sferi-shtuchnogo-intelektu

Negrebetsky, V. (2021). Biometric technologies in criminology: functions and possibilities of use. Entrepreneurship, economy, law. Criminalistics, 3, 296-299. https://doi.org/10.32849/2663-5313/2021.3.48

Pavliuk, N. (2019). Fixation of evidence by means of 3D-visualization systems. Materials of the scientific conference based on the results of the work of specialists of the Research Institute (pp. 158-160). Kharkiv: Pravo.

Perlin, S., & Stepaniuk, R. (2020). Directions of development of the structure and content of forensic equipment in Ukraine. Forensic Bulletin, 32(2), 6-14. https://doi.org/10.37025/1992-4437/2019-32-2-6

Raina, P. (2020). A Privacy and Integrity Preserving Framework for Incorporating Intelligence in Digital Forensics. Retrieved from http://dspace.chitkarauniversity.edu.in/xmlui/handle/123456789/53

RFI. (2021). EU police agency warns Covid pandemic is fuelling rise in organised crime. Retrieved from https://www.rfi.fr/en/europe/20210412-eu-police-agency-warns-covid-pandemic-is-fuelling-rise-in-organised-crime

Shepitko, V. (2019). Innovations in criminology as a reflection of the development of science. Innovative methods and digital technologies in criminology, forensic science and legal practice: materials of the international "round table" (pp. 147-150). Kharkiv: Pravo.

Shevchuk, V. (2020). Prospects and innovations research of criminalistic technique. Scientific Collection "Interconf" No 3(33). Retrieved from https://ojs.ukrlogos.in.ua/index.php/interconf/article/view/5317

Singh, S. (2018). An evaluation of the role of forensic science in crime scene reconstruction. (Submitted for magister technology degree). University of South Africa. Retrieved from https://core.ac.uk/download/pdf/162048389.pdf

The Ministry of Justice. (2021). Kyoto Congress. Retrieved from https://www.moj.go.jp/KYOTOCONGRESS2020/

Transparency International Ukraine. (2020). Corruption Perceptions Index - 2020. Retrieved from https://ti-ukraine.org/research/indeks-spryjnyattya-koruptsiyi-2020/

Ukrinform. (2020). Artificial intelligence will help avoid recidivism: the Ministry of Justice is launching a "Cassandra". Retrieved from https://www.ukrinform.ua/rubric-technology/3098629-stucnij-intelekt-dopomoze-uniknuti-povtornih-zlociniv-minust-zapuskae-kasandru.html

Verkhovna Rada of Ukraine. (2020). Draft Law on State Registration of Human Genomic Information № 4265 (Last call 26.10.2020). Retrieved from http://search.ligazakon.ua/l_doc2.nsf/link1/JI03492I.html

Vuima, A. G. (2020). Peculiarities while preparing to the appointment of forensic molecular genetics examination in criminal proceedings initiated due to murders. Theory and Practice of Forensic Science and Criminalistics, 21(1), 79-91. https://doi.org/10.32353/khrife.1.2020_05

World Economic Forum. (2020). The Global Risks Report. Retrieved from http://reports.weforum.org/global-risks-report-2020/

Yaacoub, J. P., Noura, H., Salman, O., & Chehab, A. (2021). Digital forensics vs. Anti-digital forensics: Techniques, limitations and recommendations. arXiv: 2103.17028. Retrieved from https://arxiv.org/abs/2103.17028

The efficiency of tools for social interaction between public authorities and civil society

Ефективність інструментів соціальної взаємодії органів державної влади та громадянського

Written by:
Olha V. Tikhonova[56]
https://orcid.org/0000-0003-1063-2207
Andrii H. Holdovskyi[57]
https://orcid.org/0000-0001-9048-742X
Oksana B. Bratasyuk[58]
https://orcid.org/0000-0002-5871-4386
Natalia S. Chornohor[59]
https://orcid.org/0000-0002-2496-5371
Nadiia A. Herbut[60]
https://orcid.org/0000-0001-9776-3386
Nataliia K. Serohina[61]
https://orcid.org/0000-0001-7018-8983

Abstract

The aim of the article is to assess the effectiveness of the current tools for interaction between public authorities and civil society in Ukraine. A distinctive feature of this study is the use of the content analysis to study the content of consultations of central government bodies with the public, discussions of draft laws, decrees, resolutions, orders, petitions of citizens, as well as recommendations of expert opinions and proposals of public councils and measures for their implementation. The analysis allowed identifying significant shortcomings in organizing work to establish cooperation between central government bodies and the public. These shortcomings involve the dominance of a purely statistical approach to analyzing the petitions of citizens, neglect of public consultations, disregard for the proposals

Анотація

Метою статті є оцінка ефективності наявних інструментів взаємодії органів державної влади та громадянського суспільства в Україні. Винятковою особливістю цього дослідження є використання контент-аналізу для вивчення змісту консультацій центральних органів влади з громадськістю, обговорення законопроектів, наказів, постанов, розпоряджень, звернень громадян, а також рекомендацій експертних висновків та пропозиції громадських рад та заходи щодо їх виконання. Аналіз дозволив виявити суттєві недоліки в організації роботи з налагодження взаємодії органів центральної влади з громадськістю. До таких недоліків належить зокрема домінування суто статистичного підходу до аналізу звернень громадян, нехтування громадськими консультаціями, ігнорування пропозицій

[56] Postgraduate student, Department of Political Science, Faculty of Political Science and Law, M. P. Drahomanov National Pedagogical University, Kyiv, Ukraine.
[57] Postgraduate student, Department of Public Policy, Institute of Public Administration and Civil Service, Kyiv National University named after Taras Shevchenko, Kyiv, Ukraine.
[58] PhD in Law, Head of Department of Constitutional, Administrative and Financial Law, West Ukrainian National University, Ternopil, Ukraine.
[59] Postgraduate student, Lecturer, Department of Fundamental and Legal Sciences, Faculty № 6, Kharkiv National University of Internal Affairs, Kharkiv, Ukraine.
[60] PhD in Political Sciences, Associate Professor, Department of Political Sciences and Law, Faculty of Urban and Spatial Planning, Kyiv National University of Construction and Architecture, Kyiv, Ukraine.
[61] PhD in Public Administration, Associate Professor, Department of Public Administration and Local Self-Government, Educational and Scientific Institute of Public Administration, Dnipro University of Technology, Dnipro, Ukraine.

Tikhonova, O.V., Holdovskyi, A.H., Bratasyuk, O.B., Chornohor, N.S., Herbut, N.A., Serohina, N.K. / Volume 11 - Issue 51: 161-170 / March, 2022

162

of public expert committees, and a formal approach to the activities of public councils at the ministries. The decreasing effectiveness of interaction between public authorities and civil society in Ukraine is noted, which is caused by the bureaucratization of this process on the one hand, and by the lack of citizens' skills to defend their position in the legitimate field of social and political relations, on the other hand.

Keywords: civil society, government bodies, information, social partnership, legislative initiative, governance.

громадських експертних комісій, формальний підхід до діяльності громадських рад при міністерствах. Відзначається зниження ефективності взаємодії органів державної влади та громадянського суспільства в Україні, що зумовлено бюрократизацією цього процесу з одного боку, та відсутністю у громадян навичок відстоювати свою позицію в легітимному полі суспільно-політичних відносин з іншого боку.

Ключові слова: громадянське суспільство, державні органи, інформація, соціальне партнерство, законодавча ініціатива, управління.

Introduction

The interaction of public authorities with the civil society institutions is a precondition for the establishment of Ukraine as a legal democratic state. This interaction should promote the country's sustainable development by improving governance through the involvement of the public in the development and implementation of effective government programmes to address political, socio-economic and humanitarian problems, as well as to exercise control over the activities of public authorities at all levels in order to establish a state governed by the rule of law. The Revolution of Dignity showed the influence of the public on socio-political transformations, and also demonstrated the lack of effective interaction between the government and society. The National Strategy for Civil Society Development in Ukraine (2016-2020) adopted in February 2016 was designed to create favourable conditions for the development of civil society, establishing effective partnership-based interaction between the public and public authorities, local self-government bodies. Other objectives of the Strategy included the provision of additional opportunities for the implementation and protection of human and civil rights and freedoms, meeting public interests through different forms of participatory democracy, public initiative and self-organization (Decree of the President of Ukraine № 68/2016 of February 26, 2016) 'On the National Strategy for Promoting the Development of Civil Society in Ukraine'.

Civil society institutions do not want to be passive observers of the decision-making process of the authorities, but want to cooperate actively with the latter to solve social problems. At the same time, most executive authorities feel the need to unite efforts with the public sector, looking for partner organizations" (Yarema,

2021). Therefore, it is necessary to change the vector of interaction between the state and the public sector in terms of searching for new mechanisms of interaction in order to implement different partnership formats. This approach has a long-term positive effect, as the experience of democratic countries, primarily the EU, testifies. So, a study of the practical side of the interaction of public authorities with civil society institutions is becoming especially relevant in Ukraine.

The aim of the article is to determine the effectiveness of the current tools for interaction between public authorities and civil society in Ukraine in a group of practices where the initiative belongs to the public.

The aim involved the following objectives:

- study the nature of citizens' participation in the development of management decisions (legislative initiatives, discussion of draft laws and other regulatory acts);
- analyse the dynamics of citizens' petitions to government bodies;
- consider the problems of consultations of public authorities with the public, as well as the effectiveness of the activities of public councils and the conduct of public examinations;
- compare the effectiveness of cooperation of public institutions included in the sample with the public.

Literature Review

Since the 1990's, the problem of relations between the state and civil society has acquired a new meaning against the background of the downfall of authoritarian regimes in Europe.

Thee began to consider civil society as a factor in opposition to the authoritarianism of the government and a condition for the development of democracy. These transformations in terms of the influence of civil society on state politics reflect the features of ideal democracy developed by Dahl (2017). In his opinion, an ideal democracy would have, at least, the following features:

1. Effective participation. Before accepting or rejecting a policy, members of the public can express their views on the policy to other members.
2. Equality in voting. Members of the public have the option to vote for or against politics, and all votes are counted as equal.
3. An informed electorate. Members of the public have the opportunity to learn, within a reasonable time, about the policy and possible policy alternatives, as well as their possible consequences.
4. Control of the agenda by citizens. Society, and only society, decides which issues are included in the decision-making agenda and how they are placed there. So, the democratic process is "open" in the sense that society can change the policy of the association at any time.
5. Engagement. Each member of the public has the right to participate in the association in the ways described.
6. Basic rights. Each of the necessary features of an ideal democracy provides for rights that are a necessary feature of an ideal democracy: in such a way each member of the public has the right to communicate with others, the right to have his/her vote counted equally with the votes of others, the right to collect information, the right to participate on an equal basis with other members, and the right to exercise control over the agenda together with other members.

Vandyck (2018), advocating a partnership between public authorities and civil society, notes: "As states have become more functional and democratic, the role of civil society has changed, as it is now largely recognized as a strategic partner... The reinterpreted relationship will be based on both sectors using their excellent assets and influence to better respond to complex development challenges".

The authors of the concept of participatory democracy, which has become one of the most popular in modern general theory of democracy, prioritize the importance of public participation in public affairs. As Delli (2009) defined, civic engagement or participation is any individual or group activity aimed at resolving issues of public interest. As Checkoway and Aldana (2013) point out, civic engagement is "the process in which people take collective action to solve problems of public interest" and is "instrumental in democracy".

Building on this concept, Fowler and Biekart (2013) are looking at a comprehensive complement to this effort, called civic change. Based on a grounded empirical approach, researchers propose constituent principles and elements that can both improve and deepen the understanding of the relationship between civic engagement and socio-political processes. These fundamental provisions find case-study confirmation on the example of the participation of civil society in overcoming the consequences of the COVID-19 pandemic in the study by Kövér (2021).

His methodology also finds its rationale in the concept of electronic, or digital, democracy. Its founders Van Dijk and Hacker (2018) provided an interpretation of the concept as the sharing of information and communication technologies for political and democratic practices, both online and offline. Summarizing the leading concepts, Linder and Aichhozer (2019), proposed an understanding of e-democracy as a practice of democracy supported by digital media in political communication and participation. At the same time, e-participation involves all forms of political participation using digital media, including both officially institutionalized mechanisms and informal public engagement.

It is important that the theoretical and empirical developments of scientists have been enshrined in the regulatory documents of the UN, the Council of Europe and the European Union. The key principles of public participation in political decision-making, adopted by the Committee of Ministers of the Council of Europe (2017), define four types of public participation: provision of information, consultation, dialogue, active involvement. The updated code of best practices for public participation in decision-making, approved by the Standing Committee of the Council of Europe (2019) for adoption by the Conference of International Non-Governmental Organizations (INGOs) on October 30, 2019, defines such principles of political participation of citizens as: Participation, Trust, Accountability and Transparency, Independence. This document also describes a matrix of public participation, which consists of such tools as information, consultation, dialogue, partnership.

These provisions serve as guidelines for the institutionalization of the process of involving citizens in the development of public policy.

Materials and Methods

The first stage of the research procedure provided for the identification of particular instruments to be assessed. The groups of practices where the initiative belongs to the public have been included in such tools based on the recommendations of the Council of Europe mentioned above. These tools were divided according to the engagement levels and the opportunities for citizens to influence public policy-making. So, the first level — informing — involved the analysis of the implementation of the Open Parliament and Open Government initiatives. The second level provided for the study of a basic tool of public participation — citizens' petitions. At the beginning, data on the number of citizens' petitions to the central government bodies over the past five years were collected and posted on the relevant pages of official websites. The data collected were further summarized to provide their dynamics for the relevant institutions. The third level involved the analysis of the activity of citizens in submitting electronic petitions as a potential form of legislative initiative and the highest authorities' response. For this purpose, data on submitted petitions, for which the signatures are being collected, which are under consideration and which have already been responded to were collected on the relevant pages of the official websites of the Office of the President of Ukraine and the Verkhovna Rada of Ukraine. The fourth level provided for the analysis of citizen participation in the discussion of draft laws on the portal of the Verkhovna Rada of Ukraine, as well as consultations on regulations of the Cabinet of Ministers of Ukraine and other executive bodies using data obtained from official websites. The analysis covered not only the number of announced consultations, but also their real effectiveness in relation to the submitted proposals and their implementation. Data on the effectiveness of such specialized and qualified tools as expert committees of public organizations were studied at the fifth level. For this purpose, data were collected on the conduct of relevant inspections in the ministries, followed by the analysis of the content of recommendations and the state of their implementation. The sixth level involved determining the effectiveness of such supreme tool of interaction between the authorities and the public as public councils at the government agencies. Their organization, the regularity of

their work and the content of the produced documents were considered for this purpose.

The study's focus on the effectiveness of existing tools for social interaction between public authorities and civil society in Ukraine determined the application of the following methods:

– content analysis — to study the content of consultations between the central government bodies and the public, to discuss draft laws, decrees, resolutions, orders and citizens' petitions, as well as recommendations of expert opinions and proposals of public councils, as well as measures for their implementation;
– statistical method — to analyse the dynamics of citizens' and non-governmental organizations' petitions and requests to the authorities and responses of the latter;
– comparative method — to compare the actual indicators describing the effectiveness of cooperation of government agencies included in the sample with civil society.

Results

1. The analysis of the implementation of the Open Parliament Initiative to better inform the public about the activities of the Verkhovna Rada of Ukraine and the Open Government Initiative of the Cabinet of Ministers of Ukraine revealed the following:

a) The Open Parliament portal is designed to provide access to public information of the Verkhovna Rada of Ukraine in the form of open data, and provides access to information with the possibility of its subsequent free use.
b) The Fifth Action Plan for the implementation of the Open Government Partnership Initiative in Ukraine, which was approved on February 24, 2021 (Decree of the Cabinet of Ministers No. 149 of February 24, 2021) on the implementation of the Open Government Partnership Initiative in Ukraine in years 2021-2022, is currently being implemented. The Plan encompassed 14 objectives, including: ensuring the functioning of the online platform for the interaction of executive authorities with citizens and civil society institutions (VzaiemoDiia platform); increasing transparency in infrastructure, extractive industries and public finance management; ensuring openness and transparency of state property accounting; providing access to

information on patenting and innovation development; further disclosure of information on beneficial owners; providing access to gender-disaggregated data.

2. The dynamics of citizens' petitions to public authorities calculated in the course of research is as follows (Table 1):

Table 1.
Dynamics of Ukrainian citizens' petitions submitted to public authorities (2016-2020)

	2016	2017	2018	2019	2020
Office of the President of Ukraine	54,100	65,500	61,723	74,984	64,558
Verkhovna Rada of Ukraine	95,800	113,700	105,100	78,300	118,000
Cabinet of Ministers of Ukraine				**20,845**	**27,199**
Ministry of Defence of Ukraine	**54,959**	**50,230**	54,392	62,132	67,290
Ministry of Foreign Affairs of Ukraine	No information				
Ministry of Internal Affairs of Ukraine		12,766	11,807	13,398	For the first half of the year 11,773
Security Service of Ukraine	No information				
Ministry of Healthcare of Ukraine	19,308	26,472	19,629	18,268	For the first half of the year 9,976
Ministry of Education and Science of Ukraine	For the first half of the year 6,335	11,865	14,506		
Ministry of Social Policy of Ukraine	37,483	35,181	34,752	35,217	26,168
Ministry of Economy of Ukraine	2,933	2,522	3,369	2,707	6,688
Ministry of Justice of Ukraine	No information				

3. The analysis of the citizens' activity in the submission of electronic petitions as a potential form of legislative initiative revealed the following:

a) There is no generalized information on the official portal of the Verkhovna Rada of Ukraine in the Citizens' Petitions section. According to the authors' calculations, there were only 45 petitions for which signatures are being collected as of November 26, 2021, (Verkhovna Rada of Ukraine, n. d.). But there are no petitions pending (i.e. they did not get the required number of 25,000 votes).

b) The official portal of the Office of the President of Ukraine (n. d.), the Citizens' Petitions section provides no generalized information about petitions. The authors counted only 94 petitions that were responded to. A curious fact is that the petition for the resignation of the President

of Ukraine Volodymyr Zelensky had the largest number of votes (60,189).

4. The analysis of citizens' participation in the discussion of draft laws on the Verkhovna Rada of Ukraine website, as well as consultations on the regulatory acts of the Cabinet of Ministers of Ukraine and other executive authorities gave the following results:

a) As of November 26, 2021, the following statistical information is posted on the Verkhovna Rada of Ukraine website. Draft laws submitted for discussion by committees: submitted for discussion out of 23 committees — 0, discussion completed — 5 (Anti-Corruption Committee - 2, Committee on Humanitarian and Information Policy — 1, Committee on Ukraine's Integration into the European Union — 1, Committee on State Building,

Local Governance, Regional and Urban Development – 1).

By headings: submitted for discussion out of 13 headings — 0, discussion completed — 27 (Legal policy — 19, State Building — 3, Sectoral Development — 3. Bilateral international agreements — 1, Others (Verkhovna Rada statements, applications) – 1) (Verkhovna Rada of Ukraine, n. d.).

b) Based on the data posted on the Cabinet of Ministers of Ukraine (n. d.) official website the authors calculated those 72 executive authorities held 1,463 events as part of public consultations during the first half of 2021. There were 1,389 issues of public importance submitted for discussion, including 802 draft regulatory documents. The number of the events held as part of public consultations was as follows: in ministries — 511, in other executive authorities — 321, in regional and Kyiv city public administrations — 631. At the same time, issues of public importance were discussed: in ministries — 511, in other executive authorities — 291, in regional and Kyiv city public administrations — 587.

In 2020 75 executive authorities held 3,107 events as part of public consultations. There were 3,024 issues of social importance submitted for discussion, including 1,715 draft regulatory acts. The number of events held as part of public consultations: in ministries — 1,094, in other executive authorities — 572, in regional and Kyiv city public administrations — 1,441. The number of issues of social importance discussed: in ministries — 1,094, in other executive authorities — 533, in regional and Kyiv city public administrations — 1,397. A comparison with similar data on the ministries' websites showed, however, that they register only the announced consultations and do not contain information about the real efficiency of these measures.

c) Content analysis of the information collected on the government agencies' official websites included in the sample revealed the following.

There is no information at all about holding consultations with the public on the Office of the President of Ukraine official portal.

Only general theoretical information is posted on the Security Service of Ukraine website in the Public Control sub-section. It is also indicated that there were developed platforms for communication with a number of business associations, representatives of the IT sector, human rights organizations on the Service management initiative, but it is not indicated where these platforms are.

Only instructions for holding consultations are posted on the Ministry of Defence of Ukraine official website, on a page hidden in the Public Council sub-section (Ministry of Defence of Ukraine, n. d./a), but there is no information about their actual holding.

The Ministry of Foreign Affairs of Ukraine website reports that the public consultations announced in 2018 and 2019 were not held because of the absence of public representatives and the media (Ministry of Foreign Affairs of Ukraine, 2019a). There are no announcements at all about consultations for the next two years.

The Ministry of Internal Affairs of Ukraine (2021) announced 21 public consultations in 2021 on its official website and provided detailed reports on 20 of them.

The Ministry of Healthcare of Ukraine (n. d.) website provides no information about electronic consultations at all. In 2021 the Ministry announced 8 public consultations. But the information about the proposals is usually not detailed. The report on public discussion of the Cabinet of Ministers of Ukraine draft order "On the Affordable Medicines Reimbursement Programme" is indicative in terms of effectiveness. It shows that only 1 out of 16 proposals was taken into account, 1 was partially taken into account, 14 were not taken into account.

According to the authors' calculations, the Ministry of Education and Science of Ukraine (2018) announced 119 public discussions and consultations in 2018, 106 in 2019, 138 in 2020, and 97 as of November 2021 but there are no reports on the results of these events on the website.

The Ministry of Social Policy of Ukraine (n. d.) announced 90 public consultations in 2021.

An analysis of reports shows that the citizens' engagement level in the discussion of draft regulatory acts is rather low. An exception was the discussion of the Draft Decree "On Amendments to the National Strategy for Reforming the System of Institutional Care and Upbringing of Children for 2017-2026" held on

January 16, 2021. It was joined by 1,542 users, out of which 1,125 agreed with the project, and 143 proposals were submitted.

5. The study of the effectiveness of such specialized and qualified tools as expert committees of public organizations revealed the following:

a) According to the Cabinet of Ministers of Ukraine, 35 examinations of ministries, other executive authorities, regional and district public administrations were carried out.
b) According to the information posted on the official websites, the Office of the President of Ukraine, the agencies of the Verkhovna Rada of Ukraine and the Cabinet of Ministers of Ukraine, as well as the Security Service of Ukraine did not carry out any public examinations, and it was not planned as of November 2021.
c) The analysis of public examinations conducted by the Ukrainian Democracy public association on the interaction of ministries with the public is of particular importance for this research. Those examinations were carried out in 2018 at the Ministry of Foreign Affairs of Ukraine and the Ministry of Defence of Ukraine, and in 2019 — at the Ministry of Internal Affairs and the Ministry of Justice of Ukraine. Based on the examinations results, all ministries were recommended to create "Study of public opinion" sub-section on the official websites within the existing "Public" section and ensure its filling. But, despite the introduction of this proposal into the expert recommendations implementation plans, not a single ministry has yet fulfilled it. According to the results of the examinations, the Ministry of Foreign Affairs of Ukraine (2019b) received a total of 11 recommendations, and only 3 were fulfilled.

Despite the fact that 33 proposals were submitted to the Ministry of Defence of Ukraine (n. d./b), their implementation plan includes only 5 items, 3 of which are briefings. Moreover, the item that provides for the conduct of anti-corruption examinations, was left unfulfilled.

The Ministry of Justice of Ukraine (n. d.) has fulfilled only 4 out of 10 proposals.

Based on the examination results, the Ministry of Internal Affairs (n. d./b.) issued 2 orders, developed an action plan for the fulfilment of expert proposals. In this regard, 41 proposals of the public association were summarized in 10 items, 9 of which were fulfilled.

Discussion

Discussion of the results of this study opens up three discussion panels. The opportunities for discourse opened up in the first panel are related to the comparison of indicators that determine the difference in the level of interaction between different public authorities of Ukraine, which were included in the sample, and civil society. The second panel results from a critical analysis of the methods used to determine the effectiveness of social interaction between public authorities and civil society. Finally, the third panel is based on the issue of the people's legislative initiative.

1. Comparative analysis of the effectiveness of interaction between public authorities included in the sample with civil society shows that operating in a familiar social environment, being guided by uniform regulatory acts and having the same institutional capacity, different institutions have different attitudes to the use of available tools for this interaction. This difference is noticeable even inside the functional blocks. In the social and economic block, despite all the existing shortcomings, the Ministry of Social Policy confidently holds the lead in such indicators as the dynamics of petitions, public consultations, response to the opinions of expert committees, and the Public Council's activities. Against this background, the position of the Ministry of Health seems completely irresponsible, which, instead of stepping up efforts to cooperate with citizens during the pandemic, avoids consultations with them and possible helpful advice from the Public Council. This position of the Ministry of Health obviously contradicts the world practice, which is described in Kövér (2021).

Strange though it might seem, the Ministry of Defence of Ukraine has significant advantages over the Ministry of Foreign Affairs in terms of openness to citizens' petitions in the block of institutions responsible for the external functions of the state. The dynamics of petitions identified by the author indicate that the Ministry of Defence is one of the leaders, and the main diplomatic mission, the heads of which always loudly declare their commitment to European democratic principles, does not even have open and accessible reporting on citizens' petitions.

This discrepancy is even more apparent, given the unsatisfactory work of the Ministry of Foreign Affairs on organizing consultations and the lack of cooperation with the Public Council. The position of the Ministry of Foreign Affairs proves that, as Vandyck (2018) writes, government agencies manipulate and shape the civic space to prevent the influence of civil society through various forms of co-optation. As the results show, this thesis can also be addressed to the agencies of Office of the President of Ukraine, the Cabinet of Ministers of Ukraine and the Verkhovna Rada.

In a legal bloc that combines human rights and law enforcement agencies, the Ministry of the Internal Affairs looks much more open to cooperation with the public than the Security Service, and even the Ministry of Justice. In general, almost complete lack of real interaction between the Security Service of Ukraine and the public threatens to leave this strict power without any public control. In discussing this issue, we should take into account the conclusion made by Loada and Moderan (2015) that the lack of civilian democratic control and oversight of the security sector creates favourable conditions for corruption, impunity and harassment, where even the most effective security sector can become a tool of authoritarian rule.

2. The research results also encourage critical analysis of methods for determining the effectiveness of interaction between government and society, which are proposed in the modern literature.

They include the normative method, which provides that efficiency is determined by the level of legitimization of civil society participation in public administration. For example, Puljek-Shank (2018) argues that legitimization is associated with different strategies and activities that allow for greater activity and broader results. But the presented results show that a developed regulatory framework is not a guarantee of effective interaction between the government and society.

3. The research results allow us to see the problem of people's legislative initiative in a new light, as they actually refute assertion that the effectiveness of electronic petitions, public examinations, public consultations, and public control has long been beyond doubt. Considering petitions as a form of legislative initiative, it should be recognized that the real activity of citizens in this area, as well as in the discussion of draft laws and

other regulatory acts is extremely low. So, even provided that all procedural difficulties are resolved through regulatory instruments, the issue of involving the people in a broad sense of the word in initiating draft regulatory acts for consideration in a representative public authority remains open. Forecasts based on disappointing statistics provided in the research results can be supported by references to the experience of European countries.

Conclusions

Assessment of the effectiveness of the current tools for interaction between public authorities and civil society is an urgent research objective in view of the need to establish an effective partnership between these social efforts to address pressing problems. The concept of civil society, which has its roots in antiquity and was developed in the works of liberal humanists of the New Age, became relevant again at the end of the 20th century because of the development of democratization. This concept has undergone significant changes in the 21st century due to the spread of different online forms of civic activity. The issue of increasing the role of citizens in public affairs, including public administration, is usually considered in scientific discourse in the regulatory and organizational aspect. But these approaches do not allow revealing the meaningful core of the interaction between government and civil society.

This is why the authors of this study focused on the content analysis, where central government bodies of Ukraine were the objects. The study was gradually ascending by levels characterized by the degree of engagement and the possibility of citizens' influence on the public policy making: information, petitions, public consultations and discussions, qualified public examinations, activities of Public Councils at the ministries, etc. This approach allowed obtaining the results that describe the real state of social interaction between public authorities and the public.

The study demonstrated that, the quality of interaction between public authorities and the public in Ukraine remains unsatisfactory and does not provide effective social partnership despite the regulatory framework, as well as organizational and institutional tools that meet the best international standards. The effectiveness of public authorities' interaction with civil society is declining, on the one hand, due to the bureaucratization of this process,

which is manifested in the dominance of a purely statistical approach to the analysis of citizens' petitions, contempt for public consultations, disregard for proposals of public expert committees, and formal approach Public Councils at the ministries. On the other hand, the current tools of interaction is due to the low activity of citizens in signing petitions, discussing draft laws and other regulatory acts, reluctance or inability of Ukrainians to use legitimate tools to influence the government, as well as the involvement of some public organizations. Therefore, it is urgent to provide guarantees for the implementation of public initiatives of social significance, as well as the establishment of an active civil position among Ukrainians and the ability to defend it in the legitimate field of public relations. The results obtained in the course of the study and the conclusions drawn on their basis will be useful in the process of implementing the National Strategy for Civil Society Development in Ukraine for 2021-2026. Further research in this area will be related to a comparative analysis of the tools for social interaction between public authorities and civil society in Ukraine and EU member states.

Bibliographic references

Cabinet of Ministers of Ukraine. (n. d.). Consideration of citizens' appeals: reports. Retrieved from https://www.kmu.gov.ua/gromadskosti/zver nennya-gromadyan/rozglyad-zvernen-gromadyan-zviti

Checkoway, B., & Aldana, A. (2013). Four forms of youth civic engagement for diverse democracy. Children and Youth Services Review, 35(11), 1894-1899. https://doi.org/10.1016/j.childyouth.2013.09.005

Committee of Ministers of the Council of Europe. (2017). Guide principles for civil participation in the political decision-making process (approved by the Committee of Ministries on 27 September 2017). Retrieved from https://rm.coe.int/guidelines-for-civil-participation-in-political-decision-making-en/16807626cf

Council of Europe (2019). Code of good practice for civil participation in the decision-making process (revised). Approved by the Standing Committee on 24 June 2019 for adoption by the conference of INGOS on 30 october 2019. Retrieved from https://www.kmu.gov.ua/storage/app/sites/1/17-civik-2018/rubrik_rekomehdation/code-of-good-practice-301019-en.pdf

Dahl, R. A. (2017). Democracy. Britannica. Retrieved from https://www.britannica.com/topic/democracy

Decree of the Cabinet of Ministers No. 149 of February 24, 2021 on the implementation of the Open Government Partnership Initiative in Ukraine in years 2021-2022 (Last modified 23 December 2021). Retrieved from https://zakon.rada.gov.ua/laws/show/149-2021-%D1%80#Text

Decree of the President of Ukraine № 68/2016 of February 26, 2016 'On the National Strategy for Promoting the Development of Civil Society in Ukraine' (Last modified 26 February 2016). Retrieved from https://www.president.gov.ua/documents/682016-19805

Delli, M. (2009). Civic engagement. American Psychological Association. Retrieved from https://www.apa.org/education-career/undergrad/civic-engagement

Fowler, A., & Biekart, K. (2013). Relocating civil society in a politics of civic-driven change. Development Policy Review, 31(41), 463–483. https://doi.org/10.1111/dpr.12015

Kövér, Á. (2021). The relationship between government and civil society in the era of COVID-19. Nonprofit Policy Forum, 12(1), 1-24. https://doi.org/10.1515/npf-2021-0007

Linder, R. & Aichhozer, G. (2019). E-democracy: conceptual foundations and recent trends. In E. Hennen et al. (Eds.), European e-democracy in practice (pp. 11- 45). Cham, Switzerland: Springer Nature. https://doi.org/10.1007/978-3-030-27184-8_2

Loada, A., & Moderan, O. (2015). Civil society involvement in security sector reform and governance. In O. Moderan (Ed.), Toolkit for security sector reform and governance inWest Africa. Geneva, Switzerland: DCAF. Retrieved from https://issat.dcaf.ch/download/104807/1875874/SSRG-West-Africa-Toolkit-Tool-6-EN.pdf

Ministry of Defence of Ukraine. (n. d./a). Electronic consultations. Retrieved from https://www.mil.gov.ua/diyalnist/zvyazki-z-gromadskistyu/gromadska-rada/konsultaczii/

Ministry of Defence of Ukraine. (n. d./b). Reports. Retrieved from https://www.mil.gov.ua/zvernennya-gromadyan/pub-reports/

Ministry of Education and Science of Ukraine (2018). Civil expertise. Retrieved from https://mon.gov.ua/ua/ministerstvo/gromadskosti/konsultaciyi-z-gromadskistyu/gromadska-ekspertiza

Ministry of Foreign Affairs of Ukraine. (2019a). Consultations with public. Retrieved from https://mfa.gov.ua/gromadskosti/konsultaciyi-z-gromadskistyu

Ministry of Foreign Affairs of Ukraine. (2019b). Expert recommendations. Retrieved from https://mfa.gov.ua/gromadskosti/gromadska-rada-pri-mzs-ukrayini/gromadskij-kontrol/ekspertni-rekomendaciyi

Ministry of Healthcare of Ukraine. (n. d.). Citizens' appeals. Retrieved from https://moz.gov.ua/zvernennja-dlja-gromadjan

Ministry of Internal Affairs of Ukraine. (2021), Electronic consultations with public. Retrieved from https://mvs.gov.ua/uk/for_citizens/work-with-citizens/elektronni-konsultaciyi-z-gromadskistyu

Ministry of Justice of Ukraine. (n. d.). For the public. Retrieved from https://minjust.gov.ua/ndd/communication/for_the_public

Ministry of Social Policy of Ukraine. (2021). Public Council. Retrieved from https://www.msp.gov.ua/timeline/Gromadska-rada.html

Office of the President of Ukraine. (n. d.). The state of processing of citizens' appeals. Retrieved from https://www.president.gov.ua/appeals/requests-state

Puljek-Shank, R. (2018). Civic agency in governance: the role of legitimacy with citizens vs. donors. VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations, 29, 870–883. https://doi.org/10.1007/s11266-018-0020-0.

Van Dijk, J.A.G.M., & Hacker, K. L. (Eds.). (2018). Internet and democracy in the network society. New York, NY: Routledge.

Vandyck, C. K. (2018). Opening up civic space through effective civil society and government cooperation. CSIS. Retrieved from https://www.csis.org/blogs/international-consortium-closing-civic-space/opening-civic-space-through-effective-civil

Verkhovna Rada of Ukraine (n. d.). Reports on citizens' appeals. Retrieved from http://vzvernen.rada.gov.ua/documents/ast_v/zv_zvernen_hr

Yarema, O. (2021). Interaction with civil society is a priority for the Government. Official website of Ukraine. Retrieved from https://www.kmu.gov.ua/news/oleksandr-yarema-vzayemodiya-z-gromadyanskim-suspilstvom-ye-prioritetom-dlya--uryadu?V=60a7591dc3b7b

Communication of EU public servants in the digital environment during the Covid-19 Pandemic

Комунікація державних службовців ЄС у цифровому середовищі під час пандемії Covid-19

Written by:
Valerii M. Dreshpak[62]
https://orcid.org/0000-0001-9802-3769
Viktor G. Kovalov[63]
https://orcid.org/0000-0001-7249-0959
Olena O. Kritenko[64]
https://orcid.org/0000-0001-9582-3007
Nataliia I. Shevchenko[65]
https://orcid.org/0000-0001-6386-8198
Nataliia V. Babachenko[66]
https://orcid.org/0000-0003-1674-1017

Abstract

The COVID-19 pandemic has accelerated the adaptation processes of digitalization in virtually all spheres of public life. The emergence of new e-government platforms and open data, which are currently being actively implemented in many countries worldwide, undoubtedly need to be improved and adjusted. The aim of the article was to conduct a comparative study of the best practices of the leading "digital" EU countries in the field of regulating digital public services and enhancing the communicative competencies of public servants. The key methodological tools applied in the research were the methods of observation and comparative legal analysis. The study showed that the pandemic identified the essential issues of digitalization within the framework of e-government. It was concluded that the rapid introduction of innovations in the area under analysis is associated in the EU with the emergence of adaptive problems, among which the leading ones are corruption, bureaucracy, low digital competence of public

Анотація

Пандемія COVID-19 прискорила адаптаційні процеси цифровізації практично у всіх сферах суспільного життя. Поява нових платформ електронного уряду та відкритих даних, які зараз активно впроваджуються в багатьох країнах світу, безсумнівно, потребує вдосконалення та коригування. Метою статті було проведення порівняльного дослідження передового досвіду провідних «цифрових» країн ЄС у сфері регулювання цифрових державних послуг та підвищення комунікативних компетенцій державних службовців. Основними методичними інструментами, застосованими в дослідженні, були методи спостереження та порівняльно-правового аналізу. Дослідження показало, що пандемія визначила суттєві питання цифровізації в рамках електронного урядування. Зроблено висновок, що швидке впровадження інновацій у досліджуваній сфері пов'язане в ЄС із появою адаптаційних проблем, серед яких провідними є корупція,

[62] Doctor of Public Administration, Professor, Department of Journalism, Faculty of Management, University of Customs and Finance, Dnipro, Ukraine.
[63] PhD in Public Administration, Associate Professor, Department of Public and Customs Administration, Faculty of Management, University of Customs and Finance, Dnipro, Ukraine.
[64] PhD in Public Administration, Associate Professor, Department of Public and Customs Administration, Faculty of Management, University of Customs and Finance, Dnipro, Ukraine.
[65] PhD in Public Administration, Associate Professor, Department of Public and Customs Administration, Faculty of Management, University of Customs and Finance, Dnipro, Ukraine.
[66] Postgraduate Student, Department of Public and Customs Administration, Faculty of Management, University of Customs and Finance, Dnipro, Ukraine.

Dreshpak, V.M., Kovalov, V.G., Kritenko, O.O., Shevchenko, N.I., Babachenko, M.V. / Volume 11 - Issue 51: 171-182 / March, 2022

172

servants and minimal digital literacy of the residents. The research perspective is a comparative analysis of the gradual implementation of the e-government reform updated models by the Member States.

Keywords: communicative competence, e-government, artificial intelligence, digitalization, public services, government ecosystem, corruption.

бюрократія, низька цифрова компетентність державних службовців та мінімальна цифрова грамотність мешканців. Дослідницька перспектива – це порівняльний аналіз поступового впровадження державами-членами оновлених моделей реформи електронного уряду.

Ключові слова: комунікативна компетентність, електронне урядування, штучний інтелект, оцифрування, державні послуги, державна екосистема, корупції.

Introduction

In 2020-2021, the world underwent dramatic changes in the context of the most countries' consolidated actions aimed at implementing the Decade of Action (United Nations, 2020a) in the framework of achieving the goals of sustainable development. Moreover, the situation with the COVID-19 pandemic has qualitatively transformed public relations and worsened the financial situation around the world. Also, some of the most difficult problems of the states, including the provision of a sustainable e-government system, have not yet been tackled at the interstate level. UN Secretary-General Guterres called on Member States and other stakeholders to "launch a decade of work and action for the benefit of the people and the planet" (United Nations, 2021), using the e-government model. The UN Secretary-General emphasizes that today's challenges need to be tackled on a multilateral basis through sustainable national institutions with effective governance capacity in order to be able to prevent and address the challenges facing the entire humanity.

The above factors and the increasing digitalization of all spheres of social life in their entirety have prompted the IT industry to render the speedy assistance to many people in the communication sphere, distance learning, remote work, etc. (United Nations' Conference on Trade and Development (United Nations Conference on trade and development (UNCTAD), 2020) – having created a new evolutionary stage in the development of the digital age. The world community is currently taking the most rapid adaptive measures to respond to the distancing of services and deliver an appropriate level of communication between the state and society in a pandemic. Globally the states have the opportunity to engage in unique direct interaction with citizens via the Internet. However, the pandemic revealed gaps in the infrastructure of state information and communication

technologies, as well as the unpreparedness of systems and organizations for such a situation. Researchers state that digitalization in the public sector provides opportunities to support the achievement of the 2030 Agenda and the Sustainable Development Goals (Council of Europe, 2020), by way of improving the efficiency of public services included (Fleron et al., 2021).

Notably, the recent state experience shows that the effective implementation of e-government models supports good governance and is overall important for the establishment of effective, accountable and inclusive institutions at all levels. The basic principle of e-government, supported by an effective institutional structure of public servants, is to enhance the internal work of the public sector by reducing financial costs and time in order to integrate workflows and processes, ensure efficient use of resources in all areas of various public sector institutions which are in search of sustainable solutions. The development of innovative technologies, especially the concept of open data, according to scientists, provides new opportunities for international, national and local NGOs to participate in various initiatives based on open data, aimed at promoting the components of e-participation and active public participation in the system e-government (Ramsetty & Adams, 2020). Currently, the projects that focus on delivering remote assistance to society in the fight against corruption and poverty, improving transport services, crime prevention, monitoring security standards in the commercial sector, etc., are gradually transforming the traditional mechanism for promoting e-government. Moreover, the savings of both ordinary citizens and budget funding are gradually growing. In Denmark, for example, electronic invoicing annually saves taxpayers €150 million and businesses €50 million (European Commission, 2021a). As part of the gradual integrated

implementation of e-government services in the EU, it is expected that in 2022 the annual savings may exceed €50 billion (Kabbar, 2021). In Italy alone, e-procurement systems have reduced costs by more than €3 billion (Organisation For Economic Co-Operation and Development (OECD), 2021b).

That said, the role of civil society is growing qualitatively, though, and consequently this contributes to changes in political culture and new social thinking. This entails that e-government is becoming more user-oriented and at that more resilient. E-government is a powerful tool in the combat against corruption. However, a number of researchers still question the role of e-government, arguing that this model is not only a powerful weapon against thereof, but also a basis for its prosperity. According to Rustiarini (2019), there are internal and external organizational factors that affect the effectiveness of e-government functions in combating corruption.
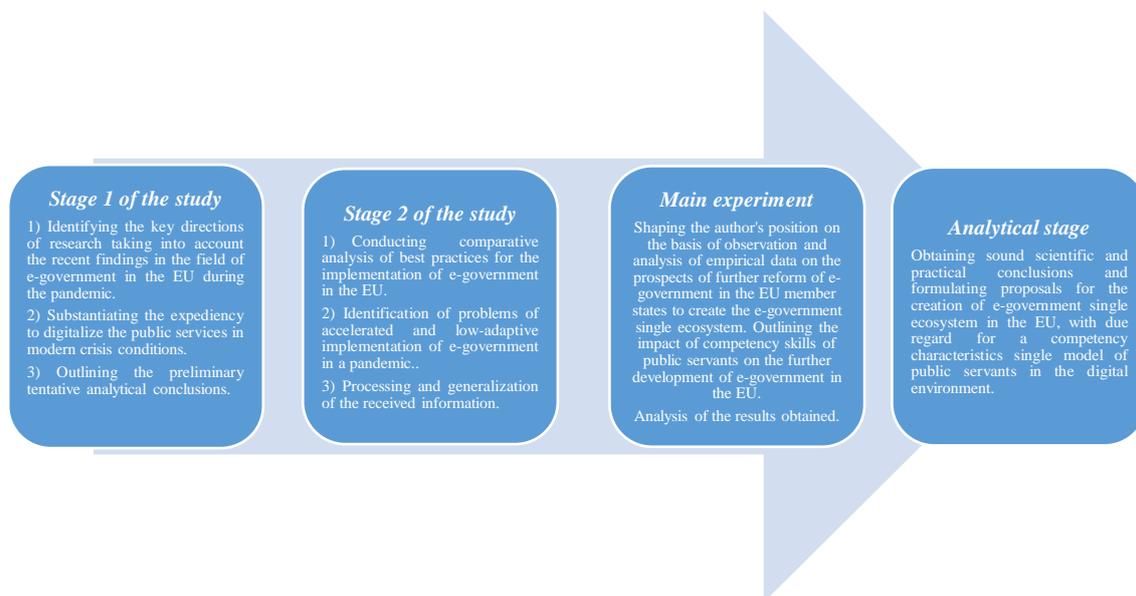
Nevertheless, as it turned out, with the advent of new technologies in this area, especially in the promotion of various interactive and public services, both public and private stakeholders have faced regulatory, organizational, socio-economic and infrastructural challenges. Apparently, the further development of a unified project of e-government as a sustainable ecosystem requires a large-scale transformation of public administration and, most importantly, public thinking. The efforts in this direction need therefore to focus both on reforming many administrative mechanisms, primarily

bureaucracy, and on strengthening democratic procedures, as the interactivity of e-government aims to promote political dialogue and the growth of political culture in the countries concerned. With that in mind, the competency component of the public servants' activities and the transformation of communication skills while delivering public services need to be qualitatively reconsidered.

In view of the above, the aim of the article was to analyze the legal regulation of public electronic services in the EU Member States, identify and reveal current problems of public servants communication in this area as well as outline the ways to improve them during the pandemic. To achieve this goal, the following objectives were set: 1) to identify the key problems of the e-government mechanism effectiveness in the territory of the EU Member States; 2) to highlight the key communicative competencies of public servants in the framework of public services digitalization; 3) to summarize the key directions of enhancing sustainable national ecosystems of the Member States' e-government.

Methods and Materials

The theoretical and methodological basis of the study were the scientific provisions of the theory of regional economic and digital development, administration and management, planning and forecasting, the scientific works in various fields. The research process, which drew on the recent empirical research and analytical data, had a step-by-step structure, which is laid out in Figure 1.

Stage 1 of the study
1) Identifying the key directions of research taking into account the recent findings in the field of e-government in the EU during the pandemic.
2) Substantiating the expediency to digitalize the public services in modern crisis conditions.
3) Outlining the preliminary tentative analytical conclusions.

Stage 2 of the study
1) Conducting comparative analysis of best practices for the implementation of e-government in the EU.
2) Identification of problems of accelerated and low-adaptive implementation of e-government in a pandemic..
3) Processing and generalization of the received information.

Main experiment
Shaping the author's position on the basis of observation and analysis of empirical data on the prospects of further reform of e-government in the EU member states to create the e-government single ecosystem. Outlining the impact of competency skills of public servants on the further development of e-government in the EU.
Analysis of the results obtained.

Analytical stage
Obtaining sound scientific and practical conclusions and formulating proposals for the creation of e-government single ecosystem in the EU, with due regard for a competency characteristics single model of public servants in the digital environment.

Figure 1. The structure of the author's research on the article subject. Source: authors

A set of general scientific and special methods was used to address the tasks put forward in the article. The leading practical method was the method of observation. As part of the testing of this methodological toolkit, the expediency of refining the methods of implementing e-government in a pandemic by the majority of EU Member States was substantiated. Due to the observation and comparative analysis of the best practices of the EU Member States, the expediency of gradual further full automation of electronic public services with the use of artificial intelligence was substantiated. One of the advantages of this study is the use of available indicators of changes in the attitude of civil society to public e-government, identified by comparing the analytical reports provided before and after the outbreak of COVID-19.

The method of theoretical generalization was used to identify the features of the theoretical foundations of strategic management of the electronic services balanced development, as well as for a comprehensive description of the transformation processes of territorial and economic systems and digitalization; the abstract-logical method was used to substantiate the principles of the legal regulation system of state electronic services, as well as to analyze the conceptual and methodological approaches to strategic management of the development of such services; statistical, graphic analysis, grouping method were used to assess the status and results of introducing the innovative information technologies in the field of public services, to evaluate the characteristics of innovative regional development; the analysis, synthesis, deduction, induction methods were used to substantiate the conceptual provisions and enhance the mechanism of implementing the state electronic services; the economic and statistical methods were used for performing the statistical analysis of the public electronic services development and their efficiency in the EU; the method of expert evaluation was used to assess the degree of achieving a balanced development of electronic public services in the context of modern pandemic transformations; the structural and logical analysis was used to justify the methodological approaches to transformation models in the era of digitalization of public services and the realities of society; the system economic analysis was used to substantiate the model of integration processes of regional innovation development in the context of digitalization in the EU Member States, to determine the directions of digital transformation of national government systems and relevant public services.

The method of historical legal research was applied in studying the development genesis of the main models of effective implementation of public electronic services in the EU; the formal logical method provided an opportunity to identify the gaps in the process of intensified implementation of e-government by the EU Member States. Furthermore, the use of dogmatic method made it possible to formulate the conclusions in accordance with the purpose of the study. The normative-semantic approach, logical methods of cognition and the method of legal modeling were used in the formulation of proposals of unified-national character for the EU.

The theoretical and methodological basis of research were scientific papers, regulations of the European Union and its individual Member States, analytical reports on statistical data in the abovementioned field. The total number of literary sources used in the article is thirty-four.

Results

Due to innovation and e-government, currently public administration worldwide is becoming more efficient, delivering better services, responding to citizens' demands for transparency and accountability. In the study of general models of the mechanism of communication of public servants with citizens in the context of e-government around the world, the United Nations (2020b) E-Government Survey is worthy of note. The said document is published intermittently and provides an opportunity to evaluate the development of digital governance in 193 United Nations Member States, identifying their strengths, weaknesses and opportunities, as well as providing information on policy and strategy in historical perspective. Since its inception in 2001, the United Nations Department of Economic and Social Affairs has been conducting a comprehensive comparative study of the issues outlined. An indispensable tool has been created by this structural unit aimed specifically at analyzing the development of digital transformations of individual UN Member States, providing a basis for policymakers and analysts engaged in comparative analysis and modern research on e-government.

The E-Government Survey offers an interactive picture of e-government development in each country from a regional and global perspective. The encouragement of citizen participation is a cornerstone of socially inclusive governance. The e-participation index is an additional index of the UN E-Government Survey. It expands the

Survey by focusing on the use of online services to facilitate the provision of information by governments to citizens ("exchange of electronic information"), interaction with stakeholders ("electronic consultation") and involvement in the decision-making process ("electronic decision-making"). The launch of the said survey was at an unprecedented time amid the COVID-19 pandemic.

Noteworthy is the e-government index according to the E-Government Survey 2020 (United Nations, 2020b), which provides an opportunity to guide the further vector of the study taking into account the most successful countries in this domain.
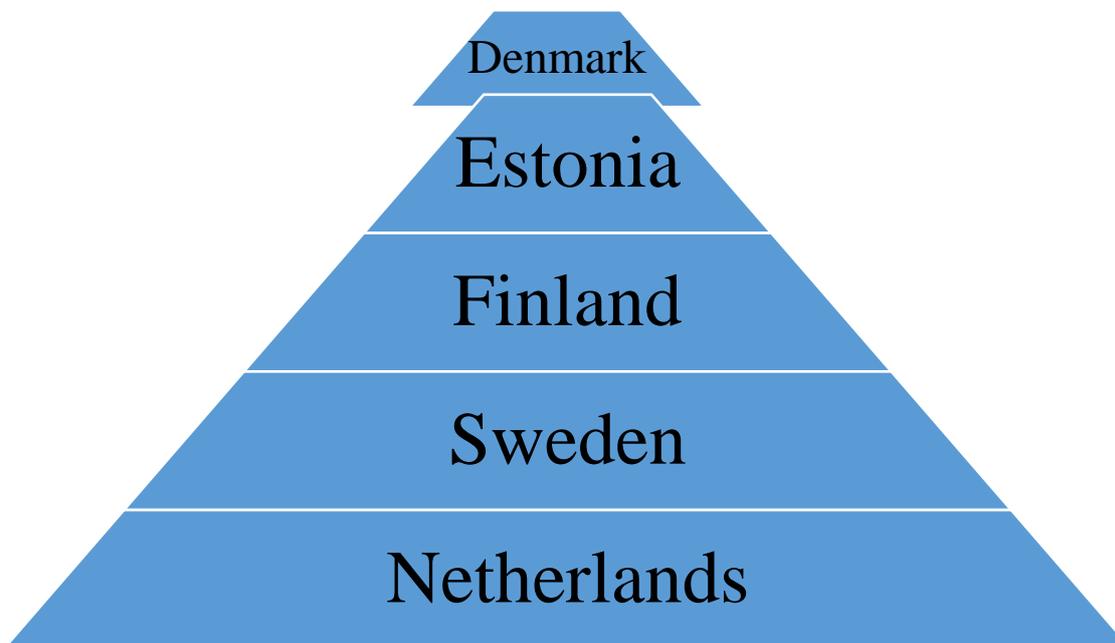
Figure 2. Five leading EU countries in e-government development in 2020 (according to the E-Government Survey (United Nations, 2020b).

These countries have achieved a high level of digitalization and ensuring the efficiency of public administration. The activities of these countries in the study area are already fully in line with the direction set by the European Digital Strategy of the European Commission (European Commission, 2021b), which provides a vision and ways of digital transformation of Europe by 2030. In the Strategy, the Commission calls for a digital transition that puts people first and opens up new business opportunities while safeguarding the values of European community. The strategy is based on three benchmarks: 1) technology aimed at helping people; 2) a fair and competitive digital economy; 3) an open, democratic and stable society. Ensuring the effective implementation of these postulates by the states is the result of progress measuring, given in the EGovernment Benchmark (EGovernment Benchmark, 2021), taking into account the best practices in this field.

This document is an annual report published by the European Commission (DG CONNECT), edited by Capgemini, which is aimed to measure

the progress of individual Member States in digitizing the public sector, as set out in the eGovernment Action Plan 2016-2020 (European Commission, 2016). According to the EGovernment Benchmark report for 2021 (EGovernment Benchmark, 2021), the European leaders in e-government are Malta (overall score 96%), Estonia (92%), Denmark (85%), Finland (85%), Austria (84%), The Netherlands (82%) and Sweden (75%), which have high results in all four benchmarks.

The analytical data above make it possible to state that social distancing has changed the order of communication between the state and society and the step-by-step introduction of innovations in the public sector. This context led to the adoption on 13 July 2021 by the European Commission (2021d) of the Recommendations on Digital Competences, which include practical steps, key actions, tips and online resources of the EU digital competence framework for digital service users. These recommendations shall help citizens make the best use of their digital competences in terms of the "employability path"

– from education to sustainable employment and entrepreneurship. However, the declared digital competence recommendations do not contain provisions for digital service providers, i.e. public servants. Therefore, this issue at the cross-border level of the European Union remains uncertain. At the same time, at the national level of the Member States, considerable attention is paid to this issue. It is worth emphasizing that public servants act quickly and efficiently in a pandemic to meet people's needs. However, creating a speedy response is a challenging task.

Analyzing the effectiveness of e-government in EU Member States, we can identify the key areas of online interaction between society and government (Figure 3).

Interaction areas

- Obtaining information from state e-service portals (52%)
- Obtaining remote state services (37%)
- Online payment for mandatory government services (7%)
- Obtaining pre-filled forms of government services to be submitted online (4%)
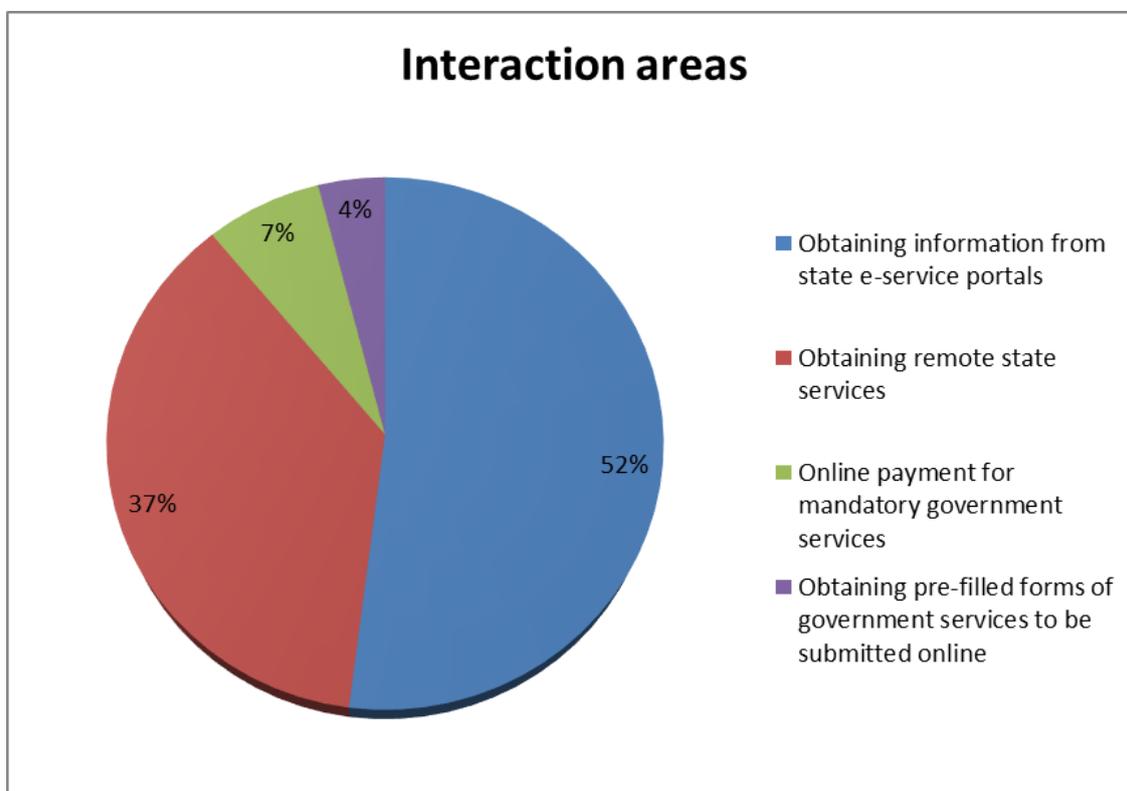
Figure 3. The most prevalent areas of digital interaction of society with e-government in the EU (according to the author's own observations).

Thus, in the course of several decades Denmark was considered one of the leaders in digital transformation in the public sector worldwide. This understanding of Denmark as an innovative country is shared by the majority of public servants at all levels of government. Danish public servants are working hard towards improving the digital skills to meet the society needs during pandemic times (European Union, 2021). The available innovative opportunities of the public sector of this state have been particularly pronounced in the context of the COVID-19 pandemic. Thus, the government works with representatives from civil society and the private sector to adapt to changing circumstances and to support the functioning of the civil service in the challenges of today (Organisation For Economic Co-Operation and Development (OECD), 2021c). In the face of today's complex challenges of innovation, Denmark's decentralized governance structure is designated as a citizen-centered innovation effort. This initiative is also supported by the center to ensure a focus on both immediate needs and complex, long-term objectives. In this context, there is a need for a strategic approach to innovation and its support, which encompasses a variety of innovation efforts.

Estonia keeps its position as a confident frontrunner in digital public services. The share of e-government users has been slowly increasing in recent years and currently accounts for 89% of the total number of Internet users in the country (E-Estonia, 2021b). The country has well-developed e-government systems, all central government functions and municipalities provide online services. Despite the fact that Estonia is already a frontrunner in this area, the state continues to make significant investment

into its e-government services to provide the citizens with new effective technologies. The COVID-19 pandemic has also demonstrated that Estonia can offer the EU its own methods of implementing innovative solutions for electronic communication in healthcare. It is worth noting that in the future Estonia plans to abandon the communication of public servants with citizens and legal entities that have applied for public service remotely. At the same time, the introduction of a virtual e-government assistant, the Bürokratt, created on the basis of artificial intelligence for the fastest response to requests, is gaining momentum (E-Estonia, 2021a). In addition, a public-private cooperative electronic hackathon was conducted to overcome the pandemic crisis: the community created several smart solutions, such as a crisis chatbot server and a website linking medical volunteers to hospitals in need. Now, the joint efforts of the government are creating a single platform for policy-making, which allows uniting the effort, involving external stakeholders and experts: This fact is a confirmation of the interaction of the state with society, building social communication.

In Europe, Finland is also a leader in digital governance. Today, Finnish government agencies are implementing artificial intelligence technologies and other innovative technologies to improve public services, as well as streamline government support functions, for instance #AuroraAI on Twitter. The Finnish government has launched projects with the private sector to support those who cannot use digital services (Finland Toolbox, 2021). There is a lot of cross-sectoral cooperation and the government is quickly adapting to new circumstances. The state is accelerating the development of better services by creating ecosystems around people's life events and the life cycles of business. These ecosystems include the organization of both the public and private sectors. The government is also building customer-centric cross-sectoral service models for people and companies arriving to Finland. The state considers a high level of trust to be the main guarantee of successful e-government. In Finland, citizens and businesses trust government agencies and consider services to be reliable, impartial and timely. Government trusts citizens and businesses. Finland is one of the least corrupt public sectors worldwide. Also a promising feature of the country in the field of digitalization of services is the exchange of experiences, best practices and groundbreaking trends.

Sweden's representative and organizational policies, as well as its leadership role in ensuring long-term strategic planning, financial investment and the power to address the hampering factors, have had a major impact on the development of an integrated approach to e-government services and resources to support them. The Swedish government recognized that the foreseen benefits of transforming public service delivery in the digital environment do not automatically apply to everyone and require a focus on connectivity, digital literacy and accessibility to ensure that the "digital divide" is not widened (Organisation For Economic Co-Operation and Development (OECD), 2021a). To that end, the government has introduced a permanent interaction between digital government programs, digital infrastructure and the digital economy (Government offices of Sweden, 2021). Moreover, the Agency for Economic and Regional Growth, together with the Swedish Higher Education Authority, analyzes the evolution of competencies in advanced digital technologies in the short and long term and provides policy actions guidelines to public servants (European Commission, 2021c). The work is aimed at improving the supply of relevant competencies, as well as improving statistics and forecasts of future needs of Swedish e-government.

The pandemic has challenged Dutch public officials to rely heavily on digital technology to mitigate the numerous effects of COVID-19. The state had to launch a process of digital acceleration and completely reformat business models to make them less physical and more virtual (Digital Government of The Netherlands, 2021). For example, museums in the Netherlands have started to provide online services through social networks, actively introducing 3D tours similar to creative industries and exhibition centers. Some experiments were unsuccessful due to the lack of expertise and had to be corrected. Work on creating competency characteristics of public servants in this country today is based on effective strategic personnel planning. Such actions are not just work for HR teams: recruitment and development policies should be closely linked to the strategic plans of the government employer. The state has changed staff incentives, performance management, and goal setting in accordance with the current and projected needs of the government. Currently, the country's goals in the area under study are to promote cross agency cooperation and the need to create a more highly qualified workforce.

Overall, it can be drawn that during the COVID-19 pandemic, EU public servants reached a new level, for example, by using online hackathons, research advisory groups and private sector volunteers to articulate policies and deliver services. However, the optimization of the human resources of public servants in EU Member States still needs further adjustment. Currently, the EU has not approved and agreed on a single model of competency characteristics of public servants, which would take into account all levels of government in different countries. At the same time, the analysis of the experience of states indicates that managers must have "hard skills" and "digital skills" to perform e-government functions. The latter have become the most widespread and relevant. They can be provisionally subdivided into skills during strategic tasks and tactical decisions in the context of digitalization of public administration. Digital skills belong to the field of special knowledge, the acquisition of which is only possible provided the systematic self-training or in the process of professional training and retraining. When it comes to strategic tasks, new competencies of professional development - public servants face the problem of developing and post-adjusting communication programs of the authority's presence in the Internet space and big data analysis. At the level of tactical decisions, public servants are required to have skills and knowledge in the field of content creation (data visualization, convergent text development).

Notably, not all EU countries are successful in the area under study. The digital literacy deficit among public servants is a significant risk factor of discrediting the entire public administration system. Governments are actively combating this phenomenon, involving public servants in specialized courses and competency training. To this end, there are dozens of administrative schools and massive open online courses in the EU. Online seminars, lectures, in-service training programs, modules, etc. are held on specialized educational platforms. The existing need for professional development of public servants involves continuous changes in the forms and methods of training, the elaboration of quality educational products that meet the objectives of present-day government management.

Furthermore, the leading difficulties in communicating with civil society include the functional fragmentation of governments into designated departments, which entails issues in coordinating government communication with the public through social media. The said barriers considerably restrict the ability of governments to fully digitize their work. The human factor currently has an essential significance. Given the customary conditions, digitization can draw heavily on artificial intelligence algorithms that are able to self-adjust and adapt to normal pattern changes. However, the speed and scale of the pandemic underscored the importance of both human experience and the constant need for human intervention in highly digital processes. The pandemic has also shown the low effectiveness of e-government for vulnerable groups of people (such as those living in rural areas, the elderly and the unemployed).

The best practices of the top-ranked EU countries in the field of effective implementation of e-government allow us to identify further vectors for the development of effective interaction between the state (public servants) and citizens and legal entities (Table 1).

Table 1.
The most relevant measures to reform e-government in the EU.

VECTORS OF REFORMING THE APPROACHES TO E-GOVERNANCE IN THE EU TO CREATE A SUSTAINABLE AND EFFICIENT ECOSYSTEM	
.1	Reconfiguration of basic digital public services and safe transition of public services to cloud infrastructure to increase their resilience, security and reliability.
.2	Development of online services for business, which improves the efficiency of public services and reduces the administrative burden for business.
.3	Reconstruction of several public services to ensure their automatic provision on the basis of life events or business events experienced by citizens (for example, marriage, birth of a child or starting an enterprise).
.4	Creation of a national platform of virtual assistants to improve the accessibility of online public services.
.5	Establishment and development of a data center of excellence for data management to enhance control over the data collected and stored by public authorities. This aims to improve the data quality, increase its use for managerial decision-making and make data available as open data so that other stakeholders also could reuse it.

Discussion

The conducted study showed that in a relatively short period of time the countries of the European Union have achieved significant changes in the provision of public services and e-government. The leading positive features of the respective transformations of the management sector are as follows: (1) information on public services has become more transparent; (2) the physical infrastructure of customer service has significantly improved; (3) public services have become more accessible through e-government portals; (4) public servants have acquired new knowledge, gained new communication and professional skills in delivering a wide range of services in one place; (5) the consultation mechanism has become more transparent with the participation of international experts and business associations in the discussion of e-government issues. It can be stated that the formation of a single and adaptive model of e-government for the EU remains on the agenda, taking into account the positive experience of leading "digital" countries. In addition, states need to form a unified model of competency characteristics of public servants in the field of e-government.

Although the positive effects of the use of digital technology during a pandemic seem undeniable, some difficulties and weaknesses are also expressed by scientists in the context of the COVID-19 pandemic. Supporting the position of the author of the article, Carroll and Conboy (2020) point out that organizations have been forced to accelerate the implementation of e-government in an unprecedented and limited time, which has caused serious difficulties. Similarly, Faraj et al. (2021) suggest that factors such as insufficient infrastructure, lack of digital literacy and limited compatibility of public servants hinder the digitalization of work processes. Fletcher and Griffiths (2020) argue that digitally less mature organizations have been particularly affected by quarantine and need to take into account the best practices of countries with more developed digital governance ecosystems.

The author's standpoint as regards focusing on the digital reform of the public sector and the economy is considered the number one priority for EU Member States and has been substantiated by a large number of scholars. At the same time, some lawyers (Mergel et al., 2020) express concern that the rapid introduction of e-government during the pandemic is too early and even dangerous for the social stability and political security of the EU. However, a study conducted by Mergel et al. (2020) concluded that the use of e-government can only be achieved through the efforts of government and society, which are currently is effectively demonstrated by the studied states, and it is too early to dwell on the extremely negative risks.

In the framework of scientific research, it is substantiated that in the rapidly transforming technological world, EU Member States utilize more innovations, which is bound to maintain their competitiveness on the global market. The author's analysis of the leading EU Member States in the field of e-government implementation showed that the states favor the gradual transition to the introduction of artificial intelligence in public services. Some scholars consider this perspective critical (Scroxton, 2020). Others collectively emphasize that the effective delivery of public services solely through artificial intelligence is erroneous, mechanical, and poorly adaptive to the demands of service recipients (Agostino et al., 2021; Feijóo et al., 2020). Other scholars pinpoint that the introduction of artificial intelligence and the provision of public services remotely is an effective tool for overcoming corruption and bureaucracy, increasingly citing Finland as an example (Farooq et al., 2021). Yet, Fletcher and Griffiths (2020) argue that e-government creates a digital divide between bureaucrats themselves or between bureaucrats and citizens. At the same time, the problems that cause the digital divide include technological literacy, ease of use, accessibility and functionality. Pittaway and Montazemi (2020) points to the fact that the digital divide arises when the implementation of e-government requires special knowledge of public servants to implement this system, who may abuse their competence for deviant behavior. Inequality in literacy and access to technology allows corrupt public servants to perpetuate corruption or even more aggressive actions. As researchers rightly point out, a citizen who has a better understanding of digital technologies is also more likely to receive better public services, thus, the "digital divide" creates new opportunities for corrupt employees (Zilber & Goodman, 2021). It is difficult to fully support this position, because the successful experience of the studied countries has shown the minimization of corruption due to the full automation of services and artificial intelligence technologies. Undeniably, innovations cannot be completely devoid of mistakes; however, they already show better results than previous public services.

Conclusions

During 2019–2021, COVID-19 has affected almost all countries and more than 50 million people worldwide. Governments operating in a context of radical uncertainty face difficult trade-offs due to health challenges, economic and social challenges. The pandemic has significantly accelerated some existing trends, including digitalization. Many governments at all levels have responded quickly by adopting a regional approach aimed at improving the efficiency of e-government services and introducing national and subnational measures to respond to distancing.

That said, one of the most common problems in the public policy sphere is the insufficiently appealing image of public servants and politicians, the lack of public confidence in the state and e-government overall. The technical shortcomings of digital platforms and low competence skills of communication in the digital space today are the driving factor in distancing society from the political and socially significant activities of the state in all its forms. At the same time, statistics shows the positive dynamics of digitalization of political communication between government and society in the European Union. The competence component of the interaction of public servants with society is constantly improving. EU Member States have created institutional mechanisms and algorithms for the professional development of digital literacy of public servants: relevant national programs have been developed, distance learning formats have been introduced.

The findings of the EU's immediate response to the pandemic and digital communications issues point to the need to adapt government models, service delivery and citizen engagement, which include GovTech options to modernize services to citizens and businesses. The analyzed experience of the leading EU Member States in the field of e-government implementation (Denmark, Estonia, Finland, Sweden and the Netherlands) yields a high level of service provision to the population during the COVID-19 pandemic, which can be adapted throughout the European Union. At the same time, the development of a single model of competence characteristics of public servants in the European Union is currently quite relevant.

The scientific openness of the topic under analysis showed that the issues covered will ultimately require additional, thorough study.

The COVID-19 pandemic continues to introduce adjustments to the e-government of EU Member States. Therefore, the renewal of communication skills and approaches to service delivery will require a comparative analysis to boost the effectiveness and feasibility of innovation in the historical perspective, which will be carried out by the author of the article.

Bibliographic references

Agostino, D., Arnaboldi, M., & Lema, M. (2021). New development: COVID-19 as an accelerator of digital transformation in public service delivery. Public Money & Management, 41(1), 69-72. https://doi.org/10.1080/09540962.2020.1764206

Carroll, N., & Conboy, K. (2020). Normalising the "New normal": changing tech-driven work practices under pandemic time pressure. International Journal of Information Management, 55. https://doi.org/10.1016/j.ijinfomgt.2020.102186

Council of Europe. (2020). The United Nations agenda 2030 for sustainable development. Retrieved from https://www.coe.int/ru/web/congress/sdg

Digital government of the Netherlands. (2021). Digital government agenda. Retrieved from https://www.nldigitalgovernment.nl/digital-government-agenda

E-Estonia. (2021a). Ott Velsberg, Government Chief Data Officer: "Bürokratt is Siri on steroids." Retrieved from https://e-estonia.com/e-estonia-podcast-ott-velsberg-government-chief-data-officer-burokratt-is-siri-on-steroids/

E-Estonia. (2021b). Estonia – a European and global leader in the digitalisation of public services. Retrieved from https://e-estonia.com/estonia-a-european-and-global-leader-in-the-digitalisation-of-public-services/

Egovernment Benchmark. (2021). Entering a New Digital Government Era. Luxembourg: Publications office of the European Union. Retrieved from https://op.europa.eu/en/publication-detail/-/publication/d30dcae1-436f-11ec-89db-01aa75ed71a1

European Commission. (2016). EU EGovernment action plan 2016-2020. Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52016DC0179

European Commission. (2021a). EGovernment and digital public services. Retrieved from https://digital-strategy.ec.europa.eu/en/policies/egovernment

European Commission. (2021b). Shaping Europe's digital future. Retrieved from https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/shaping-europe-digital-future_en

European Commission. (2021c). Sweden AI strategy report. Retrieved from https://knowledge4policy.ec.europa.eu/ai-watch/sweden-ai-strategy-report_en

European Commission. (2021d). Upskilling for life after the pandemic: Commission launches new digital competence guidelines. Retrieved from https://ec.europa.eu/jrc/en/news/upskilling-life-after-pandemic-commission-launches-new-digital-competence-guidelines

European Union. (2021). Denmark - digital growth strategy 2025. Retrieved from https://digital-skills-jobs.europa.eu/en/actions/national-initiatives/national-strategies/denmark-digital-growth-strategy-2025

Faraj, S., Renno, W., & Bhardwaj, A. (2021). Unto the breach: What the COVID-19 pandemic exposes. Information and Organization, 31(1). https://doi.org/10.1016/j.infoandorg.2021.100337

Farooq, A., Laato, S., Islam, N., & Isoaho, J. (2021). Understanding the impact of information sources on COVID-19 related preventive measures in Finland. Technology in Society, 65. https://doi.org/10.1016/j.techsoc.2021.101573

Feijóo, C., Kwon, Y., Bauer, J., Bohlin, E., Howell, B., Jain, R., Potgieter, P., Vu, K., Whalley, J., & Xia, J. (2020). Harnessing artificial intelligence (AI) to increase wellbeing for all: the case for a new technology diplomacy. Telecommunications Policy, 44(6). https://doi.org/10.1016/j.telpol.2020.101988

Finland Toolbox. (2021). Finland as a global leader of digitalisation. Retrieved from https://toolbox.finland.fi/business-innovation/finland-as-a-global-leader-of-digitalisation/

Fleron, B., Pries-heje, J., & Baskerville, R. (2021). Digital organizational resilience: a history of denmark as a most digitalized country. Proceedings of the 54th Hawaii International Conference on System Sciences (pp. 2400-2409). Retrieved from https://scholarspace.manoa.hawaii.edu/bitstream/10125/70907/0236.pdf

Fletcher, G., & Griffiths, M. (2020). Digital transformation during a lockdown. International Journal of Information Management, 55. https://doi.org/10.1016/j.ijinfomgt.2020.102185

Government offices of Sweden. (2021). The Government's innovation partnership programmes. Retrieved from https://www.government.se/government-policy/the-governments-innovation-partnership-programmes/

Kabbar, E. (2021). A comparative analysis of the e-government development index (egdi). IADIS Press. Retrieved from https://www.ict-conf.org/wp-content/uploads/2021/07/01_202106L003_Kabbar.pdf

Mergel, I., Ganapati, S., & Whitford, A. (2020). Agile: A new way of governing. Public Administration Review, 81(1), 161-165. https://doi.org/10.1111/puar.13202

Organisation for Economic Co-operation and Development (OECD). (2021a). OECD economic surveys. Sweden. Overview. Retrieved from https://www.oecd.org/economy/surveys/Sweden-2021-OECD-economic-survey-overview.pdf

Organisation for Economic Co-operation and Development (OECD). (2021b). OECD Economic Surveys: Italy 2021. Strengthening Italy's public sector effectiveness. Retrieved from https://www.oecd-ilibrary.org/economics/oecd-economic-surveys-italy-2021_153261f9-en

Organization for Economic Co-operation and Development (OECD). (2021c). Public sector innovation scan of Denmark. Retrieved from https://oecd-opsi.org/wp-content/uploads/2021/03/Public-Sector-Innovation-Scan-of-Denmark.pdf

Pittaway, J., & Montazemi, A. R. (2020). Know-how to lead digital transformation: the case of local governments. Government Information Quarterly, 37(4). https://doi.org/10.1016/j.giq.2020.101474

Ramsetty, A., & Adams, C. (2020). Impact of the digital divide in the age of COVID-19. Journal of the American Medical Informatics Association, 27(7), 1147–1148. https://doi.org/10.1093/jamia/ocaa078

Rustiarini, N. W. (2019). The role of e-government in reducing corruption: A systematic review. Jurnal Perspektif Pembiayaan dan Pembangunan Daerah, 7(3), 269-286.

Scroxton, A. (2020). EU security strategy a 'step up' on cyber leadership. TechTarget. Retrieved from https://www.computerweekly.com/news/252493802/EU-security-strategy-a-step-up-on-cyber-leadership-says-Brussels

United Nations Conference on trade and development (UNCTAD). (2020). COVID-19 and e-commerce. Impact on businesses and policy responses. Retrieved from https://unctad.org/system/files/official-document/dtlstictinf2020d2_en.pdf

United Nations. (2020a). Decade of action to deliver the global goals. Retrieved from https://www.unwater.org/decade-of-action-to-deliver-the-global-goals/

United Nations. (2020b). E-government survey 2020. Digital government in the decade of action for sustainable development. Retrieved from https://publicadministration.un.org/egovkb/Portals/egovkb/Documents/un/2020-Survey/2020%20UN%20E-Government%20Survey%20(Full%20Report).pdf

United Nations. (2021). UN chief's message to world leaders: 'Wake up, change course, unite'. United Nations. Retrieved from https://news.un.org/en/story/2021/09/1100152

Zilber, T., & Goodman, Y. (2021). High-technology in the time of corona: a critical institutional reading. Information and Organization, 31(1). https://doi.org/10.1016/j.infoandorg.2021.100342

Estabilidad emocional como factor del bienestar psicológico de futuros especialistas

Emotional stability as a component in future professionals' psychological well-being

Written by:
Ihor Halian[67]
https://orcid.org/0000-0002-7257-6477
Anastasiia Kurova[68]
https://orcid.org/0000-0001-6595-492X
Anastasia Skliaruk[69]
https://orcid.org/0000-0001-8373-2351
Olena Halian[70]
https://orcid.org/0000-0001-6070-9669
Artem Khokhlov[71]
https://orcid.org/0000-0002-5452-0875

Resumen

El estudio fue realizado para fundamentar teóricamente y empíricamente los factores de la estabilidad emocional como cualidad sistémica del individuo, que ayuda a futuros profesionales en la autodeterminación profesional a adaptarse efectivamente al espacio educativo y contribuye al desarrollo de la sensación de bienestar psicológico. En el estudio participaron los estudiantes (n = 277) de diferentes años de estudios (nI=112; nIII=97; nV=68), que recibían la educación superior en especialidades socionómicas. Se utilizó las técnicas de psicodiagnóstico, que son válidas y fiables. Se estudió la conexión entre la estabilidad emocional y la autorrealización durante los siguientes años de estudios: 1 año (rs=.216; p<.05); III (rs=.346; p<.001); V (rs=.411; p<.001). Se registró el crecimiento de estabilidad emocional (C) (t = -3.301; p <.0021), ansiedad (O) (t = -2.682; p <.0015) y expresividad (F) (t = -2.916; p <.0034). Se estableció la correlación entre la adaptación sociopsicológica y la estabilidad emocional de

Abstract

The aim of this study was to theoretically and empirically substantiate the factors of emotional stability as a systemic quality of the individual that supports future professionals in professional self-determination in effectively adapting to the educational space and promoting psychological well-being. The study involved young people of student age (n = 277) of different years of study (nI=112; nIII=97; nV=68), receiving higher education in socionomic specialties. Valid and reliable psychodiagnostic methods were used. During the following years of study, the correlation between emotional stability and self-actualization was investigated: first year (rs=.216; p<.05); third year (rs=.346; p<.001); and fifth year (rs=.411; p<.001). Emotional stability (C) (t=-3.301; p<.0021), anxiety (O) (t=-2.682; p<.0015) and expressiveness (F) (t=2.916; p<.0034) all demonstrated an increase. There was a correlation between respondents' social and psychological adaption and their emotional stability: first year (rs=.432; p<.001); third year (rs=.331; p<.001); fifth year (rs=.422; p<.001). Psychological well-

[67] Doctor of Psychological Sciences, Full Professor of the Department Theoretical and Practical Psychology, Lviv Polytechnic National University, Lviv, Ukraine.
[68] Candidate of Psychological Sciences, Associate Professor of the Department of Psychology, National University "Odessa Law Academy", Odessa, Ukraine.
[69] Doctor of Psychological Sciences, Associate Professor of the Department of Practical Psychology, Classical Private University, Zaporizhzhia, Ukraine.
[70] Doctor of Pedagogical Sciences, Full Professor of the Department Preschool and Primary Education, Lviv Ivan Franko National University, Lviv, Ukraine.
[71] Post-graduate student of the Department of Pedagogy, Lecturer of the Department of Foreign Languages and Professional Communication, Volodymyr Dahl East Ukrainian National University, Severodonetsk, Ukraine.

los encuestados: I (rs = .432; p <.001); III (rs = .331; p < .001); V (rs = .422; p < .001). Está fundamentado y aprobado empíricamente que el bienestar psicológico se basa en la idea de necesidad constante y la capacidad del hombre al autodesarrollo y la autorrealización.

Palabras clave: congruencia profesional, estabilidad emocional, adaptación, autorrealización, bienestar psicológico.

being is founded on the idea of a person's constant desire for and ability to self-development, self-realization, and self-actualization, which was validated and experimentally verified.

Key words: professional congruence, emotional stability, adaption, self-actualization, psychological well-being.

Introduction

La categoría científica de "bienestar psicológico" está estrechamente relacionada con las ideas del individuo de la existencia armoniosa y la vida plena. El concepto de bienestar psicológico se basa en la tesis sobre la necesidad constante y la capacidad del hombre al autodesarrollo y la autorrealización. Es el grado de su implementación que va a formar el sentido de integridad psicológica y satisfacción. De esta manera, nos referimos a la esfera emocional del hombre, que suele manifestar la subjetividad humana. El bienestar psicológico de una persona, que está llena de experiencias emocionales es también la categoría subjetiva. Una persona experimenta lo que le está pasando, muestra cierta actitud hacia lo que le rodea. Las condiciones que determinan las actividades del sujeto, se vuelven internamente psicológicamente efectivas solo cuando se relacionan con la esfera de sus actitudes emocionales (Ma et al., 2020).

El papel de las emociones en la actividad humana se debe a las funciones que ellas desempeñan en el proceso de la interacción humana con el mundo exterior. Por hoy, existe suficientes investigaciones sobre la esfera emocional del hombre. Entre los últimos, tiene cierto interés el estudio del papel del temperamento en la aparición del estrés y el proceso general de la satisfacción de la vida. Se ha demostrado que entre los diversos tipos del temperamento existen las diferencias significativas que conciernan la mediación de la aparición del estrés, la satisfacción de la vida y la salud general (Kuzikova et al., 2021; Cyniak-Cieciura, 2021). Han establecido que los predictores significativos del estrés psicológico durante el brote de la epidemia de COVID-19 tienen un valor científico. Se afirma que la percepción del riesgo y la sensación del peligro para la vida median la relación entre la ansiedad y el estrés psicológico (Mirucka et al., 2021).

Consideramos necesario distinguir otro papel de las emociones – asegurar la estabilidad emocional que contribuye al desarrollo del bienestar psicológico del individuo en las condiciones de complejidad e incertidumbre. La estabilidad emocional es una cualidad sistémica del individuo que se adquiere, se forma y se manifiesta en las condiciones de intensa actividad. Como categoría sistémica, la estabilidad emocional del individuo se convierte en un elemento de una estructura más amplia: el contexto. En el marco de nuestra investigación, la actividad de autodeterminación profesional es tal contexto. En este proceso, la estabilidad emocional proporciona una percepción adecuada de los factores emocionales (fenómenos) y la independencia emocional de ellos, previene el estrés emocional, ayuda a identificar la preparación para el dominio emocionalmente constructivo, funcional y consistente de las condiciones externas y los requisitos de la autodeterminación profesional, asegurando el bienestar psicológico.

Hipótesis. Los autores suponen que la estabilidad emocional es una formación integral que se asocia a la autorrealización, la capacidad de autorregulación, depende de los estados emocionales y ayuda al futuro especialista a adaptarse efectivamente al entorno profesional.

Propósito. Investigar la estabilidad emocional en el contexto de la autodeterminación profesional de los futuros especialistas de profesiones socionómicas como factor del bienestar psicológico.

Metodología

El estudio se basa en la concepción que el hombre es un sistema abierto y capaz a la autoorganización y autodesarrollo. Los puntos de partida metodológicos del estudio empírico de la estabilidad emocional como factor del bienestar psicológico de un individuo es el algoritmo de medidas mutuamente acordadas con el uso de las herramientas de psicodiagnóstico relacionadas

con la adaptabilidad y la estabilidad emocional del individuo.

Los investigadores aprobaron esta metodología estudiando el agotamiento mental y emocional (Maslach, 1993; Raedeke, 1997; Raedeke & Smith, 2001), determinando el papel de la inteligencia emocional en la vida humana (Bar-On et al., 2007; Baudry et al., 2018; Goleman, 2005; Hamel, 2015; Jawed, 2019; Laborde et al., 2016), estudiando la responsabilidad de deportistas (Halian, 2019), la motivación del desarrollo profesional de un especialista (Halian, 2018; Shevchenko et al., 2020), el pensamiento crítico (Arbeláez-Campillo et al., 2020), el enfoque de recursos al manejo del estrés (Blynova et al., 2020a; 2020b; Hudimova, 2021; Hudimova et al., 2021; Khmiliar et al., 2020), así que la evaluación del estado mental de anticipación (Nosov et al., 2020; Plokhikh, 2021; Plokhikh et al., 2021 y las expectativas en diferentes actividades (Popovych et. al., 2020; 2021a; 2021b; 2021c). Todos los estudios experimentales y empíricos descritos contenían el elemento de adaptación, agotamiento, emociones, motivación, regulación, resistencia al estrés.

El objetivo establecido fue llevado a cabo utilizando el método de análisis teórico y la investigación de correlación. Se escogió un conjunto de métodos que reflejaron de manera relevante el tema de la investigación. Las metodologías permitieron asegurar cualitativamente la medición de las variables estudiadas. El análisis de correlación estableció las interrelaciones entre estas variables.

Participantes. En el estudio participaron los jóvenes de edad estudiantil (n=277) que cursan los estudios superiores en especialidades del tipo socionómico. La edad media constituye 19,93 años (DE=1,73; intervalo de edad 18-23 años). La muestra está representada por sexo de manera siguiente: mujeres – 57,76% (n=160) y hombres – 42,24% (n=117).

Durante los años 2020-2021, los parámetros estudiados fueron diagnosticados con la ayuda de una serie de herramientas de psicodiagnóstico. El tipo de personalidad profesional se determinó mediante el "Cuestionario de preferencias profesionales", elaborado basándose en el modelo RIASEC J. Holland y The Holland Code (Holland, 1997). Los indicadores registrados son características psicológicas y preferencias profesionales de los siguientes tipos de personalidad: realista, intelectual, social, convencional, emprendedora y artística.

Instrumentos. Para diagnosticar la autorrealización de la personalidad se utilizó el test "Personal Orientation Inventory" ("POI") E. L. Shostrom en la adaptación de Yu. Aleshina, L. Gozman y E. Dubovskaya (1987). Los indicadores registrados son las escalas básicas que miden los indicadores globales de la autorrealización: "Competencia en el tiempo" (relacionado con el tiempo) (Tc); "Apoyo" (I). Las escalas adicionales ayudan a registrar los aspectos particulares de la autorrealización: "Orientaciones de valor" (SAV); "Flexibilidad de comportamiento" (existencialismo) (Ex); "Autosensibilidad" (Fr); "Espontaneidad" (S); "Autoestima" (Sr); "Autoaceptación" (Sa); "Concepción de la naturaleza humana" (Nc); "Sinergia" (Sy); "Aceptación de la agresión" (A); "Contacto" (Cn); "Necesidades cognitivas" (Cog); "Creatividad" (Cr). Las escalas adicionales están agrupados en seis bloques: valores, sentimientos, autopercepción, integridad, sensibilidad interpersonal y actitudes hacia la cognición.

Para diagnosticar la adaptabilidad de los jóvenes en el espacio educativo se utilizó los "Métodos de diagnóstico de la adaptación sociopsicológica" ("SPA") de C. Rogers y R. Dymond (1954). Metodología adaptada por A. Osnitsky (2004). Sus principales indicadores registrados son: adaptabilidad, inadaptación, autoaceptación, autorrechazo, aceptación de los demás, rechazo de los demás, comodidad emocional, malestar emocional, "locus de control" externo e interno, dominancia, subordinación, "escapism".

Las escalas "Autocontrol" (Q3) y "Normatividad moral" (G) con 16 PF Cattell test (psychology of a happy life, 2014) y la escala "Locus de control" según el método "SPA" (Osnitsky, 2004) se convirtieron en las principales para caracterizar la capacidad normativa de los sujetos. Se registraron como indicadores de manifestación emocional las siguientes escalas del test 16 PF Cattell: "Estabilidad emocional" (C), "Alegría" (F), "Sensibilidad emocional" (I), "Incertidumbre" (O), "Tensión" (Q4).

Procedimiento. El estudio se organizó según el esquema del experimento de constatación. Se estudió la manifestación de la estabilidad emocional durante la autodeterminación profesional de los jóvenes. Se diagnosticó la conexión entre la estabilidad emocional y la autorrealización, los procesos de regulación

emocional y la capacidad de adaptación al espacio educativo. Las secciones de diagnóstico se realizaron de acuerdo con los métodos anteriormente descritos con los cuestionarios de prueba estándardizados. La sensibilización y la participación voluntaria de los encuestados en el experimento y la confidencialidad de los resultados aseguraron la franqueza y no aleatoriedad de las respuestas. Los resultados obtenidos se interpretaron separadamente para cada método, después de que buscaban la conexión entre los fenómenos mentales diagnosticados. La profundidad de la relación entre las características particulares del fenómeno estudiado se determinó mediante el análisis de correlación. Dado que los resultados empíricos obtenidos están cerca de la distribución normal, la diferencia entre los grupos de los encuestados se calculó mediante el criterio-t de Student.

Análisis estadístico. El procesamiento estadístico de los datos empíricos y la presentación gráfica de los resultados se ejecutaron mediante los programas estadísticos "SPSS" v. 26.0 y MS "Excel". Se utilizó el coeficiente de correlación r-Pearson y el criterio-t de Student.

Resultados

La eficacia de la autodeterminación profesional depende en gran medida de la congruencia del tipo de personalidad profesional al entorno profesional. Para determinar esta relación se utilizó la escala de J. Holland (1997). Los resultados empíricos obtenidos demostraron el crecimiento de la congruencia profesional durante toda la etapa de autodeterminación profesional, es decir, durante los estudios en una institución de enseñanza superior. (Tabl. 1).

Tabla 1.
Indicadores de la congruencia profesional durante la etapa de autodeterminación profesional.

Parámetro	Criterio	I y III	III y V	I y V
Congruencia	tSt	-1.602; p<.1174	-5.2873***; p<.000	-6.892**; p<.0000

Fuente: Elaboración propia, 2021.
Nota: tSt – Student's criterion.

Explicamos que el crecimiento de los indicadores es el resultado de la adecuación efectiva en el espacio educativo. Presentamos gráficamente los

indicadores de la congruencia profesional del individuo de futuros especialistas en el espacio educativo (Fig. 1).
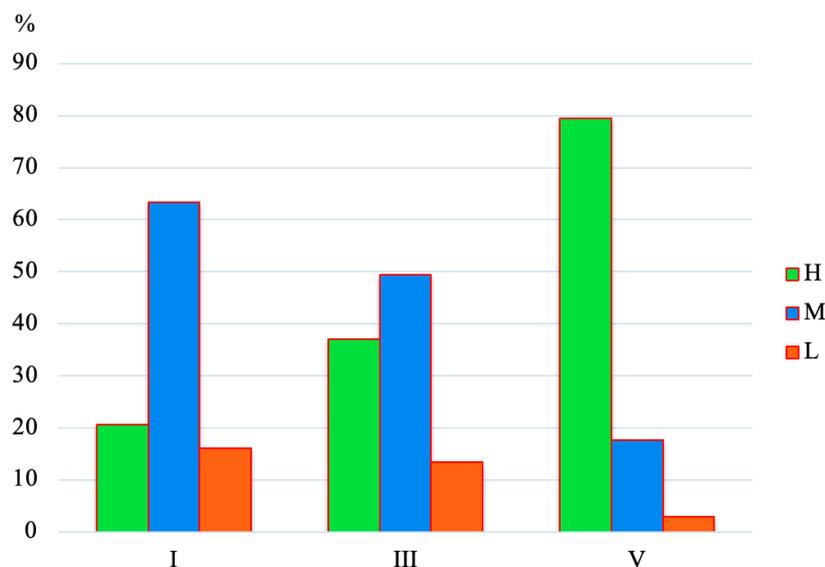
Figura 1. Indicadores de la congruencia profesional de los futuros especialistas en el espacio educativo.
Fuente: Elaboración propia, 2021.
Nota: H – alto nivel; M – nivel medio; L – nivel bajo; I – primer año de estudios (n=112); III – tercer año de estudios (n=97); V – quinto año de estudios (n=68); *– significación estadística al nivel de p<.05; ** – significación estadística al nivel de p<.01; ***– significación estadística al nivel de p<.001.

Para diagnosticar la adaptación profesional se utilizó la escala "Indicador Integral" de la metodología "SPA" (Osnitsky, 2004). Se diagnosticó el crecimiento de alto nivel de adaptación psicológica de los futuros especialistas a medida que se volvían más profesionales (Tabl. 2).

Tabla 2.
Indicador integral de la adaptación de los encuestados.

Parámetro	Criterio	I y III	III y V	I y V
Indicador integral	tSt	-2.897**; p<.0024	-1.812***; p<.06781	-4.678***; p<.0000

Fuente: Elaboración propia, 2021.
Nota: tSt – Student's criterion.

Presentamos gráficamente el indicador integral de los futuros especialistas (Fig. 2).
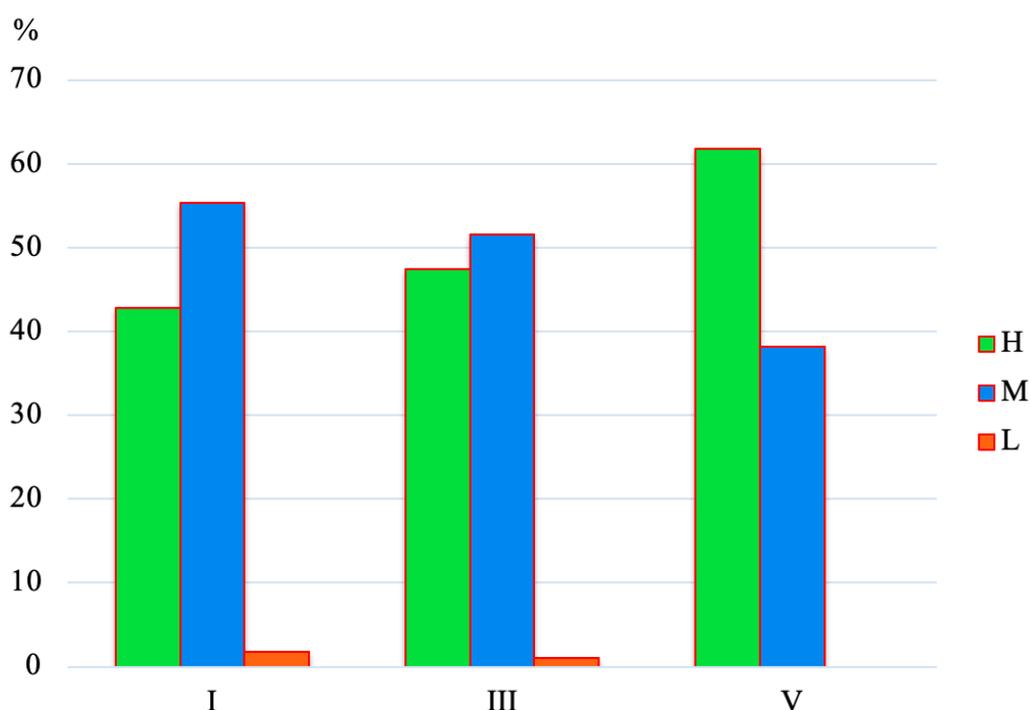
Figura 2. *Indicador integral de la adaptación de los futuros especialistas*
Fuente: Elaboración propia, 2021.
Nota: H – alto nivel; M – nivel medio; L – nivel bajo; I – primer año de estudios (n=112); III – tercer año de estudios (n=97); V – quinto año de estudios (n=68); *– significación estadística al nivel de p<.05; ** – significación estadística al nivel de p<.01; ***– significación estadística al nivel de p<.001.

Se diagnosticó las diferencias estadísticamente significativas en cuanto al nivel de autorrealización según el período de estudios de los encuestados (Fig. 3).
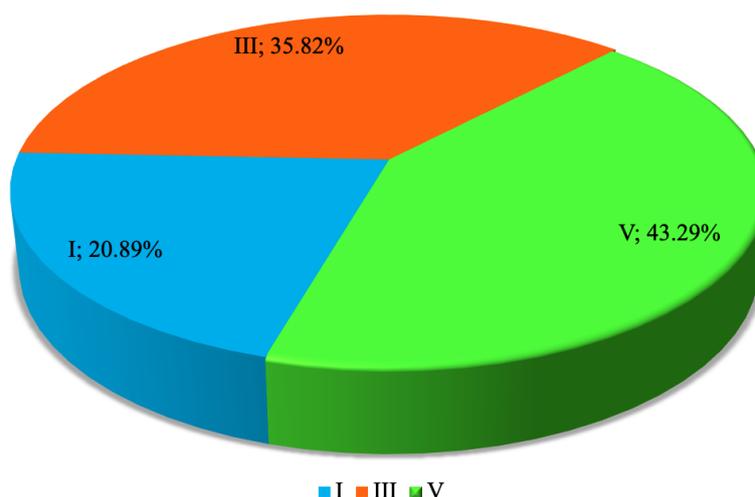
Figura 3. *Número de estudiantes con alto nivel de autorrealización en diferentes etapas de estudios*
Fuente: Elaboración propia, 2021.
Nota: I – primer año de estudios; III – tercer año de estudios; V – quinto año de estudios.

En Tabl. 3. Presentamos las estadísticas descriptivas de los indicadores de manifestación de propiedades emocionales y regulatorias del individuo según 16 PF Cattell test.

Tabla 3.
Estadísticas descriptivas de los encuestados según 16 PF Cattell test.

16 PF Kettell	Año de estudios	M	min	max	SD	A	E
	I	4.8486	2.256	7.589	1.135083	.020668	1.554626
C	III	5.06245	3.987	6.245	.613915	.18719	-.6834
	V	5.8752	4.121	7.245	.803203	-.27089	-.23304
	I	5.16295	3.987	6.245	.59745	-.15875	-.53311
F	III	5.5348	4.456	6.859	.630344	.087354	-.43839
	V	5.92335	4.632	7.121	.615836	-0.20756	.202238
	I	5.65995	4.121	6.659	.800671	-.5537	-.7822
I	III	5.1422	3.987	6.245	.644954	.016801	-.83176
	V	5.44615	4.456	6.859	.594138	.423417	.310575
	I	6.0165	4.887	7.445	.665292	.202841	-.38289
O	III	6.18535	4.887	7.445	.628313	-.06772	-.37486
	V	5.50115	4.256	6.859	.633252	.15778	-.1965
	I	5.8377	4.321	7.121	.778247	-.27197	-.55877
Q3	III	5.8828	4.421	7.245	.767514	-.18915	-.4869
	V	5.66075	4.256	6.859	.579265	-.34233	1.063627
	I	4.74315	2.256	7.189	1.111327	-.03838	.692466
Q4	III	4.75485	2.156	7.501	1.1653	.025391	1.176201
	V	4.4663	2.56	6.011	.814829	-.39621	.542438
	I	5.90075	4.321	7.421	.809591	-.2619	-.3181
G	III	5.7113	4.121	7.245	.784991	-.09376	-.32494
	V	5.60575	4.256	6.859	.621482	-.33301	.561121

Fuente: Elaboración propia, 2021.
Nota: I – primer año de estudios (n=112); III – tercer año de estudios (n=97); V – quinto año de estudios (n=68); C – estabilidad emocional; F – moderación / expresividad; I – sensabilidad emocional / insensibilidad emocional; O – hipertimia / hipotimia; Q3 – autocontrol bajo /autocontrol alto; Q4 –ego-tensión baja / ego-tensión alta; G – super ego bajo / super ego alto.

Tabl. 4. Se presentan los niveles de manifestación de cualidades emocionales y

regulatorias de futuros especialistas 16 PF Cattell test.

Tabla 4.
Nivel de la manifestación de cualidades emocionales y regulatorias de los futuros especialistas 16 PF Cattell test.

Escala	Level	Año de estudios		
		I (%)	III (%)	V (%)
	H	13.98	26.02	34.01
C	M	70.96	54.01	50.61
	L	15.06	19.97	15.38
	H	20.01	25.28	34.56
F	M	62.03	62.67	57.8
	L	17.96	12.05	7.64
	H	22.68	17.01	26.97
I	M	63.08	66.68	63.97
	L	14.24	16.31	9.55
	H	37.12	41.01	29.56
O	M	51.85	45.78	55.04
	L	11.03	13.21	15.4
	H	29.01	24.15	17.18
Q3	M	61.67	67.44	73.85
	L	9.32	8.41	8.97
	H	6.85	3.67	4.76
Q4	M	76.16	80.71	74.01
	L	16.99	15.62	21.23
	H	29.11	24.41	27.22
G	M	63.21	66.91	57.35
	L	7.68	8.68	15.43

Fuente: Elaboración propia, 2021.
Nota: H – alto nivel; M – nivel medio; L – nivel bajo; I – primer año de estudios (n=112); III – tercer año de estudios (n=97); V – quinto año de estudios (n=68); C – estabilidad emocional; F – moderación / expresividad; I – sensibilidad emocional / insensibilidad emocional; O – hipertimia / hipotimia; Q3 – autocontrol bajo / autocontrol alto; Q4 – ego-tensión baja / ego-tensión alta; G – super ego bajo / super ego alto.

Discusión

El modo de vida actual y las condiciones de trabajo exigen mucho de los recursos emocionales de futuros especialistas. Por lo tanto, existe la necesidad de estudiar la estabilidad emocional como factor de bienestar psicológico en la etapa inicial del desarrollo profesional. De particular interés son la influencia del entorno externo, las formas de la utilización racional de las oportunidades individuales para superar situaciones estresantes y la necesidad de dominar las habilidades de autorregulación de los estados emocionales.

Creemos que el bienestar psicológico depende en gran medida de las emociones que experimenta el sujeto. En psicología, el bienestar emocional se considera como una clase especial de procesos y estados mentales asociados a las necesidades y motivos que a través de los sentimientos reflejan la relevancia de fenómenos y situaciones que afectan al sujeto (Abolin, 1985). En este sentido, se observa la función general de las emociones – la regulación interna de la actividad. Sus manifestaciones parciales son la evaluación, la inducción, la activación, la síntesis, la expresión y formación sensorial. En nuestro estudio, la estabilidad emocional se presenta como una formación personal integral de futuro especialista, que le ayuda a adaptarse efectivamente al espacio educativo. Teniendolo en cuenta, se argumentó la conexión entre la estabilidad emocional y la autorrealización, la capacidad de autorregulación, los estados emocionales, etc.

Sugerimos que el indicador de la autodeterminación profesional es la congruencia del tipo profesional de la personalidad (realista, intelectual, social, convencional, emprendedor, artístico) (Holland, 1997) y del espacio educativo. Nuestro supuesto se basa en la aceptación de la interpretación de la congruencia de C. Rogers (2021). El científico explica el término "congruencia" de la manera siguiente (Rogers, 2021: 57):

"… cualesquiera que sean los sentimientos o actitudes que experimente, corresponderán a mi conciencia de estos sentimientos o actitudes. Si este es realmente el caso, entonces en este momento me convierto en una persona completa e integrada, y así puedo ser quien realmente soy …".

En este caso, la incongruencia debe entenderse como un desajuste entre los sentimientos y su conciencia, entre la conciencia y su expresión lo que es consistente con la teoría de la motivación profesional de rol y el lugar de la congruencia en ella (Miner et al., 1994).

Según el concepto de J. Holland (1997), la integración al grupo profesional más favorable, que corresponda a sus valores y características, asegura el éxito de la elección profesional y la autodeterminación. En el contexto de nuestro estudio nos interesa mucho la autodeterminación según el tipo social (Holland, 1997). Su dominancia en las profesiones socionómicas muestra que los encuestados son conscientes y saben bien lo que quieren, lo que pueden hacer, quiénes son, aceptan el contenido y los requisitos del trabajo profesional. Los resultados empíricos obtenidos (ver Fig. 1) mostraron el crecimiento de la congruencia profesional durante todos los años de estudios en una institución de educación superior. Las diferencias entre los indicadores de congruencia por años de estudios se vuelven estadísticamente significativas. Así, las diferencias entre el primer y el tercer año de estudios según el criterio-tt de Student no eran estadísticamente significativas (-1.569; p <.1183), entre el tercer y quinto año de estudios ya son estadísticamente significativas al nivel de p <.001 -5.2775; (.000), y entre el primero y quinto año de estudios en el nivel de p <.01 (-6.941; p <.0000). Creemos que es la consecuencia de la adaptación efectiva en el espacio educativo.

Esta suposición se basa también en los resultados obtenidos según la escala "Indicador integral" de la metodología "SPA" (Osnitsky, 2004). Se constató el crecimiento del alto nivel de adaptación psicológica de los estudiantes a medida que se volvían más profesionales (ver Fig. 2). Sin embargo, observamos el crecimiento más significativo en el período del 3° al 5° año de estudios. El número de los estudiantes que tienen el alto nivel de adaptación psicológica aumentó en este período del 47,7% al 61,66%, respectivamente. Las diferencias entre el primer y tercer año de estudios según el criterio-t de Student son estadísticamente significativas en el nivel de p <.01 (-2.984; p <.0032), entre el tercer y quinto año de estudios son estadísticamente significativas en el nivel de p <.001 (-1.782; p <.07682) y entre el primero y el quinto año de estudios en el nivel de p <.001 (-4.656; p <.0000). Los resultados de nuestro estudio confirman las conclusiones de otros investigadores sobre el crecimiento de la conciencia profesional en este período de la profesionalización de los jóvenes. Así, examinando los recursos personales de la adaptación de futuros trabajadores sanitarios hacia la actividad profesional, identifican los factores que constituyen la estructura interna de su adaptabilidad. El factor central de este proceso es la "satisfacción emocional" (Halian et al., 2020).

Uno de los componentes de la adaptabilidad psicológica en la institución de la educación superior es el nivel de autorrealización de futuros especialistas. La autorrealización es la manifestación del potencial y el deseo de autorrealización de un individuo. El proceso de la autorrealización no es constante, sino que continúa a lo largo de toda la vida. Su contenido varía con la edad. Las personas mayores de 36 años se ven impulsadas por motivos superiores y los más jóvenes por motivos inferiores (Reiss & Havercamp, 2005). Otro estudio señala que más a menudo las personas se autorrealizan a través del estatuto (Krems et al., 2017). R. Gopinath (2020) la autorrealización se asocia con el éxito profesional. Se trata de la implicación en el trabajo y la satisfacción con él. El investigador señala que las personas autorrealizadas profesionalmente influyen en el éxito de las organizaciones.

La distribución de los encuestados según el nivel de autorrealización, según los años de estudios, se difiere significativamente (ver Fig. 3). Esto se refiere, en primer lugar, al alto nivel de manifestación de esta variable. Entonces, si en el primer año de estudios solo el 20,89% de los estudiantes (del total) demuestra un nivel suficiente de autorrealización, en el tercer año de estudios es solo el 35,82% de los estudiantes, entonces en el quinto año de estudios es aproximadamente el 41,79% de los encuestados.

El indicador bajo es un rasgo característico de los jóvenes. Así, existe la tendencia hacia el crecimiento de número de encuestados que han podido lograr una divulgación equilibrada y armónica de varios aspectos de su personalidad, en función de la profesionalización y adaptación psicológica en una institución de educación superior. Creemos que la satisfacción de la profesión elegida es una de las condiciones de la autorrealización profesional en la etapa inicial de la profesionalización, que proporciona estabilidad emocional. Esto se confirma por la disminución del número de encuestados con el nivel de autorrealización por debajo de la norma estadística (primer año de estudios – 15,18%; tercer año de estudios – 8,25% y quinto año de estudios – 5,88%). Según las investigaciones de otros científicos, el número de personas autorrealizadas aumenta con la edad. En particular, se observa que los encuestados mayores de 36 años mostraban el nivel más alto de autorrealización que más jóvenes (Ivtzan et al., 2013).

La estabilidad emocional como cualidad sistémica de la personalidad se forma y se demuestra en la unidad de las actitudes emocionales, volitivas y otras del individuo. Se observa que la autodeterminación profesional de los encuestados en el tercer año de estudios pasa en las condiciones emocionalmente estresantes. La tendencia similar se encuentra en otros estudios (Halian et al., 2021). El factor de aparición de tendencias agresivas y hostiles, entre otros, es la baja resistencia al estrés del sujeto de la actividad profesional, lo que afecta en cierta medida su adaptabilidad (Halian et al., 2021). Los autores señalan que la satisfacción emocional de la situación y su posición en ella puede determinar el sentimiento de pseudoadaptación. También en otro estudio se acentúa en el papel de la competencia emocional como predictor de la eficacia profesional, la estabilidad emocional y un medio para resolver problemas profesionales (Bubić & Ivanišević, 2016). Sin embargo, los futuros especialistas que estudiamos desde el primero hasta el quinto años de estudios tienden a armonizar las manifestaciones emocionales. Nuestros resultados obtenidos son consistentes con los del estudio de S. Ali Ahmed y Y. Çerkez (2020). Los autores constatan una correlación significativa negativa entre la depresión, la ansiedad, el estrés y la estabilidad emocional.

Los resultados presentados en Tabl. 1 demuestran el crecimiento del número de encuestados con alto nivel de estabilidad emocional (Factor C). Sin embargo, esto se debe a los encuestados con medio nivel y no se refiere a los que tienen bajo nivel de estabilidad emocional. La estadística descriptiva completa de los indicadores obtenidos de la manifestación de propiedades emocionales y regulatorias de la personalidad con 16 PF Cattell test está presentada en Tabl. 2.

En cuanto a las características semánticas del fenómeno estudiado, se observa el crecimiento de la expresividad (Factor F), que se basa en la ampliación de contactos socialmente significativos, el aumento de la confianza en estas relaciones, el deseo de liderazgo y otros. Las propiedades emocionales y regulatorias como el autocontrol (Factor Q3) y la normatividad moral (Factor G) pertenecen a la categoría de las características importantes para la autodeterminación profesional de futuros especialistas. Al mismo tiempo, junto con el crecimiento de estas cualidades personales hasta el quinto año de estudios, disminuye el número de encuestados con alta capacidad de autocontrol de sus propias emociones y conductas y el crecimiento de la insatisfacción interna de si mismos. Se observa el crecimiento del número de encuestados con nivel bajo de tensión (Factor Q4) lo que determina su relajación, tranquilidad, así que baja actividad motivacional. Tales contradicciones internas de los jóvenes se explican por una excesiva dependencia emocional, rechazo de las normas y estándares morales sociales, desorganización, etc. (Factor G).

Los resultados del análisis de correlación presentados en Tabl. 5 permiten afirmar la existencia de una amplia gama de criterios de autodeterminación profesional, que se correlacionan significativamente con la estabilidad emocional.

Tabla 5.
Indicadores de la correlación lineal de Pearson entre los componentes estructurales de la autodeterminación profesional de futuros especialistas y la estabilidad emocional

Autodetermonación profesional		Estabilidad emocional		
		Año de estudios		
Factores	**Criterios**	**I** (n=112)	**III** (n=97)	**V** (n=68)
	Tipo realista	.012	.213*	.291*
	Tipo intelectual	.007	.241*	-.102
Tipo profesional de la personalidad	Tipo social	-.011	-.182	.246*
	Tipo convencional	-.107	-.204*	-.021
	Tipo emprendedor	.014	-.113	.142
	Tipo artístico	.026	.021	.113
Coherencia profesional de la personalidad	Homogeneidad profesional	-.113	.201*	.041
	Diferenciación profesional	.127	-.128	.017
	Congruencia profesional	-.013	-.124	.276*
	Convertirse en un especialista calificado	.201*	.081	.273*
Motivación educativa profesional	Obtener conocimientos profundos y sólidos	-.033	.216*	.031
	Éxito de la actividad profesional	.017	.259**	.281*
	Satisfacción intelectual	.216*	.199*	.092
	Orientación en el tiempo	.105	.225**	.274*
Autorrealización	Apoyo	.225*	.238**	.329**
	Indicador general de la autorrealización	.216*	.346***	.411***
	Adaptabilidad	.305***	.335***	.323**
	Desadaptividad	-.411***	-.212*	-.381**
Adaptabilidad socio-psicológica	Autoaceptación	.236***	.348***	.272*
	Autoaceptación negativa	-.324***	-.119	-.374**
	Escapismo	-.328***	-.013	-.261*
	Indicador general de ASP	.432***	.331***	.422***
Regulatorio	Locus de control interno	.221*	-.012	.031
	Locus de control externo	-.13	-.019	-.297*

Fuente: Elaboración propia, 2021.
Nota: I – primer año de estudios (n=112); III – tercer año de estudios (n=97); V – quinto año de estudios (n=68); *– significación estadística en el nivel de p<.05; ** – significación estadística en el nivel de p<.01; ***– significación estadística en el nivel dep<.001.

Se comprobó la interdependencia de correlación de los principales parámetros de la estabilidad psicológica y la adaptación sociopsicológica como uno de los criterios de la autodeterminación profesional. Las conexiones (que son características para todos los años de estudios) entre los indicadores de la estabilidad emocional y la motivación educativa profesional intrínseca son naturales y lógicos. La naturaleza intrapsíquica de tal interdependencia presupone su emotividad, que ante todo actualiza el estudio del papel de las propiedades emocionales reguladoras del individuo.

Los resultados presentados en Tabl. 6 reflejan la dinámica de la significancia de los indicadores de estabilidad emocional obtenidos según la estabilidad emocional y la capacidad reguladoria. Se demostró que el número de las diferencias estadísticamente significativas aumenta a lo largo del período de estudios.

Tabla 6.
Indicador de la significancia de diferencias estadísticas según los criterios emocionales regulatorios 16 PF Cattell test

Año de estudios	Criterio	Factor: Cattell 16 PF						
		C	F	I	O	Q4	Q3	G
I y III	tSt	-1.074	-1.513	2.241*	-.568	-.212	-.315	1.325
		p<.2621	p<.0862	p<.0243	p<.4972	p<.7832	p<.7251	p<.1671
III y V	tSt	-1.9826*	-1.298	-1.517	2.226*	.876	.3123	1.163
		p<.0013	p<.1691	p<.0866	p<.0275	p<.4238	p<.5742	p<.2343
I y V	tSt	-3.301***	-2.916**	.178	2.682**	.678	.8945	1.513
		p<.0021	p<.0034	p<.7931	p<.0015	p<.4679	p<.3251	p<.1318

Fuente: Elaboración propia, 2021.
Nota: I – primer año de estudios (n=112); III – tercer año de estudios (n=97); V – quinto año de estudios (n=68); tSt – Student's criterion; *– significación estadística en el nivel de p<.05; ** – significación estadística en el nivel de p<.01; ***– significación estadística en el nivel de p<.001.

Constatamos que las diferencias estadísticamente significativas entre el primer y tercer años de estudios se observan únicamente según el criterio de "Dureza" (Factor I) (t = 2.241; p <.0243). Los jóvenes se hacen más independientes, menos sentimentales, la emotividad se substituye por la racionalidad. Entre el tercer y quinto años de estudios se observan las diferencias estadísticamente significativas según los criterios como "estabilidad emocional" (debilidad/fuerza de Yo) (Factor C) (t = 1.9826; p <.0013) y "ansiedad" (Factor O) (t = 2.226; p < .0275). Al final de la carrera universitaria, disminuye el número de los encuestados con alto nivel de ansiedad y aumenta el de nivel bajo, aparece la relajación interior, autosatisfacción, optimismo. Al mismo tiempo, muchos encuestados con nivel medio de ansiedad todavía siguen sintiendo ansiedad, tienen miedo de cometer errores. Todos estos cambios son la consecuencia del realismo de sus perspectivas de vida relacionadas con el empleo, la vida personal, etc.

Las diferencias entre el primero y el quinto años de estudios se caracterizan por tres factores: "estabilidad emocional" (Factor C) (t = -3.301; p <.0021), "ansiedad" (Factor O) (t = -2.682; p <. 0015) y "expresividad" (Factor F) (t = 2.916; p <.0034). Esto confirma las tendencias positivas en la formación de estabilidad emocional durante el desarrollo profesional previo de los futuros profesionales. A pesar del autocontrol algo reducido de las emociones, el número de encuestados con perspectivas de vida equilibradas y realistas, permanencia de intereses, confianza en sí mismos, que contribuye a su autoafirmación, aumenta año tras año.

El estudio realizado enfatiza el papel de la estabilidad emocional de la capacidad del individuo de adaptarse a los desafíos y dificultades de la vida. Nuestro estudio es un buen argumento sobre la importancia de la regulación de las emociones para asegurar el bienestar psicológico del individuo. Así lo confirman los estudios de B. Marroquín, H. Tennen y A. Stanton (2017) sobre el papel de la regulación intrapersonal de las emociones en los contextos sociales complejos, que asegura el bienestar psicológico del individuo. El papel de la estabilidad emocional se describe también en los estudios sobre el impacto del apego adulto, la conciencia de la disposición y la regulación de las emociones para el bienestar psicológico del individuo (Stevenson et al., 2019).

Conclusiones

Se fundamentó que el bienestar psicológico se basa en la idea de la necesidad constante y la capacidad de autodesarrollo y autorrealización. El grado de su implementación formará el sentido de integridad psicológica y satisfacción.

La estabilidad emocional es una cualidad sistémica del individuo, que se forma y monitorea en las condiciones de actividad intensa. Se relaciona con la autorrealización, la capacidad de autorregulación, depende de los estados emocionales y ayuda a los futuros especialistas a adaptarse eficazmente al entorno profesional.

La investigación empírica demostró el aumento de la congruencia profesional y la autorrealización de futuros especialistas durante todos los años de estudios en una institución de

educación superior. La satisfacción de la profesión elegida es una de las condiciones de la autorrealización profesional en la etapa inicial de la profesionalización y al mismo tiempo proporciona la estabilidad emocional.

Se constató la unidad de componentes reguladores emocionales en la estructura de la estabilidad emocional del individuo. Se registró cierta tensión emocional del proceso de autodeterminación profesional de futuros especialistas. Se demostró la dinámica positiva del crecimiento del número de encuestados con nivel suficiente de estabilidad emocional durante todo el período de estudios.

Creemos que la experiencia de actividad intensa de individuos emocionalmente inestables puede convertirse en proceso afectivo. En tales circunstancias, se actualiza la necesidad de aplicar las medidas preventivas para aumentar el nivel de estabilidad emocional de los jóvenes en la etapa inicial de su desarrollo profesional. En eso vemos las perspectivas de nuestra investigación futura.

Referencias bibliográficas

Abolin, L. (1985). Methods of studying emotions in sports. Volgograd: GNFC.

Aleshina, Yu., Gozman, L., & Dubovskaya, E. (1987). Socio-psychological methods of research of marital relations. Special workshop on social psychology. Moscow: MSU.

Arbeláez-Campillo, D., Tatsiy, V., Rojas-Bahamón, M., et al. (2020). Contributions of critical thinking as a form of participation and political deliberation. Amazonia Investiga, 9(27), 5-12. https://doi.org/10.34069/AI/2020.27.03.1

Ali Ahmed, S., & Çerkez, Y. (2020). The Impact of Anxiety, Depression, and Stress on Emotional Stability among the University Students. Propósitos y Representaciones, 8(3). http://dx.doi.org/10.20511/pyr2020.v8n3.520

Bar-On, R., Maree, J., & Elias, M. (Eds.). (2007). Educating People to Be Emotionally Intelligent. Greenwood: Praeger Publishers.

Baudry, A., Grynberg, D., Dassonneville, C., et al. (2018). Sub-dimensions of trait emotional intelligence and health: A critical and systematic review of the literature. Scandinavian Journal of Psychology, 59, 206-222.

Blynova, O., Kisil, Z., Tkach, T., et al. (2020a). Psychological manifestations of professional marginality of future social welfare professionals. Revista Inclusiones, 7(SI), 218–233. http://www.revistainclusiones.org/index.php/inclu/article/view/1229

Blynova, O., Moiseienko, V., Los, O., et al. (2020b). Assertiveness as a Factor of Students' Choice of Behavior Strategies in Social Interaction. Revista Inclusiones, 7(4), 259-272. http://www.revistainclusiones.org/index.php/inclu/article/view/1551

Bubić, A., & Ivanišević, K. (2016). The role of emotional stability and competence in young adolescents' career judgments. Journal of Career Development, 43(6), 498-511. https://doi.org/10.1177/0894845316633779

Cyniak-Cieciura, M. (2021). Stress, satisfaction with life and general health in a relationship to health behaviors: the moderating role of temperament structures. Polish Psychological Bulletin, 52(3), 227–240. https://doi.org/10.24425/ppb.2021.137887

Goleman, D. (2005). Why it can matter more than IQ. New York: Bantam Books.

Gopinath, R. (2020). Prominence of Self-Actualization in Organization. International Journal of Advanced Science and Technology, 29(3), 11591-11602. http://sersc.org/journals/index.php/IJAST/article/view/29830/16523

Halian, A., Halian, I., Burlakova, I., et al. (2020). Emotional Intelligence in the Structure of Adaptation Process of Future Healthcare Professionals. Revista Inclusiones, 7, 447-460. http://revistainclusiones.org/pdf13/37%20VOL%207%20NUM%20ESPECIALJULIOSEPTIEMBREEE2020ZZ.pdf

Halian, A., Halian, I., Popovych, I., et al. (2021). Stress Resistance in the Situation of Uncertainty as a Factor of Development of Adaptive Ability of Medical Personnel. BRAIN. Broad Research in Artificial Intelligence and Neuroscience, 12(1), 251-264. https://doi.org/10.18662/brain/12.1/181

Halian, I. M. (2018). Motivational and value determinants of professional development of future physical education teachers. Science and education, 3, 36-42. DOI: 10.24195/2414-4665-2018-3-5

Halian, I. M. (2019). Personal determinants of responsibility of future educators. Insight: the psychological dimensions of society, 1, 15-21. https://doi.org/10.32999/2663-970X/2019-1-2

Hamel, L. (2015). Emotional Intelligence. In: Cooper, C., Flood, P., & Freeney Y. (Eds.).

Wiley Encyclopedia of Management. https://doi.org/10.1002/9781118785317.weom110044

Holland, J. (1997). Making vocational choices: a theory of vocational personalities and work environments (3rd ed.). Odessa, Fla: Psychological Assessment Resources.

Hudimova, A. Kh. (2021). Psychological well-being and social media users' behavioral online patterns in everyday life and during COVID-19 pandemic. Insight: the psychological dimensions of society, 5, 133-147. https://doi.org/10.32999/2663-970X/2021-5-9

Hudimova, A., Popovych, I., Baidyk, V., et al. (2021). The impact of social media on young web users' psychological well-being during the COVID-19 pandemic progression. Revista Amazonia Investiga, 10(39), 50–61. https://doi.org/10.34069/AI/2021.39.03.5

Ivtzan, I., Gardner, H. E., Bernard, I., et al. (2013). Wellbeing through self-fulfilment: Examining developmental aspects of self-actualization. The Humanistic Psychologist, 41(2), 119. https://doi.org/10.1080/08873267.2012.712076

Jawed, A. (2019). Aspects of emotional intelligence. Cambridge: Cambridge Scholars Publishing.

Khmiliar, O., Popovych, I., Hrys, A., et al. (2020). Spatial Regulation of Personality Behavior in the Conditions of Progression of the COVID-19 Pandemic. Revista Inclusiones, 7(SI), 289-306. http://www.revistainclusiones.org/index.php/inclu/article/view/1760

Krems, J. A., Kenrick, D. T., & Neel, R. (2017). Individual perceptions of self-actualization: What functional motives are linked to fulfilling one's full potential?. Personality and Social Psychology Bulletin, 43(9), 1337-1352. https://doi.org/10.1177/0146167217713191

Kuzikova, S., Shcherbak, T., Blynova, O., et al. (2021). Empirical Research of the Hardiness of the Personality in Critical Conditions of Life. Postmodern Openings, 12(2), 57-77. https://doi.org/10.18662/po/12.2/297

Laborde, S., Dosseville, F., & Allen, M. (2016). Emotional intelligence. Scandinavian Journal of Medicine and Science in Sports, 26, 862-874. https://doi.org/10.1111/sms.12510

Ma, F., Shevchenko, R. P., & Karhina, N. V. (2020). Student you three presentation of psychological well-being: results of content analysis of works. Insight: the psychological dimensions of society, 3, 44-55.

https://doi.org/10.32999/2663-970X/2020-3-3

Marroquín, B., Tennen, H., & Stanton, A. L. (2017). Coping, emotion regulation, and well-being: Intrapersonal and interpersonal processes. In The happy mind: Cognitive contributions to well-being (pp. 253-274). Cham: Springer.

Maslach, C. (1993). Burnout: A multidimensional perspective. In Shaufeli, W. B., Maslach, Cr., & Marek, T. (Eds.). Professional burnout: Recent developments in the theory and research (pp. 19-32). Washington DC: Taylor & Francis.

Miner, J. B., Crane, D. P., & Vandenberg, R. J. (1994). Congruence and Fit in Professional Role Motivation Theory. Organization Science, 5(1), 86-97.

Mirucka, B., Bielecka, U., Mirucka, M., et al. (2021). Significant predictors of psychological distress in the group of Polish young adults during the COVID-19 epidemic outbreak: Sequential mediation model. Polish Psychological Bulletin, 52(3) 289-298. https://journals.pan.pl/dlibra/publication/137891/edition/121031/content

Nosov, P. S., Popovych, I. S., Cherniavskyi, V. V., et al. (2020). Automated identification of an operator anticipation on marine transport. Radio Electronics, Computer Science, Control, 3, 158–172. https://doi.org/10.15588/1607-3274-2020-3-15

Osnitsky, A. K. (2004). Determination of the characteristics of social adaptation. Psychology and school, 1, 43-56.

Plokhikh, V. V. (2021). Assessment of subject's readiness for urgent actions using the variations of sensorimotor response tasks. Insight: the psychological dimensions of society, 5, 46-65. http://doi.org/10.32999/2663-970X/2021-5-4

Plokhikh, V., Popovych, I., Zavatska, N., et al. (2021). Time Synthesis in Organization of Sensorimotor Action. BRAIN. Broad Research in Artificial Intelligence and Neuroscience, 12(4), 164-188. https://doi.org/10.18662/brain/12.4/243

Psychology of a happy life (2014). Cattell test 16PF personality (Form A /187 questions). http://psycabi.net/testy/293-16-faktornyj-lichnostnyj-oprosnik-r-b-kettellametodika-mnogofaktornyj-oprosnik-kettella-test-kettela187-voprosov-test-ketela-16-pf#ixzz3WT0mku5x

Popovych, I., Arbeláez-Campillo, D. F., Rojas-Bahamón, M. J., et al. (2021a). Time perspective in the professional activity of specialists of economic sphere. Cuestiones

Políticas, 39(69), 424-445. https://doi.org/10.46398/cuestpol.3969.27

Popovych, I., Borysiuk, A., Zahrai, L., et al. (2020). Constructing a Structural-Functional Model of Social Expectations of the Personality. Revista Inclusiones, 7(SI), 154-167. https://revistainclusiones.org/index.php/inclu/article/view/354

Popovych, I., Chervinskyi, A., Kazibekova, V., et al. (2021b). Empirical research of the typology of social expectations of the personality. Amazonia Investiga, 10(43), 112-122. https://doi.org/10.34069/AI/2021.43.07.11

Popovych, I., Shevchenko, A., Galvez, L. M., et al. (2021c). Research of the relationship between social desirability and value orientations of adolescents. Revista Notas Históricas y Geográficas, 26(1), 241–268. https://www.revistanotashistoricasygeograficas.cl/index.php/nhyg/article/view/339

Raedeke, T. D. (1997). Is athlete burnout more than just stress? A sport commitment perspective. Journal of Sport & Exercise Psychology, 19, 396-417.

Raedeke, T. D., & Smith, A. L. (2001). Development and Preliminary Validation of an Athlete Burnout Measure. Journal of Sport & Exercise Psychology, 23, 281-306.

Reiss, S. & Havercamp, S. (2005). Motivation in Developmental Context: A New Method for Studying Self-Actualization. Journal of Humanistic Psychology, 45, 41-53. https://doi.org/10.1177/0022167804269133

Rogers, C. R., & Dymond, R. F. (Eds.). (1954). Psychotherapy and Personality Change: Coordinated Research Studies in the Client-Centered Approach. Chicago: University of Chicago Press.

Rogers, C. R. (2021). Selected Writings on Client Centered Therapy: Becoming a Person, Significant Aspects of Client Centered Therapy, The Process of Therapy, and The Development of Insight in a Counseling Relationship. Bristol: Mockingbird Press.

Shevchenko, R., Cherniavskyi, V., Zinchenko, S., et al. (2020). Research of psychophysiological features of response to stress situations by future sailors. Revista Inclusiones, 7(SI), 566-579. http://www.revistainclusiones.org/index.php/inclu/article/view/1780

Stevenson, J. C., Millings, A., & Emerson, L. M. (2019). Psychological well-being and coping: The predictive value of adult attachment, dispositional mindfulness, and emotion regulation. Mindfulness, 10(2), 256-271. https://doi.org/10.1007/s12671-018-0970-8

Does social stories intervention improve social skills among children with ASD?: A Systematic Review of the Literature

هل يؤدي تدخل القصص الاجتماعية إلى تحسين المهارات الاجتماعية لدى الأطفال ذوى اضطراب التوحد؟: مراجعة منهجية للأدبيات

Written by:
Mohammed Alhwaiti[72]
https://orcid.org/0000-0001-7503-5601

المستخلص

هدفت هذه المراجعة الى تقديم معلومات محدثة حول أبحاث القصص الاجتماعية، مع التركيز على فعاليتها في المهارات الاجتماعية. تم البحث في قواعد البيانات الإلكترونية. وشملت هذه بشكل أساسي: المجلات المفهرسة ERIC وGoogle Scholar وWoS وPubMed وScopus. استخرج المؤلف البيانات المطلوبة. قام بعمل نموذج بيانات بالمعلومات التالية ليتم استخراجها: أسماء المؤلفين، سنة النشر، نوع الأطفال، عدد المشاركين، الجنس، العمر، الدولة، تصميم الدراسة، والنتائج. كان المشاركون جميعهم من الأطفال ذوي اضطراب التوحد. كانوا من كلا الجنسين (ذكور وإناث). كانوا جميعًا في سن مبكرة (> 13 سنوات). كانوا من بلدان مختلفة، ومن ثم من ثقافات مختلفة. استخدمت معظم الدراسات البحثية (أربع دراسات: 66.6٪) التصميم القبلي،والبعدى . بينما استخدمت دراستان (33.3٪) تصميمًا أساسيًا متعددًا عبر المشاركين الاطفال. دلت النتائج على فاعلية تدخل القصص الاجتماعية المستخدمة في تحسين المهارات والسلوكيات المستهدفة.

الكلمات المفتاحية: تدخل القصص الاجتماعية، المهارات الاجتماعية، الأطفال ذوي اضطراب التوحد، المراجعة المنهجية

Abstract

The aim of this review was to provide up-to-date information about Social Store research, focusing on its effectiveness on social skills. Electronic databases were searched. These mainly included: ERIC, Google Scholar, WoS, and PubMed, and Scopus indexed journals. The author extracted the data needed. He made a data form with the following information to be extracted: authors' names, year of publication, type of children, number of participants, gender, age, country, study design, and findings. The participants were all children with ASD. They were of both sexes (men and women). All were of young age (> 13 years old). They were from different countries, and hence from different cultures. Most research studies (four studies: 66.6%) used pre- post design. While two studies (33.3%) used multiple baseline design across subjects. Findings indicated the effectiveness of the social stories intervention employed in improving the target skills and behaviours.

Keywords: social stories intervention, social skills,children with ASD, Systematic Review.

Introduction

Several authors documented that children with disabilities need a special assistance in their way to lead a normal life when overcoming delays in attaining some social skills (Baczała, 2016; Ebrahim, 2019; Gawad, 2015). Among those with disabilities are children with adolescents with ASD (Błeszyński, 2019; Mohammed, 2016).

Those children and adolescents find it difficult to communicate on one hand, and socially interact and engage with peers on the other hand. There are a combination of inhibiting factors, such as language delays, emotional disturbance, delays in learning and intellectual advancement (Alnaggar and Ekram, 2014; Eissa, 2017; Eissa and Beata, 2019).

[72] Assistant professor of Special Education, Faculty of Education, Umm Al-Qura University, Saudi Arabia.

In order to change those group of children and adolescents' behaviours to be better, several interventions have been put forth (Nabei, Al Sayed and Waleed, 2014). Recently, social stories have gained much popularity, as a techniques aimed to change autistic children and adolescents' behaviours (Al Atyya, 2014; Crozier and Tincani, 2007). In addition to being and important tool that help children with ASD to learn about themselves, their world, their surroundings, their culture and their way of living, stories are useful in helping them develop relationships with others within a social group (Eissa, 2016).

Evidence on the effectiveness of social stories is inconsistent . Some suggested that social stories can improve social skills and problem behavior (e.g. Al Atyya, 2014 Crozier and Tincani, 2007; Golzari, Alamdarloo and Moradi, 2015).Others (e.g. Daub & Huber, 2020) found inconsistent results.

This review examined whether social stories interventions produced gains in social skills among people with ASD.

The aim of this review was to provide up-to-date information about SS research, focusing on its effectiveness on social skills. Outcomes of these findings could contribute further to the effectiveness on social skills among children with ASD.

Literature review

Children with autism spectrum disorder (ASD) are regarded as a heterogeneous group with a neurodevelopmental condition. They are often impaired in reciprocal social interaction and communication. They also have repetitive and restrictive behaviors (Al Sayed, 2014; Eissa, 2016; Soliman, 2014).

Also, children suffering from this disorder are constantly increasing, causing concern to individuals and peoples, and prompting them to search for effective intervention programs to reduce this disorder, contribute to improving the quality of psychological life for them, reduce the problems they suffer from, and relieve the families of these children (Eissa, 2015).

The method of Social Stories developed by Gray (1994), is a method that provides the individual with accurate information about the situation he is facing. The SS describes one situation and fits the understanding of autistic children. In the case of children who are unable to read, pictures and

sounds are used (Camilleri, Maras and Brosnan, 2022a).

SS aim to provide a child with autism with desirable and accurate behaviors about the situation he or she is facing. This method also aims to explain the reasons for doing a behavior to others, teach specific social skills in a particular situation, and help teach new academic skills (Camilleri et al., 2022a).

SS follows the basic components of the story, it contains the introduction that clearly presents the topic, then the body that adds more details, then the end, and the title must reflect the content of the story, meaning that it serves the basic idea in the story, and appropriate phrases are used to think of a child with autism (Camilleri, Maras and Brosnan, 2022b).

The form of a story includes descriptive sentences, which include the place of the event, the people involved in the event, what they do, and perspective sentences; It describes the feelings and responses expected from others. As for the directive sentences, they provide a solution, which are more directive and not just giving orders, and help the child to form sentences such as "I will try to…" and Control Sentences and are used to recall information in the story. Social, to reassure the child himself or determine his response (Smith et al., 2021).

Gray stated that there are three types of information provided by social stories, the first type is the news, the second is the ways of understanding this news, and the third is the way to link this news to what the autistic child knows, and there is a stage for each information according to the goal of the story. Therefore, it is necessary to distinguish between these types of information. News is objective information that describes a specific event, concept or skill, and this news presents the subject of the story. For example, a birthday invitation story can be as follows: "I am invited to Sally's birthday party, she will be her age." six years (Youn Kang and Kim, 2020).

As for ways of understanding this news, it is information that describes how to deal with the news, and includes cognitive processes, problem-solving methods, and conflict-resolution strategies, and to complement the example of a birthday party, the child is asked to guess what he will eat at the party, and is linked to a previous party that had a cake And some games, while reminding the child of other experiences, and this type of information helps calm the child and

makes him more controllable and more able to face challenges. As for the third type of information, it describes the relationship between the past, present and future, and the child is helped to anticipate what will happen at the future party (Youn Kang and Kim, 2020).

Methodology

Criteria of inclusion

Study type: as the aim indicates, only intervention studies were included.

Types of participants: Children with ASD
Outcome measures: social skills
Study design: Multiple Baseline, pre-post-follow up design, experimental-control group design, and case studies design.

Data collection and analysis

Data extraction: The author extracted the data needed. He made a data form with the following information to be extracted: authors' names, year of publication, type of children, number of participants, gender, age, country, study design, and findings.

Search strategy

Electronic databases were searched. These mainly included: ERIC, Google Scholar, WoS,

and PubMed, and Scopus indexed journals. Studies that include only children with ASD were included, with regard of different countries, and both sexes. Only studies published in English were eligible to be included. These studies should depend on social Story intervention in addition to other intervention in individuals with ASD.

Study questions

1. What are the demographic characteristics of children with ASD who participated in the reviewed studies?
2. What experimental designs were used? And How effective SS technique was?

Results

I relied on research questions in order to describe results of the review, as shown in tables 1-2.

1. What are the demographic characteristics of children with ASD who participated in the reviewed studies?

First of all, the participants were all children with ASD. They were of both sexes (males and females). All were of young age (> 10 years old). They were from different countries, and hence from different cultures (See table 1).

Table 1.
Demographic characteristics of children with ASD

Authors	Years	Type of children	Number of participants	Gender	Age	Country
Mohammed and Mostafa	2012	ASD	1	female	7	Egypt
Soliman	2014	ASD	10	Both sexes	5-7	Egypt
Al Atyya	2014	ASD	10	Both sexes	7-9	Kuwait
Golzari, Alamdarloo and Moradi	2015	ASD	30	males	6-12	Turkey
Youn Kang, and Kim	2020	ASD	3 and their mothers	boys	7	United States
Kwon et al.	2022	Deaf and Hard of Hearing Students with Autism Spectrum Disorder	3	boys	11	USA

2. What experimental designs were used? And How effective SS technique was?

A shown in table 2., most research studies (four studies: 66.6%) used pre- post design. While two studies (33.3%) used multiple baseline design across subjects. Findings indicated the effectiveness of the social stories intervention employed in improving the target skills and behaviours.

Table 2.
Experimental designs, Outcome measures and Findings.

Authors	Design	Outcome measures	Findings
Mohammed and Mostafa	pre- post- follow up design	eating behavior	Findings indicated the effectiveness of the social stories intervention employed in teaching the target child self management of eating
Soliman	pre- post design	social skills	Findings indicated the effectiveness of the social stories intervention employed in teaching the target children social skills
Al Atyya	pre- post design	problem behaviour	Findings indicated the effectiveness of the social stories intervention employed in teaching the target children problem behaviour.
Golzari, Alamdarloo and Moradi	pre- and post-test	Social Skills	The study findings emphasize the effectiveness of the social stories intervention in improving the social skills of children with ASD,
Youn Kang, and Kim	multiple baseline design across subjects	Social Play Behaviors	Reading a Social StoryTM with self-modeling that is responsive to families' language and culture improved children's initiations, responses, and affect
Kwon et al.	multiple baseline design	social initiations and responses, social initiations and responses of their peers, and (c) social engagement	The results did not show an immediate effect across all participants

Discussion

SS help a child with autism to be ready to face life, help him understand, form an appropriate response to daily events, and be ready for the sensory requirements provided by these events. The teacher can write a story in which he describes events in details that help the child anticipate what will happen, the role that he can play, and control the course of daily life.

Crozier and Tincani (2007) identified nine criteria for writing a social story, the most important of which is that the social story should include information that is of interest to the child, as well as include an introduction that defines the topic and a conclusion that reinforces and summarizes the information, as well as that the story provides answers to the child's questions, and be written in the language of Positive, and the story includes different sentence patterns in addition to the title, and that the story fits the abilities and interests of the target child, as well as the story includes graphics that illustrate the meaning of the text.

Gray (2015) added criteria, including that the main goal of social stories is not to modify behavior, but to provide a child with autism with real information in a meaningful and safe manner and to provide a deeper understanding of events and expectations. A SS consists of a title and at least three sentences, and the social story has a clear structure and content and supports the child's understanding of meanings, and the structure here refers to individuality, organization and clarity.

SS work to provide solutions to many of the problems facing a child with autism in his daily life by acquiring appropriate behavior and imitating it from the content of the story. Various

behavioral patterns, including controlling different unpleasant emotions through listening and arousal, acquiring acceptable emotions such as pleasure, joy, emotional participation, and relieving tension and anxiety. It is also one of the most important goals agreed upon when giving the child the story is to understand the meaning of the story, develop his ability and form positive attitudes towards himself and others.

SS are a way to teach social skills to children with autism and those with autism-related disabilities, as they provide accurate information about social situations that he finds difficult and distracting. The goal of the story is to increase the child's understanding of the social situation through a simplified short story written from the child's perspective that provides him with certain information that helps him in his daily life.

The educational stories for children with autism and developmental disabilities are characterized by their reliance on visual learning through pictures, so that the pictures are sequenced in an organized and thoughtful manner, and communicate the main idea of the child, with the impression of a mental image of the subject in his memory, and the SS includes a description of social situations and the exchange of conversations and natural community symbols that revolve around The social story can contribute to the development of attention and social communication in various areas and situations in daily life, and personal relationships. It also contributes to the definition of what is going on in each situation of conversations, compliments and cooperation, as well as in explaining the behavior of others.

Conclusion

The story is a method of torturing morals and behavior, through which it expresses aspects of life, and conveys ideas and experiences to others. Through the story, the child can learn what is in life of good and evil, and distinguish between ugly and beautiful, friend and enemy, right and wrong, contentment and greed, and miserliness. And generosity, so it possesses the mind of the child and controls his thoughts, and the story develops the ability to evoke feelings.

Bibliographic references

Al Atyya, A. (2014). The Effectiveness of a Social Story Intervention in Decreasing Problem Behavior in Children with Autism Spectrum Disorder". Psycho-Educational Research Reviews, 3(3), 27-38. https://www.journals.lapub.co.uk/index.php/perr/article/view/107

Alnaggar, A., and Ekram, H. (2014). The Effectiveness of Touch Math on Improving Academic Achievement on Math Addition in Children With Autism". Psycho-Educational Research Reviews, 3(3), 60-65. https://www.journals.lapub.co.uk/index.php/perr/article/view/111.

Al Sayed, A. (2014). Using Social Stories to Improve Challenging Behaviors In Young Children With Emotional and Behavioral Disabilities. Psycho-Educational Research Reviews, 3(2), 91-99. https://www.journals.lapub.co.uk/index.php/perr/article/view/239

Baczała, D. (2016). Social Skills of Individuals With Intellectual Disabilities". Psycho-Educational Research Reviews, 5(2), 68-77. https://www.journals.lapub.co.uk/index.php/perr/article/view/139.

Błeszyński, J. (2019). Change in Approach to Problem of Autism Spectrum Disorders: Towards the Humanistic and Personalistic Perspective of Understanding the Person. Psycho-Educational Research Reviews, 8(2), 21-28. https://www.journals.lapub.co.uk/index.php/perr/article/view/1162.

Camilleri, L.J., Maras, K., and Brosnan, M. (2022a). Autism Spectrum Disorder and Social Story Research: a Scoping Study of Published, Peer-Reviewed Literature Reviews. Rev J Autism Dev Disord, 9, 21–38. https://doi.org/10.1007/s40489-020-00235-6

Camilleri, L.J, Maras, K, & Brosnan, M. (2022b) The impact of using digitally-mediated social stories on the perceived competence and attitudes of parents and practitioners supporting children with autism. PLoS ONE, 17(1), e0262598. https://doi.org/10.1371/journal.pone.0262598

Crozier, S., & Tincani, M. (2007). Effects of social stories on prosocial behavior of preschool children with autism spectrum disorders. Journal of Autism and Developmental Disorders, 37(9), 1803–1814. doi: 10.1007/s10803-006-0315-7

Daub, A., and Huber, T. (2020). Effectiveness of Social Stories on Social Skills for Elementary-Aged Students with Autism: A Literature Review. International Journal of Education, 12(4), 13-37. DOI: https://doi.org/10.5296/ije.v12i4.17759

Ebrahim, M. (2019). Effectiveness of a Pivotal Response Training Programme in Joint Attention and Social Interaction of

Kindergarten Children With Autism Spectrum Disorder". Psycho-Educational Research Reviews, 8(2), 48-56. https://www.journals.lapub.co.uk/index.php/perr/article/view/1164.

Eissa, M. (2015). The Effectiveness of a Joint Attention Training Program on Improving Communication Skills of Children with Autism Spectrum Disorder". Psycho-Educational Research Reviews, 4(3), 3-11. https://www.journals.lapub.co.uk/index.php/perr/article/view/126

Eissa, M. (2016). The Effectiveness of Social Stories Among Children and Adolescents with Autism Spectrum Disorders: Meta-Analysis. Psycho-Educational Research Reviews, 5(2), 51–60. https://www.journals.lapub.co.uk/index.php/perr/article/view/137

Eissa, M. (2017). Are Phonological Awareness Intervention Programs Effective for Children With Disabilities? A Systematic Review". Psycho-Educational Research Reviews, 6(3), 11-22. https://www.journals.lapub.co.uk/index.php/perr/article/view/177.

Eissa, M., and Beata, B. (2019). Disability in the Arab World: A Comparative Analysis Within Culture. Psycho-Educational Research Reviews, 8(2), 29-47. https://www.journals.lapub.co.uk/index.php/perr/article/view/1163.

Gawad, M. (2015). The Effectiveness of a Training Program Based on Dodge's Social Information Processing Model on Improving Social Skills of Children With Autism Disorder. Psycho-Educational Research Reviews 4 (2):22-28. https://www.journals.lapub.co.uk/index.php/perr/article/view/243.

Golzari, F., Alamdarloo, G. and Moradi, S. (2015). The Effect of a Social Stories Intervention on the Social Skills of Male Students with Autism Spectrum Disorder. SAGE Open, 1-8, DOI: 10.1177/2158244015621599

Gray, C.A. (1994) The New Social Story Book. Arlington, TX: Future Horizons.

Gray, C. (2015). The new social story book. Arlington, TX: Future Horizons.

Kwon, E.Y, Cannon, J.E, Knight, V.F, Mercer, S.H, & Guardino, C. (2022) Effects of Social Stories on Increasing Social Interaction and Engagement of Deaf and Hard of Hearing Students with Autism Spectrum Disorder in Inclusive Settings. J Autism Dev Disord, 8. doi: 10.1007/s10803-022-05430-4. Epub ahead of print. PMID: 35133547

Mohammed, A., and Mostafa, A. (2012). The Effect of Social Stories Intervention Technique on Self Management of Eating Behavior of a Child with Autism". Psycho-Educational Research Reviews, 1(1), 32-43. https://www.journals.lapub.co.uk/index.php/perr/article/view/86

Mohammed, S. (2016). The Effect of Graphic Organizers on Improving Reading Comprehension of Children With Autism Disorder". Psycho-Educational Research Reviews, 5(1), 33-37. https://www.journals.lapub.co.uk/index.php/perr/article/view/251.

Nabei, S., Al Sayed, S., and Waleed, A. (2014). The Impact of Implementing Enhanced Milieu Teaching Strategies on the Communication Skills of Young Children With Autism Spectrum Disorder. Psycho-Educational Research Reviews, 3 (3), 66 - 73. https://www.journals.lapub.co.uk/index.php/perr/article/view/112.

Smith, E., Constantin, A., Johnson, H. et al. (2021). Digitally-Mediated Social Stories Support Children on the Autism Spectrum Adapting to a Change in a 'Real-World' Context. J Autism Dev Disord, 51, 514–526. https://doi.org/10.1007/s10803-020-04558-5

Soliman, H. (2014). The Effect Of Social Stories Intervention On Social Skills Of Children With Autism Spectrum Disorder. Psycho-Educational Research Reviews, 3(2), 33-41. https://www.journals.lapub.co.uk/index.php/perr/article/view/234

Youn Kang, V., and Kim, S. (2020). Social Stories™ with self-modeling to teach social play behaviors to Korean American children with autism. Child & Family Behavior Therapy, 42(2), 73–97. https://doi.org/10.1080/07317107.2020.1738709

Public-private partnership: problems of contractual settlement

Державно-приватне партнерство: проблеми договірного врегуювання

Written by:
Tetiana Kolomoiets[73]
https://orcid.org/0000-0003-1101-8073
Kyrylo Alimov[74]
https://orcid.org/0000-0002-5053-0945
Mykola Matiiko[75]
https://orcid.org/0000-0003-4588-2636
Vadym Popeliuk[76]
https://orcid.org/0000-0002-7415-3996
Iryna-Mariia Huk[77]
https://orcid.org/0000-0002-4407-3944

Abstract

Given the benefits of public-private partnership (PPP), PPP relations, as well as the problems that arise in the contractual settlement of such relations are becoming increasingly important. Legislative requirements for the contractual form of partnership and an open list of contracts that can be concluded within the PPP do not differ in their clarity and clarity of interpretation, which results in the ambiguity of views on the rule of law when concluding agreements. Therefore, it is essential to analyze the problematic aspects of contractual regulation of relations in the field of PPP and suggest ways to solve them. The work aims to study the problems of contractual settlement of PPP. Research methodology such methods as the dialectical method, analysis and synthesis, induction and deduction, proof and refutation, comparison, generalization. As a result of the study, the problematic aspects of concluding agreements in the field of PPP were analyzed. In particular, it was concluded that today, despite the legal basis for the implementation of PPP, the implementation of such projects has some problems that are manifested in both legal and organizational areas. One of the problems is the greater role of the state partner in the implementation of PPP projects, which is manifested in the expanded

Анотація

З огляду на переваги державно-приватного партнерства (далі - ДПП), відносини у сфері ДПП, а також проблеми, що виникають при договірному врегулюванні таких відносин набувають все більшої актуальності. Законодавчі вимоги до договірної форми партнерства та відкритий перелік договорів, що можуть укладатися в рамках ДПП не відрізняються своєю чіткістю та зрозумілістю трактування, що має наслідком неоднозначність поглядів на норму закону при укладенні угод. Тому важливо проаналізувати проблемні аспекти договірного регулювання відносин у сфері ДПП та запропонувати шляхи їх вирішення. Метою роботи є дослідження проблем договірного врегулювання у сфері ДПП. Методологію дослідження такі методи, як: діалектичний метод, аналіз і синтез, індукція і дедукція, доказ і спростування, порівняння, узагальнення. В результаті проведеного дослідження проаналізовано проблемні аспекти укладення договорів у сфері ДПП. В тому числі зроблено висновки, що сьогодні, незважаючи на нормативно-правове закріплення засад здійснення ДПП, реалізація таких проєктів має низку проблем, що виявляються як у правовій, так і організаційних площинах. Однією із проблем є більш значна

---

[73] Doctor of Legal Science, Professor, Corresponding Member of the National Academy of Legal Sciences of Ukraine. Honored Lawyer of Ukraine, Dean of Law Faculty of Zaporizhzhia National University, Ukraine.
[74] Ph. D., Associate Professor of the Civil Law Department of Zaporizhzhia National University, Ukraine.
[75] Ph. D, Associate Professor of the Civil Law Department of National University "Odesa Law Academy", Ukraine.
[76] Ph. D., Associate Professor of Department of Economic Law and Procedure, National University «Odesa Law Academy», Ukraine.
[77] Master of Law, Internal Control Sector of the Internal Security Department, State Customs Service of Ukraine.

scope of rights compared to the private partner (ownership of facilities created in the implementation of PPP projects), and, accordingly, lack of business interest in participation in projects not on mutually beneficial terms.
.

Keywords: public-private partnership, concession agreement, joint venture agreement, product sharing agreement, public procurement.

роль державного партнера в реалізації проєктів ДПП, що виявляється у розширеному обсязі прав порівняно з приватним партнером (щодо права власності на об'єкти, створені в процесі реалізації проєктів ДПП), та, відповідно, незацікавленості бізнесу, в участі в проєктах не на взаємовигідних умовах.

Ключові слова: державно-приватне партнерство, договір концесії, договір про спільну діяльність, договір про розподіл продукції, державні закупівлі.

Introduction

In modern conditions of development of public relations, PPP is a significant tool for modernization of the economy, solving socio-economic (including infrastructure) problems through the combination of forces and resources of public and private partners.

The effectiveness and ability of such a method of interaction as PPP is confirmed by the experience of various foreign countries. However, legal and contractual regulation plays an important role in the successful functioning of this institute.

In Ukraine, the main legal act in the field of PPP is the Law of Ukraine "On PPP" (Law No. 2404-VI, 2010). According to the provisions of this law, PPP means cooperation between the state of Ukraine, territorial communities represented by relevant public authorities and local governments (state partners), and legal entities other than state and municipal enterprises or individuals – entrepreneurs (private partners), carried out based on an agreement in the manner prescribed by this Law and other legislative acts.

Regarding the regulation of PPP relations, this law stipulates that concession agreements may be concluded within the framework of PPP implementation; property management (only if the PPP agreement stipulates the investment obligations of the private partner); joint activities; other agreements. This provision testifies to the dispositiveness of the legislator, which contradicts the principles according to which public authorities and local governments, their officials are obliged to act only on the basis, within the powers and in the manner prescribed by the Constitution and laws of Ukraine. Therefore, there are some inconsistencies regarding contractual regulation, which should be resolved at the legislative level.

Also, a special law in the field of PPP stipulates that relations related to initiating PPP, choosing a private partner, preparing for concluding, determining the content of the contract, concluding and executing contracts concluded in PPP are governed by this law, if another procedure for initiating the appropriate form of PPP, choosing a private partner, preparing for concluding, determining the content of the contract, concluding and executing such agreements is not defined by the law governing the relevant form of PPP. That is, in the absence of clear requirements for the PPP agreement, the legislator refers to the requirements established by special laws under each contractual form (including the provisions of the Civil Code of Ukraine (Law No. 435-IV, 2003) and the Commercial Code of Ukraine (Law No. 436-IV, 2003).

Therefore, as can be seen from the provisions of PPP legislation, the issue of contractual regulation in the study area has several problematic aspects that need to be analyzed and resolved. Given this, it is vital in this paper to pay attention to the problems of contractual settlement of relations of PPP, models of interaction, and features of agreements that are most often concluded in this sphere of regulation.

Theoretical Framework or Literature Review

At present, there is a small amount of theoretical research in Ukraine on the problematic issues of contractual settlement of relations in the field of PPP. And even though many articles and monographs mention the need for comprehensive research on this topic, such works are absent. At the same time, some aspects of contractual regulation in the field of PPP were studied by Albeda (1995), Bondarenko (2014), Vinnyk (2013), Kosach and Degtyarov (2020), Komarnytska (2019), Kulinych (2014), Mazalova (2019), Polyakov (2020), Protsak (2015), Selivanova (2019), Simak (2014), and Trinchuk (2010).

PPP as a special legal form of cooperation between the state and business in his work analyzed Aparov (2015). The author notes that the introduction of PPP in Ukraine is one of the main priorities of government development programs that promote cooperation between government and private business but now, there are objective circumstances to improve PPP mechanisms and form new structures in the economic system. In addition, Aparov (2015) highlighted the essence and importance of PPP, the peculiarities of business and government cooperation, explored the main regulations governing PPP in Ukraine, and identified the main problems hindering the development of PPP. According to the author, the solution to problematic issues can be the formation of a generally favorable legal and economic environment for business, which is based on improving the investment climate and regulatory environment.

Albeda (1995) examined the international experience of state and social partnership in his study. The author drew attention to the peculiarities of the partnership between government and business in the Netherlands.

The issue of administrative and legal regulation of PPP was the subject of research by Bondarenko (2014). In particular, the author notes that administrative and legal regulation forms the core of regulatory and legal regulation of PPP in Ukraine, which is complemented by civil, economic, and financial regulation. According to Bondarenko (2014), PPP can be defined as a comprehensive administrative and legal mechanism of cooperation of public administration entities (state bodies and local governments) with private partners (legal entities other than state and municipal enterprises, and individual entrepreneurs) in public interests, characterized by long-term, polystructural functional and targeted consolidation of financial, property, organizational and managerial and other tangible and intangible resources of public and private partners, separation of responsibilities between partners, including risk management, which aims to achieve cooperative, synergistic systemic socio-economic effect in the form of creation, modernization, maintenance, operation of public service and infrastructure facilities or provision of public services.

Vinnyk (2013) studied PPP agreements in more detail. In his work, the author drew attention to the most common agreements in the field of PPP,

as well as analyzed the problems of legal regulation of individual agreements.

Kosach and Degtyarov (2020) analyzed the peculiarities of PPP development in the context of decentralization. In conclusion, the researchers summarized that the administrative reform in Ukraine and directions for improving the system of public administration in the context of decentralization determine the relevance of the implementation of promising investment projects on the terms of PPP. The implementation of such projects will increase the efficiency of public administration in such areas of public relations as housing and communal services, education, health care, construction, public administration in the field of transport infrastructure and is enshrined in several regulations and policy documents.

Domestic experience of PPP in the development of investment and innovation activities has been the subject of research Komarnytska (2019). Ways to improve the regulation of land and legal issues for the development of agricultural cooperation in Ukraine based on PPP examined Kulinych (2014).

Mazalov (2019) surveyed the contractual and legal support of PPP relations. According to the scientist, to use the potential of PPP and minimize the risks that arise due to the clarity and adequacy of PPP regulation. Also, Mazalova (2019) notes that it is necessary to: establish the limits of contractual freedom, taking into account the public importance of PPP projects by establishing an exhaustive list of contracts that can be concluded under the PPP, at the level of law; formulate and approve model PPP agreements for each individual species. Taking into account these features will allow you to more fully use the potential inherent in the cooperation of the state with private business because PPP is an effective tool for solving pressing problems of society.

The concept and functions of PPP in his work explored Polyakov (2020). The author also comments on the contractual regulation of PPPs and considers that the best example for PPPs is a joint venture agreement or property management agreement (but only if the private partner has investment obligations). In the first example, the PPP will resemble a corporate one, but no legal entity will be created. In the second – the individual will be a manager, and therefore will receive the right of trust property, following the provisions of the Civil Code of Ukraine, will not

have the right to profit, although he will have the right to own, use and dispose of the property.

Protsak (2015) also drew attention to the contractual regulation of PPP projects. The researcher draws attention to the fact that, although the requirements for agreements (contracts) in scientific and methodological terms are developed in sufficient detail and even specified in legislative regulations, the practice of their conclusion, especially in the field of PPP, is far from perfect, since the legal framework in the field of PPP in Ukraine is very complex, multilevel and bureaucratic. According to the author, to change the current situation, the contractual program of PPP projects in Ukraine should allow PPP project parties to make necessary changes during the project life cycle, thus providing more flexible regulation of relations between its participants, and it is necessary to develop certain common standards for the development of PPP agreements, which will significantly reduce project risks and increase the chances of successful implementation of the PPP project.

Peculiarities of the concession agreement as a method of resuscitation of PPP in her study considered Selivanova (2019). Simak (2014) and Trinchuk (2010) became the subject of world experience in organizing PPP. The authors researched the examples of a public and private interconnection and highlighted the problematic issues of such regulation.

Methodology

The methodological basis of the study is such methods as the dialectical method, analysis and synthesis, induction and deduction, proof and refutation, comparison, generalization.

The methodological significance of the dialectical method in the study of PPP is that it serves as a means of finding new results, a method of moving from the already known to the unknown, new. That is, there is not only the transformation of the previously created theory

of PPP but also the formation of its latest modification by systematically adding the latest theoretical positions. Laws of dialectics – the law of unity and the struggle of opposites; the law of transition of quantitative changes to qualitative and vice versa; law of negation – negation allows us to explore the transformation of the essence and content, categorical definitions, structure, and hidden mechanisms of PPP. In particular, the first law of dialectics (the law of unity and struggle of opposites), which is fundamental in dialectics, plays a crucial role in revealing the content of the PPP phenomenon and the peculiarities of its regulation. The unity of the constituent elements of the PPP lies in their unifying affiliation to the essence of the partnership itself, the close relationship (including contractual), and the interdependence between its elements.

The rest of the methods mentioned above made it possible to explore the specifics of contractual regulation of PPP, problematic issues of this interaction, as well as identify causes and consequences of inconsistencies in regulating relations. The application of the complex of these methods helped to reveal the relationship between the elements of the institutional mechanism and the rule of law in legal reality; to consider PPP as a value, a system that has a complex structure, each element of which has a specific purpose and performs specific functions aimed at meeting the relevant needs of the system; allowed to compare the development of PPP in Ukraine and the world, to understand the features of contractual regulation, as well as to correspond and contrast the role of different agreements in the regulation of PPP.

Results and Discussion

Contractual regulation in the field of PPP has several features. Before analyzing the problematic issues of settlement of relations in the field of PPP, we will analyze the main models of interaction between public and private partners (Table 1).

Table 1.

The main models of interaction between public and private partners. Data provided by Kosach and Degtyarov (2020)

Model type	Main characteristics	Property	Management	Financing
Operator	A clear division of responsibilities between the partners, the control function is performed by the state	Private / Public	Private	Private
Cooperation	Implemented through a joint venture between public and private partners	Private / Public	Private / Public	Private / Public
Concession	Used for long-term projects	Public	Private / Public	Private / Public
Negotiable	Used in areas where investment is aimed at reducing current costs	Private / Public	Private	Private
Leasing	Used by local authorities with private partners	Private	Private / Public	Private / Public

It should be remarked that the role of both public and private partners in the implementation of joint projects is significant, and, therefore, the opinion that PPP projects can be implemented almost exclusively at the expense of private partner resources is wrong, because even in developed countries public investment in such projects is mandatory.

Consider in more detail the problematic aspects of contractual regulation of PPP.

Problematic issues of contractual regulation of relations in the field of PPP arise primarily due to the lack of an appropriate legal framework that will interpret the controversial issues of concluding agreements. For example, the Law refers to the requirements established by special laws following each contractual form when concluding certain agreements.

Thus, an example of the lack of proper regulation of relations in the field of PPP is the lack of a special law that would regulate the relations that arise when agreeing on joint activities. The Law of Ukraine "On Joint Investment Institutions" (Law No. 5080-VI, 2012) defines that a collective investment institution is a corporate or mutual fund. At the same time, according to the Law of Ukraine "On PPP" a state enterprise, utility company, enterprise of the Autonomous Republic of Crimea or a company whose 100% authorized capital belongs to the state, territorial community or the Autonomous Republic of Crimea may participate in an agreement concluded within the framework of a PPP on the

part of the relevant public partner. Therefore, the corporate fund for PPP investment cannot be used due to non-compliance with the requirements of the law, and the mutual fund can only act as a special structure for direct investment activities. Therefore, to regulate joint activities it is necessary to refer to the Civil Code of Ukraine. According to Art. 1130 of the Civil Code of Ukraine (Law No. 435-IV, 2003) under the agreement on joint activities of the parties (participants), undertake to act jointly without the creation of a legal entity to achieve a specific goal that does not contradict the law. Joint activities may be carried out on the basis of pooling of participants 'contributions (simple partnership) or without pooling of participants' deposits. This indicates that the joint venture agreement, which is intended for use by public and private partners to regulate relations, provides only a general idea of the agreement.

Problematic issues arise when concluding a property management agreement. According to Art. 1029 of the Ukrainian Civil Code (Law No. 435-IV, 2003) under the contract of property management one party (founder of management) transfers to the other party (manager) for a certain period property in management, and the other party undertakes for payment on its behalf to manage this property on behalf of the founder beneficiary). This agreement provides for clear identification from the business, which is quite difficult. It is more expedient to use a trust management agreement to regulate such relations, under which the manager has the right of trust ownership of the property received in

management. In this case, although there is no clearly defined content of the powers of one of the counterparties – the trustee, the parties are still open and seek to achieve the best possible result. Although even in this case, trust management by its legal nature is more like a service contract than a partnership agreement.

The conclusion of a concession agreement is no less problematic for PPPs. Unlike the previous ones, this agreement is regulated by special laws "On Concessions" (Law No. 997-XIV, 1999) and "On Peculiarities of Lease or Concession of State-Owned Fuel and Energy Complex Facilities" (Law No. 3687-VI, 2011).

In international-legal practice there are different types of concession agreements, the most common of which are:

1. BOT (Build – Operate – Transfer). The concessionaire carries out the construction and operation of a certain facility for a specified period, after which the facility is transferred to state ownership (e.g. Italy, Spain, South Korea, Germany, Turkey, India, Thailand, Egypt, Greece, Canada, France).
2. WTO (Build – Transfer – Operate). The Concessionaire builds the facility, which is transferred to the state immediately after the completion of construction, after which it is transferred to the Concessionaire under certain conditions.
3. SBI (Build – Own – Operate). The concessionaire builds the facility and carries out its subsequent operation, owning it on the right of ownership, the validity of which is not limited.
4. VOT (Build – Own – Operate – Transfer). The concessionaire builds the facility, carries out its operation, owns this facility for a certain period, after which the facility becomes the property of the state.
5. ROT (Rehabilitate – Operate – Transfer). This legal structure is similar to the BOT, only instead of building a new facility, this agreement provides for the reconstruction of the existing one.
6. DBFO (Design – Build – Finance – Operate). All authority and responsibility for design, construction, financing, and operation are combined and transferred to a private partner.

However, as practice shows, these legal constructions of concessions are unstable and often intertwine, creating new types of concessions (Selivanova, 2019).

In Ukraine, a PPP concession agreement can only take place for those objects that coincide with the Law on PP and the Law on Concessions, which narrows the scope of this type of agreement.

Simultaneously, all the above agreements do not have a basic structure that includes requirements for the subject composition and legal personality of the participants, conditions of conclusion that determine the public interest, the need to use state aid as a separate condition of the contract, control the effectiveness of such assistance and project implementation, liability for misuse of state aid, etc. This indicates the need to refine the legislation governing contractual relations in the field of PPP, taking into account the specifics of such relations.

Conclusions

Summing up the research made above, the following conclusions were made.

There is currently no clear regulation of contractual relations of PPP. The authors suggest the following ways to solve the problem:

1) Establishment of an exhaustive list of agreements that may be concluded within the PPP, at the level of law;
2) Approval of standard PPP agreements for each individual species, and;
3) Adoption of effective and detailed legislative regulation, adapted directly to the PPP relations.

In addition, it is equally important, along with the purely legal mechanisms to improve the PPP, to pay considerable attention to the institutional support of this activity, which is a clear delineation of powers and responsibilities of government agencies and other participants in the PPP.

Regarding further directions of research, it is important to analyze the state of fulfillment of contractual obligations in the field of PPP and the peculiarities of judicial appeal of contracts in the field of PPP.

Bibliographic references

Albeda, V. (1995) The state and social partnership in the Netherlands. Issues of economics, 5, 12-19.

Aparov, A.M. (2015). PPP as a special legal form of state cooperation with private business. Foreign trade: economics, finance, law, 4, 27-35.

Bondarenko, D.S. (2014). On the issue of administrative and legal regulation of PPP under the laws of Ukraine. Bulletin of Zaporizhzhia National University, 1, 152-157. Recovered from http://law.journalsofznu.zp.ua/archive/visnik-1-2014/26.pdf

Komarnytska, G.O. (2019). Domestic experience of PPP in the conditions of development of investment and innovation activity. Black Sea Economic Studies, 44, 43-48. Recovered from http://bses.in.ua/journals/2019/44_2019/10.pdf

Kosach, I.A., & Degtyarov, A.V. (2020). Development of PPP in the context of decentralization in Ukraine. Public administration: improvement and development, 5, 35-39. Recovered from http://www.dy.nayka.com.ua/pdf/3_2020/4.pdf

Kulinych, P.F. (2014). Land law aspects of agricultural cooperation development in Ukraine on the basis of public-private partnership: ways to improve. Journal of Kyiv University of Law, 1, 247-251.

Law No. 2404-VI, On PPP. Bulletin of the Verkhovna Rada of Ukraine, Kyiv, 2010. Recovered from https://zakon.rada.gov.ua/laws/show/2404-17#Text

Law No. 3687-VI, On features of rent or concession of objects of a fuel and energy complex which are in state property. Bulletin of the Verkhovna Rada of Ukraine, Kyiv, Ukraine, July 8, 2011. Recovered from https://zakon.rada.gov.ua/laws/card/3687-17

Law No. 435-IV/2003, Civil Code of Ukraine. Bulletin of the Verkhovna Rada of Ukraine, Kyiv, Ukraine, January 16, 2003. Recovered from https://zakon.rada.gov.ua/laws/show/435-15#Text.

Law No. 436-IV, Commercial Code of Ukraine. Bulletin of the Verkhovna Rada of Ukraine, Kyiv, Ukraine, January 16, 2003. Recovered from https://zakon.rada.gov.ua/laws/show/436-15#Text

Law No. 5080-VI, On mutual investment institutions. Bulletin of the Verkhovna Rada of Ukraine, Kyiv, July 5, 2012. Recovered from https://zakon.rada.gov.ua/laws/show/5080-17#Text

Law No. 997-XIV, On concessions. Verkhovna Rada of Ukraine, Kyiv, 1999. Recovered from http://zakon.rada.gov.ua/laws/show/997-14.

Mazalova, A.O. (2019). Contractual and legal support of public-private partnership relations. Law and society, 3, 172-176. Recovered from http://pravoisuspilstvo.org.ua/archive/2019/3_2019/part_1/31.pdf

Polyakov, R.B. (2020). The concept and functions of public-private partnership. Current issues of state and law, 1, 182-189. Recovered from http://dspace.onua.edu.ua/bitstream/handle/11300/13976/Поляков%20Р.%20Б.%20Поняття%20та%20функції%20державно-приватного%20партнерства.pdf?sequence=1&isAllowed=y

Protsak, K.V. (2015). Contractual regulation of public-private partnership projects in Ukraine. Bulletin of the National University "Lviv Polytechnic". Series: Problems of economics and management, 815, 83-87. Recovered from http://nbuv.gov.ua/UJRN/VNULPP_2015_815_13

Selivanova, I.A. (2019). New concession: how one law revives public-private partnership. What norms were approved by the Verkhovna Rada and what did the FOPs not like? Mind.ua. Recovered from https://mind.ua/openmind/20202924-nova-koncesiya-yak-odin-zakon-reanimue-derzhavno-privatne-partnerstvo

Simak, S.V. (2014). World experience of public-private partnership organization. Scientific works. Governance, 223, 88-93.

Trinchuk, S.V. (2010). Foreign experience of partnership between the state and business. Manager, 3(53), 86–96.

Vinnyk, O.M. (2013). PPP Agreements: Problems of Legal Regulation. Law and innovation society: electron. Science, 1, 18–37. Recovered from https://ndipzir.org.ua/wp-content/uploads/2013/04/Vynnyk.pdf

Peculiarities of conducting investigative actions during the investigation of criminal activity of leaders of criminal groups

Особливості проведення окремих слідчих дій під час розслідування злочинної діяльності лідерів злочинних спільнот

Written by:
Valerii Tishchenko[78]
https://orcid.org/0000-0002-1609-6196
Dmytro Tsekhan[79]
https://orcid.org/0000-0001-6503-6985
Iryna Tesliuk[80]
https://orcid.org/0000-0001-8081-2743
Serhii Chumak[81]
https://orcid.org/0000-0002-0486-1890
Ruslan Yatskevych[82]
https://orcid.org/0000-0002-1805-044X

Abstract

Investigation of criminally relevant events as a process of cognition has its own long-established and legally established tools that provide solutions to problems within specific proceedings, and general tasks defined by procedure law. The core of such tools is the relevant system of investigative and covert investigative actions. Given the significant role of leaders of criminal groups in the organization of illegal activity, it is urgent to study the features of individual search actions in the investigation of illegal activities of leaders of criminal groups. The work aims to study the peculiarities of conducting individual search actions during the investigation of criminal activities of criminal groups. The research methodology consists of such methods as comparative-legal, formal logic, empirical, cognitive, analogy method, structural-functional method, and systematic method. The attention will be paid to the types of behavior of such leaders and possible ways of interrogation, search, etc. concerning such persons. In particular, it was noted that

Анотація

Розслідування кримінально-релевантних подій як процес пізнання має свій власний напрацьований тривалою практикою та законодавчо закріплений інструментарій, який забезпечує вирішення завдань у межах конкретного кримінального провадження, а також загальних завдань, визначених кримінально процесуальним законом. Безумовно, що серцевиною такого інструментарію виступає відповідна система слідчих (розшукових) та негласних слідчих (розшукових) дій. Зважаючи на вагому роль лідерів злочинних спільнот для організації злочинної діяльності, важливо проаналізувати особливості проведення окремих слідчих дій під час розслідування злочинної діяльності лідерів злочинних спільнот. Метою роботи є аналіз особливостей проведення окремих слідчих дій під час розслідування злочинної діяльності лідерів злочинних спільнот. Методологією дослідження складають такі методи як порівняльно-правовий, формально-логічний, емпіричний, пізнавальний, метод

[78] Doctor of Legal Sciences, Professor, Head of the Department of Criminalistics of National University «Odesa Law Academy» (Ukraine).
[79] Doctor of Legal Sciences, Associate Professor of the Department of Criminalistics of National University «Odesa Law Academy» (Ukraine).
[80] Ph.D., Head of Doctoral and Postgraduate Studies at Odessa State University of Internal Affairs, Ukraine.
[81] Doctor of Legal Sciences, Associate Professor of the Department of Criminalistics of National University «Odesa Law Academy» (Ukraine).
[82] Ph.D., Doctoral student of Odessa State University of Internal Affairs (Ukraine).

some investigative actions against such persons require a creative approach within the procedural requirements.

Keywords: crime, punishment, separate investigative action, leader of the criminal community, investigation.

аналогії, структурно-функціональний метод, системний метод. В результаті дослідження буде звернено увагу на типи поведінки таких лідерів і можливі способи проведення допитів, обшуків тощо щодо таких осіб. В тому числі, зауважено, що окремі слідчі дії щодо таких осіб потребують творчого підходу в рамках процесуальних вимог.

Ключові слова: злочин, покарання, окрема слідча дія, лідер злочинної спільноти, розслідування.

Introduction

Ukraine has declared human life, health, honor and dignity, inviolability and security as the highest social value. In this context, a great danger to the protection of human and civil rights and freedoms is posed by crime, the modernization of which affects the need to ensure proper methods, tools, and methods of criminal justice.

In current conditions, the process of development of everyday crime is characterized by its qualitative transformations, the expression of which is the emergence of new crimes, growing crime, audacity and cruelty of criminals, crime penetration into all structures of society and state, its organization and international cooperation.

To optimize investigative and judicial activities, special knowledge is used at different stages of criminal proceedings by implementing the achievements of scientific and technological progress and scientific and practical developments. Thus, to effectively use special knowledge, it is essential to develop theoretical principles for involving forensic experts (specialists) in criminal proceedings. In addition, relevant information may be obtained during the interrogation of knowledgeable persons. However, their procedural status reflects the specifics of such an interrogation, and, hence, the need to develop tactics for its conduct.

According to Art. 223 of the CPC of Ukraine (Criminal Procedure Code of Ukraine) (Law No. 4651-VI, 2012) investigative (search) actions are actions aimed at obtaining (collecting) evidence or verification of already collected evidence in a particular criminal proceeding. Analysis of other norms of the CPC of Ukraine states that, in addition to investigative and covert investigative actions, to perform the task of gathering evidence, the investigator has additional powers: a) to appoint audits and inspections in the manner prescribed by law (par. 4 part 2 of Article 40 of

the CPC of Ukraine); demand from state authorities, local governments, enterprises, institutions, organizations, officials and individuals things, copies of documents, information, expert opinions, audit opinions, inspection reports (Part 2 of Article 93 of the CPC of Ukraine).

The analysis of these provisions shows that the conduct of investigative actions is a mandatory component of the procedural activities of the investigator and a direct way to solve problems of evidence.

But as crime has recently taken on a global, international character, leaders of criminal communities are increasingly inventive and mobile. This trend requires urgent decisive decisions and organizational and managerial measures. Therefore, special attention in the work is paid to the implementation of these measures. The paper also examines the historical development and current state of use of special knowledge of knowledgeable persons in court proceedings. The norms of the current criminal procedure legislation regulating their activity are analyzed. Based on the system-structural analysis of the provisions of the criminal procedure legislation, the peculiarities of conducting certain investigative actions during the investigation of criminal activity of leaders of criminal communities have been established. While positively assessing the legislative novelty on the introduction of such procedural actions as consultation and clarification of a specialist during the examination of evidence in court, emphasis was placed on the incompleteness of their legal regulations and disregard for differences in their content.

The purpose of the article is to study the peculiarities of conducting individual search actions during the investigation of criminal activities of leaders of criminal groups.

Theoretical Framework or Literature Review

Peculiarities of conducting separate investigative actions during the investigation of criminal activity of leaders of criminal communities were studied by the following scientists: Byshevets (2013), Demidova (2013), Zhuravel (2012), Zemlianyi (2019), Klimchuk and Furman (2017), Komarynska (2017), Komirchy (2017), Korobka (2020), Malyutin (2009), Matyushkova (2010), Minyailo (2015), Padalka (2020), Ploskonos (2020), Polishchuk (2017), and Shlapachenko (2013).

A researcher such as Byshevets (2013), in his work, researched ways to optimize the use of psychological influence in criminal proceedings. Tactics of interrogation of informed persons became the object of Demidov's (2013) research. The author considered the issue of defining the concept of a knowledgeable person, their types, role in court proceedings, and functions and examined the procedural status of a forensic expert and specialist. In addition, the author developed a system of tactical methods of interrogation of a forensic expert and specialist during the pre-trial investigation and trial of criminal proceedings, and based on the study, formulated proposals to improve criminal procedure legislation.

A detailed examination of forensic techniques was conducted by Zhuravel (2012). An author such as Zemlianyi (2019), in his work, examined the tactical features of the interrogation of the suspect. The author notes that the tactical features of interrogation of persons suspected of committing a crime under Article 258-3 of the Criminal Code of Ukraine are determined by the specific organizational structure of terrorist associations, their motives, the purpose of criminal activity, and the participant's place in the hierarchical structure. The effectiveness of the interrogation of a suspect in the creation of a terrorist group or terrorist organization directly depends on the preparation of the investigator to conduct the investigative action, his professionalism, experience and critical analysis of information, compliance with general forensic recommendations and procedural law requirements for interrogation and the testimony of a member of a terrorist group should be assessed only in conjunction with other evidence obtained during the pre-trial investigation. Other scholars, such as Klimchuk and Furman (2017), also drew attention to the tactical features of the interrogation of suspects – members of organized crime groups.

The use of innovative technologies in police interrogation and topical issues of criminal procedure, forensics, and forensics were studied by Komarynska (2017). Thus, Komirchy (2017) examined organized crime through the prism of a systemic-functional approach.

Problematic aspects of interrogation in a conflict investigation situation were considered by Korobka (2020). Among the features of the interrogation in the event of a conflict investigative situation, the author attributes the presence of constant tactical risks, which forces the investigator to be more responsible in the tactics of interrogation. The wrong decision of the investigator can be fatal for the investigation. It is proposed to standardize tactical risks and investigative situations in order to facilitate the activities of the investigator during the interrogation in case of a conflict investigative situation. Particular attention is paid to the psychological state of the investigator as the main participant in such proceedings. It is remarked that a special danger for the investigator is his psychological unwillingness to interrogate, exhaustion, the uncertainty of behavior, insecurity. This situation, of course, will be noticed, it will be utilized by an experienced criminal to lead the investigation in the wrong direction. Doubts about the effectiveness of the interrogation, which arose in the investigator, his unwillingness to conduct the interrogation is an admission of his defeat. Therefore, according to the researcher, it is required to constantly monitor your condition, remember that the task of interrogation is to exert influence, not to succumb to it. In the event of a conflict investigation, it is best to conduct the interrogation with video recording. The application of the polygraph in practice requires appropriate amendments to the legislation to provide a clear status of the evidence obtained using the polygraph.

Malyutin (2009) conducted a thorough study of tactics in the investigation of crimes. Besides, Matyushkova (2010) explored the barriers to communication in the tactics of interrogation and drew attention to some features of their occurrence and methods of overcoming.

Moreover, Minyailo (2015) conducted a theoretical study on the definition of "organized crime" in Ukraine. In his work, the author drew attention to the limits of the application of the concept of "organized crime" in Ukraine. Additionally, Padalka (2020), in her monograph, examined in detail the theoretical and

methodological principles of investigating organized crime in the field of taxation.

Applied aspects and tactical features of the interrogation of members of organized criminal groups and criminal organizations in his dissertation covered Ploskonos (2020). But Polishchuk (2017), in his research, drew attention to the peculiarities of the use of the polygraph in the investigation of crimes.

Peculiarities of interaction between criminal police units and pre-trial investigation bodies in the documentation of criminal offenses were highlighted by Sakovsky & Zhizhin (2019). The author noted that documentation as an independent element of evidence is not sufficient enough, and to bring the perpetrator to justice, the results of documentation should be "legalized" in criminal procedural law by conducting investigative actions. Therefore, to effectively ensure the administration of justice, it is necessary to apply in the complex of operational and investigative and criminal procedural, as well as other areas of law, which is implemented in the interaction of their subjects. Based on the analysis, the author's definition of the interaction of criminal police units with pre-trial investigation bodies during the documentation of criminal offenses is formulated.

The study of investigative (search) actions as a kind of procedural actions became the subject of Tereshchenko's research (2014). Ustinova and Ustinov (2014) considered the peculiarities of establishing psychological contact with adolescents by criminal police officers for children. The influence of misinformation as a psychological factor was determind by Shlapachenko (2013).

However, despite a large number of scientific papers on the tactics of individual investigative actions, a comprehensive study of the specifics of individual investigative actions in the investigation of criminal activities of leaders of criminal communities is missing, which necessitates generalization of material and complete research.

Methodology

During the research, such methods were used as comparative-legal, formal-logical, empirical, cognitive, method of analogy, structural-functional method, and systematic method.

Thus, in order to understand the peculiarities of conducting certain investigative actions during the investigation of criminal activity of leaders of criminal communities, a comparative legal method was used. The application of this method was aimed at finding the recurrence of particular legal phenomena and their causal relationship with each other and with external phenomena, to identify commonalities in the compared objects, and on this basis to establish general laws of law and the true nature of the phenomenon. To do this, some tactics of individual investigative (search) actions were compared and the legislation at different stages of development was compared. The formal-logical method was used in the process of defining the concepts of "criminal community", "separate investigative action", "leader", etc. This method was used to provide definitions of the above concepts and draw attention to their problems and inconsistencies.

An empirical method has helped to clarify the problematic aspects of the practice of conducting individual investigative actions against leaders of criminal communities. Based on this method, the specifics of the investigation of crimes were clarified and an algorithm of actions was developed to improve the current state of the research issue.

The cognitive method was used to establish the peculiarities of the forms of criminal behavior of leaders of criminal communities, and to justify the importance of using criminological knowledge in planning and implementing measures to prevent crime.

Further, the method of analogy was used in formulating proposals for improving the forms and methods of interaction between the subjects of individual investigative (search) actions.

No less vital method used in this study was structural and functional. The structural approach helped to examine the object of study through the units and elements that are part of it and form a certain structure, and the functional approach helped to clarify the relationship between elements and the whole, and ways of their functioning. The possible states of the system were considered, the permissible combination of elements in it determines the set of functions as behaviors inherent in this system object while maintaining its structural integrity.

The system method allowed to explore individual investigative (search) actions in terms of their unified system and relationship. In the most

general and broad sense of the word, the systematic study of objects and phenomena of the world around us is understood as a method in which they are considered as parts or elements of a particular holistic formation. These parts or elements, interacting with each other, determine the new, integral properties of the system, which are absent in its elements. However, this rule is used only to characterize systems that consist of homogeneous parts and have a well-defined structure. However, in practice, systems often include sets of disparate objects combined into one whole to achieve a specific goal. The main thing that has been done is to define a system of measures to investigate crimes against leaders of criminal communities.

Results and Discussion

A crucial role in the study of criminal offenses is played by the conduct of separate investigative actions, as procedural, organizational, and investigative actions conducted by the investigator are interconnected, interdependent, complementary and, ultimately, all aimed at achieving the objectives of criminal proceedings. Given that the definition of the essence of investigative actions and other forensic and criminal-procedural aspects of this issue is thoroughly studied in the forensic literature, we do not focus on generalizing the theoretical work of scientists on this issue.

Our generalization of the materials of criminal proceedings allows us to propose a conditional classification of investigative (search) actions that are carried out during the investigation of crimes in this category. In particular, in our opinion, such actions can be classified according to the criterion of the purpose of:

a) search investigative (search) actions aimed at obtaining new factual data on the committed criminal offense, which were not previously known to the investigation;
b) verification investigative actions, which are aimed at verifying and confirming the information obtained during other investigative actions and other procedural and operational-investigative measures (Tereshchenko, 2014).

Without denying this position, we believe that in the context of the category of crimes under investigation, search actions are at the heart of investigative activities, and, therefore, we focus on them as a matter of priority.

Thus, based on the proposed classification, in our opinion, the first group can include such investigative actions as interrogation and inspection, and the second group: presentation of a person for identification, presentation of things for identification, presentation corpse for identification, entry into the home or other property of a person, search, investigative experiment. At the same time, it should be remarked that such a division of investigative actions is quite conditional, as some of them can be attributed to both classification groups, in particular, which, on the one hand, aims to verify information available to the investigator, and on the other – provides detection of previously unknown to the investigator factual data.

Particular attention should be paid to the tactical features of interrogation in criminal proceedings in this category, because, as researchers note, interrogation is the most common investigative action, and it provides the greatest amount of evidence to establish the truth (Malyutin, 2009). It should be mentioned that in comparison with the investigation of other crimes, the interrogation during the investigation of criminal activities of leaders of criminal communities has a significant specificity.

In the process of direct interrogation, it is appropriate to use the following tactics: asking questions that allow you to clarify what information is known to the interrogated in this case; reminders in general terms about the event that took place, clarification of his emotional state, circumstances, conditions under which his testimony was formed; the revival of associative ties to restore the memory of the factors perceived by him, etc.; aimed at creating psychological discomfort for the interrogee during active opposition to the investigation to refrain from interrogating and misleading the interrogation, creating an idea of the hopelessness of such attempts, using the interrogee's doubts about the ability to adhere to evidence, etc.

In addition, it is appropriate to identify additional tactics for:

a) conflict-free situation of interrogation: creating a friendly atmosphere during interrogation, which helps to give complete and reliable testimony, renew associative ties and provide assistance in remembering the facts perceived by the interrogated, asking clarifying questions to prevent gaps and inaccuracies in testimony;

b) the conflict situation of the interrogation: the creation of a strict working environment during the interrogation, which would be unfavorable for the expression of hostility to the investigator, but on the contrary, would evoke respect for him; overcoming an unconstructive position, creating the impression of full awareness of the investigator about the circumstances of the case; conviction of the interrogated in the futility of the conflict, disputes, and concealment of facts known to him, etc.

At the same time, given the organized form of the investigated type of criminal activity, we consider it appropriate to single out other tactics that, according to investigators, are effective, in particular: debunking the halo of criminal life and discrediting elements of criminal subculture; demonstration of sufficient awareness of the investigator about the mechanism of the crime and the specific role of the interrogated in criminal activities; explanation of the possibility of mitigation of criminal liability in connection with cooperation with the investigation; creation of conflict situations and negative attitude of the interrogated to other members of the organized criminal group; unexpected demonstration of instruments of crime; reduction of the role of the interrogated in the activities of RAM and a proposal to conclude an agreement.

Special attention needs to be paid to the analysis of the tactical features of the interrogation of the suspect, in particular the leader of the criminal environment and persons close to him. First of all, it should be noted that such persons, as a rule, during interrogation try to form an idea of the real state of pre-trial investigation, the degree of proof of specific circumstances of criminal proceedings, and the role of each participant in committing a particular crime. factual data that allows the suspects to obtain information about witnesses and other circumstances of the investigation, for which there is a tactical need to maintain investigative secrecy.

One of the main circumstances to be established during the investigation is that the person belongs to the leaders of the criminal environment and has the appropriate status, in particular, "thief in law". The practice of interrogation of such persons shows that they choose two typical lines of conduct during the interrogation, which determines the use of specific tactics and the system of questions asked by the investigator.

The foremost typical line of conduct is the recognition of a person's status as a "thief in law."

In this case, the investigator should obtain additional information by asking questions aimed at establishing: time, place, and circumstances under which the person received the status of "thief in law", data on persons who granted the person such status, and the nature of relations with them at the time of investigation; which of the leaders of the criminal environment provided recommendations on granting a person the status of "thief in law"; whether a person belongs to a particular thief clan; participation of the convict in granting the status of "thief in law" to other persons.

The second typical course of action is to deny a person the status of a "thief in law." In this case, the investigator should during the interrogation ask the suspect questions about: the content of tattoos and other informational and communicative attributes of the criminal subculture, found in the convict; the nature of relations with specific leaders of the criminal environment - "thieves in law"; reasons for staying at certain times in certain administrative-territorial units and individual places, etc. It should be emphasized that, as a rule, at the time of interrogation the investigator has sufficient operational information on the affiliation of a particular person to the highest level in the criminal hierarchy and the status of "thief in law". At the same time, obtaining such information during the interrogation solves two independent tasks:

a) providing verification and additional confirmation of the data available to operational units, and;
b) criminal procedural proof of the status of a person as a "thief in law".

Regardless of the characteristics of the situation in which the interrogation is conducted, one of the primary organizational and tactical tasks of the investigator is to establish psychological contact with the interrogated. It should be remarked that, on the tactical side, to establish psychological contact, the investigator must conduct an initial assessment of the person, which, according to scientists, can be divided into two types:

a) visual assessment, i.e. assessment based on the perception of external signs appearance, clothing, facial expressions, gestures, gait, voice, speech features); this assessment is carried out, as a rule, during direct communication or before its beginning;
b) biographical assessment based on data obtained as a result of studying the

biography; during this process, all the characteristics known about the object are studied, which can serve as a source of information about the evaluated.

Moreover, it is not just tactics, but a system of tactical and psychological techniques, psychological methods of communication, mutual influence (predicted, random) of natural and acquired mental qualities of the investigator and other participants in the investigation. From these positions, it can be stated that the establishment of psychological contact is the initial stage of influence, which should unfold at the will of the investigator in the process of investigative action and investigation, in general, to establish the truth and solve criminal problems. In addition, given the specifics of such crimes, it is necessary to pay attention to the need for investigators to study the materials of operational and investigative cases in the presence of it, because, as scientists say, often the investigator has incomplete information about the circumstances. The main task in this situation is to determine the methods and ways of obtaining evidentiary information. In this case, the investigator must skillfully use the opportunities and data obtained as a result of operational and investigative activities (Malyutin, 2009).

Taking these measures, in our opinion, the investigator should form an internal belief in the correctness of the chosen tactics, providing answers to the following questions: what individual psychological characteristics of a person and how individual characteristics of mental processes can affect his behavior during investigations (search) actions; whether the person is exposed to psychological influence and what manifestations in the person's behavior that have legal significance may occur as a result of its use; whether a person is able, taking into account the level of his mental development, individual psychological characteristics and emotional state, to understand that he is subjected to psychological influence and what behavioral reactions he may cause such awareness; whether it can harm a person to apply to him methods of psychological influence and appropriate tactics; what methods of psychological influence and tactics based on them should be effectively applied to a person to solve a specific task (overcoming opposition to the investigation process, obtaining complete and objective information about the circumstances of the case, helping to recreate the forgotten, etc.); what behavioral reactions a person can cause the

application of tactics based on methods of psychological influence (Byshevets, 2013).

Equally important is the correct choice of methods of psychological influence. According to researchers, since communication and relationships are impossible without tactics in theoretical and practical recommendations should take into account the presence of such influence and work on developing effective techniques and systems of tactical and psychological nature. Based on the analysis of scientific sources, scientists classify tactics of psychological influence in four groups:

– concealment of the investigator's intentions regarding the purpose of influence;
– creating in the participants of the pre-trial investigation the idea of almost complete awareness of the investigator about the circumstances of the crime and the availability of evidence exposing the offender;
– forming in a particular participant in the pre-trial investigation the idea that other participants provided truthful testimony. Given the above, it is appropriate to agree with Malyutin (2009), who notes that the interest of the interrogated (suspect or accused) is relatively better achieved when there are several suspects in the case. In such cases, experienced investigators usually draw the respondent's attention to the fact that it is not in his interest to remain silent or give false testimony, as this makes it difficult to determine his true role in the crime, which may be much less than he is accused of. That is why, in such cases, persons whose role in committing a crime is less significant are first interrogated.

Analyzing the methods of psychological influence on the leaders of the criminal environment, it is necessary to pay attention to the following:

– demonstration of full or sufficient awareness of the investigator about the crime and the activities of an organized criminal group, including demonstration of material and other evidence, as evidence prepared for interrogation is designed to play the role of tactical strikes aimed at destroying false allegations;
– partial communication of information on the progress of the investigation, as well as misinformation of the suspect. According to researchers, in the narrow (professional) sense, misinformation is considered as a way

(variety) of psychological influence on human consciousness, the means of which is information, ie information-psychological influence by changing the information coming to the object influence, to form in him a misconception about certain events, facts, phenomena and, therefore, encourages him to make decisions beneficial to the subject of influence (Shlapachenko, 2013).

Particular attention should be paid to overcoming during interrogations of leaders of the criminal environment such a form of opposition to the investigation as giving false and / or incomplete testimony. In this context, it is necessary to pay attention to the distinction between knowingly false testimony and testimony that is untrue as a result of the error. The reasons for knowingly false testimony, according to psychologists, maybe: personal interest, influence from others, the nature of relationships with participants in the process, the mental state experienced in connection with the interrogation; circular guarantee, etc. The reasons for the testimony that are untrue as a result of error are peculiarities of perception and memory, limited vocabulary or incorrect notation of terms, the influence of external factors (media, other witnesses, rumors), etc. (Ustinova, & Ustinov, 2014). It should be remarked that the mechanism of formation of knowingly false testimony includes the following stages:

1) decision-making on giving knowingly false testimony;
2) planning the content of the future deliberate false testimony (it is at this stage that the formation of an imaginary model of false testimony, building a model of their message during interrogation), and;
3) there are knowingly false testimonies during interrogation.

The practice of analysis of interrogations allows to single out the signs that indicate that the leader of the criminal environment gave false testimony:

– the presence of significant contradictions, which are established as a result of the analysis of the results of the interrogation, and their comparison with other materials of criminal proceedings (93%);
– uncertainty, vagueness or, conversely, excessive detail of the information reported, the detailed similarity of such information with the testimony of others (31%);
– unwillingness to answer the investigator's questions, constant misunderstanding of the

questions asked, requests to repeat them, which may indicate a thoughtful answer (67%), and;
– the difficulty of answering simple but sudden questions about the facts about which the respondent is well aware (13%).

In our opinion, the following methods of detecting and overcoming the knowingly false testimony of the suspect can be used directly during the interrogation:

– observation of the emotional state of the interrogated and his verbal behavior, which may indicate the giving of false testimony: unforced change of intonation; study of voice timbre; observing pauses when answering questions that should not cause difficulties; too quick answers to questions that should make the interviewee think; demonstrative emphasis on specific information during interrogation, etc.;
– the use of existing conflicts in the criminal group to persuade the group member to give truthful and incriminating testimony. Practice shows that during interrogations it is useful to use the conflicts that exist between the leader of the criminal environment and his environment, as well as within the environment of the leader. The basis of such conflicts are:

a) dissatisfaction with the distribution of material resources;
b) discrimination by the leader;
c) conflict related to excessive closeness to the leader of specific individuals, and;
d) suspicions of links with law enforcement agencies.

In addition, during the interrogation of suspects in this category of criminal proceedings, it is advisable to use compromising materials:

a) to inform the person about the reduction of his authority in the structure of the criminal environment;
b) informing the person about the presence in the investigation of data that may tarnish the authority of the leader among the convicts, and;
c) reports on the availability of recorded data on the violation of the requirements of the penitentiary subculture by the leader of the criminal environment, etc.

Conclusions

As a result of the study, a study of the features of individual investigative actions during the investigation of criminal activities of leaders of criminal communities and the following conclusions were made:

1. The peculiarities of conducting certain investigative actions during the investigation of criminal activity of leaders of criminal communities are analyzed and, it is noted, that not every procedural activity of an investigator is aimed at gathering evidence. At the same time, procedural activities aimed at gathering evidence are carried out in two forms: conducting investigative (search) actions and conducting other procedural actions.
2. It is remarked that the leaders of criminal communities during interrogations choose one of two typical behaviors during interrogation, which determines the use of specific tactics and system of questions asked by the investigator: recognition of her status as a "thief in law" and denial a person with the status of "thief in law".
3. It is necessary to monitor the emotional state of the interrogated and his verbal behavior, which may indicate false testimony, and deeply analyze information about the presence of conflicts in the criminal group to persuade the group member to give true and incriminating testimony.

Regarding further scientific research, it is required to pay attention to the tactics of conducting certain investigative (search) actions on organized crimes.

Bibliographic references

Byshevets, O.V. (2013). Ways to optimize the use of psychological influence in criminal proceedings. Bulletin of the Bar Academy of Ukraine, 1, 194-201. Recovered from http://www.irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64.exe?I21DBN=LINK&P21DBN=UJRN&Z21ID=&S21REF=10&S21CNR=20&S21STN=1&S21FMT=ASP_meta&C21COM=S&2_S21P03=FILA=&2_S21STR=vaau_2013_1_32

Demidova, E.E. (2013). Tactics of interrogation of informed persons. Kharkiv: The Apostle.

Klimchuk, M.P., & Furman, J.V. (2017). Tactical features of interrogation of suspects – members of organized criminal groups. Legal Scientific Electronic Journal, 1, 174-177. Recovered from http://www.lsej.org.ua/1_2017/45.pdf

Komarynska, Yu. B. (2017). Application of innovative technologies in police interrogation. Current issues of criminal procedure, criminology and forensic science. Kyiv, Istina. [In Ukranian]

Komirchy, P.O. (2017). Organized Crime Research: A System-Functional Approach. Law and society, 5(2), 201–205. Recovered from https://scholar.google.com.ua/citations?user=bce4wuYAAAAJ&hl=ru

Korobka, O.S. (2020). Interrogation in a conflict investigative situation. Legal Scientific Electronic Journal, 2, 382-385. Recovered from http://www.lsej.org.ua/2_2020/101.pdf

Law No. 4651-VI, Criminal Procedure Code of Ukraine. The Verkhovna Rada of Ukraine, from April 13, 2012. Recovered from https://zakon.rada.gov.ua/laws/show/4651-17#Text

Malyutin, M.P. (2009). Tactical techniques in the investigation of crimes. Moscow: Yurlitinform Publishing House. Recovered from https://search.rsl.ru/ru/record/01004267313

Matyushkova, T.P. (2010). Barriers to communication in the tactics of interrogation: some features and methods of overcoming. Law and Security, 4, 187-190. Recovered from http://dspace.univd.edu.ua/xmlui/handle/123456789/6135?locale-attribute=en

Minyailo, N.E. (2015). Limits of application of the concept of "organized crime" in Ukraine. Scientific Bulletin of the International Humanities University, 14, 75–78. Recovered from http://www.irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64.exe?I21DBN=LINK&P21DBN=UJRN&Z21ID=&S21REF=10&S21CNR=20&S21STN=1&S21FMT=ASP_meta&C21COM=S&2_S21P03=FILA=&2_S21STR=Nvmgu_jur_2015_14(2)__23

Padalka, A.M. (2020). Theoretical and methodological principles of investigation of organized crime in the field of taxation. Irpen: University of SFS of Ukraine. Recovered from http://ir.nusta.edu.ua/jspui/bitstream/123456789/5494/1/4938_IR.pdf

Ploskonos, A.I. (2020). Tactics of interrogation of members of organizational criminal groups and criminal organizations. Entrepreneurship, Economy and Law: Forensics, 11, 260-265. Recovered from http://www.pgp-journal.kiev.ua/archive/2020/11/45.pdf

Polishchuk, A.S. (2017). Features of polygraph application. Topical issues of criminal procedure, criminology and forensic science. Kyiv: Istina. [In Ukranian] Recovered from http://elar.naiau.kiev.ua/jspui/handle/123456789/3035/browse?type=title&sort_by=1&order=ASC&rpp=20&etal=-1&null=&offset=23

Sakovsky, A.A., & Zhizhin, A. (2019). Interaction of criminal police units and pre-trial investigation bodies in documenting criminal offenses. Scientific Bulletin of the National Academy of Internal Affairs, 1(111), 49-54. Recovered from https://scientbul.naiau.kiev.ua/index.php/scientbul/article/view/1046

Shlapachenko, V.M. (2013). Misinformation as a way of information and psychological influence. Information Security of Man, Society, State, 2, 78-86. Recovered from http://www.irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64.exe?I21DBN=LINK&P21DBN=UJRN&Z21ID=&S21REF=10&S21CNR=20&S21STN=1&S21FMT=ASP_meta&C21COM=S&2_S21P03=FILA=&2_S21STR=iblsd_2013_2_15

Tereshchenko, Yu. V. (2014). Investigative actions as a kind of procedural actions. Customs business, 1(2.1), 112-117. Recovered from https://scholar.google.com.ua/citations?user=ulgW5hwAAAAJ&hl=uk

Ustinova, N.V., & Ustinov, D.V. (2014). Features of establishing psychological contact with adolescents by criminal police officers for children. Collection of scientific works of K-PNU named after Ivan Ogienko, Problems of modern psychology, 23, 639-651. Recovered from http://journals.uran.ua/index.php/2227-6246/article/view/159501

Zemlianyi, D.L. (2019). Tactical features of the suspect's interrogation. Electronic scientific publication "Comparative and Analytical Law", 4, 336–339. [In Ukranian]

Zhuravel, V.A. (2012). Forensic methods: modern scientific concepts. Kharkiv: Apostille. [In Ukranian] Recovered from https://scholar.google.com.ua/citations?user=Z-zwR0AAAAAJ&hl=ru

Combating drug trafficking: the international legal dimension

Боротьба з незаконним обігом наркотичних засобів: міжнародно-правовий вимір

Written by:
Serhii Kuznietsov[83]
https://orcid.org/0000-0002-8607-6414

Abstract

According to the provisions of international legal agreements governing interstate relations at sea, there must be a specific connection between states that release ships flying their flag at sea and those ships that use the attributes of the respective state. This regime provides for the existence of a number of interrelated rights and responsibilities that have both the state and the relevant vessel under its flag. In the event that a seagoing ship violates the rules of international law, the State concerned shall have the right to apply liability to such a ship. It is the purpose of this research that is the analysis of the obligations of the states whose flag ships go to sea that violate the established international legal requirements, in particular - in the field of drugs and psychotropic substances. The author of the article used a number of methods of scientific knowledge to obtain relevant results. Such methods include the dogmatic method, the comparative legal method, the deduction method, and the induction method. As a result of the study, the author concluded that the system of obligations of the "flag state", which includes, inter alia, obligations to stop the illicit trafficking of narcotic drugs and / or psychotropic substances, is the illegal use of "flag vessels" and constitute the concept of «genuine link».

Keywords: international legal acts, illegal transportation, maritime law, drugs and psychotropic substances, the Convention on the Law of the Sea.

Анотація

Відповідно до приписів міжнародно-правових договорів, що регулюють міждержавні відносини на морі, між державами, які випускають у море судна під своїм прапором, і самими цими суднами, що використовують атрибутику відповідної держави, має існувати специфічний зв'язок. Зазначений режим передбачає наявність низки взаємопов'язаних прав і обов'язків, які мають як держава, так і відповідне судно під її прапором. У тому випадку, якщо морське судно порушує норми міжнародного права, відповідна держава наділена правом застосувати заходи відповідальності до такого судна. Саме аналіз зобов'язань держав, під прапором яких виходять в море судна, що порушують встановлені міжнародно-правові приписи, зокрема - у сфері обігу наркотиків і психотропних речовин, і є метою здійснення цього наукового дослідження. Для отримання відповідних результатів автор статті використав ряд методів наукового пізнання. До таких методів належать догматичний метод, порівняльно-правовий метод, метод дедукції, метод індукції. У результаті дослідження автор дійшов висновку, що система зобов'язань «держави прапора», яка включає, серед іншого, зобов'язання щодо припинення незаконного обігу наркотичних засобів та/або психотропних речовин, є незаконним використанням «суден під прапором» і становлять поняття «справжній зв'язок».

Ключові слова: міжнародно-правові акти, незаконні перевезення, морське право, наркотики і психотропні речовини, конвенція з морського права.

---

[83] Candidate of Political Sciences, Director of the Seafarers Training Centre, Ukraine.

Introduction

It is widely recognized that the scale and trend of increasing illigal production, demand and trade in "drugs and / or psychotropic substances" ("NDPS") is steadily increasing.

International legal acts directly regulate the fight against illicit trafficking of «NDPS». Such acts include conventions and other UN acts. The UN Convention on the Law of the Sea, 1982 is among the acts with universal implication, inter alia, in the suppression of illicit traffic in "NDPS" engaged in by vessels on the high seas (further referred to as the "UNCLOS'82"). All abovementioned treaties form the modern international legal regime of the suppression of illicit traffic in "NDPS" engaged in by vessels on the high seas (United Nations, 1958).

The illicit sea trafficking in NDPS is the use against the national and international law of vessels, belonging to certain states, which have obligations towards such vessels. The main obligation is to stop the aforementioned use, which is a part of the "Genuine link" concept. The system of measures aimed at combating illicit trafficking in narcotic drugs and / or psychotropic substances on the high seas is based on certain international conventions adopted under the auspices of the UN, as well as other international agreements, multilateral and bilateral; in this sense, the aim of our study was to investigate some of these documents. The immediate purpose of this study is a comprehensive analysis of the obligations of states whose flags go to sea in violation of established international legal requirements in the field of drugs and psychotropic substances. In particular, the author of the article offers his own vision of ways to improve the international legal regime to combat drug trafficking and psychotropic substances at sea. The article consists of separate parts, each of which examines the relevant normative legal act of an international nature, aimed at combating illicit trafficking in narcotic drugs and psychotropic substances in the context of international maritime law.

Theoretical Framework or Literature Review

It should be remarked, that Waly (2021), the Executive Director of the United Nations Office on Drugs and Crime (UNODC), estimates that 275 million people in the world currently use drugs, and by 2030 that number could increase by another 11 percent.

"The legal international problem" of an illicit traffic of the "narcotic drugs and/or psychotropic substances" (hereinafter referred to as "NDPS"), "inter alia, in the high seas, is the most serious problem of the mankind in XXI century" (Kolodkin, Kiselev, & Savaskov, 1984; Parkinson, 1991) and many researchers for a long time have paid attention to the suppression of the illicit traffic in "NDPS" (Stieb, 1989; Gilmore, 1991; Gilmore, 1991). Nevertheless, certain marine scholars have not paid due attention to the matter (Blishchenko, 1988; Shchipzov et al., 1995; Shemiyakin, 2002; Skaridov, 2006). G. Antzelevich (2013) have researched international legal problems of modern merchant shipping and have not found among them the problem of illicit traffic of the "NDPS".

Many researchers (Weissbrodt, 2002) have classified the suppression of illicit traffic in "NDPS" as an intervention in (withdrawal from) the principle of the free high sea navigation. At the same time, we consider it as a suppression against the illicit use of the vessels, belonging to a certain state, which has the obligation to counteract such a use.

Methodology

The author of the article used a number of methods of scientific knowledge to obtain relevant results. Such methods include the dogmatic method, the comparative legal method, the deduction method, and the induction method. The author used the dogmatic method to thoroughly analyze the content of international conventions on counteraction of «NDPS». The comparative legal method was used to identify shortcomings in international legal regulation of relations on counteraction of «NDPS» concept. In particular, this method concluded that some obsolete international regulations on the research and updated doctrinal approaches to understanding the concept of «genuine link». Methods of induction and deduction were used as paired and mutually enriching, because they allowed to comprehensively analyze the concept of «genuine link», exploring all its elements in the dynamics and inseparable relationship.

The methods used in general made it possible to conclude, that the eradication of illicit traffic in "NDPS" is a collective responsibility of all States and that, to that end, coordinated action within the framework of international co-operation is necessary. Thus, the illicit traffic in "NDPS" demands to strengthen interstate coordination,

inter alia, in the fight against illegal proliferation in "NDPS" engaged in by high sea vessels.

Results and Discussion

UNCLOS'82

"UNCLOS'82" prescribes that any "flag State" which has reasonable grounds for believing that the "flag ship" – "ship flying its flag" - is engaged in illicit traffic in "NDPS" may request the cooperation of other States to suppress such traffic ("UNCLOS'82". Part VII "High seas". Section 1. "General provisions". Article 108 "Illicit traffic in narcotic drugs or psychotropic substances", paragraph 1), and "all States shall cooperate" in the suppression of illicit traffic in "NDPS" engaged in by ships on the high seas contrary to international conventions (Article 108, paragraph 2). It must be noted that the illicit traffic is an activity, which fulfilled: 1) "on the high seas", that is to say - beyond the limits of any States' sovereignty; 2) "contrary to international conventions", that is to say – there are international conventions that prescribe the rules of lawful traffic in "NDPS".

The Single Convention on Narcotic Drugs of 1961 as amended by the 1972 Protocol

Article 44. "Termination of previous international treaties" of the "UNSCND'1961" prescribes that the provisions of this Convention, upon its coming into force, shall, as between Parties hereto, "terminate and replace the provisions" of some treaties, which were adopted from 1912 to 1951 (Article 44, paragraph 1, (a) to (i); paragraph 2).

Article 31. "Special provisions relating to international trade" to the "UNSCND'1961" prescribes to States Parties: i) to control under license the import and export of drugs (paragraph 3(a). Article 32. permits, if there is international carriage by ships of limited amounts of drugs as may be needed during their voyage for first-aid purposes or emergency cases shall not be considered to be import or export within the meaning of the Convention (paragraph 1). The carriage shall be subject to the laws, regulations, permits and licenses of the country of registry (the "flag State") (paragraph 3). The "UNSCND'1961" prescribes special measures and actions to be taken by States Parties, inter alia, that "any drugs, substances and equipment used in or intended for the commission of any of the offences, referred to in article 36, shall be liable to seizure and confiscation" (Article 37. "Seizure and confiscation").

UNCPS' 1971

Under the Convention the countries shall take measures to prevent and repressive action against the illicit traffic ("UNCPS'1971". Article 21. "Action against the illicit traffic"), inter alia: i) to arrange the co-ordination; to this end they may usefully designate an appropriate agency responsible for such co-ordination (paragraph (a); ii) assist each other (paragraph (b); iii) co-operate closely with each other and with the competent international organizations of which they are members with a view to maintaining a coordinated campaign against the illicit traffic (paragraph (c); iv) ensure that international co-operation between the appropriate agencies be conducted in an expeditious manner (paragraph (d); v) shall treat as a punishable offence, when committed intentionally, any action contrary to a law or regulation adopted in pursuance of its obligations under the Convention, and shall ensure that serious offences shall be liable to adequate punishment, particularly by imprisonment or other penalty of deprivation of liberty (Article 22. "Penal provisions", paragraph 1 (a); vi) any psychotropic substance or other substance, as well as any equipment, used in or intended for the commission of any of the offences shall be liable to seizure and confiscation (Article 22, paragraph 3). But nothing contained in article 22 shall affect the principle that the offences to which it refers shall be defined, prosecuted and punished in conformity with the domestic law of a Party (Article 22, paragraph 5). For the more information see: Commentary on the "UNCPS'1971" (UNCPS Commentary, 1976).

United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988

In carrying out their obligations under the Convention, the Parties shall take necessary measures, including legislative and administrative measures, in conformity with the fundamental provisions of their respective domestic legislative systems ("UNCIT'1988". Article 2. "Scope of the Convention", paragraph 1) (United Nations, 1988a; United Nations, 1988b; United Nations, 2020; United Nations, 2013a; United Nations, 2013b).

Agreement on Illicit Traffic by Sea of 1995

The member States of the Council of Europe have adopted the Agreement on Illicit Traffic by Sea, implementing Article 17 of the United Nations Convention against Illicit Traffic in

Narcotic Drugs and Psychotropic Substances, 1995 (hereinafter referred to as the "CoEAITS'1995"), "desiring to increase their co-operation to the fullest possible extent in the suppression of illicit traffic in "NDPS". The member States have defined the actions, which the intervening State may take and first of all – to enter the vessel.

Conclusions

The author concludes that illicit sea trafficking in NDPS is the use of vessels, belonging to certain states against national and international law. Besides such states have statutory obligations to suppress such use, which is a part of the "Genuine link" concept. The measures aimed at combating illicit trafficking in narcotic drugs and / or psychotropic substances on the high seas is based on certain international conventions adopted under the auspices of the UN, as well as other international agreements, multilateral and bilateral; in this sense, the aim of our study was to investigate some of these documents.

As a result of the study, the author concluded that the system of the "flag state's" obligations includes obligations of suppression to the illicit trafficking of narcotic drugs and/or psychotropic substances, is the illegal use of "flag vessels" and constitute the concept of «genuine link».

Bibliographic references

Antzelevich, G. (2013). Some international legal problems of modern merchant shipping. International Legal Problems of Modern Merchant Shipping, 1, 5 – 8.

Blishchenko, I.P. (1988). International law of the sea. Moscow: UND Publishing.

Council of Europe. (1995). Agreement on Illicit Traffic by Sea, implementing Article 17 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances. European Treaty Series, 1, 156. Recovered from: https://rm.coe.int/168007cdab

Gilmore, W. C. (1991). Drug trafficking by sea: The 1988 United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances. Marine Policy, 15(3), 183–192. Recovered from: https://econpapers.repec.org/article/eeemarp ol/v_3a15_3ay_3a1991_3ai_3a3_3ap_3a183 -192.htm

Kolodkin, A.L., Kiselev, V.A., & Savaskov, P.V. (1984). Some provisions of the international legal status of the World Ocean. Soviet Yearbook of Maritime Law, 1, 30 - 45.

Parkinson, F. (1991). "Freedom of the Seas". Soviet Yearbook of Maritime Law, 1, 6 – 17.

Shchipzov, A.A., Antzelevich, G.A., Visotsky, A.F., Demidenko, V.V., Ishchenko, A.V., & Pereverzev, S.S. (1995). Modern international law of the sea and the practice of its implementation of the Ukraine. Kyiv: Scientific thoughts.

Shemiyakin, A.N. (2002). Modern international law of the sea and the perspectives of its development. Odesa: OGMA Publishing.

Skaridov, A. S. (2006). Illicit traffic of narcotic drugs and psychotropic substances. Ocean law, 1, 593–594.

Stieb, J. D. (1989). Survey of United States jurisdiction over high seas narcotic trafficking. Georgia Journal of International Law, 19, 119 – 147. Recovered from: https://digitalcommons.law.uga.edu/cgi/view content.cgi?article=1693&context=gjicl

United Nations. (1958). Convention on The High Seas. United Nations. Treaty Series, 450, 1, 11-82. Recovered from: https://treaties.un.org/pages/ViewDetails.asp x?src=TREATY&mtdsg_no=XXI-2&chapter=21

United Nations. (1961). Single Convention on Narcotic Drugs of 1961 as Amended by the 1972 Protocol. The International Drug Control Conventions (UNODC). Recovered from: https://treaties.un.org/Pages/ViewDetails.asp x?src=IND&mtdsg_no=VI-18&chapter=6&clang=_en

United Nations. (1971). The International Drug Control Conventions (UNODC). Recovered from: https://www.unodc.org/documents/commissi ons/CND/Int_Drug_Control_Conventions/E book/The_International_Drug_Control_Con ventions_E.pdf

United Nations. (1976). Commentary on the Protocol amending the Single Convention on Narcotic Drugs. Recovered from: https://www.unodc.org/documents/commissi ons/CND/Int_Drug_Control_Conventions/C ommentaries-OfficialRecords/1961Convention/1961_CO MMENTARY_AMENDING_PROTOCOL_ en.pdf

United Nations. (1982). Convention on the law of the sea. Recovered from: https://www.un.org/depts/los/convention_ag reements/texts/unclos/unclos_e.pdf

United Nations. (1988a). Convention against illicit traffic in narcotic drugs and psychotropic substances. The International Drug Control Conventions (UNODC). Recovered from:

https://www.unodc.org/documents/commissions/CND/Int_Drug_Control_Conventions/Ebook/The_International_Drug_Control_Conventions_E.pdf.

United Nations. (1988b). Commentary on the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances. Recovered from: https://www.unodc.org/documents/commissions/CND/Int_Drug_Control_Conventions/Commentaries-OfficialRecords/1988Convention/1988_COMMENTARY_en.pdf.

United Nations. (2013a). The International Drug Control Conventions Schedules of the Single Convention on Narcotic Drugs of 1961 as amended by the 1972 Protocol. Recovered from: https://www.unodc.org/documents/commissions/CND/Int_Drug_Control_Conventions/1961_Schedules/ST-CND-1-Add1_E.pdf.

United Nations. (2013b). The International Drug Control Conventions Schedules of the Convention on Psychotropic Substances of 1971. Recovered from: https://www.unodc.org/documents/commissions/CND/Int_Drug_Control_Conventions/1971_Schedules/ST-CND-1-Add2_E.pdf.

United Nations. (2020). The International Drug Control Conventions Tables of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988. Recovered from: https://undocs.org/ST/CND/1/Add.3/Rev.4.

Waly, G. (2021). Global overview: drug demand drug supply. United Nations. Recovered from: https://www.unodc.org/res/wdr2021/field/WDR21_Booklet_2.pdf.

Weissbrodt, D. (2002). Abolishing Slavery and its Contemporary. OHCHR. Recovered from: https://www.ohchr.org/Documents/Publications/slaveryen.pdf

The difference between newly discovered and new circumstances in the judicial review process

Різниця між нововиявленими і новими обставинами у процесі перегляду судових рішень

Written by:
Bychkova Svitlana[84]
https://orcid.org/0000-0002-8227-2127
Fedosieieva Tetiana[85]
https://orcid.org/0000-0003-1521-2922
Kyrdan Bohdan[86]
https://orcid.org/0000-0001-9284-9930
Chubenko Anton[87]
https://orcid.org/0000-0002-0887-5667
Sabluk Serhii[88]
https://orcid.org/0000-0001-5055-9169

Abstract

The purpose of the article is to compare new and newly discovered circumstances, which are taken into account by the court when reviewing judicial decisions. The subject of the study is newly discovered circumstances and new circumstances. Research methodology. The following methods are used in the course of the research: normative and dogmatic method, historical method, the method of analyses, logical method, legal and comparative method, method of summarization. Research results. The process of the establishment of the institution of review of court decisions is revealed. The concept of newly discovered circumstances and their place in the system of civil proceedings are considered. The view of the Supreme Court on the interpretation of newly discovered and new circumstances is analyzed. Comparative description of new and newly discovered circumstances is provided. Practical meaning. The differences between new and newly discovered circumstances in the process of reviewing court decisions are identified. Value / originality. The concept of new circumstances in civil proceedings is provided. It is stressed on the

Анотація

Метою статті є порівняння нових та нововиявлених обставин, що враховуються судом під час перегляду судових рішень. Предметом дослідження є нововиявлені обставини та нові обставини. Методологія дослідження. У ході дослідження використовуються такі методи: нормативно-догматичний, історичний, метод аналізу, логічний метод, порівняльно-правовий метод, метод узагальнення. Результати дослідження. Розкрито становлення інституту перегляду судових рішень. Розглянуто поняття нововиявлених обставин та їх місце в системі цивільного судочинства. Проаналізовано позицію Верховного Суду щодо тлумачення нововиявлених та нових обставин. Визначено поняття нових обставин у цивільному судочинстві. Наведено порівняльну характеристику нових та нововиявлених обставин. Практичне значення. Визначення відмінностей між новими та нововиявленими обставинами у процесі перегляду судових рішень. Цінність/оригінальність. Визначено поняття нових обставин у цивільному процесі. Акцентовано увагу на необхідності

---

[84] Doctor of Law, Professor.
[85] PhD in Law, Associate Professor, Associate Professor of the Department of Private Law of National University of Kyiv-Mohyla Academy, Ukraine.
[86] PhD in Law, Associate Professor of the Department of Civil Law Disciplines of the National Academy of Internal Affairs, Ukraine.
[87] Doctor of Law, Professor, Head of Legal Support Office for Central Administration of the Asset Recovery and Management Agency, Ukraine.
[88] PhD in Law, Chief Scientific Officer of the Scientific Institute of Public Law, Ukraine.

necessity for further study of new circumstances and the incorporation of such a list in existing legislation.

Key words: civil proceedings, judicial decision, new circumstances, newly discovered circumstances.

подальшого дослідження нових обставин та закріплення такого переліку в чинному законодавстві.

Ключові слова: цивільне судочинство, судове рішення, нові обставини, нововиявлені обставини.

Introduction

The development of social, economic, historical, cultural determinants has a significant impact on the establishment and development of the institution of civil law relations. The Convention for the Protection of Human Rights and Fundamental Freedoms enshrines the right of a person to fair and public examination of his (her) case within a reasonable time by an independent and impartial court, i.e. the right to a fair trial, which is crucial for civil proceedings in general decisions.

At the present stage of development of civil procedural legislation, special attention is paid to the issue of reviewing court decisions in newly discovered or new circumstances. Such a legal procedure provides an opportunity to correct the mistakes made by the court, which arose in a given situation.

The analysis of ECtHR decisions gives the right to consider that a judicial review of an enforceable decision does not violate the principle of legal certainty, if the law of the State clearly regulates the mechanism of such review.

The Civil Procedure Code of Ukraine provides for the review of judicial decisions in newly discovered and exceptional circumstances, but there is no legislative consolidation of new circumstances. Taking into account the national case law, we propose to determine the difference between newly discovered and new circumstances in the process of reviewing court decisions.

Legal regulation of the stage of review of judicial decisions in newly discovered or new circumstances requires a comprehensive study and analysis, as the concept of "new circumstances" is not enshrined in the civil procedural legislation of Ukraine. To understand the legal basis for reviewing court decisions, it is necessary to compare new and newly discovered circumstances, reveal their concepts, structure and establish differences. This will help to correctly interpret the circumstances that led to the process of reviewing the court decision and its place in resolving the issue of civil dispute.

Thus, the aim of the Article is to compare new and newly discovered circumstances, which are taken into account by the court when reviewing judicial decisions.

Methodology

The following methods of scientific knowledge are used in the course of the research.

Normative and dogmatic method is applied in the process of examination of the texts of the relevant instruments (Civil Procedure Code of 1923, Civil Procedure Code of 1963, Civil Procedure Code of 2004) and research materials of a number of foreign and domestic researches, who studied the problem under investigation.

The historical method gives the possibility to examine the establishment of the indicated institutions, based on the investigation of the relevant documents.

The method of analyses enabled to research the rules of current civil and civil procedural legislation and practice of its application during the review of court decisions.

Logical method is used for the formulation of the concept of new circumstances in civil proceedings.

Legal and comparative method is applied to compare new and newly discovered circumstances, their similarities and distinguishing characteristics.

The method of summarization makes it possible to draw conclusions and suggestions (to identify differences between new and newly discovered circumstances).

Literature Review

There are a number of modern researchers, who studied the process of review of court decisions. Among them we can highlight Meniuk (2021), who identifies the periods of development of the institution of review of court decisions, considers

the grounds for review of decisions on newly discovered circumstances, analyzes the case law and concludes that courts violate procedural norms in the context of establishing the stages of proceedings on newly discovered circumstances in his Thesis "The review of court decisions on newly discovered or exceptional circumstances in the civil proceedings of Ukraine".

Kolesnyk (2018) characterizes in his work "Grounds for reviewing decisions of commercial courts for newly discovered circumstances" the existing procedure for the review of court decisions on newly discovered circumstances, summarizes foreign case law and concludes on the feasibility of amending existing legislation.

Lavrov (2020) describes in his study "Review of judgments due to newly discovered circumstances in the context of the right to a fair trial in civil cases" describes the practice of the ECtHR and its place in deciding on the review of judgments on newly discovered circumstances.

Zeldina and Kolesnik (2017) examine the legal norms governing the process of review of judgments in such countries as Germany, France, Estonia, Latvia, USA and others. On the basis of the research conducted they provide suggestions for improving current legislation in Ukraine on this issue.

Among foreign scholars the problem of newly discovered evidence was considered by White (2000), who considered the differences between newly available and newly discovered circumstances based on the examination of the relevant court practice.

Judicial studies have also been carried out by Garland (2015), who considered the concept of newly discovered evidence in the decisions of the Supreme Court and Federal Appellate Courts and Brennan (2008), who tried to find the interpretation of the phrase "newly discovered evidence" in the judgments of the e U.S. Court of Appeals for the First and the Second Circuit.

However, these works do not fully study the procedure for judicial review of new circumstances, the concept of new circumstances in civil proceedings, as well as do not highlight the differences between new and newly discovered circumstances.

Results and Discussion

Review of court decisions is an independent stage of civil proceedings, in which the court verifies the existence or the lack of certain legal facts: 1) were present at the time of the case was heard, but they were not known or could not have been known;   2) occurred after the judgement became enforceable; 3) arising out of or altered in a court decision and unrelated to the subject matter of the claim; 4) are included in the list of exceptional circumstances provided by the Civil Procedure Code of Ukraine (Law of Ukraine No. 1618-IV, 2004).

These circumstances are the following:

1) establishment by the Constitutional Court of unconstitutionality (constitutionality) of a law, other legal act or their separate provision applied (not applied) by a court in deciding a case, if the court decision has not yet been executed; 2) Establishment of violation of Ukraine's international obligations in resolving the case by a court by an international judicial institution whose jurisdiction has been recognized by Ukraine; 3) finding of a judge guilty of a criminal offence resulting in a judicial decision by a court verdict that has entered into force.

The institution of review of court decisions in modern civil proceedings is the result of the evolution of theoretical views and practice. Thus, Chapter 24 of the Civil Procedure Code of the USSR of 1923 (Civil Procedure Code of the USSR, 1923) was devoted to the review of court decisions. Article 251 of this Chapter clearly outlined the cases, under which court decision may be reconsidered: (a) when new circumstances materially relevant to the case have come to light and are not known to the parties; b) When in the case in which the judgement is rendered it is established that false testimony has been given, criminal acts of parties, their representatives, experts, members of the court have been established; c) where the decision is based on documents that are subsequently found to be forged, or when the court's decision based on that decision is reversed.

Despite the fact that the above circumstances were, in fact, newly discovered, they were considered new. It is interesting to note that legal experts were already drawing a parallel between the new evidence and the new circumstances, arguing that these are different categories.

Vaskovskyi (2016) believes that the use of the concept of "new circumstances" in law is not correct. In his opinion, the review of the court decision takes place only because the court wrongly decided the case without knowing the

circumstances that might have changed it. Thus, the law does not refer to new circumstances that have arisen since the decision, but already existing at the time of delivery of the judgement.

Kleiman (1939, p. 17) noted that in this case we are not talking about new evidence, but about the circumstances, i.e. real facts, events and actions, which took place in nature at the time the case was heard but were not and could not be known to the court and the parties; are so important for the case that if they were known to the court, the latter would have made the opposite decision in substance. These views were later reflected in the legislation.

The second stage in the development of the institution of judicial review was the adoption of the Civil Procedure Code of 1963 (Law of Ukraine No. 1500-06, 1963). Chapter 42 provided for the procedure for reviewing decisions, decisions that have entered into force in relation to newly discovered and exceptional circumstances. Thus, decisions and rulings of the courts of first, appellate and cassation instances may be reviewed in connection with newly discovered circumstances. The grounds for such a review are: 1) significant circumstances of the case which were not and could not have been known to the complainant; 2) false testimony, knowingly misleading expert findings, false translation, falsification of documents or physical proof resulted in miscarriage of justice; 3) criminal actions of the parties, other persons who took part in the case, or criminal acts of judges committed during the consideration of this case, imposed by a court judgement that has entered into force; 4) annulment of a decision, sentence or determination (decision) of a court or other authority, which was the basis for the decision or ruling.

The current Civil Procedure Code of Ukraine stipulates that decisions, resolutions or court rulings that complete a case that has entered into force may be reviewed for newly discovered or exceptional circumstances.

There is no clear concept of newly discovered circumstances in the Civil Procedure Code of Ukraine; however, Article 423 of the Code (Law of Ukraine No. 1618-IV, 2004) provides grounds for review of the court decision for newly discovered circumstances. Among them are: 1) significant circumstances of the case, which were not established by the court and were not and could not have been known to the complainant; 2) the fact of false testimony, knowingly misleading expert findings, perjured

testimony, false translation, falsification of documents, physical or electronic evidence of an unlawful decision in this case, imposed by a sentence or decision to close criminal proceedings and to release a person from criminal liability that has entered into force; 3) abolition of judgment, which was the gruound for the court decision to be rewieved. This list is exhaustive.

For a more correct interpretation of the rules of the Civil Procedure Code of Ukraine, the Plenary of the High Specialized Court of Ukraine for Civil and Criminal Cases indicated that judicial review of newly discovered facts is an independent stage of civil proceedings, in which the court verifies whether or not there were legal facts that existed when the case was heard, about which the complainant did not know or could not have known, although their submission to the court may have entailed the admission of a different content of the judicial decision.

Newly revealed facts are evidence that is significant to the case and existed when the case was heard, about which the complainant did not know or could not have known, as well as the facts following the enactment of the judicial decision, which the law classified as newly discovered circumstances.

Thus, the the Supreme Court in the case No. 552/137/15-t (2018) established that the failure of the party or person participating in the case to provide evidence, of which she was aware and which confirms the relevant circumstances, as well as the court's refusal to accept evidence is not grounds for review of the court decision in relation to newly discovered circumstances.

The necessary conditions for newly discovered circumstances are that they existed at the time of the case; could not have been known to the complainant at the time of the court's hearing; they are the subject of evidence in the case and may influence the verdict on interests of parties to a case.

Newly revealed facts must be confirmed by the actual experience, which in the prescribed manner refute the facts that are the basis for court decision. The court is entitled to revoke a judjment in relation to newly revealed facts only if these facts may affect the legal evaluation of the facts in the reviewed judjment.

The Civil Procedure Code states that evidence are any data, on the basis of which the court establishes the presence or absence of

circumstances (facts) that substantiate the claims and objections of the parties, as well as other circumstances relevant to the case. These data are established by documentary, physical and digital proof; views of experts; witnesses accounts (Article 76) (Law of Ukraine No. 1618-IV, 2004).

Such a legal view is set out in the judgment in the case No. 477/1012/14-a (2018), in which the court stated that "newly discovered circumstances are factual data by their legal nature that refute the facts, which were the basis for the court decision, and give rise to procedural consequences, affect the legality and validity of a court decision made without them".

A similar view is set out by the Supreme Court in its rulings of 6 February 2018 in case No. 816/4947/14 (2018) and 13 February 2018 in case No. 815/756/14 (2018).

Thus, newly discovered circumstances include the facts of objective reality, on which the claims and objections of the parties are based, as well as other facts that are important for the proper settlement of the dispute.

Necessary and general features of newly discovered circumstances are: 1) the existence of these circumstances during the consideration and resolution of the case and the adoption of a court decision to review the application; 2) these circumstances could not objectively be known either the applicant or the court when the case was heard;   3) significance of these circumstances for the consideration of the case (i.e. if the court's consideration of these circumstances would have resulted in a different judicial decision than that than the one that was made).

The court notes that newly discovered circumstances differ from new circumstances, changed circumstances and new evidence for reasons of time, evidentiary issue and substantial influence on the judgement.

New circumstances that have arisen or changed since the examination of the case do not constitute grounds for reconsideration. New circumstances that were discovered after the court's decision, as well as changes in the court's legal view in other similar cases, are not considered newly discovered. Circumstances established on the basis of evidence that were not submitted in a timely manner by the parties or other persons participating in the case may not be considered newly discovered. Circumstances

that arose or changed after the court's decision, as well as circumstances invoked by the participant in the trial in his explanations, cassation appeal, as well as circumstances, which may be established if the court complies with the requirements of the procedural law, cannot be considered newly discovered. A similar view is available in the decision of the Supreme Court of 06 March 2018 in the case No. 2a-23903/09/1270 (2018).

Thus, it is necessary to distinguish between newly discovered circumstances and new circumstances.

As we have already noted, newly discovered circumstances include the circumstances, enshrined in Part 2, Article 423 of the Civil Procedure Code (Law of Ukraine No. 1618-IV, 2004). However, there is no mention of new circumstances in the Code. Instead, when deciding on the existence of newly discovered circumstances, the court must distinguish between newly discovered circumstances and new circumstances.

Circumstances that arose or changed only after the court decision and are not related to the claim in this case, and therefore could not be accepted by the court when adopting court decision, are new circumstances and may be grounds for a new claim (claim). This could be, for example, a claim for an increase or decrease in maintenance due to the deterioration of the defendant's property, deteriorating health, etc. following a decision to recover maintenance from him; adapting the decision to the changing circumstances (for example, indexation of alimony in accordance with the law), annulment of a court decision where there is an indication of law (restoration of civil capacity of a natural person, who was declared incapable in case of recovery), etc. However, new circumstances can in no way give rise to the re-examination of the judgment in relation to newly revealed facts.

Conclusion

Thus, the differences between new and newly discovered circumstances, in our opinion, are:

1) the etymology of the concept. Newly revealed facts are evidence that is significant to the case and existed when the case was heard, about which the complainant did not know or could not have known, as well as the facts following the enactment of the judicial decision and attributed by the legislator to newly revealed facts. New

circumstances are legal facts (circumstances) that arose or changed only after the decision was made, are not related to the action and could not be accepted by the court in making the decision. They can be the basis for new demands.

2) confirmation by factual data (evidence): newly discovered circumstances must refute the facts underlying the court decision; new circumstances must prove the existence or alteration of evidence at the time of the decision;

3) new evidence that did not exist at the time of the trial may not be considered newly discovered circumstances. New circumstance that has appeared or changed after the consideration of the case is not a ground for reconsideration of the case.

4) procedure. The procedure for annulment of final judgment for newly discovered circumstances presupposes that there is evidence that there is evidence that could not previously have been available but could have led to another outcome of the trial. Instead, new circumstances are the basis for filing a separate new claim that did not relate to the subject matter of the claims of the previous decision.

5) purpose. The review of the case in relation to newly discovered circumstances is aimed at reviewing the case already considered, taking into account the circumstances that existed when the case was heard, but whose existence the complainant became aware of after the court decision. And the discovery of new circumstances arising or altered subsequent to a judicial decision and unrelated to the requirement in this case, leads to the filing of a separate new claim.

Bibliographic references

Brennan, M. E. (2008). Interpreting the Phrase "Newly Discovered Evidence": May Previously Unavailable Exculpatory Testimony Serve as the Basis for a Motion for a New Trial Under Rule 33? Fordham Law Review, 77(3), pp. 1095-1145. https://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=4404&context=flr

Case No. 552/137/15-ts (2018). Resolution of the Supreme Court of Ukraine, Unified state register of court decisions. Kyiv, Ukraine, 29 August 2018. Retrieved from https://reyestr.court.gov.ua/Review/76502908

Case No. 477/1012/14-a (2018). Resolution of the Supreme Court of Ukraine, Unified state register of court decisions. Kyiv, Ukraine, 03 April 2018. Retrieved from https://reyestr.court.gov.ua/Review/73195172

Case No. 816/4947/14 (2018). Resolution of the Supreme Court of Ukraine, Unified state register of court decisions. Kyiv, Ukraine, 06 February 2018. Retrieved from https://reyestr.court.gov.ua/Review/72088974

Case No. 815/756/14 (2018). Resolution of the Supreme Court of Ukraine, Unified state register of court decisions. Kyiv, Ukraine, 13 February 2018. Retrieved from. https://reyestr.court.gov.ua/Review/72290140

Case No. 2a-23903/09/1270 (2018e). Resolution of the Supreme Court of Ukraine, Unified state register of court decisions. Kyiv, Ukraine, 06 March 2018. Retrieved from. https://reyestr.court.gov.ua/Review/72604968

Civil Procedure Code of the USSR (1923). The Assembly of Legacies and Orders of the Workers and Peasants Government, 1(46–47), pp. 478. https://vcpi.nlb.by/static/pdf/kodexy-BSSR/3ok2193_1923_n_46-47.pdf

Garland, D. S. (2015). New Trial / Newly Discovered Evidence. Favorable and Noteworthy Decisions in the Supreme Court and Federal Appellate Courts. Casetext Inc. https://casetext.com/analysis/new-trial-newly-discovered-evidence

Kleiman, A. (1939). Appeals and challenges against judgements and decisions in civil cases. Moscow: Juridizdat NKYU SSSR, 1939. S. 17.

Kolesnyk, R.M. (2018). Grounds for reviewing decisions of commercial courts for newly discovered circumstances. (PhD Dissertation). Institute of Economic and Legal Research of the National Academy of Sciences of Ukraine. http://www.iepd.kiev.ua/wp-content/uploads/2017/01/%90_%90_%91'%90_%91_%90%E7%91%22%90%E7%91_%90%F8%91'-%90_%90_%90%3E%90%E7%91_%90_%90%F1%90%F3.pdf

Lavrov, V. (2020). Review of judgments due to newly discovered circumstances in the context of the right to a fair trial in civil cases. Entrepreneurship, economy and law, No. 6, pp. 39-43. http://pgp-journal.kiev.ua/archive/2020/6/9.pdf

Law of Ukraine No. 1500-06. Civil Procedure Code of Ukraine. Official Web site of the Verkhovna Rada of Ukraine, July 18, 1963. Available online. In:

https://zakon.rada.gov.ua/laws/show/1501-06#Text

Law of Ukraine No. 1618-IV. Civil Procedure Code of Ukraine. Official Web site of the Verkhovna Rada of Ukraine, March 18, 2004. Available online. In: https://zakon.rada.gov.ua/laws/show/1618-15/conv#n9040

Meniuk, D. (2021). The review of court decisions on newly discovered or exceptional circumstances in the civil proceedings of Ukraine. (PhD Dissertation). Institute of State and Law of V.M. Koretsky National Academy of Sciences of Ukraine. http://idpnan.org.ua/files/2021/menyuk-d.o.-pereglyad-sudovih-rishen-za-novoviyavlenimi-abo-viklyuchnimi-obstavinami-u-tsivilnomu-protsesi-ukrayini.pdf

Vaskovskyi, E. (2016). Course on civil procedure: subjects and subjects of the proceedings, procedural relations and actions. Moscow: Statut. http://www.consultant.ru/edu/student/download_books/book/vaskovskij_ev_kurs_grazhdanskogo_processa/

White, P. J. (2000). "Newly Available, Not Newly Discovered". The journal of appellate practice and process, 2(1), pp. 7-18. https://lawrepository.ualr.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1186&context=appellatepracticeprocess

Zeldina, O. and Kolesnik, R. (2017). The institution of review of court decisions for newly discovered circumstances. Law and Society, No. 4, pp. 89-95. http://pravoisuspilstvo.org.ua/archive/2017/4_2017/part_1/18.pdf

Legal regulation of family relations in Ukraine and the Republic of Latvia: comparative and analytical research

Правове регулювання сімейних відносин в Україні та Латвійській Республіці: порівняльно-аналітичне дослідження

Written by:
Vitalii Cherneha[89]
https://orcid.org/0000-0002-9118-6562
Nataliia Fedorchenko[90]
https://orcid.org/0000-0002-8964-8959
Nataliia Borsuk[91]
https://orcid.org/0000-0003-3476-3084

Abstract

The study seeks to find common and different features in approaches used by Ukrainian and Latvian legislators to regulate family relations, and to suggest how to develop family legislation of Ukraine. For this end, the following methods of scientific inquiry have been used: analysis, analogy, deduction, induction, synthesis, historical and legal, comparative and legal, legal modeling methods. It was found out that the Republic of Latvia lacks some legislative solutions in respect of which Ukraine has law enforcement practice. This study offers to supplement the Family Code of Ukraine with the provision saying that a marriage shall be considered not concluded unless it was registered by a civil registration officer. Considering the Latvian experience, the legislative support for appointing co-guardians in Ukraine has been proven expedient.

Key words: legal regulation of family relations, marriage, family, parents, children.

Анотація

Статтю присвячено порівняльно-аналітичному аспекту правового регулювання сімейних відносин в Україні та Латвійській Республіці. Розкрито різні підходи законодавців України та Латвійської Республіки щодо: інституту заручин та зобов'язань наречених у разі відмови від реєстрації шлюбу; регулювання шлюбних відносин; змісту шлюбного договору; визначення походження дитини; усиновлення; призначення опікуна (опікунів). Виявлено, що в Латвійській Республіці відсутні окремі законодавчі рішення, щодо яких склалася правозастосовна практика в Україні. Запропоновано закріпити в Сімейному кодексі України норму, яка встановлює, що шлюб вважається неукладеним, якщо його не було зареєстровано посадовою особою органу державної реєстрації актів цивільного стану. Враховуючи латвійський досвід, доведено доцільність законодавчого забезпечення призначення співопікунів в Україні. Метою дослідження є виявлення спільного та розбіжного у підходах українського та латвійського законодавців щодо регулювання сімейних відносин, а також формування пропозицій, спрямованих на розвиток сімейного законодавства України. Для цього застосовано такі методи наукового пізнання: аналіз, аналогія, дедукція, індукція, синтез, історико-правовий, порівняльно-правовий, а також метод правового моделювання.

Ключові слова: правове регулювання сімейних відносин, шлюб, сім'я, батьки, діти.

[89] Candidate of Science of Law, Docent, Associate Professor at the Department of Business Law and Corporate Law of the State Higher Educational Institution Kyiv National Economic University named after Vadym Hetman, Ukraine.
[90] Doctor of Science of Law, Professor, Head of Department of General Legal Disciplines, Civil Law and Tourism Legislative Regulation Kyiv University of Tourism, Economics and Law; Chief Researcher of Department of Research on the Problems of Interaction between the State and Civil Society Kyiv Regional Center of the National Academy of Legal Sciences of Ukraine, Ukraine.
[91] Doctor of Science of Law, Docent, Professor at the Department of Business Law and Corporate Law of the State Higher Educational Institution Kyiv National Economic University named after Vadym Hetman, Ukraine.

Introduction

Family is "the most antient socio-legal institution, and its impact on human existence is difficult to underestimate" (Revutska, 2018). Significant amendments to and reforms of family legislation seen in 2004 due to the entry of the Family Code of Ukraine into force as well as further law-making processes resulting from the development of the independent Ukrainian state, its integration into the *global and European* political, economic and social *environment*, implementation of the EU-Ukraine Association Agreement, inter alia, in terms of updating civil and family legislation, make it necessary to form theoretical and legal basis for many family law institutions (Kuznetsova, 2021). Therefore, the study of differences between approaches to the legal regulation of family relations in the Republic of Latvia and Ukraine should take its own place among modern comparative family law researches. It is reasonably emphasized that the comparative family law intends not only to detect similar and different regulations but also establish better practices for implementing the same, make offers to improve legislation, harmonize and standardize family rules (Mendzhul, 2021). Therefore, to tap the potential of the legal regulation of family relations in Ukraine, it is expedient to study practices of other countries, one of which is the Republic of Latvia, through the prism of comparative and analytical, because Ukrainian family legislation can properly develop in the modern environment only if we understand European and global trends in the legal regulation of family relations (Novokhatska, 2006).

Literature Review

According to literary sources, a special place in the "Family Law" nomenclature is taken by comparative family law works like theses for Candidate Degrees in Law Sciences (Cherneha, 2020). They include the scientific heritage of Ya. Novokhatska "Legal Regulation of Property Relations between Spouses (Comparative Legal Aspect)" (Novokhatska, 2006), and comparative family law studies: "Marital Agreement: Comparative Analysis of Legislation Pertaining to Different Law Systems" (Oliinyk, 2009); "Division of Spouses' Property according to Legislation of Ukraine and European Union" (Melnychenko, 2015); "Personal Non-Property Rights of a Child in Adoption under the Legislation of Ukraine and Certain Foreign Countries" (Melnyk, 2016); "Institute of Separate Living of Spouses in the Family Law: Comparative Legal Aspect" (Bilyk, 2017);

"Harmonization of the Legislation of Ukraine to the Legislation of Member States of the European Union Relating to Matrimonial Regime Community Property" (Prostybozhenko, 2017); "Legal Grounds for Building Family as Shown in Legislation of Ukraine and EU Member States: Comparative Legal Review" (Revutska, 2018). There are also scientific articles covering models of the legal regulation of spousal separate residence regime in the countries of the European Union and Ukraine (Verba-Sydor, Vorobel, Podorozhna, Dutko & Grabar, 2020); some fundamental principles of the legal regulation of marital agreements in foreign systems of justice (Radchenko, 2017a); transformation of the "marriage" category concept in legislation of some states (Radchenko, 2017b); features of the legal regulation of family relations by codified legal acts in Ukraine and Western and Central European states (Vatras, & Kostyashkin, 2021). However, none of existing modern family law studies (publications) presents a comprehensive comparative and analytical review of the legal regulation of family relations in Ukraine and the Republic of Latvia.

Methodology

When addressing the legal regulation of family relations in Ukraine and the Republic of Latvia for comparative and analytical purposes, the following methods were directly employed: analysis, analogy, deduction, induction, synthesis etc. The historical and legal method has allowed stating that Ukrainian legislators excluded the institution of engagement in 2006. The comparative and legal method which prevails in this comprehensive scientific research has contributed to finding a range of differences in the legal regulation of family relations in Ukraine and the Republic of Latvia. First, this study shows different approaches used by Ukrainian and Latvian legislators when it comes to the rights of persons under marriage age; factors that prevent (absence of factors that prevent) entering into marriage; the differentiation between and among grounds and procedures for recognising a marriage invalid; the recognition (non-recognition) of a marriage invalid after its termination; the marriage dissolution through judicial and extrajudicial procedures (by a civil registration office in Ukraine, and by a notary in the Republic of Latvia); the content of a marital agreement; disputing paternity by the person registered as the child's father; disputing paternity after the death of the person registered as the child's father;

disputing maternity, as well as rights of the child's mother to dispute paternity of her husband; parents' consent to adoption of their child; the child's consent to adoption; the right to conceal the fact of adoption from an adopted child; the capability (incapability) of an adopter to change the data on the adopted child's date and place of birth. Second, the present research has revealed that, unlike Ukrainian legislative solutions, the Latvian family legislation do not cover the reinstatement of marriage if the person declared missing or presumed dead appears; the "living apart" regime; certain reasons for the marriage dissolution that can be witnessed in practice (for instance: if one of spouses dies before the court decision on their marriage dissolution enters into force, the marriage is considered terminated for the reason of their death; if one of spouses dies on the date when the court decision on their marriage dissolution enters into force, the marriage is considered terminated for the reason of its dissolution); the recognition of the marriage dissolution null and void etc. In their turn, Ukrainian legislators has not established yet some provisions applicable by the Latvian family law, for instance: first, a marriage shall not be considered concluded unless it was registered by a civil registration officer; second, appointing co-guardians. The legal modelling method has allowed articulating specific offers to improve effective Ukrainian family legislation.

The legal basis for the study is the Family Code of Ukraine, the Civil Law of the Republic of Latvia, the Law of Ukraine "On Amendments to Family and Civil Codes of Ukraine".

Results and Discussion

Ukraine and the Republic of Latvia have different by name instruments to govern family relations: Ukraine applies the Family Code of Ukraine adopted on 10 January 2002 (Law No. 2947-III, 2002), and the Republic of Latvia uses the Civil Law of the Republic of Latvia adopted on 28 January 1937 and amended on 14 January 1992 (Civil Law of the Republic of Latvia, 1937).

Unlike the Ukrainian legislation, the Latvian ones still contain the institution of engagement. In Ukraine, such an institution was cancelled by the Law of Ukraine (Law No. 524-V, 2006) "Amendments to Civil and Family Code of Ukraine" dated 22 December 2006. Before the cancellation, Part 1, Article 31 of the Family Code of Ukraine defined engaged persons as the persons who applied for their marriage registration. Also, Ukrainian legislators established that engagement does not mean an obligation to enter into marriage. By the way, the same rule is set forth in Part 1, Article 26 of the Civil Law of the Republic of Latvia. At present, the Family Code of Ukraine does not contain the term "engaged persons", since it was substituted with "bride/groom" (Clause 2, Part 1, Article 28 the Family Code of Ukraine). The Latvian law does not define the term "engaged persons". However, it contains the meaning of the term "engagement" which is mutual promises to be united in marriage (Part 1, Article 26 of the Civil Law of the Republic of Latvia). Notwithstanding that the institution of engagement was cancelled in Ukraine, the Family Code of Ukraine imposes certain obligations on a bride/groom in case of their refusal to get married (Parts 3, 4 Article 31). However, as literary sources rightly point out, it means the obligations imposed on a bride/groom in case of their refusal to *register* their marriage, rather than in case of their refusal to get married. Because there is no doubt that relations can be broken only if a person was a part of them (Cherneha, 2017).

Approaches applied by Ukrainian and Latvian legislators to the potential use of the right to marry by persons under marriage age are quite different. Part 2, Article 23 of the Family Code of Ukraine establishes that the right to marry may be granted by court to a person who turned 16, upon their request, provided that the court finds it consistent with their interests. In contrast to the above, Article 33 of the Civil Law of the Republic of Latvia stipulates exceptional cases when the person who has turned 16 may get married with the permission from their father/mother or guardian provided that the marriage is concluded with a person of full age. If their parents or guardians refuse to give such a permission without a good reason, it may be given by the Latvian court extending its jurisdiction over the place of residence of parents or appointed guardians.

Both Ukrainian and Latvian legislators prohibit an adopter to enter into marriage with the person adopted by them. However, the Family Code of Ukraine contains the following exception to the rule: the marriage between an adopter and their adopted child may be registered if the adoption is cancelled (Clause 2, Part 5, Article 26). Unlike the Family Code of Ukraine, the Civil Law of the Republic of Latvia does not say that a court may allow the marriage between an adopter's biological and adopted children as well as between children adopted by an adopter (Part 4, Article 26 of the Family Code of Ukraine).

Approaches applied by legislators to the recognition (non-recognition) of a marriage invalid after its termination are also different in Ukraine and Latvia. According to Part 1, Article 43 of the Family Code of Ukraine, neither marriage dissolution, nor death of a wife/husband prevents the marriage from being recognised invalid. Moreover, if a marriage is dissolved by the court decision, a claim for recognizing it invalid may be filed only after the court decision on the marriage dissolution has been cancelled (Part 2, Article 43 of the Family Code of Ukraine). In contrast to the above, Part 2, Article 65 of the Civil Law of the Republic of Latvia says that if spouses died, the claim for recognizing their marriage invalid may not be filed.

Unlike the Civil Law of the Republic of Latvia, the Family Code of Ukraine distinguishes 3 statutory concepts for marriage invalidity: first, *the marriage is invalid if* (Article 39); second, *the marriage is recognized invalid by court if* (Article 40); third, *the marriage may be recognized invalid by court if* (Article 41).

Unlike Latvian legislators, Ukrainian ones refer the marriage registered with the person who concealed their grave disease or the disease which may be dangerous for their spouse and/or their future generations to the grounds for recognizing the marriage invalid (Clause 3, Part 1, Article 41 of the Family Code of Ukraine). Latvian legislators do not set the following exception to the rule: a marriage may not be recognized invalid if, when the case is being heard by court, there are no more reasons to believe that the person did not give their consent to marry or did not want to create a family (Part 3, Article 40 of the Family Code of Ukraine).

The following rule might be interesting for the Ukrainian legal environment: a marriage is considered invalid if it was not registered by a *civil registration officer* or a *priest* (Part 1, Article 60 of the Civil Law of the Republic of Latvia). The Ukrainian instruments governing family relations do not employ an equivalent approach in spite of its potential. It is expedient to update the abovementioned provision, since at present a religious marriage is not considered as the grounds causing marital relations in Ukraine even though recent scientific family law works state that in many countries a religious marriage has the same legitimate power as the marriage registered with the relevant state authorities (Safonchyk, Hlyniana, Melnyk, & Pliushko, 2019). It means that a marriage in Ukraine may not be registered by a priest. Therefore, Article 48 of the abovementioned codified act should be

supplemented with Part 2 to read as follows: "A marriage shall be considered not concluded unless it was registered by a civil registration officer". Because according to Part 1, Article 48 of the Family Code of Ukraine, only the marriage registered without a bride and/or a groom shall be considered not concluded.

Approaches applied by Ukrainian legislators to the marriage termination for the reason of its dissolution also differ from those used in Latvia. The Family Code of Ukraine says that a marriage may be terminated for the reason of its dissolution by both *a civil registration office* (Articles 106-107), and a *court decision* (Articles 109-110). According to the Family Code of Ukraine, a marriage shall be terminated for the reason of its dissolution: a) upon spouses' joint request (Article 106); b) upon spouse's request (Article 107). The Family Code of Ukraine stipulates that a marriage shall be terminated for the reason of its dissolution: a) by court decision upon spouses' joint request (Article 109); b) by virtue of the court decision in the case brought by one of spouses (Article 110). In contrast to the above, Part 1, Article 69 of the Civil Law of the Republic of Latvia set forth that a marriage may be dissolved only by court or a *notary*. It is obvious that grounds and procedures for dissolving a marriage by a *civil registration office* in Ukraine and by a *notary* in the Republic of Latvia are also different. The next difference is the absence of the following rule in the Family Code of Ukraine: a marriage may be dissolved if it has broken down (Part 2, Article 69 of the Civil Law of the Republic of Latvia), i.e. the spouses have been living separately for more than 3 years (Article 72 of the Civil Law of the Republic of Latvia).

Unlike the Family Code of Ukraine, the Civil Law of the of Republic of Latvia does not cover:

– some grounds for marriage termination which can be witnessed in practice including:

a) if one of spouses dies before the court decision on their marriage dissolution enters into force, the marriage is considered terminated for the reason of their death (Part 3, Article 104 of the Family Code of Ukraine);

b) if one of spouses dies on the date when the court decision on their marriage dissolution enters into force, the marriage is considered terminated for the reason of its dissolution (Part 4, Article 104 of the Family Code of Ukraine);

– the recognition of the marriage dissolution null and void, i.e. upon request of a person concerned, the marriage dissolution executed by a civil registration office upon request of the spouses who have no children may be recognised by court null and void if it reveals that a wife and a husband kept living as a family and did not seek to terminate marital relations (Part 1, Article 108 of the Family Code of Ukraine);

– the reinstatement of a marriage if: a) the person presumed dead appears (Part 1, Article 118 of the Family Code of Ukraine); b) the person declared missing appears (Part 2, Article 118 of the Family Code of Ukraine);

– the establishment of the "*living apart*" regime, as well as legal consequences of establishing such a regime which (Articles 119-120 of the Family Code of Ukraine), according to experts, was introduced by legislators "to preserve marriages by giving spouses some more time (the duration of which is not prescribed by law) to think over their decision to divorce, since a husband and a wife overwhelmed by emotions are not always fair-minded when they decide to divorce, and later they regret of doing so" (Bilyk, 2017). The legal regime of separation "is a complex institute in which establishment entails several legal consequences for both the spouses and other members of the family and concerns both the property and personal non-property rights of the parties" (Verba-Sydor, Vorobel, Podorozhna, Dutko, & Grabar, 2020).

It is difficult to object that statutory instruments cannot fully cover all the variety of family relations with spouses' individual interests considered. Such being the case, a marital agreement will help as it serves as a legal instrument to govern relations between spouses (Oliinyk, 2009). He is "primarily intended to strengthen the family institution, allowing more fully to take into account the interests of each spouse, reduce the number of disputes and conflicts between them, and in the case of divorce and division of property – to solve this more civilized way" (Safonchyk, Sirko, & Andronova, 2019). In both Ukrainian and Latvian legislation, a marital agreement governs only property relations. However, Ukrainian legislators set requirements to the content of a marital agreement which are absent in the Civil Law of the Republic of Latvia. According to the Family Code of Ukraine: a) a marital agreement governs neither personal relations between spouses nor personal relations between spouses

and their children (Part 3, Article 93); b) such an agreement may neither reduce the scope of rights assigned to a child by the Family Code of Ukraine, nor put one of spouses in an extremely disadvantaged financial position (Part 4, Article 93); c) neither immovable nor other property the title to which is subject to the state registration may be conveyed to one of spouses under a marital agreement (Part 5, Article 93).

Ukrainian and Latvian legislators have original approaches to disputing paternity by the person registered as the child's father. According to Part 1, Article 136 of the Family Code of Ukraine, the person entered into the register as a child's father may dispute his paternity by claiming the entry of his paternity to be removed from the child's birth record. Paternity may be disputed only after a child has been born and before they have turned 18 (Part 3, Article 136 of the Family Code of Ukraine). It is also worth mentioning that, pursuant to Part 6, Article 136 of the Family Code of Ukraine, the action limitation period does not apply to the claim filed by a man to remove the entry of his paternity from the child's birth record. At the same time, the Civil Law of the Republic of Latvia stipulates that presumed paternity may be disputed by the husband of the child's mother within 2 years from the date when he became aware of the fact that the child had not been conceived by him (Part 1, Article 136).

Moreover, according to Part 3, Article 149 of the Civil Law of the Republic of Latvia, a child may dispute presumed paternity within 2 years from the date when they came of age. The person who thinks that he is a biological father of the child, excluding the cases when the child was conceived in breach of moral principles and due to the sexual offence, may dispute presumed paternity within 2 years upon the child's birth if: a) the child's mother died when delivering; b) the child`s mother and the husband of the child's mother have been living apart for more than 306 days before the child`s birth (Part 5, Article 149 of the Civil Law of the Republic of Latvia). Ukrainian legislators also set forth some exceptions. According to Part 4, Article 136 of the Family Code of Ukraine, paternity may not be disputed in case of the child`s death. Pursuant to Ukrainian law, paternity may not be disputed by the person entered into the register as the child's father if he knew that he is not the child's father (when being registered as the child`s father) and gave his consent to the use of assisted reproductive technologies as referred to in Part 1, Article of the Family Code of Ukraine.

Ukrainian and Latvian legislation are also rather original when it comes to disputing paternity after the person entered into the register as the child's father died. Part 1, Article 137 of the Family Code of Ukraine stipulates that if the person entered into the register as the child's father had died before the child was born, his paternity may be disputed by his successors provided that he, when alive, submitted the non-paternity statement to the notary. If the person entered into the register as the child's father died after he had brought before the court the claim for the entry of his paternity to be removed from the child's birth record, this claim may be supported in court by his successors (Part 2, Article 137 of the same legislative instrument). Pursuant to Part 3, Article 137 of the Family Code of Ukraine, if the person who did not know, for good reasons, that he was entered into the register as the child's father, died, his paternity may be disputed by his successors: his wife, parents and children. Here it should be mentioned that the action limitation period does not apply to the claim filed by a man to remove the entry of his paternity from the child's birth record (Part 4, Article 137 of the Family Code of Ukraine). In contrast to the above, Part 4, Article 149 of the Civil Law of the Republic of Latvia stipulates that if a man dies being unaware of the child's birth his parents may dispute his presumed paternity within two years from the date when they became aware of the fact that the child was not conceived by their son.

Legislation of the countries in question also have a number of differences when it comes to disputing maternity, as well as the right of the child`s mother to dispute her husband's paternity. According to Part 1, Article 139 of the Family Code of Ukraine, a woman entered into the register as the child's mother may dispute her maternity. It is not directly provided for by the Civil Law of the Republic of Latvia. While the Civil Law of the Republic of Latvia just says that a mother also may dispute her presumed maternity (Part 2, Article 149), the Ukrainian legislation answers in detail how the rights of the child's mother to dispute her husband's paternity may be exercised. According to Part 1, Article 138 of the Family Code of Ukraine, a woman who gave birth to a child when married may dispute her husband's paternity by claiming the entry of his paternity to be removed from the child's birth record. The mother's claim for the removal of the entry of her husband's paternity from her child's birth record may be satisfied only if the other person submits the paternity statement (Part 2, Article 138 of the same legislative instrument). It should also be

mentioned here that pursuant to Part 3, Article 138 of the main instrument governing family relations in Ukraine, the action limitation period of 1 year applies to the claim filed by the mother to amend her child's birth record. It starts from the date when the child's birth record was entered into the register.

In Ukraine, as rightly stated by law scholars, the effective protection of the rights of children when being adopted is one of the promising areas of research (Melnyk, 2016). The legislation of both countries varies when it comes to the parents' consent to adoption of their child. According to Part 3, Article 217 of the Family Code of Ukraine, parents may give their consent to adoption of their child only after the child turns two months. In contrast to the above, Part 2, Article 169 of the Civil Law of the Republic of Latvia establishes that the mother may not give her consent to adoption of her child earlier than 6 months after the delivery. Moreover, the Latvian legislation does not contain the following rule: if a child's mother/father is underage, in addition to their consent to adoption, the consent of their parents is required (Part 4, Article 217 of the Family Code of Ukraine).

Giving by a child their consent to adoption is also viewed differently in analysed countries. According to Part 2, Article 169 of the Civil Law of the Republic of Latvia, an adopted person gives their consent to adoption provided that they have turned 12. In contrast to the above, Ukrainian legislators do not specify the age of the child who shall give their consent to adoption. The consent to adoption is required from a child provided that their age and level of maturity let them express it (Clause 1, Part 1, Article 218 of the Family Code of Ukraine). Moreover, it is important to point out that, according to Clause 2, Part 1, Article 218 of the same codified act, the child shall give their consent to adoption in form which corresponds to their age and physical condition. At the same time, the Family Code of Ukraine, unlike Latvian legislation, sets forth two exceptions to the rule when a child's consent to adoption is not required: a) if a child's age or physical condition does not let them understand that they are being adopted (Part 3, Article 218); b) if a child lives in the adopters' family and thinks that adopters are their parents (Part 4, Article 218).

Different approaches in terms of the right to conceal the fact of adoption from an adopted child are embodied in the Ukrainian and Latvian legislation. Part 2, Article 171 of the Civil Law of the Republic of Latvia stipulates the following

rule: the information on adoption shall not be disclosed without an adopter's consent until the child comes of age. In contrast to the above, Part 1, Article 227 of the main instrument governing family relations in Ukraine says that an adopter shall be entitled to conceal the fact of adoption from their adopted child and require from persons who became aware of this adoption not to disclose this information whether *before* or *after* the child comes of age. In addition, when comparing the Ukrainian legal regulation with the Latvian one, we should conclude that only the Ukrainian law establishes that if a child under 7 is adopted, officials, when finding out whether the child wants to be adopted, shall make every effort to conceal the fact of adoption from that child (Part 3, Article 227 of the Family Code of Ukraine).

For comparative and analytical purposes, it is also interesting to find out whether an adopter is capable (incapable) to change data on the child's date and place of birth. The Civil Law of the Republic of Latvia prohibits to change the adopted child's date of birth (Part 3, Article 172), meanwhile Part 2, Article 230 of the Family Code of Ukraine contains an opposite provision: an adopted child's date of birth may be changed but not more than for 6 months. Moreover, Ukrainian legislators allow an adopter to change not only the child's date of birth but also data on their place of birth (Part 1, Article 230 of the Family Code of Ukraine).

It is interesting from the Ukrainian legal point of view to read the Latvian rule stipulating that not more than 3 guardians, i.e. co-guardians, may be appointed for very complicated guardianship (Article 316 of the Civil Law of the Republic of Latvia). It is expedient to amend the Family Code of Ukraine with the same provision.

Conclusions

The complex comparative and analytical research of the legal regulation of family relations in Ukraine and Latvia allowed showing a range of different approaches used by legislators when it comes to the rights of persons under marriage age; factors that prevent (absence of factors that prevent) entering into marriage; the differentiation between and among grounds and procedures for recognising a marriage invalid; the recognition (non-recognition) of a marriage invalid after its termination; the marriage dissolution through judicial and extrajudicial procedures (by a civil registration office in Ukraine, and by a notary in the Republic of Latvia); the content of a marital agreement;

disputing paternity by the person registered as the child's father; disputing paternity after the death of the person registered as the child's father; disputing maternity, as well as rights of the child's mother to dispute paternity of her husband; parents' consent to adoption of their child; the child's consent to adoption; the right to conceal the fact of adoption from an adopted child; the capability (incapability) of an adopter to change the data on the adopted child's date and place of birth.

In addition, the present research has revealed that, unlike Ukrainian legislative solutions, the Latvian family legislation do not cover the reinstatement of marriage if the person declared missing or presumed dead appears; the "*living apart*" regime; certain reasons for marriage dissolution that can be witnessed in practice (for instance: if one of spouses dies before the court decision on their marriage dissolution enters into force, the marriage is considered terminated for the reason of their death; if one of spouses dies on the date when the court decision on their marriage dissolution enters into force, the marriage is considered terminated for the reason of its dissolution); the recognition of the marriage dissolution null and void etc. The study suggests how to develop family legislation of Ukraine based on the Latvian best practices. It is expedient: first, to supplement the Family Code of Ukraine with the provision saying that a marriage shall be considered not concluded unless it was registered by a civil registration officer; second, to legislatively establish the practice of appointing co-guardians in Ukraine.

However, the huge number of legal instruments to govern family relations in analysed countries does not allow showing all the comparative and analytical aspects in one scientific paper. Therefore, the following complex studies should focus on comparative and analytical aspects of the legal regulation of personal non-property and property relations between spouses, parents and children as well as on existing alternative forms of placing children in Ukraine and the Republic of Latvia. Because further development and application of the Ukrainian family legislation "should be ensured in view of the European regulations and standards governing family relations" (Prostybozhenko, 2017).

Bibliographic references

Bilyk, O.O. (2017). Institute of separate living of spouses in the family law: comparative legal aspect (abstract of thesis for Candidate

Degree in Law Sciences). Kyiv. 20 p. [in Ukrainian].

Civil Law of the Republic of Latvia. January 28, 1937. Recovered from: http://likumi.lv/ta/id/90223-civillikums-pirma-dala-gimenes-tiesibas

Cherneha, V. (2020). Development of the doctrine of family law and it's effect on the legislator and subjects law enforcement. Law Review of Kyiv University of Law, 4, 245-250. doi: https://doi.org/10.36695/2219-5521.4.2020.44 [in Ukrainian].

Cherneha, V. (2017). Ways to implement the principle of good faith in the rules of family law of Ukraine. Entrepreneurship, economy and law, 2, 80-84. [in Ukrainian].

Kuznetsova, N.S. (2021). Recodification of Civil Legislation of Ukraine: Outstanding Challenges. Odesa: Helvetica Publishing House, 690 p. [in Ukrainian].

Law No. 2947-III. Family Code of Ukraine. Bulletin of the Verkhovna Rada of Ukraine, Kyiv, Ukraine, January 10, 2002. Recovered from https://zakon.rada.gov.ua/laws/show/2947-14#Text

Law No. 524-V. On Amendments to Family and Civil Codes of Ukraine, Bulletin of the Verkhovna Rada of Ukraine, Kyiv, Ukraine, December 22, 2006. Recovered from https://zakon.rada.gov.ua/laws/show/524-16#Text

Melnychenko, O. V. (2015). Division of Spouses' Property according to Legislation of Ukraine and European Union (abstract of thesis for Candidate Degree in Law Sciences). Kyiv. 20 p. [in Ukrainian].

Melnyk, O.V. (2016). Personal non-property rights of a child in adoption under the legislation of Ukraine and certain foreign countries (thesis for Candidate Degree in Law Sciences). National University "Odesa Law Academy" Odesa. 237 p. [in Ukrainian]. (In Ukranian)

Mendzhul, M.V. (2021). Comparative Family Law. Uzhgorod: RIK-U. 296 p. [in Ukrainian].

Novokhatska, Ya. V. (2006). Legal Regulation of Property Relations between Spouses (Comparative Legal Aspect) (thesis for Candidate Degree in Law Sciences). Kharkiv. 189 p. [in Ukrainian].

Oliinyk, O.S. (2009). Marital Agreement: Comparative Analysis of Legislation

Pertaining to Different Law Systems (thesis for Candidate Degree in Law Sciences). Ivano-Frankivsk. 198 p.[in Ukrainian].

Prostybozhenko, O. S. (2017). Harmonization of the legislation of Ukraine to the legislation of Member States of the European Union relatind matrimonial regime community property (thesis for Candidate Degree in Law Sciences). Kyiv Law University, Kyiv, 255 p. [in Ukrainian].

Radchenko, L. I. (2017 a). A marital agreement in foreign systems of justice: certain principles of the legal regulation. Entrepreneurship, economy and law, 9, 9-14. [in Ukrainian].

Radchenko, L. I. (2017b). Transformation of the "marriage" category concept in legislation of some states. Bulletin of Taras Shevchenko National University of Kyiv. Legal Studies, 1(104), 43-46. [in Ukrainian].

Revutska, I. E. (2018). Legal Grounds for Building Family as Shown in Legislation of Ukraine and EU Member States: Comparative Legal Review (thesis for Candidate Degree in Law Sciences). Ivano-Frankivsk. 207 p. [in Ukrainian].

Safonchyk, O., Hlyniana, K., Melnyk, O., & Pliushko, D. (2019). Concept and features of religious marriage. Amazonia Investiga, 8(20), 468-476. Retrieved from https://amazoniainvestiga.info/index.php/amazonia/article/view/176

Safonchyk, O., Sirko, R., & Andronova, V. (2019). Regulation of marriage relations by contract. Amazonia Investiga, 8(21), 382-388. Retrieved from https://amazoniainvestiga.info/index.php/amazonia/article/view/115

Vatras V., Kostyashkin I. (2021). Features of legal regulation of family relations by codified legal acts in Ukraine and Western and Central European states. Actual Problems of Jurisprudence, 2(26), 126-135. doi: https://doi.org/10.35774/app2021.02.126 [in Ukrainian].

Verba-Sydor, O., Vorobel, U., Podorozhna, T., Dutko, A., & Grabar, N. (2020). Models of legal regulation of spousal separate residence regime in the countries of the European Union and Ukraine. Amazonia Investiga, 9(26), 6-18. https://doi.org/10.34069/AI/2020.26.02.1

E-democracy: an urgent need or a tribute to fashion? Legal analysis

Електронна демократія: нагальна потреба або данина моді? Правовий аналіз

Written by:
Ihor Pyroha[92]
https://orcid.org/0000-0002-2798-7795
Liudmyla Tokarchuk[93]
https://orcid.org/0000-0001-9691-148X
Boris Perezhniak[94]
https://orcid.org/0000-0002-4096-0861
Liliia Nikitenko[95]
https://orcid.org/0000-0002-2152-4255
Veronika Berch[96]
https://orcid.org/0000-0002-3837-4724

Abstract

The development of the information society and the strengthening of e-democracy have already become an important priority for many countries around the world at the present stage of development. The implementation of this priority implies open and transparent public administration, and thus the transformation of political institutions and processes and the introduction of new forms of government. It is meaningful to analyze the concept of "e-democracy" and to understand the importance of ensuring this in the mechanism for the democracy of each individual state. The object of research is the legal analysis of e-democracy in view of the legal realities of foreign countries. The aim of the article is a legal analysis of the concept of "electronic democracy", including problematic issues of implementation of this mechanism, in order to understand whether this mechanism is an urgent need, or is a tribute to fashion and trends in the world practice. During the study, the following methods were used: systemic, systemic-functional, comparative, sociological, analysis, synthesis, analogy, observation, classification, statistical analysis.

Анотація

Розвиток інформаційного суспільства і посилення електронної демократії вже стали важливим пріоритетом діяльності багатьох держав світу на сучасному етапі розвитку. Впровадження даного пріоритету передбачає відкрите та прозоре державне управління, а отже трансформацію політичних інститутів та процесів та запровадження новітніх форм урядування. Важливо проаналізувати поняття "електронна демократія" та зрозуміти ступінь важливості забезпечення даного в механізму для демократії кожної окремої держави. Об'єктом дослідження є правовий аналіз електронної демократії з огляду на правові реалії зарубіжних країн. Метою статті є правовий аналіз поняття "електронна демократія", в тому числі проблемних питань реалізації даного механізму, з метою розуміння чи є даний механізм нагальною потребою, чи виступає даниною моді та тенденціям світової практики. Під час дослідження було використано такі методи як: системний, системно-функціональний, порівняльний, соціологічний, аналізу, синтезу, аналогії, спостереження, класифікації, статистичного

---

[92] Doctor of Legal Sciences, Associate Professor, Professor of the Department of Constitutional Law and Comparative Law, Uzhorod National University, Ukraine.
[93] Doctor of Legal Sciences, Dean of the Faculty of Economics and Law of Odessa I.I. Mechnikov National University, Ukraine.
[94] Ph. D., Professor of Constitutional Law Department of National University "Odesa Law Academy", Honored Lawyer of Ukraine, Academician of the National Academy of Sciences of Higher Education of Ukraine, Ukraine.
[95] Ph. D., Associate Professor of the Department of Constitutional, International and Criminal Law, Vasyl Stus Donetsk National University, Ukraine.
[96] Ph. D., Associate Professor of the Department of Constitutional Law and Comparative Law, Faculty of Law, Uzhhorod National University, Ukraine.

The article analyzes the phenomenon of e-democracy, identifies the main approaches to understanding it. On the example of international experience the mechanisms of e-democracy and the peculiarities of e-government are identified. There are propositions to improve the domestic legal mechanism for e-government in the article.

Keywords: public administration, e-democracy, e-technologies, e-government, electronic court, justice.

аналізу. У статті проаналізовано феномен електронної демократії, визначено основні підходи до її розуміння. На прикладі міжнародного досвіду визначено механізми забезпечення електронної демократії та особливостей електронного урядування. У статті містяться пропозиції з удосконалення вітчизняного правового механізму забезпечення електронного урядування.

Ключові слова: державне управління, електронна демократія, електронні технології, електронне врядування, електронний суд, правосуддя.

Introduction

The dynamic development of information technology, the spread of the Internet, the global scale of communications contributes to the creation of new social orders, which dictate new strategies for interaction between state and citizens.

The transition to the information society involves the transformation of political institutions and processes, as well as the introduction of completely new forms of government. Thus, the reduction of temporal and spatial barriers caused by the emergence of unknown information and communication tools is accompanied by previously unknown modern requirements for technological support of public administration. Equally important, the world's traditional bureaucratic centralized governance models show the inability to respond on time to constant changes in reality with the necessary speed and optimality, resulting in the search for new strategies for governance and interaction between society and society, and the development of e-democracy.

At the beginning of the XXI century, positive preconditions were created for the synergetic combination of digital and democratic scenarios of social development. Democracy before this period was a product of its time when effective representation was limited by separation in time and space. Today, these barriers are overcome through communication technologies that are asynchronous and global, so democracy can only develop if democratic institutions become more receptive, accessible, accountable, and rooted in the information space. The development and implementation of e-democracy policies by public authorities, and especially local governments, only makes sense if these authorities anticipate that such policies require the use of the Internet and other digital technologies to develop and strengthen democratic practices. We are not talking about e-democracy as informatization of administrative procedures, but as a force that can revive and renew the democratic political process, as the only way to create a space of trust and political interaction. Simultaneously, in the era of administrative modernization, the tools of e-democracy must be organically integrated into the structure and culture of government. Without this, the public will consider e-democracy initiatives to be fake and will try to establish their own counter-government communications (Semenchenko, & Dreshpak, 2017).

The use of information technology expands the ability of public authorities to quickly communicate their decisions to the general public, receive quality and timely feedback from citizens, and citizens have the opportunity to participate in the political process, in particular by raising the level of their awareness of current issues, the activities of public authorities and local governments, as well as to offer alternative ways to solve certain problems, to receive quality services.

Thus, in the digital society, one of the mechanisms for developing mutual understanding and achieving a common goal is considered to be e-democracy. However, with inadequate data security, lack of sufficient secure interoperability tools, imperfect legal framework, and the possibility of hacking attacks on management resources and tools, the urgency of implementing e-democracy tools is questionable, due to the negative consequences of such implementation.

Given this circumstance, it is necessary to establish the advantages and disadvantages of e-democracy, the risks of its mechanisms, and

understand whether e-democracy is an urgent need or a trend in world practice.

Theoretical Framework or Literature Review

As for the theoretical framework of the study the works by the following scholars are devoted to the study of e-democracy: Barikova (2016), Bryzhko, Tsymbalyuk, Shvets, Koval, and Bazanov (2006), Vasylieva (2021), Dekalyuk (2020), Emelyanova, and Loboyko (2020), Ishchenko (2012), Zhovnirchyk, and Kvasyuk (2020), Zolotar (2017), Konashevska and Kiselyova (2017), Konstantinovskaya (2018), Orlovska, Kakhovych, and Kvaktun (2021), Ryabchynska (2021), Semenchenko, and Dreshpak (2017), Solovyov (2015), Chukut (2008), Shchebetun, and Dovgan (2020).

Thus, Barikova (2016) investigated the issue of the effectiveness of e-government. In her work, the author drew attention to the reform of the information sphere in Ukraine given the processes of European integration. In general, the paper uses foreign experience in the legal regulation of e-government and e-democracy, public administration in the field of circulation, and protection of information. The authors studied the prospects of information transformation, given that today information technology and information resources play a prime role in the processes of intellectualization of man and society, in the accumulation of new knowledge, development of culture, education, science. Traditional methods of information support of scientific research are being replaced by new ones. The authors also drew attention to the fact that the information sphere is becoming not only one of the most influential areas of international cooperation but also an object of competition. Countries and regions with a more developed information system, the level of new information relations, pursuing their interests and setting their standards to achieve them, determine the conditions for the formation and operation of information infrastructure in other countries. A less developed country lags in the speed of creating new knowledge and is forced to use information resources, technical, technological, and organizational solutions that are imposed, as a result of which it falls into the web of information dependence. And constant information expansion allows to orient and "dose" its scientific-technological and economic development. Therefore, the maintenance of information security and the development of the protection of human rights and fundamental freedoms in the formation of national information policy should be considered as a priority and ongoing task of the state.

Promising tools of e-democracy in Ukraine were studied by Vasylieva (2021). According to the researcher, promising tools for e-democracy are e-petitions and public budgets, which contribute to greater public involvement in the development and implementation of public policy, greater transparency, and openness of public administration. However, for the effective functioning of the institute of electronic petitions, it is vital to develop at the legislative level a clear and transparent procedure for the government's response to citizens' petitions, to establish clear control over the process of submitting e-petitions. Regarding the improvement of the organization and work of public budgets in Ukraine, it is necessary to conduct a broad information campaign that will raise public awareness of the exercise of their right to participate in the budget process.

International experience in implementing the concept of e-government was studied by Dekalyuk (2020). But Ishchenko (2012) analyzed the foreign experience of implementing e-government in detail in his work.

Information on statistics, namely the index of local e-democracy in Ukraine, was taken from the work of Emelyanova and Loboyko (2020).

Strategic issues of implementation and development of e-democracy in Ukraine in the context of decentralization were analyzed by Zhovnirchyk and Kvasyuk (2020).

Zolotar (2017) highlighted the question of the boundary between e-democracy and digital dictatorship in his work. The author noted that in a democratic society, the introduction of information technology is designed to intensify democratic processes, provide members of society with greater opportunities and more effective tools for participation in the exercise of power. However, these processes should not be idealized, as there are risks of illegal use of personal data of citizens by private corporations, although a democratic state in such conditions has the legal and economic leverage to influence the offender. While in a non-democratic regime, information technology is used to improve the systems of total control over citizens by the state, the creation of a controlled society and such power cannot be limited in any way.

A detailed analysis of the implementation of the experience of developing e-democracy in Japan

and New Zealand in Ukraine was conducted (Konashevska, & Kiselyova, 2017).

Procedural issues related to the introduction of e-government in Ukraine, and their features, were studied by Konstantinovskaya (2018). The author stressed that for the introduction of e-government in Ukraine, there is a need to adopt the necessary laws, develop information infrastructure, create channels of electronic participation in public policy-making, seek investment to finance innovative public administration projects, etc.

Approaches to the definitions of e-government and e-democracy in his work were considered by researcher Mezentsev (2015).

The realities and challenges of the time regarding information democracy were the subjects of a study by Mytko (2014). The author analyzes in detail the theoretical and methodological foundations of the study of information democracy, gives an interpretation of basic concepts and terms, defines the structure, functions, and objectives of information democracy for the political system.

A detailed analysis of e-democracy as a tool of public administration was carried out by Orlovska, Kakhovych, and Kvaktun (2021).

According to the authors, e-democracy should be understood as a new organizational form of social management, the feature of which is its implementation through information and communication technologies, and this organizational form is expected to implement the ideal form of democratic government making managerial decisions from citizens to their representatives in governing bodies, and takes place directly with the participation of citizens themselves. Also, the authors strongly believe that e-democracy is today the most important technological tool of public administration and administration, which maximizes the participation of civil society in management decision-making processes and humanizes public administration.

Ryabchynska (2021) was interested in the introduction of innovative tools for transparent e-democracy and the peculiarities of the Ministry of Digital Transformation's launch of the Interaction project.

Theoretical aspects of e-government and e-democracy were considered by Semenchenko and Dreshpak (2017).

Foreign theories of e-democracy and problematic conceptual issues of e-democracy in Ukraine were studied by Solovyov (2015). The author pointed out that the legislative consolidation of citizens' access to information initiated the development of e-democracy in Ukraine. The next step was the emergence of a law on electronic petitions, which directly regulates the relevant relations with the participation of citizens. The using of e-petitions in public administration requires further study, first of all, in the following aspects: the extent to which e-petitions reflect the mood of society on particular development issues; petitions of which level (local or national) have the greater support of citizens; the extent to which politicians and public figures can influence (manipulate) by creating e-petitions on public authorities.

The question of the essence and main stages of the implementation of e-democracy was studied by the scientist Chukut (2008). In his work, the author provided definitions of "e-democracy", as well as analyzed domestic and foreign experience in implementing e-government. Also, foreign experience in implementing e-democracy was analyzed by researchers Shchebetun and Dovgan (2020).

But despite the considerable amount of research on e-democracy, comprehensive legal analysis of the urgent need for e-democracy or still, it is just a tribute to fashion, has not been conducted. Therefore, there is a need to clarify this issue.

Methodology

A number of methods of scientific knowledge were used in the work on research, among which are analysis and synthesis, sociological, functional, system method, method of classification, statistical analysis, analogy.

The method of analysis was useful for the study of e-democracy, gradually dividing the study of the theoretical part of the object and the practical, which consists of the analysis of international experience in the use of information technology. Analytical assessment of the processes of information technology implementation makes it possible to identify patterns, according to which it becomes possible to identify particular features of e-democracy as a mechanism for ensuring effective interaction between state and society.

The research of social processes led to the development of the information society, which in turn showed the introduction of information

technology at the state level, including e-democracy and e-government. In addition, the sociological method made it possible to understand the mood of society to implement a special innovation mechanism.

To understand e-democracy as a holistic phenomenon in its system and functions, the functional method was used. This method was used to determine the guidelines for the implementation of e-democracy in different countries and to determine the main role of informatization in democratic processes.

In the future, it was logical to use the method of synthesis, i.e. the location of the analyzed parts alone, grouping by the similarity of features, or building a hierarchical system. Analysis and synthesis acted as fruitful methods of cognition because they were employed simultaneously. The method of synthesis allowed to gather the studied theoretical and practical aspects into a single whole to find the most effective mechanisms for implementing e-democracy.

During the study, a systematic method was used, in which the components of the analysis are considered as parts or elements of a particular holistic formation. These parts or elements, interacting with each other, determine the new, integral properties of the system, which are absent in its individual elements. Thus, the system method as a general scientific method is used in the consistent study of structural links between the achievements of foreign countries in the field of digitalization of public relations and public administration. This method also identifies and systematizes existing knowledge about e-democracy and e-government.

With the help of the method of classification, it became possible to divide the studied objects and phenomena into classes that differ in certain features. The grouping of data facilitated the perception of a large amount of information and made it comprehensive to formulate further conclusions and forecasts. In particular, the method of classification was used in identifying trends in the development of e-government, ways to legislate digital rights.

To create a useful system for the introduction of e-democracy in public life based on the experience of different countries and its transfer, taking into account the domestic peculiarities of the legal system in the complex, it is necessary to examine statistical data. Moreover, the method of statistical analysis was used to assess the object

of study not in isolation, but taking into account the influence of external factors on it.

Results and Discussion

General provisions on e-democracy

Before analyzing the legal framework of e-democracy and the feasibility of its implementation, it is necessary to provide definitions of "e-democracy".

In retrospect, the term "e-democracy" first appeared in the United States and quickly became commonplace in many parts of the world. Nevertheless, at present, there is no exact data on the authorship and origin of this term. Also, today there is no unambiguous definition of e-democracy. Each country has its approach to the characteristics of this term.

Ukrainian scientists emphasize the periodization of informatization: electronification, computerization, mediatization, and, finally, intellectualization – the process of developing society's ability to generate and perceive knowledge, i.e. increase intellectual potential, including the use of artificial intelligence. Thus, the main goal of social informatization is to build an intellectual society – a society based on knowledge (Semenchenko, & Dreshpak, 2017).

At the same time, in the legislation, according to these scientists, it is methodologically incorrect to use and promote the term "electronic" - e-democracy, e-economy, e-commerce, e-service, e-culture, e-education, and e-medicine. This language borrowing is not the only one, along with "digitalization" and its derivatives – digital democracy, digital signature, digital rights, as well as "cyber-" – cyber democracy, cybersecurity, cyberspace, cybercrime, etc. However, despite this circumstance, the concepts of "e-democracy", "e-commerce", "e-service", etc. are already firmly rooted in scientific and political-legal vocabulary, as evidenced by their use in social, political, legal sciences, as well as in international law and the legislation of the vast majority of developed countries. Moreover, the adjective "electronic" is often replaced by its English counterpart – the prefix "e-": e-democracy, e-voting, e-commerce, e-service, e-education, e-medicine, etc.

Given the above, it is possible to understand what distinguishes e-democracy from the democracy of "pre-digital" society.

Thus, e-democracy involves the participation of citizens in government at all levels (from public authorities and local self-government to self-organization of the population) through information and communication tools. At the same time, e-democracy cannot be considered as a separate policy outside the policy of democratization as such. That is, the existence of e-democracy is possible only if democracy is provided as such. Simultaneously, if digital mechanisms are added to the "ordinary" democratic processes, such collaboration can significantly strengthen and accelerate democratic processes in all spheres of state life.

Domestic scientist Solovyov (2015) identifies two international approaches to understanding e-democracy (Table 1):

Table 1.
Two international approaches to understanding e-democracy by Solovyov (2015).

Narrow approach	Broad approach
use of information and communication technologies to ensure (electronic support) the rights of citizens	involvement of the community with the help of modern information technologies in solving various socio-political problems

Regarding the development of e-democracy, it should be remarked that the rapid development of e-democracy in Ukraine has been recognized by the UN since 2016 when Ukraine improved its position in the ranking of e-democracy. The latest results of the study of the UN e-participation index for 2020 show that Ukraine is in the top 50 countries, ranking 46th out of 193 countries. The UN e-Participation Index is part of the UN Global E-Government Survey, which has been conducted every two years since 2001 in UN member states to study the development of e-government (United Nations, 2020).

Also, at the state level since 2018 the project of the Center for Innovation Development of the study "Index of Local Electronic Democracy in Ukraine" is being implemented. The study for 2020 analyzed 31 cities of Ukraine together with all 22 regional centers (Emelyanova, & Loboyko, 2020). The above studies evaluate the implementation and development of basic e-democracy tools. Analyzing the work done, it was stated that the most common tools in Ukraine are electronic petitions and public budgets. At the same time, they are used both at the national and local levels. The above-mentioned tools of e-democracy help to involve the maximum number of citizens in the decision-making process. Equally necessary tools are the new tools that are currently under development and testing. In particular, in February 2022, the President of Ukraine announced that the Diya launched a "Poll" function among users of the application. The first questions will be simple and will concern the new digital services that have appeared in the Diya (Servant of the people, 2022). However, in the future, the poll will address other issues of state life. The head of state also reminded that direct democracy is one of the key points of his presidential program. In addition, public consultations and the functioning of the Interaction platform are among the essential and effective e-participation tools implemented in Ukraine. The purpose of the platform is to unite on one site different forms of communication between people and the executive branch, to implement convenient and transparent tools for participation in decision-making at the local and national levels. The task of Interaction is to bring everything into the digital space, simplify procedures and make them user-friendly. In general, the platform will be filled with such services as e-appeals and e-inquiries, e-consultations, e-petitions, e-contests, and government information (news, public reports of top officials) (Ryabchynska, 2021).

The above shows that although there is no single definition of e-democracy in the world, there are common approaches that must be followed for its tools and mechanisms to work effectively.

An essential element of e-democracy is the e-justice system. Along with other government and administrative services, e-Justice is one of the elements of e-democracy, which is implemented to ensure accessibility, accountability, effective feedback, and general transparency in the activities of public authorities. Given that the judiciary is a fundamental component of democracy, e-justice can be considered one of the most significant aspects of e-democracy and necessary for judicial reform.

The e-Court project aims to solve the existing problems in the judicial system, namely:

– ensure access to justice through the exchange of electronic documents between all participants in the trial;
– reduce court costs for postal items and production of paper documents;
– improve and accelerate the transfer of judicial documents between courts, etc. (Akimov, 2018).

Therefore, e-justice is aimed at ensuring the quality of justice and significant savings in public funds.

International experience in implementing e-democracy: problematic issues

For the purpose of the complex legal analysis of electronic democracy, we will consider foreign experience on this question (Table 2).

Table 2.
Implementation of e-democracy in Japan, New Zealand, USA, Switzerland, and Estonia. Data provided by Konashevska and Kiselyova (2017); Shebetun and Dovgan (2020).

No	Country	Approach to e-democracy
1	Japan	The country has an online government system, characterized by its openness and accessibility for all citizens, convenient and easy-to-use technologies, thanks to which the public-government dialogue brings effective results that are important for the development of the whole country. As Japan has experienced many natural disasters, the Internet Relay Program and the Business Continuity Plan (aka All-Year Parliament) have been set up to create a "virtual cloud" with all the resources to communicate. parliament with citizens, where all data, information, appeals on all troubling issues will be stored. When using such a system in combination with a terminal, in the event of a natural disaster or emergency, there will be a "gradual emergency closure" of the system. Thus, using the electronic communications system, the parliament's secretariat estimates that the state will preserve greenery totaling more than 2 million yen a year. Every citizen has a unique opportunity to "attend" parliamentary meetings through a system of point access and synchronization of the conference. Each report must be submitted electronically. Thus, everyone, joining the process online, can see what parliamentarians are saying at conferences, meetings, gatherings. E-democracy tools such as informing and advising citizens, giving them free access to timely material on government portals, having their web pages, etc. An example of how they work in Japan can be found on the Japanese Prem web portal. Prime Minister. To contact the Prime Minister of Japan Shinzo Abe, Japanese citizens simply need to go to the Minister's website and go to his account. The next element in the consideration of e-democracy in Japan is electronic voting. Electronic voting was introduced in the upper house of Japan's parliament in 1998, but due to a power outage, many voters were unable to vote and filed lawsuits. Therefore, electronic voting in Japan is currently abolished and voting is conducted only by ballot (Konashevska, & Kiselyova, 2017).
2	New Zealand	New Zealand has shown a high level of e-democracy. An essential tool of e-democracy in New Zealand is the e-parliament. E-parliament refers to legislative, advisory, and debating assemblies at the international, state, regional and local levels; including many stakeholders: parliamentarians, politicians and civil servants, voters (citizens) and the media, etc. An e-parliament website has been set up in New Zealand, where parliamentarians pass laws, discuss important issues, and monitor the Government's activities. Including: how the parliament works, parliamentary business, election committees, deputies, and parties this week in parliament, publications and research, expressions of opinion, visits, history, and buildings, education, parliamentary research, administration. The e-Parliament portal also provides for the submission of electronic petitions by citizens. The next component is the development and operation of government portals. On web portals, every citizen has the opportunity to: consult; request

3	USA	information from the government; register and vote in elections; complaint to the government department; find a member of parliament (Konashevska, & Kiselyova, 2017).
		For the first time in the United States, an e-government act has been passed. Experts in the United States are constantly developing several new initiatives aimed at facilitating online voting via the Internet. One example is the Colorado State Secretary S. Gessler's initiative, which works with Everyone Counts to enable voters to vote using iPad technology. The voter only has to press the screen a few times with his finger, making his choice (Shebetun, 2020).
4	Switzerland	The e-Voting electronic voting system is being implemented as part of the Vote électronique strategic project. The strategic perspective of Swiss democracy is the further development of Internet technologies for the direct participation of citizens in government (Shebetun, & Dovgan, 2020).
5	Estonia	Electronic voting has been used since 2005 in local elections, and since 2007 in parliamentary elections. The effectiveness of such a system was due to the existence of a developed legal framework for digital identification (for digital signatures, certificates, etc.), which came into force in 2002. In the process of voting, the data from the ID card is read. The expression of will is possible via the Internet within the set time for early voting (from 10 to 4 days before election day). The right to change the vote during early voting, both online and by traditional means, is also guaranteed (Shebetun, & Dovgan, 2020).

The examination of foreign legislation in e-government and e-democracy fields shows that the development of e-government legislation and democratic mechanisms are a general trend to preserve the features that depend on the political and legal culture. Thus, in some countries, e-government laws are complex. These laws establish the functions of executive bodies in the field of public services in electronic form, determine the procedure for interaction between them in the provision of public services, establish legal mechanisms to ensure information openness of executive bodies. In other countries, e-government is seen only as an opportunity to hold control through the system of electronic coding of information and the exchange of information and documentation via the Internet. In addition, these laws establish people's rights to access information about the activities of the executive branch, as well as the right to access information and communication technologies.

In general, for many countries, the approach in which e-democracy is associated with people with the way citizens participate in the affairs of the state is common. This approach is characterized by some scholars as narrow, as e-democracy is viewed through the prism of only one common feature, such as increasing citizen participation in decision-making by public authorities. On the other hand, e-government is access to resources, closer connections, and relationships, speed of response, new opportunities for both people and the country.

It should also be emphasized that research shows that the development of e-government is accompanied by two opposite trends: on the one hand, the level of openness of executive bodies increases, on the other hand, to protect public interests the state is forced to create information security mechanisms(Dekalyuk, 2020).

Thus, the international regulation of e-democracy shows positive changes in the direction of reforming the legislation of many countries, but such reform is not effective without the introduction of effective security measures.

Conclusions

1. Thus, given the diversity of views on e-democracy, the general approach is that e-democracy is a new stage in the development of a democratic society. In the age of digitalization, citizens have ample opportunities to use remote means to exercise their rights and freedoms, and the state apparatus of any country seeks to develop remote means of communication for public services, information, and democratic procedures, because digital information technology can increase effective participation citizens in state affairs, help to express their own opinion on the content of decisions taken at the state level, promoting openness of public administration.

2. The experience of using the benefits of e-democracy eloquently shows that the digital rights of citizens are gradually

improving, and good governance requires data security and uninterrupted operation of all tools.

3. E-democracy is based on: the active delivery of comprehensive, balanced, objective information that allows a clear understanding of the essence of public problems, alternatives, opportunities, solutions in politics; a broad understanding of citizenship, which includes persons and groups of persons permanently residing in the territory of the state, included in political organizations regardless of nationality; citizen participation and involvement of individuals and interest groups (including business communities) in public affairs; empowerment and capacity building – providing citizens with the resources and authority to participate in politics; discussion – a rational debate among peers, in which people openly discuss, support or criticize other points of view.

4. Digitization processes can play both an essential role in ensuring democracy (if it exists) and create the preconditions for a digital dictatorship in the case of the introduction of digital tools for control, without the goals of democratic transformation.

Bibliographic references

Akimov, A.V. (2018). Electronic democracy as an alternative form of government in Ukraine. Scientific notes of TNU named by Vernandsky. Series: public administration, 29 (68), 23-27. Recovered from http://www.pubadm.vernadskyjournals.in.ua/journals/2018/3_2018/7.pdf

Barikova, A.A. (2016). E-government: a new efficiency of government. Kyiv: Jurinkom Inter. Recovered from https://www.twirpx.com/file/3417637/

Bryzhko, V., Tsymbalyuk, V., Shvets, M., Koval, M., & Bazanov, Yu. (2006). E-future and information law. Kyiv: NDTSPI APrN of Ukraine. Recovered from https://library.nlu.edu.ua/POLN_TEXT/Zurnal/NO_BOOK/E_majbutn.pdf

Chukut, S.A. (2008). E-democracy: essence and main stages. Domestic and foreign experience in implementing e-government. [File PDF] Recovered from https://ktpu.kpi.ua/wp-content/uploads/2014/09/CHukut_Elektronna-demokratiya_Etapi-rozvitku_9_11_17.pdf

Dekalyuk, O.V. (2020). The concept of e-government in the practice of foreign countries. Economics and Entrepreneurship, 4, 43-47. Recovered from http://www.econom.stateandregions.zp.ua/journal/2020/4_2020/10.pdf

Emelyanova, A., & Loboyko, S. (2020). Index of local e-democracy in Ukraine. Innovation Development Center. Recovered from https://cid.center/edemindex/

Ishchenko, V.M. (2012). International experience in implementing e-government. Governance, 4, 26-30. Recovered from http://pa.stateandregions.zp.ua/archive/4_2012/5.pdf

Konashevska, K.V., & Kiselyova, O.L. (2017). Implementation of the experience of developing e-democracy in Japan and New Zealand in Ukraine [File PDF]. Recovered from https://ktpu.kpi.ua/wp-content/uploads/2017/02/Konashevska_Kiselova_Mehanizmi-derzhavnogo-upravlinnya.pdf

Konstantinovskaya, A.K. (2018). Features of the introduction of e-government in Ukraine. Mechanisms of public administration, 6, 47-50. Recovered from http://www.pubadm.vernadskyjournals.in.ua/journals/2018/6_2018/12.pdf

Mezentsev, A.V. (2015). E-government, e-democracy - approaches to definitions. Theory and practice of public administration, 1, 64–69. Recovered from http://www.irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64.exe?C21COM=2&I21DBN=UJRN&P21DBN=UJRN&IMAGE_FILE_DOWNLOAD=1&Image_file_name=PDF/Tpdu_2015_1_13.pdf

Mytko, A.M. (2014). Information Democracy: Realities and Challenges of Time. Lutsk: Tower-seal. Recovered from https://evnuir.vnu.edu.ua/handle/123456789/9067

Orlovska, Yu., Kakhovych, O., & Kvaktun, O. (2021). Electronic democracy as an instrument of public administration and administration: a theoretical record. Economy and society, 28, 1-12. Recovered from https://doi.org/10.32782/2524-0072/2021-28-53

Ryabchynska, L. (2021). Transparent e-democracy: why the Ministry launches "Interaction". Ukrainian Pravda. Recovered from https://www.pravda.com.ua/rus/columns/2021/02/24/7284573/

Semenchenko, A.I., & Dreshpak, V.M. (2017). E-government and e-democracy. Kyiv: FOP Moskalenko. Recovered from https://old.suitt.edu.ua/wp-content/uploads/2018/05/Part_003_Feb_2018.pdf

Servant of the people. (2022). Launch of Digital Democracy: President on New Survey Function in Action. Recovered from https://sluga-narodu.com/start-tsyfrovoho-narodovladdia-prezydent-pro-novu-funktsiiu-opytuvannia-v-dii/

Shchebetun, I.C., & Dovgan, B.V. (2020). E-democracy: the experience of foreign countries and prospects for its implementation in Ukraine. Law and society, 2, 148-153. Recovered from http://pravoisuspilstvo.org.ua/archive/2020/2_2020/part_1/26.pdf

Solovyov, S.G. (2015). Conceptual foundations of e-democracy: foreign theories and implementation in Ukraine. Public administration: improvement and development, 9, 1-25. Recovered from http://www.dy.nayka.com.ua/?op=1&z=885

United Nations. (2020). E-Government Survey. Department of Economic and Social Affairs.

Public Institutions. Recovered from https://publicadministration.un.org/en/Research/UN-e-Government-Surveys

Vasylieva, A.I. (2021). Promising tools of e-democracy in Ukraine. Law and public administration, 1, 176-182. Recovered from http://pdu-journal.kpu.zp.ua/archive/1_2021/28.pdf

Zhovnirchyk, Y.F., & Kvasyuk, V.V. (2020). E-government and e-democracy in relation to decentralization in Ukraine: implementation and development strategies. Investments: practice and experience, 1, 105-113. Recovered from http://www.investplan.com.ua/?op=1&z=6981&i=16

Zolotar, O.O. (2017). E-democracy and digital dictatorship. Information and law, 4(23), 16-25. Recovered from http://ippi.org.ua/sites/default/files/4_6.pdf

Convergence and mutual influence of legal systems in the context of globalization

Зближення та взаємовплив правових систем в умовах глобалізації

Written by:
Hurkovskyi Marian[97]
https://orcid.org/0000-0003-4275-8576
Sabluk Serhii[98]
https://orcid.org/0000-0001-5055-9169
Kurkova Kseniia[99]
https://orcid.org/0000-0002-4259-5511
Sviderska Nataliia[100]
https://orcid.org/0000-0002-2366-5510
Maslov Oleksii[101]
https://orcid.org/0000-0003-4904-6942

Abstract

The purpose of the article is to clarify the patterns of convergence and interaction of legal systems. The subject of the study is the analysis of the interaction of legal systems in the context of globalization. Research methodology includes the use of general and special methods of scientific knowledge: dialectical, historical and legal, formal and logical, method of hermeneutics, generalization, comparison and more. Results of the research. The concept of legal system and its elements are considered. The essence of modern development of legal systems is revealed. Practical meaning. The processes of convergence and interaction of legal systems in the context of globalization and their consequences for legal processes in general are defined. Value / originality. The mechanisms of development of legal systems in the conditions of globalization are analyzed; among them reception, transplantation, acculturation and other legal processes of convergence are allocated. The main principles of interaction of legal systems in the conditions of European integration processes are defined.

Keywords: acculturation, globalization, legal system, integration processes, interaction.

Анотація

Метою статті є з'ясування закономірностей процесів зближення та взаємовпливу правових систем. Предметом дослідження є аналіз взаємодії правових систем в умовах глобалізації. Методологія дослідження включає в себе використання загальнонаукових та спеціальних методів наукового пізнання: діалектичний, історико-правовий, формально-логічний, метод герменевтики, узагальнення, порівняння тощо. Результати дослідження. Розглянуто поняття правової системи та її елементи. Розкрито сутність сучасного розвитку правових систем. Практичне значення. Визначення процесів зближення та взаємовпливу правових систем в умовах глобалізації та їх наслідки для правових процесів в цілому. Цінність/оригінальність. Проаналізовано механізми розвитку правових систем в умовах глобалізації, серед яких виділено рецепцію, трансплантацію, акультурацію та інші правові процеси зближення. Визначено головні принципи взаємодії правових систем в умовах Європейських інтеграційних процесів.

Ключові слова: акультурація, глобалізація, взаємодія, інтеграційні процеси, правова система.

[97] PhD in Law, Associate Professor, Vice-rector of Lviv State University of Internal Affairs, Ukraine.
[98] PhD in Law, Chief Scientific Officer of the Scientific Institute of Public Law, Ukraine.
[99] Doctor of Law, Senior Researcher of the Scientific Institute of Public Law, Ukraine.
[100] Candidate of Historical Sciences, Associate Professor, Associate Professor of the Department of History of State and Law of the National Academy of Internal Affairs, Ukraine.
[101] PhD in Law, Senior Research Fellow of the Scientific Institute of Public Law, Ukraine.

Introduction

The legal systems of all countries do not exist in isolation from each other. They constantly interact, conduct a "legal dialogue", which helps to assess their own legal experience and get the opportunity to improve, develop, change certain elements, filling them with new meaning.

Interculturalism has long been considered one of the main factors in the development of State and legal institutions. Today, one can hardly find "pure" national legal culture. All of them are a symbiosis of internal or external, national or international influence of legal rules.

At all times, legislators have to a greater or lesser extent used legal material of other countries. Even in ancient times it was believed that knowledge of the legal systems of certain people (civilizations) is extremely important for the establishment of "their" own legislation.

Clearly, even today, national law cannot ignore international (or foreign) legal rules, especially in the era of globalization processes, which are characterized by interdependence, interpenetration into different legal systems for the formation of common features, new holistic legal entities.

Methodology

The methodology of the article is based on general and special methods of scientific knowledge, the use of which is determined by the purpose, object, and subject matter of the research.

Legal and dogmatic method is used to understand and interpret the texts of scientific works, which makes it possible to generalize the idea of the existence of such ways of interaction of legal systems as reception, acculturation, transplantation, etc.

With the help of logical method, the concepts of legal system and the system of law are considered.

System and structural method allows to allocate such ways of interaction of legal systems as reception, acculturation, transplantation, etc.

The use of normative and dogmatic method helps to analyze the views of the scholars, who studied the particularities of convergence and mutual influence of legal systems.

The application of the method of generalization makes it possible to determine the main principles of interaction of legal systems in the conditions of European integration processes.

Literature Review

Convergence, correlation and interaction of the world's legal systems have always been relevant in the legal community. Recently, the interest in the implementation of various legal systems in the context of globalization has increased significantly.

Thus, Shkurat (2020) in his Thesis "Transformation of public administration in Ukraine in the context of globalization: theoretical and methodological analysis" provided the author's concept of globalization, which lies in deep and intensive development of economy, politics, social and other spheres and progresses internationally under the influence of various global processes and institutions aimed at effective transformation.

Miroshnychenko in her work "Genesis of the legal system of Ukraine: theoretical and methodological aspect" (2012) pointed out that, in the light of the processes of globalization, new challenges have arisen in the identification and characterization of the factors that determine the specifics and further development of the legal system of Ukraine.

Nastasyak (2014) notes that under the influence of globalization well-established legal theories inevitably change and new legal models emerge inevitably, based on a legal culture, ideology, new learning methodology.

Rotaru (2011) identifies sub-systems of the legal system, which include: institutional, regulatory, ideological, functional, communicative ones. The researcher reflects their characteristics and confirms that the process of harmonization and convergence of legal systems requires targeted and coordinated action of States.

Mernyk and Burlakova (2019) believe that one of the most important features of the legal system is its dynamism, which is manifested in the emergence of new social relations and legal phenomena through the implementation of new elements.

Chirkin (2015) examines the relationship between global legal systems: Muslim, liberal

social capitalism and totalitarian socialism as the latter exists in the five surviving countries of totalitarian socialism (Vietnam, China, Cuba, North Korea, Laos), where along with the principles of socialist economy, although to a very different degree, there is private property and state-regulated market relations; the constitutions include provisions on human rights, separation of powers, and the rule of law, which were previously considered bourgeois concepts.

Bedulskaja (2013) studied the impact of EU law on harmonization of national criminal law, described the ways of such influence and proved, which ones of them positive and negative ones.

Evtukhovich (2013) examined the issue of interaction of national legal systems in regulation of mediation, comparing the ways of regulating this legal phenomenon in Russia, the USA, the Netherlands, Australia, and Germany.

However, despite the availability of current research, the issue of the impact of globalization processes on legal systems remains unexplored and needs to be improved.

Results and Discussion

Given the rapid globalization of society, the simplification of relations between leading countries, there is a need for close cooperation between different legal systems.

The current state of development of the world community leads to the fact that each state must develop its legal system so as to ensure its maximum interaction with international law. The state itself establishes the framework and nature of the relationship of its law with international law. This is realized through domestic and foreign policy.

We propose to characterize the content of legal systems for further understanding of the process of their convergence and interaction.

The legal system is a set of internally agreed, interconnected, social legal means, methods, ways and procedures by which the government exercises regulatory and organizational influence on public relations. That is, legal system can be called a complex category that characterizes the legal life of society within a particular culture.

The legal system and the system of law are correlated as a whole and a part. The system of law is an objectively existing structure of law, characterized by internal coherence, interdependence, the interaction of the rules of law, which are grouped in separate branches, subsectors, law institutes.

Thus, the system of law characterizes the law in terms of its internal structure, and the legal system is a complex category that reflects the legal organization of society.

Skakun (2000, p. 258) understands the legal system as the set of interconnected and agreed legal means designed to regulate public relations. As a result, legal phenomena arise, for example: legal norms and principles, legal awareness and legal culture, legal relations, etc.

The elements of the legal system are:

– entities (individuals and legal entities, the State, social communities, etc.);
– legal norms and principles;
– legal relations, legal behavior, legal practice, mode of operation;
– legal ideology, legal culture, legal consciousness;
– the relationship between the above elements (Skakun 2000, p. 259).

Thus, the legal system is of general nature – it includes all legal phenomena: lawmaking, legal awareness, legal ideology, etc., the basis for which is the law – its core and regulatory framework.

On the contrary, Kharytonova and Kharytonov (2002, p. 16) believe that the list of the legal system elements is broader. They distinguish the following components:

– law (the set of norms created and protected by the State);
– legislation (as a form of expression of these norms);
– legal institutions;
– judicial and legal practice;
– legal regulation;
– interpretation;
– rights, freedoms and responsibilities of citizens;
– law and order, etc.

However, the concept of legal system is often identified with such concepts as nation, country, State (Kharytonova & Kharytonov 2002, p. 14).

If we consider the modern development of legal systems, this process is characterized by the continuous influence of one legal system on the

others, less developed. Borrowing, that is, the transfer of elements of a developed legal system to a subordinate legal system is taking place; and as a result, it is reintegrated. Under modern conditions, legal acculturation acquires a global scale, i.e. the legal development of an individual country is subject to the laws of legal development as such. That is, interaction (convergence) of national legal systems and their institutions takes place as a result of integration and globalization processes.

The concept of globalization means the process of global economic, political, cultural integration and unification. But we understand that globalization encompasses not only the economy, politics and culture, but also the law in all its aspects.

Nersesiants (2005, p. 1) believes that globalization affects the transformation of State and legal institutions, legal rules and renews all processes in the area of law. Globalization of legal systems is accompanied by the universalization of law itself, the development of forms, norms and procedures of social life of the State.

There are four approaches to the definition of the concept of globalization, including:

–   strengthening links between different parts (events in some regions significantly affect the development of the situation in other ones);
–   dissemination throughout the world of technologies, culture, ideas, values, lifestyles, behavior, etc., common to all mankind;
–   common problems for the world community (economic, environmental ones);
–   growth of common interests (interdependence of countries and people).

There is an opinion that under the influence of globalization all established legal theories change and new ones, which are based on new legal culture, ideology, methodology, etc., emerge (Nastasiak 2014, p. 36).

Thus, the legal systems that exist in the world interact with each other through political, economic, cultural dialogue. As a result, a part of another falls into one legal system, on the basis of which «mutual enrichment» takes place by certain norms, procedures and institutions of law.

Can we say that in the course of such an interaction, the law of one country affects the law of another one? Certainly, we can. As a result of the interaction of legal systems there is such a phenomenon as the influence of the laws of one country on the establishment and implementation of the laws of another(s) one(s). There are two ways of such interaction: 1) internally oriented; 2) externally oriented.

Internally oriented one is characterized by the fact that the establishment of the legal system was influenced by laws, customs and traditions. Externally oriented one is associated with the dissemination of State laws in the conquered territories (Bandurka 2018, p. 382).

Returning to contemporary understanding of the interaction of legal systems, we can talk about the growing interconnectedness, mutual influence of legal systems of different States. Influence is manifested in several areas, including in borrowing ideas, concepts, institutions, legal structures, etc. This is, first of all, direct borrowing of normative material. It lies in the fact that one legal system includes normative elements of another one – sub-branches of law, branches of law, legal institutions, legislative acts, etc. Related to this area is the understanding of ideas, principles of legal regulation, more often – forms (sources) of law, forms of legislative acts, legal constructions. A special form is the adopting of legal terminology, rules and techniques of legislative technique, interpretation, use of legislation specific to the country's legal system, legislative procedures, etc.

Such adopting is called reception – the process of development of national law through foreign law and transformation (implementation). Reception is often the subject of research by various scholars, but there is no established concept. That is, there is no understanding of reception as a legal phenomenon, its definition, compliance with other legal norms.

Opinions were divided, as one group of scientists understands the reception as the restoration of legal norms, and the others – as the adoption by one country of elements of the legal culture of another one (Marchenko 2004, p. 423). Thus, reception is part of the revival of the past culture, represents the perception of its spirit, ideas, main principles and individual provisions of a local civilization at a certain stage of its development (Bandurka 2018, p. 382). However, we do not agree with this view, because it is only a theoretical recognition of the reception (only its legal ideas), without the practical application of law.

Marchenko (2002, p. 88) notes that the reception is the adaptation of law to new historical conditions, new legal environment. And Nasibullin (2005, p. 224) defines reception as the application of the law of a more authoritative country.

Reception is often interpreted through such concepts as: transplantation, acculturation, assimilation, migration of legal norms, etc. This happens because the reception often goes beyond the borders of the State, determines the relationship of legal systems, the trend of their convergence and unification.

We believe that the concept of transplantation should not be associated with reception. Thus, transplantation is the transfer of fundamentally important legal norms and models of one or more legal systems (Martyshyn 1996, p. 5). This term is more used in international law to describe the rules of domestic law of the State, i.e. the development of legal processes within the State with the application of international law. Thus, it is impractical to identify these two concepts.

Reception is a part of a broader concept – acculturation. It is understood as the process of assimilation by the people of the forms, institutions and features of the culture of another people during their communication. Bandurka (2018, p.382) characterizes acculturation as the assimilation and use of legal values, norms, institutions and activities of other legal systems. Legal acculturation is carried out with the help of legislation and legal practice.

The term "acculturation" was first used to describe contacts between different cultures, and then – to explain the changes caused by the interaction of two or more autonomous cultures. It is focused on exchange, borrowing, reception, etc. That is, any society in the process of its development is aimed at mutual "cooperation" with other legal systems. It is believed that acculturation processes involve borrowing norms on the basis of "common sense", i.e. taking into account reasonableness, legality, morality and other legal principles.

It should also be noted that the above legal processes of convergence and interaction of legal systems do not always occur at the initiative of the government. There is a practice of initiating such processes by society itself or by individual groups of people, i.e. they are voluntary.

There is also a mutual influence of different types of right-wing systems, which is most evident in their convergence. Given the position of lawyers, rapprochement is a manifestation of deeper processes, which can also be called legal convergence. Following the legal convergence, in which there is a mutual influence of legal "culture", there are features of a "new uniformity" in the legal systems of democratic countries (Lukashuk 2002, p. 115). At the same time, national legal systems do not lose their individuality and independence.

Regarding convergence, Tretiakova (2009, p. 47) defines it as the process of interaction between legal systems, as well as between its individual legal elements, characterized by convergence, increasing the number of links between elements of law and legal systems and the degree of interaction of these elements in the society. Like any process that takes place in society, they have a specific form of expression. One of them is approximation; it is not only the convergence of legal systems, but also their simplification by replacing part of the national legal material with an analogue of foreign legislation (Tirskikh & Abbasov 2016, p.111).

The question arises – can a legal system exist without reception, acculturation, convergence and other legal processes? The most common answer is yes. But no legal system can ignore external factors. Modern civilizations, States and legal systems cannot exist solely on their own, abandoning the relationships and "knowledge" of other countries. Separate legal systems exist as interconnected and interdependent. That is, there is a constant enrichment of legal systems by other ones; the achievement of a particular system also expresses general social significance. Therefore, the interaction and interconnection of legal systems with each other is vital for the development of the rule of law.

It can be concluded that the use by one legal system of experience of another one is not an exceptional process, but a universal factor in the development of law in all countries.

The implementation of Ukraine's legal policy reflects its special interest in European integration processes. The level of influence of international law on national legal systems is determined by the activities of such institutions as the Council of Europe and the European Union. The mechanism of interaction of legal systems includes: definition of the basic principles of interaction; independent regulation of international and national law-making and establishment of their borders; providing legal means of interaction and subjects of their

implementation; harmonization of legal norms (Bandurka 2018, p. 387).

The main principles of interaction of legal systems (international and national ones) are: equality of international and national system; the principle of cooperation in the legal sphere; the principle of mutual protection of human rights; the principle of complementarity and enrichment of legal systems, etc.

Conclusion

Scholars note that the processes of globalization are objective, and moreover, require a rethinking of the legal regulation of norms, public relations and elements of the legal system as a whole in accordance with national legal systems and generally accepted norms and principles of international law.

Globalization is a combination of major regional, local and national issues. The processes of globalization are expressed in the reorganization of legal norms and forms, cultural processes, convergence of national traditions, customs and mentality, etc. It can be considered that it is a way to solve all global problems through the mutual development of all social legal processes. This is a positive experience aimed at promoting the progress and development of the legal society (State).

As a result of globalization processes of legal systems, which are expressed in convergence and close connection, there is an adoption of universal norms and principles, emergence of new branches of law, convergence and harmonization of legal norms.

Considering the modern development of legal systems, we can conclude that this process is characterized by the continuous influence of one legal system on another one, less developed. That is, there is a transition of the elements of the developed legal system to the less developed.

The influence of legal systems is characterized by such processes as reception, transplantation, acculturation, assimilation, migration of legal norms, etc. All these concepts are synonymous or equated with the concepts of interaction and relationship, and also determine their legal destiny in the context of the globalization processes of the present.

Bibliographic references

Bandurka, O., ed. (2018). Theory of State and law: a textbook. Kharkiv: Kharkiv National University of Internal Affairs.

Bedulskaja, T. (2013). The Impact of EU Law on Harmonisation of National Criminal Law. In the collection // The interaction of national legal systems: convergence or divergence of International conference of PhD students and young researchers. Vilnius: Vilnius university. https://www.tf.vu.lt/wp-content/uploads/2013/04/THE-INTERACTION-OF-NATIONAL-LEGAL-SYSTEMS_-convergence-or-divergence_2013.pdf

Chirkin, V.E. (2015). Convergence and antagonisms of the modern legal systems. Lex Russica, No. 6, pp. 65 – 74. https://cyberleninka.ru/article/n/convergence-and-antagonisms-of-the-modern-legal-systems/viewer

Evtukhovich, E. (2013). The Interaction of National Legal Systems in Regulation of Mediation. In the collection // The interaction of national legal systems: convergence or divergence of International conference of PhD students and young researchers. Vilnius: Vilnius university. https://www.tf.vu.lt/wp-content/uploads/2013/04/THE-INTERACTION-OF-NATIONAL-LEGAL-SYSTEMS_-convergence-or-divergence_2013.pdf

Kharytonova, O. and Kharytonov, Ye. (2002). Comparative Law of Europe. Fundamentals of comparative law. European traditions. Kharkiv: "Odissei". https://www.studmed.ru/view/haritonova-o-haritonov-yeo-porvnyalne-pravo-yevropi-osnovi-porvnyalogo-pravoznavstva-yevropeysk-tradicyi_db1ad7cdb59.html

Lukashuk, I. (2002). Interaction of international and domestic law in the context of globalization. Journal of Russian Law, No. 3, pp. 115 – 128. https://online.zakon.kz/Document/?doc_id=1031075&pos=2;-104#pos=2;-104

Marchenko M. (2002). Course of comparative jurisprudence. Moscow: Horodets-izdat.

Marchenko, M. (2004). General theory of State and law: a textbook. Moscow: TK "Velbi"; Publishing House "Prospekt". http://www.iamdrunk.ru/teach/!!%D0%A3%D1%87%D0%B5%D0%B1%D0%BD%D0%B8%D0%BA%D0%B8/!%D0%9F%D1%80%D0%B0%D0%B2%D0%BE%D0%B2%D0%B5%D0%B4%D0%B5%D0%BD%D0%B8%D0%B5/%D0%9C.%D0%9D.%20%D0%9C%D0%B0%D1%80%D1%87%D0

%B5%D0%BD%D0%BA%D0%BE%20-
%20%D0%A2%D0%B5%D0%BE%D1%80
%D0%B8%D1%8F%20%D0%B3%D0%BE
%D1%81%D1%83%D0%B4%D0%B0%D1
%80%D1%81%D1%82%D0%B2%D0%B0
%20%D0%B8%20%D0%BF%D1%80%D0
%B0%D0%B2%D0%B0.pdf

Martyshyn, O. (1996). Several theses on the prospects of the rule of law. State and Law, No. 5, pp. 3 – 13. https://tigp.wordpress.com/2012/02/13/%D0%BD%D0%B5%D1%81%D0%BA%D0%BE%D0%BB%D1%8C%D0%BA%D0%BE-%D1%82%D0%B5%D0%B7%D0%B8%D1%81%D0%BE%D0%B2-%D0%BF%D0%B5%D1%80%D1%81%D0%BF%D0%B5%D0%BA%D1%82%D0%B8%D0%B2%D0%B0%D1%85-%D0%BF%D1%80%D0%B0/

Mernyk, A. and Burlakova, B. (2019). Ukrainian national legal system in the context of globalization processes. Electronic Legal Journal, No. 6, pp. 37 – 41. http://www.lsej.org.ua/6_2019/8.pdf

Miroshnychenko, M. I. (2012). Genesis of the legal system of Ukraine: theoretical and methodological aspect. (Doctoral Dissertation). Open International University of Human Development 'Ukraine'. https://law.knu.ua/images/stories/kafedry/istorii/DIS_Miroshnichenko.pdf

Nasibullin, R. (2005). Essays on foreign law. Ekaterinburg: Polihrafist.

Nastasiak, I. (2014). Interaction of modern legal systems of the world in the conditions of globalization. Scientific herald of the International Humanities University, No. 7, pp. 35–37.

http://nbuv.gov.ua/UJRN/Nvmgu_jur_2014_7_10

Nersesiants, V. (2005). Processes of universalization of law and the State in the globalizing world. State and Law, No. 5, pp. 38 – 47. https://ru.ua1lib.org/book/3158286/01cce5

Rotaru A. (2011). The Mechanism of Rapprochement of the National Legal Systems. Almanac of Law, No. 3, pp. 74-77. http://kul.kiev.ua/images/chasop/2011_2/74.pdf

Shkurat, I.V. (2020). Transformation of public administration in Ukraine in the context of globalization: theoretical and methodological analysis. (Doctoral Dissertation). Institute of Personnel Training of the State Employment Service of Ukraine. https://ipk.edu.ua/wp-content/uploads/2020/12/dis_SHkurat-1.pdf

Skakun, O. (2000). Theory of State and Law: a textbook. Kharkiv: Consum; University of Internal Affairs. https://lawbook.online/page/pvv/ist/ist-16--idz-ax308.html

Tirskikh, M. and Abbasov, O. (2016). Approximation of law and interaction of legal systems. Siberian Legal Bulletin, № 4(75), pp. 109–114. https://cyberleninka.ru/article/n/approksimatsiya-prava-i-vzaimodeystvie-pravovyh-sistem/viewer

Tretiakova, O. (2009). The structure of legal convergence. Legal Technique, No. 7(2), pp. 777 – 781. https://cyberleninka.ru/article/n/konstruktsiya-yuridicheskoy-konvergentsii/viewer

The right of citizens to assemble peacefully, unarmed, to hold rallies and demonstrations: historical origins and genesis of formation

Право громадян збиратися мирно, без зброї, проводити мітинги походи і демонстрації: історичні витоки та ґенеза становлення

Written by:
Drozd Oleksii[102]
https://orcid.org/0000-0002-4514-6594
Romanov Maksym[103]
https://orcid.org/0000-0003-2443-7744
Moroz Vita[104]
https://orcid.org/0000-0003-4433-3731
Stremenovskyi Serhii[105]
https://orcid.org/0000-0001-6547-2576
Zelenyi Volodymyr[106]
https://orcid.org/0000-0002-1089-4314

Abstract

The subject matter of the study is the genesis and historical stages of the formation of the right of citizens to assemble peacefully, without weapons, to hold rallies, marches and demonstrations. Research results. The article, based on the analyzed materials, carried out a theoretical and legal analysis of the main elements of the conceptual and categorical apparatus of research, which is related to the essence and content of the right to peaceful assembly and its general importance in the system of legal values; the historical origins are outlined and the genesis of the formation of the constitutional right of citizens to assemble peacefully, without weapons and to hold meetings, rallies, marches and demonstrations is clarified; on the basis of generalization of scientific positions and norms of the legislation of Ukraine, and also foreign countries, including various historical periods, concerning legal regulation of the outlined question; complex theoretical and practical conclusions on the outlined problems are substantiated, which in our

Анотація

Об'єктом даного дослідження є суспільні відносини в сфері становлення інституту права громадян збиратися мирно, без зброї, проводити мітинги походи і демонстрації. Предметом дослідження є ґенеза та історичні етапи становлення права громадян збиратися мирно, без зброї, проводити мітинги походи і демонстрації. У статті, на основі проаналізованих матеріалів, було здійснено теоретико-правовий аналіз основних елементів понятійно-категоріального апарату дослідження, що пов'язане з сутністю і змістом реалізації права на мирні зібрання та його загального значення в системі правових цінностей; окреслено історичні витоки та з'ясовано ґенезу становлення конституційного права громадян збиратися мирно, без зброї і проводити збори, мітинги, походи і демонстрації; на підставі узагальнення наукових позицій і норм законодавства України, а також зарубіжних країн, у тому числі різних історичних періодів, щодо правового регулювання окресленого питання;

---

[102] Doctor of Law, Professor, Acting head of Doctoral and Postgraduate studies Department of the National Academy of the National Academy of Internal Affairs, Ukraine.
[103] Senior Research Fellow of Public Law Problems Research Department of the Scientific Institute of Public Law, Ukraine.
[104] Doctor of Law, Associate Professor of the Department of Administrative Law, Procedure and Administrative Activity of Dnipropetrovsk State University of Internal Affairs, Ukraine.
[105] PhD in Law, Associate Professor of the Department of Jurisprudence of Pylyp Orlyk International Classical University, Ukraine.
[106] Candidate of Pedagogical Sciences, Professor, Head of the Department of Social and Humanitarian Disciplines of Kyiv Institute of the National Guard of Ukraine, Ukraine.

opinion can fragmentally influence the functioning of the relevant institution and the settlement of the main problems of its law enforcement. The practical significance of the studied question is that as a result of the outlined characteristic features of historical stages and genesis of formation of the corresponding institute the further scientific working out of problematic questions of its functioning, and also optimization of the basic problematic questions seems possible.

Keywords: implementation mechanism, law, peaceful assemblies, genesis, rallies, campaigns, demonstrations, administrative law.

обґрунтовано комплексні теоретичні та практичні висновки із окресленої проблематики, що на нашу думку можуть фрагментарно вплинути на функціонування відповідного інституту та врегулювання основних проблем його правозастосування. Практичне значення опрацьованого питання полягає в тому, що в результаті окреслених характерних рис історичних етапів і генезису становлення відповідного інституту видається можливим подальше наукове опрацювання проблемних питань його функціонування, а також оптимізації основних проблемних питань.

Ключові слова: механізм реалізації, право, мирні зібрання, ґенеза, мітинги, походи, демонстрації, адміністративне право.

Introduction

Ensuring the proper operation of the institution of fundamental rights and freedoms of an individual is one of the priorities of any democratic State. At the same time, some categories of human and civil rights and freedoms and mechanisms for their implementation are more socially important. For example, the exercise of the constitutional right of Ukrainian citizens to assemble peacefully, unarmed, to hold rallies of campaigns and demonstrations in the age of maturity of Ukrainian civil society and systemically high desire of society to participate in public affairs and to demonstrate a responsible attitude is, in our view, a matter of priority.

Besides, this topic has a multifaceted context, as it covers, for example: administrative and legal implementation mechanism, legal status of participants, and no less important aspect – the system of historical preconditions that became the basis for its formation in the domestic legal system.

The right of Ukrainian citizens to assemble peacefully is an instrument for achieving the desired result of civil society in influencing important State processes, and also serves as a form for Ukrainian citizens to exercise their right to participate in public administration and in many other contexts. All this only highlights the need for research on the outlined topics, as regulation of the functioning of the institution to date is quite low.

Therefore, in our opinion, for the further effective research of problematic issues of the institution of peaceful assemblies, we should first analyze its historical origins and genesis of formation, which domestic science has not studied comprehensively.

The aim of the article is to study the historical origins and genesis of the formation of the constitutional right of citizens to assemble peacefully, unarmed, to hold rallies, marches and demonstrations. Achieving this goal requires the fulfillment of a number of research tasks, including: implementation of theoretical and legal analysis of the main elements of the conceptual and categorical apparatus of research; identification of historical origins and establishment genesis of the formation of the constitutional right of citizens to assemble peacefully, unarmed and to hold meetings, rallies, marches and demonstrations; to substantiate additional theoretical and practical conclusions on the outlined problems on the basis of generalization of scientific views and the rules of the legislation of Ukraine and some foreign countries during various historical periods.

Methodology

The object of this study is public relations in the area of establishing the institution of the right of citizens to assemble peacefully, unarmed, to hold rallies, marches and demonstrations. The subject of the research is the genesis and historical stages of the formation of the right of citizens to assemble peacefully, unarmed, to hold rallies, marches and demonstrations.

The basic methods for performing this study are the method of periodization, which determines the time limits in the development of the

institution of peaceful assemblies in view of key historical events and facts; historical and comparative method, which allows to establish the similarities and differences between historical phenomena, related to the formation of the institution of peaceful assemblies; historical and systemic method is applied in the context of studying the objects and phenomena of the past as integral historical systems, i.e. exploring the institution of peaceful assemblies as mandatory and basic prerequisites for democracy and rule of law.

In addition, taking into account the outlined object of research, the application of analyses method enables to examine the scientific views on the institution of peaceful assemblies as the basic theoretical and legal category.

The use of the logical method makes it possible to outline the main trends and patterns of ensuring the rights of individuals to assemble peacefully at all historical stages of society.

The method of interpretation is used when interpreting regulations governing peaceful assemblies at different historical periods.

System and structural method is useful for organizing the main scientific results and establishing the sequence of their obtaining, which allows to gain objective conclusions.

Dogmatic method is applied when comparing the opinions of scholars on the problem under investigation.

Summarization method helps to elaborate proposals to remove the reported shortcomings and to enhace the issue under consideration.

Literature Review

A lot of scientists have devoted their monograph and dissertation studies to the settlement of the main problems of the institution of peaceful assemblies, namely: Vaskovska (dissertation research "Constitutional right to peaceful assembly and the mechanism of its implementation in Ukraine" (2007); Vlasenko (dissertation research "Constitutional right of citizens to freedom of assembly, rally, march and demonstration") (2011); Klymenko (dissertation research "Constitutional right of citizens to peaceful assembly and its provision in Ukraine" (2014); Melnyk (comprehensive research on the topic: "The right to freedom of peaceful assembly: theory and practice" (2015), Shcarnega (dissertation research "Proceedings

for the right to peaceful" (2016); Sereda (dissertation research "The right to peaceful assembly: theoretical, practical and comparative aspects" (2019); Filoretova (dissertation research "Peaceful assembly as an object of administrative courts protection") (2021); Zahorodniuk (dissertation research "The constitutional right of citizens to assemblies, rallies, marches, and demonstrations: questions of theory and practice" (2021), etc.

Du Pisani, M. Broodryk and P. W. Coetzer (1990) state that the right to assembly, as well as other fundamental rights such as freedom of peaceful protests are fundamental ones and cannot be restricted or denied.

Pantekoek (2020) proves that protesting is the time-honored practice of publicly speaking out against perceived injustices and urging action.

Uwandu (2020) believes that protests play an important role in all sphere of public life. They are the lever for positive changes and improving the implementation of human rights, as well as strengthening the democracy.

It should be noted that comprehensive research in the area of theory and history of State and law, constitutional and administrative law, systematically conducted on the basis of the analysis of domestic law, views of scholars and international experience systematically expressed in recommendations for the need to adopt a relevant Law of Ukraine, which would regulate this area of legal relations.

However, given the high social importance of research, as well as the need to focus on certain aspects of historical origins and the genesis of the institution of peaceful assemblies, this topic requires new research, taking into account current trends in legal science.

Results and Discussion

First of all, one of the most important issues of this study is the need to determine the basic elements of the conceptual and categorical apparatus of the research, which is logically formed from the statutory mechanism for exercising the right to peaceful assembly, and consistent with the terminology.

According to the part 3, Article 8 of the Constitution of Ukraine (Law No. 254к/96-VR, 1996), its norms are the norms of direct effect; the provisions of Article 39 of the Basic Law establish the basic principles of the institution of

peaceful assemblies in Ukraine and actually serve as its legislative foundation. Thus, Article 39 of the Constitution of Ukraine stipulates that citizens have the right to assemble peacefully without arms and to hold meetings, rallies, processions and demonstrations, upon notifying in advance the bodies of executive power or bodies of local self-government.

Definitions given, with the passage of time and the rapid development of legal science, as indicated above, have become increasingly diverse, as is clearly seen in the writings of various domestic researchers.

For example, Vlasenko (2011, p. 8) notes that a peaceful assembly is a collective or individual, peaceful, accessible to everyone public event with the participation of citizens of Ukraine, foreigners, stateless persons legally present in the territory of Ukraine. At the same time Shevchenko, Denisova M. and Denisova O. (2011, p. 127) emphasize that the right to peaceful assembly is a collective political right of an indefinite number of persons to conduct in places with unrestricted public access of any measures and actions not prohibited by the Constitution and laws of Ukraine to express and make public its own collective position on a certain issue or issues of social or group importance. These views, approved about 10 years ago, have been somewhat transformed to date, however, in our opinion, such characteristics as indefinite number of persons (collective or individual); accessibility to everyone; taking a position and others still remain relevant.

Thus, according Lazariev and Lohvinenko (2020), peaceful assemblies are one of the means for individuals and citizens to assert their rights, freedoms and interests in democratic society. Restrictions on the exercise of this right can be set only by the court, in connection with which the latter is largely responsible for ensuring the state-guaranteed right to peaceful assembly. Kurakin (2016) in this regard notes that "the existence of an additional specific source of settlement of this right – the decision of the Constitutional Court of Ukraine, – provides grounds to argue that its legal nature is due to legal contradictions between the organizers of relevant events and local authorities, causing disputes in courts of various instances and requires the intervention of the special body of Constitutional jurisdiction".

These views demonstrate the high relevance of the studied issues, as well as draw attention to the

high probability of successful solving the problems related to the implementation of this right in the case of outlining historical origins and clarifying the genesis of its formation.

At the same time, Zahorodniuk (2021) draws attention to the fact that the complex nature of the constitutional right of Ukrainian citizens to assemble, rally, march and demonstrate characterizes it as a multifaceted, social, political and legal phenomenon, covering subjective constitutional law, a form of direct democracy and a comprehensive legal institution.

That is, the pluralism of approaches to the main conceptual elements of the subject matter of study, shows that it is impossible to establish the essence, meaning and importance of the institution of the right to peaceful assembly in a national legal context without outlining general historical patterns of systemic and gradual formation of the view on the order of formation of the institution of peaceful assemblies.

We propose to characterize several historical periods for the presence of the foundations of the institution of peaceful assemblies and the possibilities and forms of realization of the relevant law. Taking into account the most common classifications of periods of history of the State and law, we propose to focus on major historical periods in a fragmented manner.

Thus, even in ancient times, Aristotle (2000) pointed out that freedom means, on the one hand, the right to participate in power, and on the other one – the ability to live by your wishes. If the majority prevails if necessary, the decision it takes is final and legal. It is this content, which is the interrelationship of social existence, that clearly forms the idea of the nature and importance of the right to peaceful assembly as a form of participation in government, because according to Aristotle, freedom as a social phenomenon makes it necessary both to control and to be controlled by the majority.

For example, characterizing the early forms of democracy, domestic researchers draw attention to the state system of Sparta, where in addition to the regular meeting, there was also an extraordinary meeting, in which only citizens, who were currently in the city, participated. Such meetings were called small assemblies (microapella). Their competence included, among others, decisions on such important issues as war and peace, citizenship, interstate relations (Bandurka 2020, p. 105). Hrubinko (2019) draws attention to the fact that there was an opportunity

for the community of Sparta to express their own perspective on the king's decisions, and to change them under certain circumstances.

In our opinion, this, first of all, testifies to the impact of the exercise of the right to peaceful assembly on public policy, which is an instrument of national management. That is, the importance of the modern institution of the right to peaceful assembly primarily lies in the possibility of influencing a particular group of citizens on the public policy; as Aristotle pointed out, the wider this circle of citizens, the more fundamental and substantial will be this impact.

Another important historical stage and element of the genesis of the institution of peaceful assemblies in the Ukrainian lands is, in our opinion, the role of Kievan Rus, as Ukrainian statehood has its origins in ancient times.

It should be noted that for the entire period of its existence, the state system and legal status of Kievan Rus was characterized by customary legal relations, which were later regulated by proto-legislative acts (e.g., by Ruska Pravda (Demydenko & Yermolaiev 2017)). Instead, Hrushevskyi (1905, pp. 224 – 226) draws attention to the fact that the activities of the court of Kievan Rus covered all areas of politics and government at the time. With his power, the Prince could start a war, appoint a military expedition, issue laws, manage the profits of the principality, determine the level and nature of taxes, appoint his administration. We are quite in solidarity with Hrushevskyi's position on the total authority of the Prince, should note that over time, this power was supplemented by a large number of advisory institutions, which led to the expansion of the State apparatus and enabled certain sectors of society to participate in the management of public affairs.

For example, among the components of the State apparatus of Kievan Rus, according to Presniakov (1993, p. 190) was the Prince's druzhina (militia), which in fact was formed on the principles of private law, personal union, based on the common hearth and bread of master with servants. As a rule, this union significantly separated the militia from the general structure of the people's community into a special self-sufficient unit. In our opinion, the content of this institution primarily reflected that in the early feudal monarchy certain segments of the population were given not only the duty to defend the Prince, but also the opportunity to collectively address him on problematic issues related to the society.

Hrafskiy (1995, pp. 38 – 39) focuses on the activities of such a body of self-organization of the population as the Viche, which was the main authority of communities in cities and villages. The Viche met only when necessary, and its competence included: consideration of community land redistribution; protection of shrines; settlement of disputes between individual families and communities; decision-making on resettlement to other lands; defense against enemies, etc. That is, the Viche was primarily an instrument of democratic solution of important social issues.

Its only difference from the institution of peaceful assemblies was that the Viche, as the governing body, directly made decision; the Viche members had already initiated certain decisions on which it was necessary to find an understanding, while all current forms of peaceful assemblies take into account only public demonstration of the position of the community, which does not oblige government officials to comply with such requirements.

The most relevant to the context of our study is the view by Yermolaiev, who argues that in the late days of Kievan Rus (during the period of feudal fragmentation) the Viche from the tribal assemblies (assemblies) of the ancient Slavs, the chamber became a meeting citizens, in which the decisive role was played by "city elders", boyars, clergy, merchants, and in addition there was even the opportunity to convene a chamber on tax policy, sometimes in protest against the policy of the Prince (Yermolaiev 2002, p. 55).

Thus, the features of the institution of peaceful assembly are clearly distinguished from the general structure underlying the functioning of the institution of the Viche. Since this formation in times of feudal fragmentation began to acquire the traits of not only constituent and a kind of legislative, but also protest, which in turn could be transformed into a proto-demonstration or rally, the content of which would express its vision on key and fragmentary issues of the functioning of the State apparatus or the principles of public legal existence.

In general, the characteristics of the times of Kievan Rus are the most atypical in the context of this study, as the institutions of private property and criminal law and procedure can be considered the most developed in the relevant historical period (these are the elements most detailed in the Ruska Pravda), but most important is that certain characteristic and traditional ideologies of the attitude of modern citizens of

Ukraine to the culture of peaceful assemblies have started its formation exactly from time of Kievan Rus. The undeniable importance of the participation of all segments of the population in the management of public affairs and the opportunity to express their position both in the decision-making process of a collegial body and in the form of a peaceful assembly, rally, march, demonstration, protest or other format is embedded in the structure of the Ukrainian mentality, which is undoubtedly positive, as such positive, as they have basic philosophical significance for the formation and implementation of modern democratic values in public life.

The following is a general analysis of the historical period of the Cossacks in the Ukrainian lands, which primarily refers to the middle stages of formation of Ukrainian society and will form a common vision on the establishment of the institution of peaceful assemblies as one of the fundamental in State building.

In the days of the Cossacks, the practice of peaceful assemblies, called people's councils, was convened to address the most important issues of social life. This allowed citizens to publicly express their own vision of certain important aspects of State building and to influence the vector of public policy (Zahorodniuk 2021). Andrushchenko and Fedosov (1995, p. 55), studying the Zaporizhzhya Sich as a Ukrainian phenomenon drew attention to the fact that the life of the Cossacks was democratic in its content, as freedom of speech, movement and assembly were the basis of its functioning. In particular, the Cossack Council provided an opportunity to freely influence the choice of leadership (government), to protest against their arbitrariness and to speak on any other issues. One of the most fundamental and constituent legal acts in the system of functioning of the institution of peaceful assemblies is the "Treaties and Resolutions of the Rights and Freedoms of the Zaporozhian Army" (Constitution by Pylyp Orlyk). Article 6 of this document stated that "in autocratic States retain a glorious and socially beneficial system, in which always, both during the war and in peacetime, privately and publicly held councils on the common good of the Motherland, in which Ministers and Councillors themselves, who are present, do not prohibit ministers and advisers from discussing and adopting their decisions (Lukashevych & Manzhul 1996).

The above gives grounds to claim that the Cossacks played a key role in establishing the institution of peaceful assembly in Ukraine, as this form of interaction between community and government was the basis for social life of the Cossacks. However, it should also be noted that all documents and acts clearly state the list of persons who had access to the Cossack Council as the highest collegial body, but there was also a possibility of convening a people's assembly, by any representative of representative of Cossack society who had the right to enter the Sich.

The aggressive protest culture in social relations during the time of the registered Cossacks, clearly demonstrates how the way to express one's position through protest, even aggressive one, can affect the vector of public policy in the particular issue.

For example, a typical example is the situation on the eve of Khmelnytskyi Epoch, when despite the favorable economic situation (1638 – 1648) there was a gradual strict restriction of the Cossack register, including in which, in turn, was identified with access to the most democratic and social benefits, which resulted in mass protests of the Cossacks, who were left without the legal status of "registered person", and later uprisings, followed by an increase in the Cossack register (from about 7 000 to 40 000) (Korniievskyi 2021). It should be emphasized that the practice of aggressive, military protests to influence decisions that harmed the interests of the registered Cossacks is quite common in the early Cossack Epoch, when there were resources and opportunities, but the opposite situation shows the late Cossack Era, when the corresponding statehood became increasingly dependent on the Russian Empire.

Thus, the attempts to organize more peaceful assemblies also took place during the late Cossack era (1764 – 1767), when the Cossack system was abolished in Sloboda Ukraine and a part of the Slobodan petty officer was inclined to hold a mass protest against the intentions of Russian authorities and the submission of a collective petition to the Empress for the settlement of a dispute, while the overwhelming majority opposed such intentions (Bahalei 1990).

Therefore, it should be noted that in the days of the Cossacks the culture of exercising the right to peaceful assembly have acquired a new dimension under the influence of other democratic values and the direct introduction of the forms of direct democracy into social life.

The arguments presented at this historical stage first of all demonstrate the essence and importance of exercising the right to peaceful assembly in the context of establishing Ukrainian statehood and additionally argue that the right to assemble peacefully, unarmed, to hold rallies, marches and demonstrations is regulated by modern Constitution of Ukraine takes its roots from Ukraine's historical past and is also closely intertwined with genetic code of the nation and the formation of an understanding of administrative and legal regulation of the relevant relations in the society.

Another historical period that dramatically influenced the formation of the institution of peaceful assemblies in the Ukrainian lands is the Soviet period, which is characterized by certain negative features.

The Constitution of the USSR stipulated that "in accordance with the interests of the people and in order to strengthen and develop the socialist system, the citizens of the USSR the following freedoms are guaranteed: speech, press, assembly, rallies, street marches and demonstrations" (Article 50); as well as "…to unite in political parties, public organizations, to participate in mass movements that promote political activity; and and initiative, the satisfaction of their interests" (Article 51) (Bandurka 2020). At the same time, we draw attention to the fact that the establishment of such criteria as "the compliance with the interests of the people", "to strengthen the socialist system", "promoting political activity", etc., transforms the exercise of the right to freedom of expression through peaceful protest, demonstrations or rallies completely belittle democratic values.

Other researchers also pay scientific attention to this fact; for example, Sereda (2019) claims that the policy of the Soviet era and the existing legal system, which clearly corresponded to the Party's interests and protected them, turned the institution of peaceful assemblies into a purely declarative one.

Indeed, the unconstitutionality of the Soviet illegal intentions to restrict the right to peaceful assembly has also been proven by the Constitutional Court of Ukraine, which in its decision of 08 September 2016 № 6-rp / 2016 in case № 1-13 / 2016 (Constitutional Court of Ukraine 2016), declared Decree of the Presidium of the Supreme Soviet of the USSR "On the organization and conduct of meetings, rallies, street marches and demonstrations in the USSR" of 28 July 1988 № 9306-XI (Order of the

Presidium of the Supreme Soviet of the Soviet Union No. 9306-XI, 1988) unconstitutional (such that does not comply with the Constitution of Ukraine).

At the same time, the practice of protest in the territory of the USSR has also not been nullified, for example: the strike of workers of the Novocherkassk Electric Locomotive Plant (June 01 – 02, 1962), which was based on workers' dissatisfaction with rising prices for certain foodstuffs, ended with the phenomenon that historians called «Novocherkassky» the shooting», as 24 people were killed and at least 39 were injured in peaceful protests (Colonelcassad 2017); protest by Africa students Patrice Lumumba University of the Friendship and Kalinin University (December 18, 1963), whose main message was to condemn domestic racism in the case of the murder of a Ghanaian student Edmund Assare-Addo (Time USA 1963), which resulted in no reaction from the Party leadership.

However, the rally called "Granite Revolution" (October 02 – 17, 1990) was one of the most significant in the history of Ukrainian statehood and the formation of the right to peaceful assembly in socio-political relations, as well as the consciousness of citizens as an effective tool to influence the government. This event, according to domestic and foreign historians, is an unprecedented case of completely peaceful influence on the vector of public policy by an organized group of citizens (students).

According to Roh, one of the participants in the Granite Revolution, the protest was organized completely by students, and resulted in the resignation of the Chairman of the Council of Ministers of the USSR Vitaliy Masol and the fulfillment of a number of demands. The events had a great impact on the further activity of young people. In particular, a lot of literature brought in from the western regions differed by other regions (Andrikevych 2013).

At the same time, it should be emphasized that based on the content of the letter of the KGB and the Ministry of Internal Affairs of the USSR dated 29 September 1990 №98s /vn (Zbruc, 1990), among the main requirements were the following: preventing the signing of a new union treaty; re-election of the Verkhovna Rada of the USSR; return of Ukrainian soldiers to the territory of the Ukrainian SSR and their military service exclusively within the Ukrainian SSR; nationalization of the property of the Communist Party of Ukraine and the LKSMU; resignation of

the Chairman of the Council of Ministers of the USSR.

The provisions of the Resolution of the Verkhovna Rada of the Ukrainian SSR "To consider the claims of students who have been on hunger strike in Kyiv since 02 October 1990" for taking into account in Par. 1 (New Elections), 2 (Military service of citizens of Ukraine), 3 (With regard to the nationalization of CPSU and VLKS property in the territory of Ukraine), 4 (with regard to the Allied Treaty), 5 (Regarding the resignation of the Prime Minister of the USSR) are key from a legal point of view regarding all the demands of the protesters (Resolution of the Verkhovna Rada of the Ukrainian SSR No. 402-XII, 1990),which became an inevitable point of restoration of Ukrainian statehood, establishment of democratic values in Ukrainian society despite centuries of attempts to destroy the Ukrainian national idea.

Conclusion

Thus, basing on the analysis of the main elements of the conceptual and categorical apparatus of research, identifying the historical origins and genesis of the institution, as well as generalization of scientific views and legislation of Ukraine and foreign countries at different historical stages regarding the legal regulation of the outlined issue, the following conclusions are substantiated:

1. The decisive role of the right to peaceful assembly in the historical context of state-building processes has directly influenced the formation of democracy as the main political regime of modern times, recognized as the standard. At the same time, peaceful assemblies, in their content, serve as the form of realization of such rights as: freedom of expression; the right to manage public affairs; rights of free movement and many others.
2. The stages of formation of the right to peaceful assembly in different periods of history, the division of which took into account the prevailing scientific understanding of them. Highlighting antiquity, times of Kiev Rus, period of Cossacks, the Soviet period and the period of early independence of Ukraine is not accidental. Ukrainian history goes back to antiquity, which is why it is the primary starting point for the formation of public awareness of the need to take part in the management of public affairs through rallies, including protests.

3. The analysis of ancient sources and views of scholars led to the idea that in ancient times the influence of peaceful assemblies on public policy was situational rather than systemic, because class division and discrimination on this basis have been well rooted in tradition. At the same time, since the first manifestations of this phenomenon, it has become an instrument of national management, that is to say, there was a possibility of the influence of a particular group of citizens on the direction of State policy at a time when the ruler (king, emperor, another person who ruled the State) created the conditions.
4. Kievan Rus, as the State of early feudalism, was also not characterized by a broad guarantee of the right to peaceful assembly in any of its manifestations; though, during the late existence of Rus, and in particular in the period of feudal fragmentation, there was rapid development of a mechanism for the participation of individuals in the management of public. The main forms of such participation were: Viche (as a form of self-organization of the city or other local territorial unit), national Viche, boyar council and others. We stress on the view that the most important thing is to establish the traditional ideological features of the attitude of modern citizens of Ukraine to the culture of peaceful assemblies, which dates back to the formation of Kievan Rus.
5. The Cossacks, first of all, were characterized by the introduction of the forms of direct democracy into social and legal life, which was expressed in holding general people's councils, meetings of Cossack officers, the exercise of the will of the people by popular vote. The scholars, who characterize the relevant historical period, first of all, argue that the state-building processes in the Cossack Epoch formed a typical vision on the state of the modern Ukrainian State and introduced into the genetic code of the Ukrainians the desire to participate in the management of public affairs through peaceful assemblies and demonstrations, including protests, rallies, and, if necessary, uprisings and riots.
6. The Soviet historical period also has certain features. They are, first of all, that the Constitution of the USSR declaratively established the right to peaceful assembly, rallies, as well as the right to strike for employees of enterprises, the opportunity to march and demonstrate. Instead, the implementation of regulatory capabilities was not possible, as dozens of examples

from different geographical locations of the former Soviet Union witnessed the harsh reaction of the Party Government to any protest movement, which often ended in shootings. The impossibility of holding a peaceful assembly without the permission of public authorities was also evidenced by the provisions of the Decree of the Presidium of the Supreme Soviet of the USSR "On the Procedure for Organizing and Conducting Meetings, Rallies, Street Marches and Demonstrations in the USSR" of 28 July 1988 (Order of the Presidium of the Supreme Soviet of the Soviet Union No. 9306-XI, 1988), which had long been operating in Ukraine by way of succession and was declared unconstitutional (inconsistent with the constitution) by the Supreme Court.

7.   The early post-Soviet period was marked by the adoption of the Constitution of Ukraine, which clearly defined the general conditions for peaceful assemblies by citizens (Article 39). Besides, the Granite Revolution – the key event in establishing the institution of peaceful assemblies in Ukraine – is one of the classic manifestations of peaceful assemblies, during which the protesters were not pressured, and all the demands were met by the Party Leadership in full. The significance of this historical event for the formation of Ukrainian statehood has become inestimable, as the culture of mass peaceful assemblies and protests often plays a decisive role in directing the vector of public policy.

8.   The view that these historical stages are not a complete reflection of the historiography of the institution of peaceful assemblies and only fragmentarily reflect the main historical limits of its formation – those, where events most significantly, in our view, affected the development of this institution. At the same time, although fragmented but historically integrated vision of the development of the institution of peaceful assemblies allows to justify its defining role in the formation of classical democracy.

Bibliographic references

Andrikevych, N. (2013). The Granite Revolution is one of the happiest days of my life – Victor Roh. Nationalist portal. https://ukrnationalism.com/interview/40-revoliutsiia-na-hraniti-tse-odni-z-naishchaslyvishykh-dniv-moho-zhyttia-viktor-roh.html

Andrushchenko, V. and Fedosov, V. (1995). Zaporozhian Sich as a Ukrainian phenomenon. Kyiv: Zapovit.

Aristotle (2000). Politics (translation from Greek by O. Kysliuk). Kyiv: Osnovy. http://litopys.org.ua/aristotle/arist.htm

Bahalei, D. (1990). History of Sloboda Ukraine. Kharkiv: Osnova. http://library.kazachiy-hutor.ru/uploads/2016/03/ISTORIYa_SLOBID S_KOYi_UKRAINI.pdf

Bandurka, O. M., ed. (2020). History of the State and law of foreign countries: a textbook. Kharkiv: Maidan.

Colonelcassad (2017). "Novocherkassk – 62: as it was". Livejournal. https://colonelcassad.livejournal.com/3768102.html

Constitutional Court of Ukraine (2016). Decision in the case of the constitutional petition of the Commissioner for Human Rights of the Verkhovna Rada of Ukraine on the constitutionality of the provisions of Part 5, Article 21 of the Law of Ukraine "On Freedom of Conscience and Religious Organizations" (Case concerning advance notification of public services and religious rites, ceremonies and processions) of 08 September 2016 No. 6-rp / 2016. Verjovna Rada de Ucrania. https://zakon.rada.gov.ua/laws/show/v006p710 -16#Text

Demydenko, H., & Yermolaiev, V. (2017). Ruska Pravda by Yaroslav the Wise: the beginning of domestic legislation: a textbook. Kharkiv: Pravo.

Du Pisani, J.A., Broodryk, M. and Coetzer, P.W. (1990). Protest Marches in South Africa. The Journal of Modern African Studies, 28(4), pp. 573-602. https://www.jstor.org/stable/160922

Filoretova, M. V. (2021). Peaceful assembly as an object of administrative courts protection. (PhD Dissertation). Taras Shevchenko National University of Kyiv. http://scc.univ.kiev.ua/upload/iblock/3e1/dis_F iloretova%20M.V..pdf

Hrafskiy, V. (1995). Institutes of self-government: historical and legal research. Moscow: Nauka. [In Russian]

Hrubinko, A. (2019). History of the State and law of foreign countries and Roman law: a textbook. Ternopil: Ternopil Volodymyr Hnatiuk National Pedagogical University.

Hrushevskyi, M. (1905). History of Ukrainian Rus: in 10 volumes. Vol. 3. Lviv: Nauka. http://litopys.org.ua/hrushrus/iur3.htm

Klymenko, O. I. (2014). Constitutional right of citizens to peaceful assembly and its provision in Ukraine. (PhD Dissertation). Verkhovna Rada Institute of Legislation.

Korniievskyi, O. (2021). O. "Is a "hot" protest autumn waiting for the country?" Voice of Ukraine. http://www.golos.com.ua/article/350250

Kurakin, O. M. (2016). "The right of citizens of Ukraine to gather peacefully, unarmed: domestic and European experience". In: Law and Society, No. 2(2), pp. 13 – 18. http://pravoisuspilstvo.org.ua/archive/2016/2_2016/part_2/5.pdf

Law No. 254к/96-VR. Constitution of Ukraine. Bulletin of the Verkhovna Rada of Ukraine, Kyiv, Ukraine, June 28, 1996. Recovered from https://zakon.rada.gov.ua/laws/show/254%D0%BA/96-%D0%B2%D1%80#Text.

Lazariev, V. and Lohvynenko, I. (2020). The right to freedom of peaceful assembly and the right to freedom of association: international acts and national legislation of Ukraine // In the collection: the way to success and prospects of development National University of Internal Affairs of the International scientific and practical conference. Kharkiv: KhNUVS. http://dspace.univd.edu.ua/xmlui/handle/123456789/9723

Lukashevych, O. and Manzhul, K. (1996). Pylyp Orlyk's "Constitution" is a historical and legal monument of the 18th century. Kharkiv: Osnova. [In Ukranian]

Melnyk, R. S. (2015). The right to freedom of peaceful assembly: theory and practice. Kyiv: Publishing House "VAITE". https://www.osce.org/files/f/documents/0/e/233491.pdf

Order of the Presidium of the Supreme Soviet of the Soviet Union No. 9306-XI. On the Procedure for Organizing and Conducting Meetings, Rallies, Street Campaigns and Demonstrations in the USSR, Bulletin of the Verkhovna Rada of Ukraine, Kyiv, Ukraine, 28 July 1988. Recovered from https://zakon.rada.gov.ua/laws/card/v9306400-88

Pantekoek, K. (2020). Is There a Right to Peaceful Protest? Findlaw. https://www.findlaw.com/civilrights/enforcing-your-civil-rights/is-there-a-right-to-peaceful-protest.html

Presniakov, A. (1993). Prince law in ancient Russia. Lectures on Russian history. Kievan Rus. Moscow: Nauka. [In Russian]

Resolution of the Verkhovna Rada of the Ukrainian SSR No. 402-XII. On the consideration of the requirements of students who have been on hunger strike in Kyiv since 02 October 1990. Bulletin of the Verkhovna Rada of Ukraine, Kyiv, Ukraine, 17 October 1990. Recovered from https://zakon.rada.gov.ua/cgi-bin/laws/main.cgi?nreg=402-12#Tex

Sereda, M. L. (2019). The right to peaceful assembly: theoretical, practical and comparative aspects. (PhD Dissertation). National University of Kyiv-Mohyla Academy. http://ekmair.ukma.edu.ua/bitstream/handle/123456789/15431/Sereda_Pravo_na_myrni_zibrannia.pdf?sequence=1&isAllowed=y

Shcarnega, O. S. (2016). Proceedings for the right to peaceful assembly. (PhD Dissertation). National University «Odessa Academy of Law». http://dspace.onua.edu.ua/bitstream/handle/11300/5315/Aref_Shcarnega.pdf?sequence=1

Shevchenko, A. E., Denisova, M. M., and Denisova, O. S. (2011). Realization of the constitutional right to peaceful assembly in Ukraine: monograph. Donetsk: Noulidzh.

TIME USA (1963). Russia: We Too Are People. http://content.time.com/time/subscriber/article/0,33009,870593-1,00.html

Uwandu, K. (2020). Right to protest: A fundamental human right. The Guardian. https://guardian.ng/features/law/right-to-protest-a-fundamental-human-right/

Vaskovska, O. V. (2007). Constitutional right to peaceful assembly and the mechanism of its implementation in Ukraine. (PhD Dissertation). Verkhovna Rada Institute of Legislation. http://ns.disser.com.ua/konstytutsiyne-pravo-na-myrni-zbory-ta-mekhanizm-joho-realizatsiyi-v-ukrayini.html

Vlasenko, O. (2011). Constitutional right of citizens to freedom of assembly, rally, march and demonstration. (PhD Dissertation). National Academy of Internal Affairs. https://mydisser.com/ua/catalog/view/9219.html

Yermolaiev, V. (2002). Viche in Kievan Rus: issues of competence (9th – middle of the 12th century). Bulletin of the Academy of Legal Sciences of Ukraine, No. 4, pp. 45–55. [In Ukranian]

Zahorodniuk, A. H. (2021). The constitutional right of citizens to assemblies, rallies, marches, and demonstrations: questions of theory and practice. (PhD Dissertation). Vasyl' Stus Donetsk National University. [In Ukranian] https://abstracts.donnu.edu.ua/article/view/9728/9652+&cd=2&hl=ru&ct=clnk&gl=ua

Zbruc (1990) Letter of the KGB and the Ministry of Internal Affairs of the USSR No. 98s / vn. On preparation for mass demonstrations in the capital 30.09. – 01.10.1990. https://zbruc.eu/node/42121

Visualization as a Means of Influence
(on the Example of Student Periodicals)

ВІЗУАЛІЗАЦІЯ ЯК ЗАСІБ ВПЛИВУ
(НА ПРИКЛАДІ СТУДЕНТСЬКОЇ ПЕРІОДИКИ)

Written by:
Tetiana Skorokhod[107]
https://orcid.org/0000-0003-1585-700X
Lidiya Smola[108]
https://orcid.org/0000-0003-3780-5163

Abstract

Visualization is a modern tool of communication with media perceptive readers. Visual means allow to influence the emotional sphere of the reader, replace certain information and the number of characters, diversify the compositional design of publications and create their aesthetics, which affects the image and reputation of periodicals. Visualization is a tool that is actively used in student periodicals, the target audience of which is modern youth with clip thinking. In order to attract the attention of such readers, to intensify their attention, the editors of student publications diversify the content with the help of a set of visual aids. In particular, typical forms of visualization in publications are photographs, drawings, pictures, symbols, comics, puzzles, tables, graphics, variation of page space with fonts, colors, decorative lines. The article analyzes the content of student magazines in Ukraine and Poland on the means of visualization and states the effectiveness of visual communication for these publications. As a result of research it is established that visualization has specificity of the influence (complexity and systematics). Determining criteria for the effectiveness of visual communication of student periodicals are visual activity, the degree of cognitive perception, compositional organization, supragraphemics, topographemics, non-pictographic elements, text positioning.

Анотація

Візуалізація – сучасний інструмент комунікації з медіаперцептивними читачами. Візуальні засоби дозволяють впливати на емоційну сферу читача, замінюють певну інформацію та кількість знаків, урізноманітнюють композиційне оформлення видань та створюють їхню естетику, що впливає на побудову іміджу й репутації періодичного видання. Візуалізація – засіб, який активно застосовано в студентській періодиці, цільова аудиторія якої – сучасна молодь із кліповим мисленням. З метою привернення уваги таких читачів, активізації їхньої уваги редакції студентських видань урізноманітнюють контент за допомогою комплексу візуальних засобів. Зокрема, типовими формами візуалізації в цих виданнях є фотографії, малюнки, рисунки, символи, комікси, ребуси, таблиці, графіки, варіювання простору сторінок за допомогою шрифтів, кольору, декоративних лінійок. У статті здійснено контент-аналіз студентських журналів України та Польщі на предмет засобів впливу візуалізації та встановлено ефективність візуальної комунікації для цих видань. У результаті дослідження встановлено, що візуалізація має специфіку свого впливу. Зокрема, це комплексність (наявність груп засобів, інструментів візуалізації) та системність (безперервність впливу візуалізації на когнітивному, афективному, конативному, сугестивному рівнях; візуальна

[107] National Technical University of Ukraine Igor Sikorsky Kyiv Polytechnic Institute, Ukraine. PhD student of the Department of Publishing and Editing National Technical University of Ukraine Igor Sikorsky Kyiv Polytechnic Institute, Ukraine.
[108] National Technical University of Ukraine Igor Sikorsky Kyiv Polytechnic Institute, Ukraine. Doctor of Political Sciences, professor of the Department of Publishing and Editing National Technical University of Ukraine Igor Sikorsky Kyiv Polytechnic Institute, Ukraine.

Key words: visualization, student periodicals, media perceptive readers, tool of communication, the effectiveness of visual communication.

активність, наявність засобів візуалізації в кожному номері видань, різноманітність представлених засобів візуалізації). Визначальними критеріями ефективності візуальної комунікації студентської періодики є візуальна активність, ступінь когнітивного сприйняття, композиційна організованість, супраграфеміка, топографеміка, непіктографічні елементи, позиціювання тексту.

Ключові слова: візуальна комунікація, студентська періодика, медіаперцептивні читачі, засіб комунікації, ефективність візуальної комунікації.

Introduction

Modern communicative space operates in the conditions of accelerated information exchange, increasing amount of information and reducing the time for its assimilation, changing the habits of readers. Editors of any type of publication communicate with media perceptive readers, who are characterized by clip thinking. Such readers do not perceive information as a whole, but as a series of unrelated facts, parts, and events. M. Vikulova & Yu. Rizen (2018) notes that with such thinking, any image does not linger in the mind, but remains new. The scheme by which the modern reader views the material corresponds to the following sequence: image – title – text. The researcher V. Shevchenko (2013) calls such a scheme in accordance with the principles of clip thinking and recognizes it as one that helps to present content in the form as close as possible to the needs of the reader, making certain visual accents. In order a modern reader reads a media message, it must meet the criteria of «intelligibility», «readability», «visual convenience» and appeal to modern trends in information consumption. One such trends is the visualization or translation of data, information into graphic images; systematic and purposeful display of information in the form of tables, charts, graphs, etc. (Chemerys, 2018).

The purpose of the paper is to establish the specifics of the impact of visualization in student periodicals.

The task of the paper is to establish typical forms of visualization in student publications and their functional purpose; evaluate the effectiveness of visual communication of student periodicals.

The **object** of the paper is the student journals «MAGMA» (Zaporizhzhya National University,

Ukraine) and «Suplement» (Magazyn Studentów Uniwersytetu Śląskiego w Katowicach, Katowice, Poland).

Literature Review

The researcher M. Yatsimirska (2015) considers visualization to be an objective response to modern challenges in the information space. T. Troyan (2018) points to a change in the paradigm of information perception, the search for new visual forms of communication that would meet the demands of modern society and synthesize visual and verbal components. The researcher considers visualization to be such a new form of communication, which she defines as consistent art. O. Gladun (2012) notes that the arrival of a new visual paradigm is due to oversaturation of the information field, and the fact that not all information can be conveyed in the classical sign way, and the need for comfortable translation of the most dense information flow, and the need to eliminate information noise (unnecessary, inaccurate information, which interferes with clear perception). Therefore, the task of periodicals is to create a successful composition, compose images and text, ensuring the optimal amount of material and attracting all channels of influence on the reader. That is, to create polycode materials which would contain the unity of verbal and visual elements. According to T. Yezhyzhanska (2012), visual elements are combined in the design of the page and the publication in general in order to increase the speed of understanding the message, avoid information overload, facilitate data retrieval.

The popularization of the culture of perception in the media, the appeal to the visual analyzer of readers due to the iconic turn – the transition

from a culture of logocentrism to the visual due to the dominance of technologies based on visual perception and diversity of artistic and non-artistic visual forms. The reasons for the use of semiotic resources by periodicals are intensive development of technology, the digital age, improving the forms and methods of oral and written interaction (Makaruk, 2012). However, perhaps the main reason for the popularity of visualization is that it provides and creates the illusion of independent understanding of information. This opinion is expressed by L. Massimova (2013), noting that the visual media text or creolized text, formed from different semiotic systems, is the most interesting for the consumer. The elements of visuals allow to create deeper connections with the readers (Kujur & Singh, 2020).

Visualization, according to V. Shevchenko (2013), is the process of visualizing content or message. This is the integration of words, images, forms into a single communicative series. According to N. Manko (2009), visualization is a semantic compression of the text. Visualization is a tool that helps editorial staff to communicate with media perceptive readers. Visualization is the communication through visual mediation, the mediation of visual elements that create their own visual identity. Visualization becomes another conditional model of impact on the reader, such as AIDA (attention, intertst, desire, action). This model is called 5 As. According to this model, the visual elements play a role in all 5 stages – the perception of information; influence, impression; question; action; propaganda, repetition of action (aware, appeal, ask, act, advocate). It must be admitted that image itself or the placement of images is not a visualization and does not mean the presence of visual communication. Researcher Yatsimirska (2015) notes that the image functions as an independent text until the reader translates visual images into verbal ones and perceives the text as a whole. In order for visual communication to take place, there must be, firstly, the unity of verbal and visual elements, secondly, composing or placement, combining these images, thirdly, the reader was able to decode these images and understand their message, meaning, functional appointment. D. Roam (2013) points to the need for several actions, processes on the part of the reader to participate in visual communication – to see, imagine, show. The reader must not only notice the fact of the illustration, but also understand its relevance, abstractly process the information, form the meaning of what is seen and, ideally – also spread this image and its meaning to the mass audience. In addition, the condition of visual communication is the presence of a visual environment in which the sender and the addressee speak one symbolic language on common themes (Shevchenko, 2013).

Visual communication is the transmission of information through visual language (images, signs, infographics) and visual perception. Researcher V. Shevchenko (2013) notes that this is a way of communication, interaction, carried out with the help of visually perceived images. O. Kolisnyk, V. Volkova & K. Lukyanenko (2020) divides such communication into several types – visual-subject (using elements of sculpture, design, architecture), visual-graphic (using graphics, painting, photography), visual-dynamic (using the principles of mechanics, optics, electronics).

Student periodicals are printed, derived from printed and purely network, diverse in terms of territorial distribution (or distribution) and funding of newspapers and student magazines, the target audience of which are students. These are publications that publish relevant and interesting information for students which are created by students or with their active participation.

The editors and readers of such publications, as a rule, are in the same category by generation, and therefore have a good understanding of current trends, use the same habits of clip thinking. This generation used to receive information by impulses and focus not on ideas, but on individual «flashes» and images. Therefore, the main form of presentation for this category of recipients was the clip, a sequence of snapshots that does not oblige (Cheremsky, Bokareva & Deineko, 2016). So visualization is exactly the tool used by student periodicals to influence the readership.

Methodology

The essence of the concept of visualization is determined by the method of analysis and synthesis. Methods of monitoring, content analysis and comparative analysis were applied to determine typical forms of visualization in student periodicals of Ukraine and Poland on the example of «MAGMA» and «Suplement» magazines and to highlight the functional purpose of different types of pictorial content in these publications. The method of semantic differential is used to evaluate the effectiveness of visual communication in student periodicals.

Results and discussion

Magma Magazine is published by students of Zaporizhzhya National University (ZNU). The thematic range covers everything that worries ZNU, what its students and other residents breathe. The total volume is 20 pages, the frequency of publication is once a month. To establish the quantitative and qualitative ratio of visualization tools, the archive of the publication from the last 16 issues was monitored and content-analyzed. As a result, it was found out that the pictorial content of the student magazine «MAGMA» by the degree of abstraction is represented by such forms as real-subject (photographs, pictures), conditional-subject (symbols, logo, word cloud, caricature, demotivators), abstract forms of visualization (diagrams, infographics). The quantitative ratio of the most frequent using image content is presented in Figure 1.
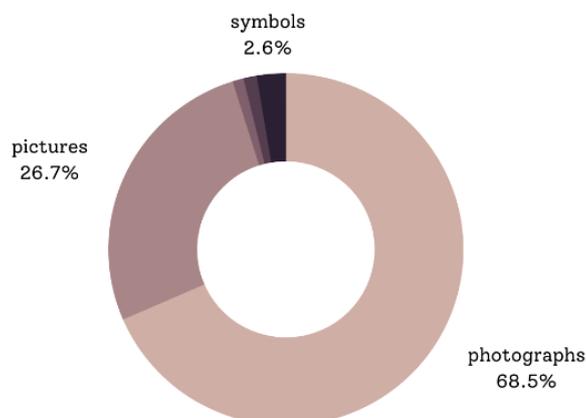
Fig. 1. Most frequent using image content of the student magazine «MAGMA».
Source: Authors' computation

The qualitative ratio of visualization tools will be presented in the Table 1 as a correlation of reference situations (topics or context of publications, their titles) and semiotic tools that represent them.

Table 1.
Correlation of reference situations and semiotic tools.

Reference situation	Semiotic means used
Editorial	
Theme of the issue («ZNU Merch: another step towards the development of ZNU as a brand», «Dormitories: two sides of ZNU truth»)	
A story about students who take an active part in the life of the university («You can already act», «POLARBEAR concert with Reznyk», «Life hacks from Masha», «Alexander Minaev: it is important for me to bring my own, original music to the listener»)	photos
Story about university graduates («Nikita Nalivkin: You don't have to be just a humanist!», «Rada Bogdanova: Captured by fashion», «Anna Redko: It's not difficult to get on the channel, it's difficult to stay there»)	

Results of modernization of the cultural process of the university («From the Rector's Cup to the League of Laughter», «Battle of Universities 2017: how we won», «Election of the Chairman of the Student Council of ZNU», «ZNU in the Zaporozhye League of Laughter», «The brightest fashion event this spring in Zaporozhye», «Festival of presenters Golden Microphone at ZNU»)	
Reports from events attended by the editorial staff («University talks X bloggers: international youth conference», «Lighting Christmas tree lights», «ZobiFest 2017», «Freshman Cup», «Student Council Reporting Conference», «Freshfood ZNU»)	
Students' point of view (polls «Do you need student councils?», «Vkontakte is no longer fashionable?», «What mobile applications are popular among students», «Do you like ZNU cafeterias?»)	round pie chart
Thematic image of the selected issue or problem («Different representatives by skin color, style, image of youth», «Guide to the museums of Zaporozhye: address of the representative of the editorial board under the pseudonym Raccoon»)	
Associative images to the theme («Top 5 travel movies», «Time to update your playlist», «ECO show from ECO ZNU», «Atmosphere of New Year's holidays from the first chord», «Movie vacation», «How to make a cheap and fun holiday to myself and my love», «Wishes from the editors» on the background of the picture)	pictures
Title of the column («Shall we talk about coffee?», «Such a young MAGMA», «ZNU Lecture Hall», «Kyiv Debate Academy», «MAGMA is useful»)	symbols
Lectures: feminism	infographics
New budget or what the money will be used for (approval of the student council budget)	pie chart
Cover	cartoon
Materials on «Finding a job in the summer», on «Ukrainian language: a trend or a sign of true patriotism?»	demotivator
Interview cues	bold
Comments for the answers of the interviewees, points of view	italics, color (two points of view for which two colors are chosen, so the comments of the two parties are marked in different colors)
Highlighting the most significant, quotes, semantic accents	colored beaches
Separation of name and position from comment	lines as a decorative element

Thus, Figure 1 and Table 1 show the dominance of such a form of visualization as photography (68.5%). This dominance is due to the desire of the editors to establish contact with the readership, using real visual facts. Live photos, without artistic processing, convey a real picture of reality, thus adding credibility to the opinions of the authors in the text of publications.

In addition, such photographs reproduce the reality that is familiar to all students and accordingly to the readers of the magazine. Real photos are additionally tuned to one associative and emotional wave of readers and editors. The need for real photos is due to the structural and semantic composition of the publication – articles about students, about events in this

university, the topic of the issue about the most pressing issue or problem in the university, reports on events and more.

Such a form of visualization as pictures is less popular (26.7%). These are usually thematic and associative images to the topic. Such images are a background for text blocks or a stand-alone illustration to illustrate information in the text. In thematic terms, it is content about movies, music, books, posters of cultural events, information about traditions for a particular holiday. Pictures are a representation of the covers of books or music albums, movie posters or cultural events, create the atmosphere of these events or holidays.

The rating of symbols (2.6%) completes the ranking of the top 3 means of visualization. Each symbol encodes certain information, partially replaces a certain thesis in the text, supports a certain author's position. The limited use of this form can be explained by the difficulty of finding a reader who can decode such a symbolic visual message. Therefore, the symbols used in this magazine are easy to decode – these symbols in the titles of the rubric (raccoon symbol and rubric «Let's talk about coffee?», Cake symbol and rubric «Such a young MAGMA», light bulb symbol and rubric «ZNU Lecture Hall», academy logo and rubric «Kyiv Debate Academy», symbols in the format of program icons and the rubric «MAGMA is useful»). They add credibility, clearly demonstrate the content of publications, add to the publications and opinions of the authors such forms of visualization as charts and infographics (1.1%). These visualization tools demonstrate the ability of authors and editors to summarize trends, trace causal relationships, work with quantitative data.

A student publication presenting youth communication does not do without visual forms that appeal to clip thinking, encode a certain amount of information and additionally attract readers' attention – it is a caricature, demotivators (1.1%) (Figure 2).

Fig. 2. Caricature (left), Demotivator (right) in MAGMA magazine.
URL: https://issuu.com/magma_znu

Having established typical forms of visual communication in the magazine «MAGMA», we are able to determine their functional purpose. Since the visual communication transmits the information and ideas by using symbols and imagery, it can affect the viewers either affectively (emotionally) or cognitively (logically) or both reactions simultaneously (Fahmy, Bock & Wanta 2014).

Photographs belong to the type of visual images that generate a sense of reality (Yatsimirska, 2015). Therefore, their functional purpose is to reflect current events, provoke certain reflections on the hero of the publication or interview (portrait photos), mobilize the sensory reaction of readers, presenting photos to the topic of the issue (the most pressing issue or problem), add credibility, clearly demonstrate content publications (photos to reports), add weight to publications (Dashchenko & Stakhurska, 2019),

recreating the reality or an interesting perspective of the object of photography.

Pictures as a means of visualization perform the function of meaning-making, generating the content of the message and space for the emergence of new meanings of known images and symbols. In addition, they perform a compositional function, creating a certain scheme for reading (background, thematic and associative picture).

Caricatures and demotivators are intended to reproduce the author's position on the vision of reality, world, knowledge, experience in concrete-sensory images. Such visual forms create the effect of situational expression, an atmosphere of ease, promote interest, enrich with new meanings (Chemerys, 2018).

Functional purpose of diagrams, word clouds, infographics in student periodicals – to strengthen the main idea of the material (trends, dependencies, demonstration of positive or negative aspects), duplicate the verbal series, replace some verbal units, encourage action (after reviewing certain dependencies, trends), to reveal the author's intentions (Makaruk, 2012), demonstrating the dependencies in time, explaining the facts in a certain order, illustrating a complex problem.

The use of symbols, graphic decorative lines, variation of page space with figured corners in frames, bold and italic selections, colored beaches are aimed at activating reader interest, creating a favorable impression of the page,

ensuring continuous influence of all pages through the same style techniques (Shevchenko, 2013).

Thus, the visual communication of student periodicals on the example of the magazine «MAGMA» is based on the principle of authenticity (the predominance of this form of visual content as real photos); aims to compress characters, and therefore there are visual aids such as cartoons, symbols, charts; ancillary visualization functions, in addition to interest, visualization, it is also the composition of space through font design, text blocks.

The thematic magazine «Suplement» covers the life of the university, current events of academic life and Silesian Voivodeship, cultural and scientific activities of students, issues relevant to youth (labor market, career opportunities, seminars, internships), leisure students (exhibitions, clubs, concerts, travel, foreign educational exchanges). The total volume is 36 pages, the frequency of publication is once every two months.

As a result of monitoring and content analysis of the archive of the publication from the last 16 issues it was found that the pictorial content of the student magazine «Suplement» by the degree of abstraction is represented by such forms as real-subject (photographs, drawings, pictures), conditional-subject (symbols, puzzles, comics, posters), abstract forms of visualization (table, graph). Quantitative ratio of the most frequent using image content is presented in Figure 3.
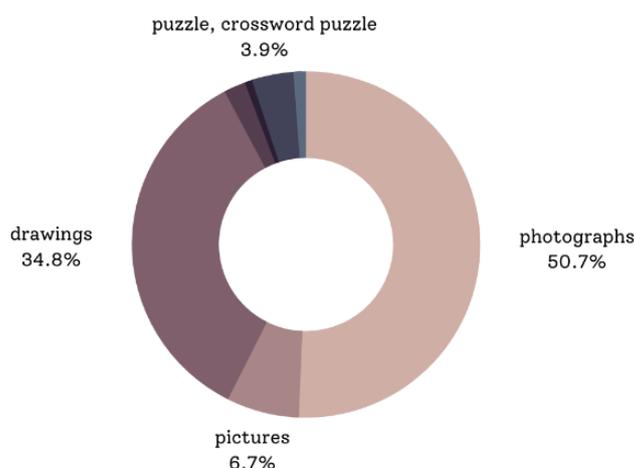
Fig. 3. The most frequent using image content of the student magazine «Suplement». Source: Authors' computation

The qualitative ratio of visualization tools will be presented in the Table 2 as a correlation of reference situations (topics or context of publications, their titles) and semiotic tools that represent them.

Table 2.
Correlation of reference situations and semiotic tools.

Reference situation	Semiotic means used
The composition of the editorial office, Editor's note, Reports and publications on real events and happenings «Learning without secrets: international business law and arbitration», «Tired, happy, proud», «Festival space», «Opening of SFNKatowice», «Climate and electric mobility», «Student organizations without secrets: club of researchers-ethnologists»	Photographs
Suplements to the author's reflections, research, recommendations «A Short Guide to Responding to Harm», «Dilemmas of Early Adulthood», «On the Other Side of Boredom»	Drawings
Generalization of tendencies, trends, important issues of modern youth, when appealing to the whole student community, not a specific hero of the publication («Dream is more important than coffee», «Generation of fast fashion», «Our brain is smarter than us?», «Emotions in music», «The priceless power of hugs», «From history: the femininity of socialist realism»)	Pictures
Thematic sign-association or sign-image as a presentation on a given topic «On the culture of modernization», «Briefly about Slavic demons», «Otherness irritates equality», «Poetic reflections»	Symbols
Rubric «Turn time into reflection into a puzzle»	Puzzle, crossword puzzle
«Celebration of the 50th anniversary of Radio Aegis», «LGPT: theatrical performances. Schedule for June», «12th Student Science Festival»	Poster
«Inquisition Box», «Vote». Features of sociological methods»	Table, graph
Providing navigation to the publication, creating ease of reading, drawing attention to the composition of the page space	Color Colonnade
Aesthetics of page composition, semantic accents, result-generalization of certain fragments	Colored background

Thus, photographs as a visual form that dominates the magazine «Suplement» (50.7%), add credibility to the statements and views of the authors of publications, add credibility to the described phenomena, events, create the effect of personalized appeal to readers, because they reproduce reality, which is familiar to readers-students of this university, create the effect of presence, presenting visual content to reports. In addition, it is also an image-creating function, because high-quality photo content forms the image of the university, increases its rating of perception of readers and the public, and increases the rating of the publication that publishes high-quality, reliable and relevant photos. Also, photographs as a form of visualization allow you to present the figure – the hero of the publication or interview, replace a text fragment by encoding information with a visual, allow readers to form their position and impressions of the hero of the publication, looking at his photo. Hero, or hero in action, at work, in this case depicts not only the character, but also the situation referred to in the material (this may be, for example, an artist with his paintings or any employee at work) (Soroka, 2017).

Pictures are no less important in the visual content of this student magazine (34.8%). First, it is the creation of aesthetic realization of the plot idea for publications, because thematically selected pictures attract attention, facilitate the perception of textual characters, create an appropriate mood atmosphere from reading the text, cause certain allusions and reflections.

Drawings in quantitative terms rank third among the visualization of the magazine «Suplement» (6.7%). Author's drawings attract the attention of readers, interest and motivate to view the publication. In addition, thematically illustrate publications, contribute to the successful composition of pages or covers, set a certain emotional vector before reading the publication. Also, the drawings, which are independently developed by the editors, implement the evaluation function, helping to understand the position of the author, his attitude to events.

Symbols (1.3%) play the role of visual accents, adding atmosphere and plot to the composition of the reversals. Symbols are thematically related to the publication, and therefore tune the reader to the topic, are a semantic landmark for him.

Comics, puzzles, crossword puzzles (3.9%) (Figure 4) – a form of visualization that performs a recreational function, because it allows readers to distract from reading publications. No less important is the cognitive function, because solving crossword puzzles often requires additional intellectual search and reflection. A separate feature is for puzzles and comics. It is a communicative function, which consists in finding a reader who is able to decode the visual message and, accordingly, solve the presented visual riddle or trace and understand the story on the example of comics. The main advantage of comics is that it offers extremely concise but emotionally rich information, in which there is nothing superfluous (Osadchy & Osadcha, 2014).
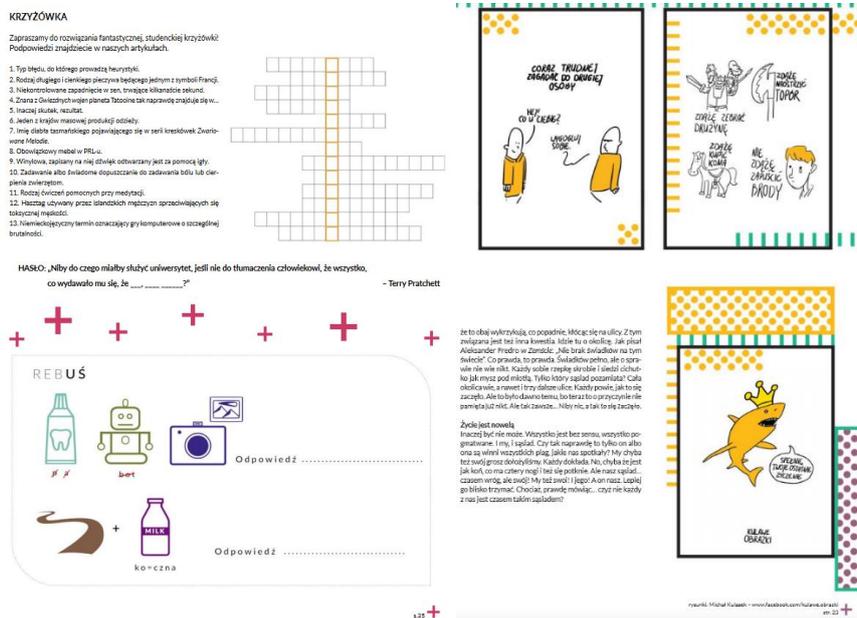
Fig. 4. Puzzle, crossword puzzle (left), comics (right) in magazine «Suplement».
URL: https://issuu.com/magazynsuplement

Functional purpose of the poster (1.3%) – to further interest readers, encode text characters in a readable form, visualize certain information with symbols and variations of colors, fonts, decorative lines and more.

Tables, graphs (1.3%) (Figure 5) – visual forms that are not very used in this magazine, but show the ability of the team to work with mathematical data, to visualize complex relationships, trends, causal relationships. For readers, this is an illustration of the information provided and additional information for decoding.

Fig. 5. Table (left), graph (right) in the magazine «Suplement».
URL: https://issuu.com/magazynsuplement

Varying the space of pages with the help of colored squares, colon-number design adds convenience in reading publications, promotes better navigation of publications, attracts attention with its aesthetics and plot design.

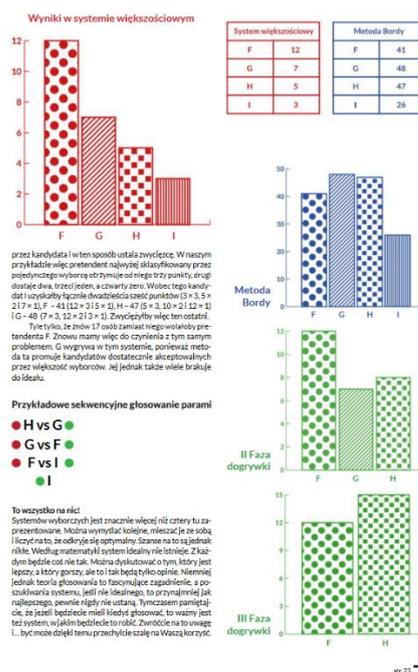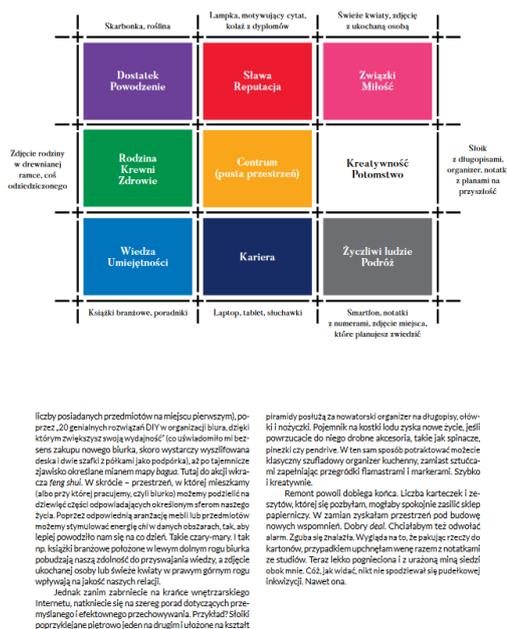Visual communication must occur according to certain rules and criteria. In particular, the effectiveness of such communication can be assessed by such parameters as: visual activity, dynamism, structure, aesthetics, degree of cognitive perception, increasing contrast, compositional organization (Babiy & Chuchuk, 2019) or functionality, compositional and artistic formation, rationality, structure, flexibility, organicity, imagery, integrity (Shevchenko, 2013). Equally important are the components of visualization: syngraphemics (punctuation variation), supragraphemics (font variation), topographemics (spatial placement of text), non-pictographic, non-photographic elements, text positioning (selection, insertion) (Makaruk, 2012).

The effectiveness of visual communication in the student publications «MAGMA» and «Suplement» will be assessed by the categories of high, medium, low by a number of parameters listed below.

Visual activity. Criterion that means the change of visual forms within one issue and the archive of pictorial content in general, how typical (repeated) forms of visualization from issue to issue. For MAGMA and Suplement we visualize visual activity as moderate activity, because the typical forms for both magazines are repeated from issue to issue (photographs, drawings, pictures, symbols), which indicates the concept of publication and unification of its design. However, such stability is sometimes accompanied by a variety of visual forms through tables, graphs, infographics, comics, demotivators, and so on.

The visual activity parameter is also affected by the ratio of materials to which visualization is not submitted and materials with visualization tools. Due to this criterion, the editors of both student magazines actively use visualization tools, and purely textual materials are missing. Visual content is provided with each publication.

Degree of cognitive perception. A parameter that indicates the use of forms that require additional time to decode the visual, or forms that promote reflection. Cognitive visualization – comprehension of visual images on the basis of available background knowledge, communicative competence of the reader (Zhitenyova, 2019). Photographs and drawings have ease in cognitive perception, because they reproduce the immediate reality, and therefore are clear and understandable. Forms such as pictures and symbols are of medium complexity, because you need to

understand the hidden meaning of these forms, their relationship to the topic or text for which they are used. And can be difficult (high complexity of cognitive perception) to decode a certain category of readers visual forms such as comics, puzzles, graphics, charts. Selected journals are characterized by ease of cognitive perception, as the use of forms that require additional decoding (puzzle, comics, infographics, graph, table) is limited. In addition, text tables or graphs, infographics have text support, which allows you to understand the essence of the publication without these visual elements. Puzzles or comics are visualization tools for secondary communication. That is, one that is of additional interest does not contain important messages that should be read by all readers. Such forms can be skipped while reading, without losing the semantic perception of the entire issue. Also, these forms perform a recreational function, a break from reading text blocks, so they are perceived only by those readers who have time to decode these tools.

Compositional organization. The criterion by which we evaluate the combination of textual and graphical means on the covers. High compositional organization is inherent in the studied journals, because the volume of the text is expedient for perception. Visual complements the text with additional information or meanings, illustrates publications, attracts the attention of readers, while not spatially compressing text characters in order to allocate page space to insert illustrations. In magazines, the selection of visualization tools is made in accordance with the composition of the page and ease of perception. The sizes of visual forms are selected taking into account fields, the sizes of pages.

As part of the evaluation of this parameter, we present 6 typical schemes of placement of visual aids (layout), which are most common in the magazine «MAGMA» and «Suplement» (Figure 6).
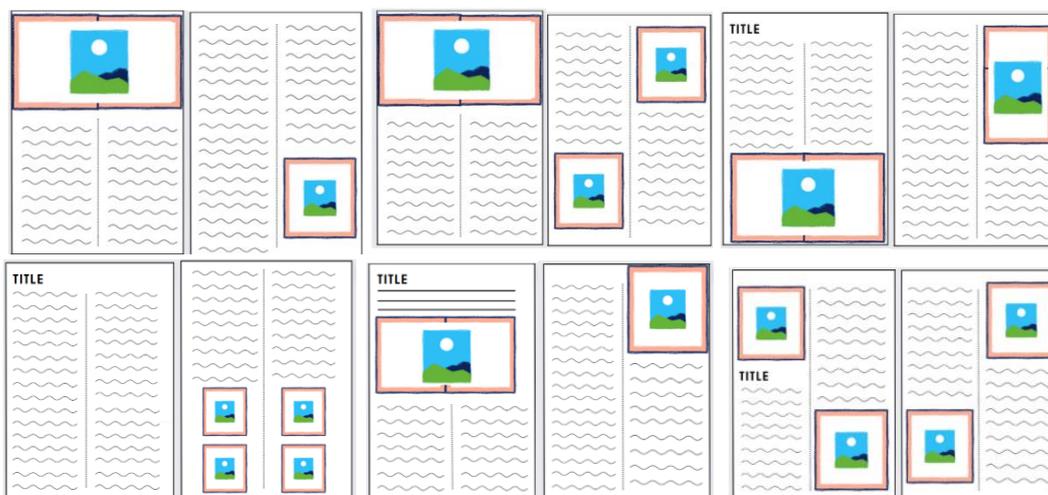
Fig. 6. Typical schemes of placement of visual aids (layout), which are most common in the magazine «MAGMA» and «Suplement». Source: Authors' computation.

Supragraphemics (font variation). For the layout of student magazines «MAGMA» and «Suplement» use two basic fonts – for the title and for the main text. However, the magazine «Suplement» is characterized by the stability of fonts from issue to issue, which indicates the stylistic unity and a clear concept of the publication. Instead, the font palette for Magma magazine sometimes changes depending on the issue. The number of fonts for these magazines does not exceed three, with the help of different font types differentiate between text elements – headlines, main text, lines during interviews, quotes, captions to pictures. Therefore, we define the level of supragraphemics as high, because the font variation is aimed at ensuring the ease of

reading and perception of publications and publications in general.

Topographemics (spatial placement of the text). MAGMA and Suplement magazines usually use multi-column layout (two-column text). Infrequent use of three columns («Suplement» magazine) and one column («MAGMA» magazine) for small text fragments – annotation to the article, editor's address (editor's word).

Non-pictographic, non-photographic elements. In both magazines there is the use of symbols, decorative lines to distinguish elements on the covers, pictures, which serve as a colored

background for semantic accents, footnotes, quotes. Provide navigation and ease of use of the publication, complement the aesthetics of the composition of the footers with the colonnumber, created in the format of a symbol (magazine «Suplement»). The footer usually contains a line and a text marker – an indication of the heading or author of the publication. Thus, this parameter is characterized by the mark «active use».

Text positioning (selection, insertion). The layout of both editions is made taking into account the ease of reading for the audience. In editions for the main text there is a direct font, for headlines – bold, for quotes, semantic accents, lines in the interview – italics or a combination of italics and bold. There is also a color positioning of the font, the design of the titles of publications with a certain thematic color, which is harmoniously combined with the tones of illustrations on the cover. Thus, the positioning of the text in both student magazines is successful, as evidenced by the aesthetics of their compositional design and ease of perception and reading of the publication.

As a result of evaluating the parameters of visual communication efficiency in the magazines «MAGMA» and «Suplement» established its effectiveness and high level of activity in the use of visualization, diversification of image content, successful combination of supragraphemics, topographemics, text positioning with color and different font typefaces.

Conclusions

The monitoring and content analysis of visualization tools in student periodicals confirmed the relevance and trend of the use of pictorial content in periodicals. The popularity of visualization is due to the fact that it is a complex technology that affects readers on several levels. The complexity of this technology is the availability of various tools and instruments – typical forms of visualization (photographs, drawings, pictures, symbols, puzzles, comics, graphics, tables, etc.), font and compositional design, non-pictographic elements (color, inserts, decorative lines, etc.). And this whole complex systematically affects the audience, the readers of these publications. First, visualization affects the cognitive level. To do this, use such visual forms as photographs, which reproduce real facts, events, people; posters presenting real announcements about events; tables, graphs, charts, the purpose of which is to show readers the dependence of facts and data, certain trends,

generalizations, to provide information for reflection.

Second, the affective level of visualization impact. Drawings, pictures, comics, puzzles, symbols, in addition to the existing coding of content, information basis, attract emotional factors of perception. Readers decode symbols, puzzles, trace the content of history in comics, evaluate the author's intentions in drawings, connect the pictures with the subject of the publication, and therefore use their emotional intelligence to effectively perceive such pictorial content. The aesthetics of these forms of visualization attract the attention of readers and stimulate the emergence of emotions.

Third, visualization affects the suggestive level. Demotivators are becoming a method of influencing young people with an open slogan – a call to action. Photographs depicting the characters of a publication or interview, accompanied by a textual presentation, can also motivate readers to act and succeed, creating a holistic image of a successful young person.

Fourth, the conative level is the effect of visualization. Comics and infographics present a certain story or thematic information plot, algorithm of actions, and give readers hidden ideas or motivations.

Active use of visualization is due to the advantages of its use and wide functionality. The functional purpose of visualization in student periodicals is the representation and formation of the image of students as active youth who uphold the values of their university. This function is implemented with the help of photographs that present reality, complement reporting materials and publications about students, successful graduates. Equally important is the identification and cultural function of visualization. The placement of high-quality and authorial pictorial content helps to build the brand, image of these universities, translation of values and traditions, corporate identity of universities, attracts the attention of readers and creates the aesthetics of the composition of these publications. In addition, any type of pictorial content clearly demonstrates the content of publications, promotes interest, mobilizes the sensory reaction of readers.

Thus, the specifics of the impact of visualization is complexity (the presence of real, imaginary, abstract groups of tools, visualization tools), systematic (continuity of the impact of visualization is achieved by appealing visual

content on cognitive, affective, conative, suggestive levels; visual activity, availability of visual aids in each issue, the variety of visualization tools), the presence of criteria that ensure its effectiveness (visual activity, degree of cognitive perception, compositional organization, supragraphemics, topographemics, non-pictographic elements, text positioning), functional and situational depending on the form of use their functional purpose.

Bibliographic references

Babiy, N., & Chuchuk, S. (2019). Visual communication systems as a tool for transformations of urban space (based on the materials of Ivano-Frankivsk). Scientific notes of Ternopil National Pedagogical University named after V. Hnatiuk, Issue 2 (41). pp. 183–195. [In Ukrainian]

Chemerys, G. (April, 2018). Visualization of the user interface as a means of forming the graphic competence of future bachelors in computer science. Information technologies in culture, art, education, science, economics and law. In Proceedings of the International scientific-practical conference, April 19–20, Kyiv: KNUKiM Publishing Center, pp. 298–297. [In Ukrainian]

Cheremsky, R. A., Bokareva, Y. S., & Deineko, J. V. (May, 2016). The use of infographics as a means of communication in modern publications. Printing, multimedia and WEB-technologies. In Proceedings of the I International scientific and technical conference, May 16–20, Kharkiv: KhNURE, pp. 128–131. [In Ukrainian]

Dashchenko, N., & Stakhurskaya, I. (2019). Corporate newspaper «Dream News»: purpose, subject, visualization of information. Media Space, Issue 11. pp. 3–14.

Fahmy, S., Bock, M. A. & Wanta, W. (2014). With what effect III: research on behavioral effects of visual communication. In Visual Communication Theory and Research: A Mass Communication Perspective. New York: Palgrave Macmillan. pp. 133–144.

Gladun, O. (2012). Visualization of information: infographics. Bulletin of the Kharkiv State Academy of Design and Arts, № 4. pp. 11–14.

Kolisnyk, O. V., Volkova, V. V., & Lukyanenko, K. S. (2020). The system of visual communication in the context of its traditional and modern forms. Technology and Design, № 2. pp. 1–10.

Kujur, F., & Singh, S. (2020). Visual communication and consumer-brand relationship on social networking sites – uses & gratifications theory perspective. Journal of Theoretical and Applied Electronic Commerce Research, Vol. 15. pp. 30-47. DOI: 10.4067/S0718-18762020000100104.

Makaruk, L. L. (2012). Visualization as a characteristic feature of modern English-language newspaper discourse. Scientific Bulletin of Volyn National University named after Lesya Ukrainka, № 6. pp. 47–52. [In Ukrainian]

Manko, N. N. (2009). Cognitive visualization of pedagogical objects in modern learning technologies. Education and Science, № 8. pp. 10–30.

Massimova, L. (2013). Visual genres of magazine content. Scientific Notes of the Institute of Journalism, Vol. 51. pp. 43–45.

Osadchy, V. V., & Osadcha, K. P. (2014). Information and communication technologies in the process of developing visual thinking of future teachers. Scientific Bulletin of Melitopol State Pedagogical University. Series: Pedagogy, № 1. pp. 128–133. [In Ukrainian]

Roam, D. (2013). Visual thinking. How to sell your ideas with the help of visual images. Moscow: Mann, Ivanov, Ferber, Exmo. 300 p.

Shevchenko, V. (2013). Forms of visualization in the modern journal. Kyiv: Publisher Palivoda, 340 p.

Soroka, A. (May, 2017). Visualization in the content of the newspaper «Day». Journalism education in Ukraine: world professional standards. In Proceedings of the XIII All-Ukrainian scientific-practical conference, May 11–12, Sumy: SSU, pp. 70–74. [In Ukrainian]

Troyan, T. (2018). Formation of comics culture: benefits, functions, meanings. International Scientific Journal «Internauka», № 7 (1). pp. 22–26.

Vikulova, M. A., & Rizen, Yu. S. (December, 2018). The problem of clip thinking in the educational aspects of visualization information on the example of creating a video lesson «laws of composition» Youth and modern information technologies. In Proceedings of the XV International Scientific and Practical Conference of students, graduate students and young scientists, December 4–7, Tomsk, pp. 337–338. [In Russian]

Yatsimirska, M. (2015). Visual texts in social networks (reflections, concepts, emotions).

Bulletin of Lviv University, Vol. 40. pp. 342–350.

Yezhyzhanska, T. (April, 2012). Visual communication. Information, communication, society. In Proceedings of the I International scientific conference ICS-2012, April 25–28, Lviv, National University «Lviv Polytechnic»: Lviv Polytechnic Publishing House, pp. 30–31. [In Ukrainian]

Zhitenyova, N. V. (2019). Visualization: basic concepts and definitions. Collection of Sciences Works of Kamyanets-Podilsky National Ivan Ogienko University. Series: Pedagogical, № 25. pp. 123–127. DOI: https://doi.org/10.32626/2307-4507.2019-25.123-127.

The Role of Emotional Marketing and eWOM in Sustaining Competitive Advantage in the Digital Era: A Dynamic Capabilities-Based Strategic Framework

دور التسويق العاطفي والحوارات الالكترونية (eWOM) في الحفاظ على الميزة التنافسية في العصر الرقمي: إطار عمل ديناميكي استراتيجي

Written by:
Ibrahim Abdullah Alhamad [1]
https://orcid.org/0000-0001-7099-0335

Abstract

Emotional marketing has become a paradigm shift for businesses' survival and success in today's competitive environment, as it enables them to build customer loyalty and increase sales. In today's digital age, electronic word of mouth (eWOM) is a potent tool that customers can use to communicate their emotions to a large audience. Thus, managing customer emotions can pay off handsomely for businesses, as eWOM can rapidly spread positive emotions to a large audience. However, the business environment of the twenty-first century is uncertain and complex, necessitating the development of dynamic capabilities to respond to impending change. This research combines three contemporary streams of thought, namely emotional marketing (as sensing capability), eWOM (as seizure capability), and dynamic capabilities (as to respond capability). As a result, the study develops a dynamic capabilities-based strategic framework that demonstrates the critical role of emotional marketing and eWOM in a firm's capability to sustain its competitive advantage in the digital era. Furthermore, the research suggests that the proposed EM-WOM-DC strategic framework for sustainable competitive advantage strengthens the relationship between emotional marketing and sustainable competitiveness and the relationship between eWOM and sustainable competitiveness.

Keywords: Emotional marketing, electronic word of mouth, dynamic capabilities, digital era, sustainable competitive advantage.

خلاصة

لقد أصبح التسويق العاطفي نقلة نوعية لبقاء الشركات ونجاحها في البيئة التنافسية اليوم ، حيث إنها تمكنها من بناء ولاء العملاء وزيادة المبيعات. في العصر الرقمي اليوم ، تعد الكلمات الإلكترونية (eWOM)أداة فعالة يمكن للعملاء استخدامها لإيصال مشاعرهم إلى جمهور كبير. وبالتالي ، فإن إدارة عواطف العملاء يمكن أن تؤتي ثمارها بشكل جيد للشركات ، حيث يمكن لـ eWOM نشر المشاعر الإيجابية بسرعة إلى جمهور كبير. ومع ذلك ، فإن بيئة الأعمال في القرن الحادي والعشرين غير مؤكدة ومعقدة ، مما يستلزم تطوير قدرات ديناميكية للاستجابة للتغيير الوشيك. يجمع هذا البحث بين ثلاثة تيارات فكرية معاصرة ، وهي التسويق العاطفي (كقدرة استشعار) ، و eWOM (كقدرة الاستيلاء) ، والقدرات الديناميكية (مثل القدرة على الاستجابة). نتيجة لذلك ، تطور الدراسة إطارًا استراتيجيًا ديناميكيًا قائمًا على القدرات يوضح الدور الحاسم للتسويق العاطفي و eWOM في قدرة المؤسسة على الحفاظ على ميزتها التنافسية في العصر الرقمي. علاوة على ذلك ، يشير البحث إلى أن الإطار الاستراتيجي المقترح EM-WOM-DCللميزة التنافسية المستدامة يعزز العلاقة بين التسويق العاطفي والقدرة التنافسية المستدامة والعلاقة بين WOMوالقدرة التنافسية المستدامة.

الكلمات المفتاحية: التسويق العاطفي ، الحوارات الإلكترونية ، القدرات الديناميكية ، العصر الرقمي ، الميزة التنافسية المستدامة

---

[1] Department of Management and Information Systems, College of Business Administration, University of Ha'il, Kingdom of Saudi Arabia.

Alhamad. I.A. / Volume 11 - Issue 51: 281-290 / March, 2022

282

Introduction

Historically, marketers have approached services through a product marketing lens, balancing the well-known 4 P's of the marketing mix: Product, Price, Promotion, and Place (Yudelson, 1999). The optimal combination of these remains crucial. Due to the nature of services in enterprises, however, the additional P's of "People," "Process," and "Physical Evidence" take on a greater significance (Saidani et al., 2019). Due to the delicate nature of services, a unique approach is required during the strategic stage of service offering development. Service marketing aims to establish a bond between a customer and a service provider, but the challenge is reaching a large number of customers, especially in the internet age. This becomes more complex with the rising users and usage of the internet (Alshammari & Singh, 2018; Pandey et al., 2017). Therefore, a service provider should be clear about the changing customer preferences in the digital era and the rationale for the services' relevance (Singh & Thirumoorthi, 2019). It should also emphasize the factors enabling customer satisfaction (Singh & Grover, 2011; Singh & Agarwal, 2011), trust, and confidence (Singh, 2018a; Singh, 2018b; Singh, 2018c) following the use of its digital services (Singh & Alshammari, 2021), such as social media services (Singh, 2013; Singh et al., 2015).

All business units develop, evaluate, and launch new services to offer the proper solutions to the desired target consumers for the appropriate purposes. Numerous well-known companies in the economy have experimented with service marketing to entice customers. Many businesses find it easier to establish a business in today's environment than to attract and retain customers (White et al., 2007). Organizations increasingly realize that establishing an emotional bond with customers can help them survive and succeed, even in saturated markets (Barrena & Sánchez, 2009). Emotional bonding with customers is critical because every business wants to grow its customer base and gain loyal customers. Numerous companies have recognized the strong correlation between the emotional quotient of their customers and the product/service they use. Thus, if companies adequately address their customers' emotions, they may gain more loyal customers. This new approach to service marketing that businesses have adopted is dubbed emotional marketing. Emotional marketing is a paradigm change in marketing in which the management (design, maintenance, and assessment) of the emotional connection between the enterprise and the customer (or other participants) becomes the primary exchange-rousing characteristic (Khuong & Tram, 2015).

In the internet age, increased competition requires marketers to recognize potential emotional incidents associated with their market submissions (Serra-Cantallops et al., 2018). As a result, electronic word-of-mouth (eWOM) has emerged as a novel mode of interaction in the digital age, with customers using it to express their emotions about their interactions with businesses. Historically, word-of-mouth (WOM) was understood as an interactive oral contact between associates that was not commercial in nature (Huete-Alcocer, 2017) and is the earliest offline product and service promotion. This traditional WOM communication has evolved into eWOM. eWOM is any positive or negative assertion regarding a product or business made accessible to a large number of persons or organizations and propagated via the web (Huete-Alcocer, 2017). The concept of eWOM is inextricably linked to the inclusion of user-generated content (UGC) in the mix of digital advertising (Park & Kim, 2008). Indeed, when online community members share content, UGC transforms into e-WOM. eWOM is comprised of blogs, internet reviews, posts on social media, and communications published to online communities. Along with conveying messages, eWOM is critical in conveying customer emotions about products/services in the digital era (Ngarmwongnoi et al., 2020).

Digitization and the proliferation of data-driven technologies have fundamentally altered today's business environments, necessitating transformation and change (Freitag & Brettel, 2017). According to information systems research, successful digital transformation requires organizations to have adequate management of dynamic capabilities (Freitag & Brettel, 2017). Dynamic capabilities, based on managerial capabilities and organizational routines, refer to a firm's capability to incorporate, construct and transform interior competencies in response to variations in the industry environment (Teece et al., 1997, Teece, 2007). Thus, dynamic capabilities are an organizational necessity in a rapidly changing environment and are required for organizational performance (Jantunen et al., 2018) and competitiveness.

In the rapidly evolving current digital environment, we expect organizations' dynamic

capabilities to transform emotional marketing in an eWOM environment and help them sustain their competitive advantage. Accordingly, this article aims to develop a dynamic capabilities-based strategic framework that illustrates the role of emotional marketing and eWOM in organizations' ability to sustain their competitive advantage in the digital era.

Emotional Marketing

Emotional marketing emphasizes the significance of the emotive connection between the business and the customer, who is influenced by the system of contemporary consumers' distinctive values and needs, resulting in the formation of a novel symbol utilization culture. Consumers' emotional response to advertising can be a powerful driving force of purchasing behavior and can significantly influence after-experience mentality and remembrance (Khuong & Tram, 2015). Thus, emotional marketing can be seen as a paradigm change in marketing that places a premium on the emotive development of relationships between the company and the consumer as the primary motivator for consumers' buying, consumption, and exchange decisions (Khuong & Tram, 2015).

Customers respond quickly to emotional marketing as it aims to win their hearts. An emotional customer is perceived to be more responsive than a rational customer. A customer's emotions and needs influence his or her decision to purchase a particular product/service. Thus, businesses should pay close attention to and invest in emotional marketing (Khuong & Tram, 2015). Emotional marketing provides marketers with a competitive advantage by developing meaningful relationships with their customers (Julian, 2008). Emotional connection is an effective metric for determining how customers feel about a company's brand and is the critical consumer factor for increasing their' possession, holding, and repeat purchases. So, there is a trend among businesses today to present advertisements to elicit emotional bonding in customers' hearts (Tomsett, 2020).

Emotional marketing ultimately results in an association with the advertised brands. The customer's actual purchase can determine the success of emotional marketing. Once a business can keep its promise, it can establish a long-term presence in the customer's heart. In other words, a business can effectively freeze customers by associating them with specific emotions. When marketing managers consider ways to increase

brand recall, both in terms of brand awareness and purchase decision-making, they rely on the meaning and style of emotional marketing (Khuong & Tram, 2015). Some marketers have been incorporating an emotional component into their service marketing strategies for an extended period to win over customers' hearts. Most marketers understand that emotional marketing is a critical tool for attracting new customers and converting them into loyal ones.

Another factor contributing to the need for emotional marketing is the company's philosophy. There is an urgent need to align the company's philosophy with the customer's. Understanding the customer's purchasing philosophy is critical for facilitating such coordination (Pauwels, 2004). For example, a customer may purchase a pension plan for financial security and ensure a comfortable standard of living in the future. Nonetheless, customers cannot be categorized as emotional bundles or as objective and rational analytical machines. Research on customer purchase behavior suggests that 80% of purchase decisions are emotional, while 20% are rational (Szymkowiak et al., 2020). Indeed, most purchase decisions are influenced by the customer's emotions, and as a result, the customer's logical mind is used to justify their emotional decisions. Rationality serves only to generate interest; emotion is the ultimate motivator. As a result, marketers embrace the concept of emotional marketing, as it aids in capturing the share of the wallet. When emotional marketing is used strategically, it can mitigate the impact of rational factors and prevent competitors from stealing a business's customers (Hindarsah et al., 2021).

A company can achieve greater success if it can select the appropriate emotion properly and for the appropriate customer to increase revenue. There are numerous emotions that a business can use to pique a customer's interest. However, companies must consider combining relevant emotions and make promises to impact the customer's heart and mind positively. Businesses should bear in mind that eliciting strong positive emotions is helpful to increase loyalty intentions, whereas avoiding strong negative emotions can effectively prevent the erosion of customer loyalty (Serra-Cantallops et al., 2018). In addition, positive emotional experiences improve consumer gratification and a company's reputation and lead to favorable eWOM (Serra-Cantallops et al., 2018).

Electronic Word of Mouth

WOM has evolved into eWOM in the internet age (Alhamad & Singh, 2021a; Singh & Alhamad, 2021). Both WOM and eWOM rely on credible information or referrals from familiar or third-party sources that may influence a person's decision-making or purchase intentions. The primary distinctions between WOM and eWOM are the reachability of the reviews' (the total number of individuals that can be affected) and the pace of communication. Consumers prefer eWOM to traditional WOM in today's internet age due to its trustworthiness, pace, accessibility, fairness, and credibility (Sun et al., 2006; Akehurst, 2008; Flanagin & Metzger, 2013).

Marketers intentionally generate eWOM through a variety of techniques. They attempt to incorporate themselves into the interaction process and attract customers by employing UGC to achieve advertising objectives (Park & Kim, 2008). This is because eWOM has a sizable influence on customer purchasing decisions and influences their satisfaction (Alhamad & Singh, 2021b). These are referred to as eWOM Advertising techniques. eWOM advertising is a term that refers to brands inviting consumers to create product reviews (positive or negative) in order to aid other customers in making purchasing choices.

Exposure to WOM and eWOM messages has been shown to increase consumers' purchasing interest and brand awareness (Serra-Cantallops et al., 2018). eWOM is critical for increasing consumer awareness, attracting traffic, and converting browsers into buyers (Standing et al., 2016). At the same time, it is commonly understood that consumer fulfillment results in positive WOM; it is even more critical to generating positive eWOM (Serra-Cantallops et al., 2018). eWOM is more effective compared to WOM because of its velocity, expediency, depth, and breadth of reach, and lack of face-to-face pressure (Sun et al., 2006). This scope of eWOM's reach can have a more significant impact on a business's performance and competitiveness (Serra-Cantallops et al., 2018).

Theoretical Underpinnings

Given that this research aims to design a strategic framework for organizations to use emotional marketing and eWOM to boost their competitiveness, we begin by examining the most widely accepted theory of competitive advantage, the resource-based view. This is because the strategic management literature indicates that the resource-based perspective is the most frequently used framework for comprehending competitive advantage (Andersén, 2010).

Resource-Based View (RBV)

The resource-based perspective of competitive advantage, which originated in the literature on strategic planning, explains the complexities of innovation adoption, diffusion, and sustainable advantage in competitive environments (Holdford, 2018). According to the resource-based view, sustainable competitive advantage is derived from an organization's precious, scarce, imperfectly unequaled, and non-replaceable resources and competencies (Barney, 1991; Grant, 1991). These resources and capabilities encompass a business's management capabilities, processes, practices, and the information and expertise it manages (Barney et al., 2001). According to RBV, firms are heterogeneous because they have heterogeneous resources. Diverse resources enable firms to pursue various strategies to maintain competitiveness (Desarbo et al., 2007; Ramachandran, 2010).

The dynamic capabilities perspective broadens the resource-based perspective of businesses. It reflects their willingness to deliberately adjust their resource base to improve their level of environmental fitness and confirm their long-term competitiveness (Schilke et al., 2018). In comparison to the resource-based perspective of the organization, which largely ignores the effect of the external climate, dynamic capabilities place a premium on activities ranging from gradual changes to dramatic reorganizations and changes in response to changing circumstances or needs (Ambrosini et al., 2009). Therefore, we next examine the dynamic capabilities theory to develop the strategic framework for our study.

Dynamic Capabilities Theory

Dynamic capabilities are organization's capability to amalgamate internal and external capabilities to adapt to evolving environments, emphasizing their importance in organizational development (Teece et al., 1997). According to dynamic capability theory, businesses possess both static and dynamic capabilities. Ordinary capabilities refer to performing managerial, organizational, and governance functions required to complete tasks. Dynamic capabilities refer to higher-level operations that cause an organization's routine operations to be redirected into high-payoff efforts (Teece et al., 2016). By sensing crises, seizing opportunities, and

transforming capabilities, dynamic capabilities enable organizations to evolve and adjust to changes in their environment (Teece, 2007).

The dynamic capabilities assist the company in adhering to its business strategy and remaining competitive (Vial, 2019; Correia et al., 2020). Dynamic capabilities enable organizations to create new products, form alliances, and make timely strategic decisions in changing environmental conditions (Eisenhardt & Martin, 2000; Barreto, 2009; Güttel et al., 2018). The literature emphasizes the importance of dynamic capabilities to navigate a firm's business climate through continuous transition and disruption. As a result, organizations' capacity to develop capabilities that allow repeatable, continual adaptation due to such quick change is a significant concern. Dynamic capabilities may help explain how firms gain a competitive edge in a turbulent business environment (Vial, 2019). When a business lacks dynamic capabilities, it may generate competitive returns for a time, but this type of return is unlikely to last due to constant external changes (Teece, 2007). As a result, we can view sustainable competitive advantage more objectively through the lens of dynamic capabilities theory, i.e., by examining organizations' sense, seize, and transform capabilities (Kabongo & Boiral, 2017; Karman & Savanevičienė, 2020).

Dynamic capabilities can be differentiated from common or operational capabilities (Ambrosini & Bowman, 2009; Wang & Ahmed, 2007). Prior research has shown that organizations with a high degree of dynamic capability perform well (Nieves et al., 2015). Tseng & Lee (2014) discovered that dynamic capabilities improve an organization's performance and provide a competitive edge. Chien & Tsai (2012) found a positive relationship among dynamic capabilities and firm results.

According to Huy & Zott (2018), organizations with dynamic capabilities achieve timing, cost, and learning efficiencies. Dynamic capabilities enable organizations to actuate resources, overhaul status, and even safeguard their survival (Leonidou et al., 2015). Dynamic capabilities result in high-performing organizations and improve firm performance. Dynamic capabilities enable organizations to transform their existing organizational resources, resulting in superior performance than competitors (Pattanasing et al., 2019).

The above discussion shows that the dynamic capabilities theory provides a useful framework for describing how and why organizations adapt and transform their capabilities to remain competitive in a changing environment. Thus, a strategic lens based on dynamic capability theory's sense, seize, and transform capabilities is an appropriate framework for viewing this study.

Strategic Framework

The strategic framework should meet the customers' expectations in the digital era (Singh, 2017; Singh, 2019). According to Dwivedi et al. (2020), firms must quickly make essential decisions to develop a sense and respond capabilities to remain competitive. Therefore, based on the dynamic capabilities' theory, we posit the following strategic framework:

- Sense – Emotional marketing acts as sense capability in the current age. Emotional marketing enables businesses to develop an emotional relationship with customers, win their hearts, and foster loyalty. In addition, this sensing capability results in the generation of positive WOM and eWOM for the business. This enables businesses to influence consumer decision-making to enhance brand awareness and increase sales.
- Seize – eWOM acts as a seize capability in the digital era. Businesses can capitalize on the eWOM generated by sense capabilities and improve their future traffic by developing analytic capabilities.
- Transform – Dynamic capabilities of organizations act as a transformational capability. Dynamic capabilities enable organizations to adapt their business strategies to changing consumer purchasing patterns and deal with the rapid change inherent in the digital age to remain competitive. Accordingly, we posit those dynamic capabilities positively moderate the relationship between emotional marketing and sustainable competitiveness and eWOM and sustainable competitiveness.

In a nutshell, sensing (emotional marketing), seizing (eWOM), and transforming (dynamic capabilities) enable organizations to design capabilities that result in a sustainable competitive advantage in the digital age. Figure 1 illustrates the strategic framework developed because of this study for twenty-first-century organizations. We call it the EM-WOM-DC strategic framework of sustainable competitive advantage.
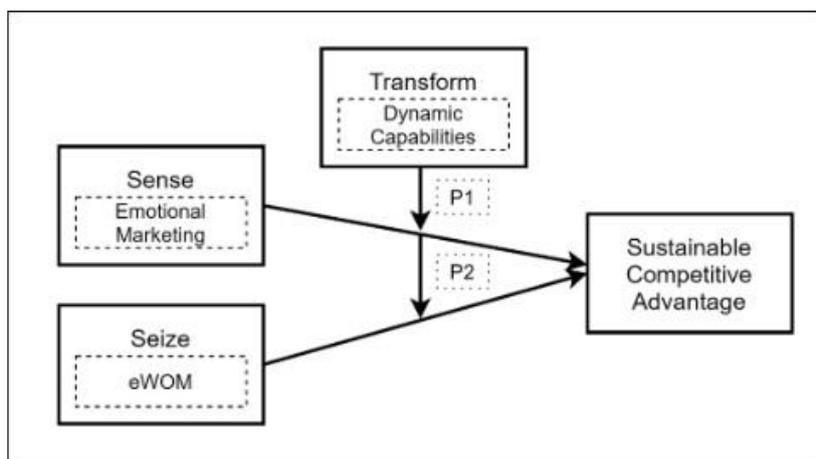
Figure 1. EM-WOM-DC Strategic Framework of Sustainable Competitive Advantage.

The EM-WOM-DC framework provides two significant propositions:

(1)   P1: Organization's dynamic capabilities complement the relationship between emotional marketing and its sustainable competitive advantage.
(2)   P2: Organization's dynamic capabilities complement the relationship among eWOM and its sustainable competitive advantage.

In the future, we anticipate that the EM-WOM-DC framework will become institutionalized (Singh & Alshammari, 2020) in twenty-first-century organizations and guide them as they navigate digital change.

Conclusions

This study offers managerial implications that could prove extremely beneficial to the current digital era businesses. The study aimed to examine the role of emotional marketing and eWOM in influencing an organization's sustainable competitive advantage in conjunction with its dynamic capabilities. We believe that firms capable of sensing emotions, seizing eWOM opportunities, and dynamically transforming have a good chance of overcoming the challenges of the digital era and sustaining their competitive advantage. This current study's EM-WOM-DC framework generates two significant propositions that can be confirmed through further empirical research. First, the current study suggests that the dynamic capabilities of firms bolster the relationship between emotional marketing and sustainable competitiveness. Second, the dynamic capabilities of firms strengthen the relationship between eWOM and sustainable competitiveness. Additionally, we expect that the

proposed EM-WOM-DC framework will become institutionalized in twenty-first-century organizations in the digital era and guide them as they navigate digital transformation.

Bibliographic references

Akehurst, G. (2008). User generated content: the use of blogs for tourism organisations and tourism consumers. Service Business, 3(1), 51–61. https://doi.org/10.1007/s11628-008-0054-2

Alhamad, I. A., & Singh, H. P. (2021a). Decoding Significant and Trivial Factors Influencing Online Hotel Ratings: The Case of Saudi Arabia's Makkah City. International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies, 12(7), 12A7H, 1-11. http://doi.org/10.14456/ITJEMAST.2021.134

Alhamad, I. A., & Singh, H. P. (2021b). Predicting Key Factors Impacting Online Hotel Ratings Using Data Mining Approach: A Case Study of the Makkah City of Saudi Arabia. International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies, 12(2), 12A2N, 1-12.
http://doi.org/10.14456/ITJEMAST.2021.35

Alshammari, T. S., & Singh, H. P. (2018). Preparedness of Saudi Arabia to Defend Against Cyber Crimes: An Assessment with Reference to Anti-Cyber Crime Law and GCI Index. Archives of Business Research, 6(12), 131–146.
https://doi.org/10.14738/abr.612.5771

Ambrosini, V., & Bowman, C. (2009). What are dynamic capabilities and are they a useful construct in strategic management? International Journal of Management

Reviews, 11(1), 29–49. https://doi.org/10.1111/j.1468-2370.2008.00251.x

Ambrosini, V., Bowman, C., & Collier, N. (2009). Dynamic Capabilities: An Exploration of How Firms Renew their Resource Base. British Journal of Management, 20, S9–S24. https://doi.org/10.1111/j.1467-8551.2008.00610.x

Andersén, J. (2010). Resource-based competitiveness: managerial implications of the resource-based view. Strategic Direction, 26(5), 3–5. https://doi.org/10.1108/02580541011035375

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. Journal of Management, 17(1), 99-120. https://doi.org/10.1177/014920639101700108

Barney, J., Wright, M., & Ketchen, D. J. (2001). The resource-based view of the firm: Ten years after 1991. Journal of Management, 27(6), 625-641. https://doi.org/10.1016/s0149-2063(01)00114-3

Barrena, R., & Sánchez, M. (2009). Using emotional benefits as a differentiation strategy in saturated markets. Psychology & Marketing, 26(11), 1002–1030. https://doi.org/10.1002/mar.20310

Barreto, I. (2009). Dynamic Capabilities: A Review of Past Research and an Agenda for the Future. Journal of Management, 36(1), 256–280. https://doi.org/10.1177/0149206309350776

Chien, S., & Tsai, C. (2012). Dynamic capability, knowledge, learning, and firm performance. Journal of Organizational Change Management, 25(3), 434–444. https://doi.org/10.1108/09534811211228148

Correia, R. J., Dias, J. G., & Teixeira, M. S. (2020). Dynamic capabilities and competitive advantages as mediator variables between market orientation and business performance. Journal of Strategy and Management, 14(2), 187–206. https://doi.org/10.1108/jsma-12-2019-0223

Desarbo, W. S., Benedetto, C. A., & Song, M. (2007). A heterogeneous resource based view for exploring relationships between firm performance and capabilities. Journal of Modelling in Management, 2(2), 103-130. https://doi.org/10.1108/17465660710763407

Dwivedi, Y. K., Hughes, D. L., Coombs, C., Constantiou, I., Duan, Y., Edwards, J. S., Gupta, B., Lal, B., Misra, S., Prashant, P., Raman, R., Rana, N. P., Sharma, S. K., & Upadhyay, N. (2020). Impact of COVID-19 pandemic on information management research and practice: Transforming education, work and life. International Journal of Information Management, 55, 102211. https://doi.org/10.1016/j.ijinfomgt.2020.102211

Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: what are they? Strategic Management Journal, 21(10–11), 1105–1121. https://doi.org/https://doi.org/10.1002/1097-0266(200010/11)21:10/11<1105::AID-SMJ133>3.0.CO;2-E

Flanagin, A. J., & Metzger, M. J. (2013). Trusting expert- versus user-generated ratings online: The role of information volume, valence, and consumer characteristics. Computers in Human Behavior, 29(4), 1626–1634. https://doi.org/10.1016/j.chb.2013.02.001

Freitag, P. M., & Brettel, M. (2017). Building up Dynamic Capabilities for the Digital Age. Academy of Management Proceedings, 2017(1), 12890. https://doi.org/10.5465/ambpp.2017.12890abstract

Grant, R. M. (1991). The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation. California Management Review, 33(3), 114–135. https://doi.org/10.2307/41166664

Güttel, W. H., Konlechner, S., & Müller, B. (2018). A dynamic capabilities perspective on managing technological change: a review, framework and research agenda. International Journal of Technology Management, 76(3/4), 188. https://doi.org/10.1504/ijtm.2018.10012460

Hindarsah I., Nurjayab, Sunarsic D., Pratamad A., Ariantoe N., Purwantif Y., Kasmadg, & Oktarini R. (2021). The Influence of Service Quality, Emotional Marketing and Spiritual Marketing On Customer Satisfaction. Turkish Journal of Computer and Mathematics Education (TURCOMAT), 12(3), 3685–3689. https://doi.org/10.17762/turcomat.v12i3.1650

Holdford, D. A. (2018). Resource-based theory of competitive advantage – a framework for pharmacy practice innovation research. Pharmacy Practice, 16(3), 1351. https://doi.org/10.18549/pharmpract.2018.03.1351

Huete-Alcocer, N. (2017). A Literature Review of Word of Mouth and Electronic Word of Mouth: Implications for Consumer Behavior.

Frontiers in Psychology, 8, 1–4. https://doi.org/10.3389/fpsyg.2017.01256

Huy, Q., & Zott, C. (2018). Exploring the affective underpinnings of dynamic managerial capabilities: How managers' emotion regulation behaviors mobilize resources for their firms. Strategic Management Journal, 40(1), 28–54. https://doi.org/10.1002/smj.2971

Jantunen, A., Tarkiainen, A., Chari, S., & Oghazi, P. (2018). Dynamic capabilities, operational changes, and performance outcomes in the media industry. Journal of Business Research, 89, 251–257. https://doi.org/10.1016/j.jbusres.2018.01.037

Julian, C. C. (2008). Emotional Dissonance and Customer Service: An Exploratory Study. Services Marketing Quarterly, 29(3), 1–23. https://doi.org/10.1080/15332960802125882

Kabongo, J. D., & Boiral, O. (2017). Doing More with Less: Building Dynamic Capabilities for Eco-Efficiency. Business Strategy and the Environment, 26(7), 956–971. https://doi.org/10.1002/bse.1958

Karman, A., & Savanevičienė, A. (2020). Enhancing dynamic capabilities to improve sustainable competitiveness: insights from research on organisations of the Baltic region. Baltic Journal of Management, 16(2), 318–341. https://doi.org/10.1108/bjm-08-2020-0287

Khuong, M. N., & Tram, V. N. B. (2015). The Effects of Emotional Marketing on Consumer Product Perception, Brand Awareness and Purchase Decision — A Study in Ho Chi Minh City, Vietnam. Journal of Economics, Business and Management, 3(5), 524–530. https://doi.org/10.7763/joebm.2015.v3.240

Leonidou, L. C., Leonidou, C. N., Fotiadis, T. A., & Aykol, B. (2015). Dynamic capabilities driving an eco-based advantage and performance in global hotel chains: The moderating effect of international strategy. Tourism Management, 50, 268–280. https://doi.org/10.1016/j.tourman.2015.03.005

Ngarmwongnoi, C., Oliveira, J. S., AbedRabbo, M., & Mousavi, S. (2020). The implications of eWOM adoption on the customer journey. Journal of Consumer Marketing, 37(7), 749–759. https://doi.org/10.1108/jcm-10-2019-3450

Nieves, J., Quintana, A., & Osorio, J. (2015). Organizational knowledge, dynamic capabilities and innovation in the hotel industry. Tourism and Hospitality Research, 16(2), 158–171. https://doi.org/10.1177/1467358415600208

Pandey, U. S., Kumar, V., & Singh, H. P. (2017). Cyber Crimes and Laws (1st ed.). Himalaya Publishing House.

Park, D. H., & Kim, S. (2008). The effects of consumer knowledge on message processing of electronic word-of-mouth via online consumer reviews. Electronic Commerce Research and Applications, 7(4), 399–410. https://doi.org/10.1016/j.elerap.2007.12.001

Pattanasing, K., Aujirapongpan, S., & Srimai, S. (2019). Dynamic capabilities and high-performance organization of hotel business: empirical investigation into world class tourism destination. Tourism and Hospitality Management, 25(2), 377–401. https://doi.org/10.20867/thm.25.2.8

Pauwels, K. (2004). How Dynamic Consumer Response, Competitor Response, Company Support, and Company Inertia Shape Long-Term Marketing Effectiveness. Marketing Science, 23(4), 596–610. https://doi.org/10.1287/mksc.1040.0075

Ramachandran, V. (2010). Strategic corporate social responsibility: a 'dynamic capabilities' perspective. Corporate Social Responsibility and Environmental Management, 18(5), 285–293. https://doi.org/10.1002/csr.251

Saidani, B., & Sudiarditha, I. K. (2019). Marketing Mix-7Ps: The Effect on Customer Satisfaction. Jurnal Pendidikan Ekonomi Dan Bisnis (JPEB), 7(1), 72–86. https://doi.org/10.21009/jpeb.007.1.7

Schilke, O., Hu, S., & Helfat, C. E. (2018). Quo Vadis, Dynamic Capabilities? A Content-Analytic Review of the Current State of Knowledge and Recommendations for Future Research. Academy of Management Annals, 12(1), 390–439. https://doi.org/10.5465/annals.2016.0014

Serra-Cantallops, A., Ramon-Cardona, J., & Salvi, F. (2018). The impact of positive emotional experiences on eWOM generation and loyalty. Spanish Journal of Marketing - ESIC, 22(2), 142–162. https://doi.org/10.1108/sjme-03-2018-0009

Singh, A. K., & Thirumoorthi, P. (2019). The Impact of Digital Disruption Technologies on Customer Preferences: The Case of Retail Commerce. International Journal of Recent Technology and Engineering, 8(3), 1255–1261. https://doi.org/10.35940/ijrte.c4404.098319

Singh, H. P. (2013). Innovative ICT Through Cloud Computing. The IUP Journal of Computer Sciences, 7(1), 37–52.

Singh, H. P. (2017). Strategic Analysis and Security Issues of Social Media Services: A Study of Facebook. International Journal of Information Movement, II(V), 134–139.

Singh, H. P. (2018a). Domain Name Disputes and Their Resolution under UDRP Route: A Review. Archives of Business Research, 6(12), 147-156. https://doi.org/10.14738/abr.612.5786

Singh, H. P. (2018b). Cybersquatting and the Role of Indian Courts: A Review. Amity Journal of Computational Sciences, 2(2), 18–23.

Singh, H. P. (2018c). Data Protection and Privacy Legal-Policy Framework in India: A Comparative Study vis-à-vis China and Australia. Amity Journal of Computational Sciences, 2(2), 24-29.

Singh, H. P. (2019). Exploiting RFID for Business Transformation: A Strategic Analysis vis-à-vis Agricultural Bank of China. International Education and Research Journal, 5(1), 19–23. http://ierj.in/journal/index.php/ierj/article/view/1813/1722

Singh, H. P., & Agarwal, A. (2011). Espousal of E-Learning in Adult Education. In Proceedings of the International Conference on Computational Techniques and Artificial Intelligence (pp. 28-31). Pattaya, Thailand: ISEM-Planetary Scientific Research Centre.

Singh, H. P., & Alhamad, I. A. (2021). Deciphering Key Factors Impacting Online Hotel Ratings Through the Lens of Two-Factor Theory: A Case of Hotels in the Makkah City of Saudi Arabia. International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies, 12(8), 12A8M, 1-12. https://doi.org/10.14456/ITJEMAST.2021.160

Singh, H. P., & Alshammari, K. (2021). Impacts of Digital Technology-Enabled Personalized and Adaptive Learning on Student Learning Performance: A TOE Framework for Saudi Arabia. International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies, 12(13), 1–12. https://doi.org/10.14456/ITJEMAST.2021.262

Singh, H. P., & Alshammari, T. S. (2020). An Institutional Theory Perspective on Developing a Cyber Security Legal Framework: A Case of Saudi Arabia. Beijing Law Review, 11(03), 637–650. https://doi.org/10.4236/blr.2020.113039

Singh, H. P., & Grover, S. T. (2011). Marketing of E-banking Services: A Critical Analysis on Lifecycle Demographics, Enabling and Disabling Factors. Zenith International Journal of Multidisciplinary Research, 1(7), 20-38.

Singh, H. P., Kumar, V., & Agrawal, A. (2015). Demystifying Information Technology Projects Success and Failure Factors: The Cases of California DMV and BancoItamarati Bank. Mumukshu Journal of Humanities, 7(1), 493–499.

Standing, C., Holzweber, M., & Mattsson, J. (2016). Exploring emotional expressions in e-word-of-mouth from online communities. Information Processing & Management, 52(5), 721–732. https://doi.org/10.1016/j.ipm.2016.01.001

Sun, T., Youn, S., Wu, G., & Kuntaraporn, M. (2006). Online Word-of-Mouth (or Mouse): An Exploration of Its Antecedents and Consequences. Journal of Computer-Mediated Communication, 11(4), 1104–1127. https://doi.org/10.1111/j.1083-6101.2006.00310.x

Szymkowiak, A., Gaczek, P., Jeganathan, K., & Kulawik, P. (2020). The impact of emotions on shopping behavior during epidemic. What a business can do to protect customers. Journal of Consumer Behaviour, 20(1), 48–60. https://doi.org/10.1002/cb.1853

Teece, D. J. (2007). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. Strategic Management Journal, 28(13), 1319–1350. https://doi.org/10.1002/smj.640

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. Strategic Management Journal, 18(7), 509–533. https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z

Teece, D., Peteraf, M., & Leih, S. (2016). Dynamic Capabilities and Organizational Agility: Risk, Uncertainty, and Strategy in the Innovation Economy. California Management Review, 58(4), 13–35. https://doi.org/10.1525/cmr.2016.58.4.13

Tomsett, D. (2020, February 28). Emotional Connection: 2020's Biggest CX Trend. Forbes. https://www.forbes.com/sites/forbestechcouncil/2020/02/28/emotional-connection-2020s-biggest-cx-trend/

Tseng, S. M., & Lee, P. S. (2014). The effect of knowledge management capability and dynamic capability on organizational performance. Journal of Enterprise Information Management, 27(2), 158–179. https://doi.org/10.1108/jeim-05-2012-0025

Vial, G. (2019). Understanding digital transformation: A review and a research agenda. The Journal of Strategic Information

Systems, 28(2), 118–144. https://doi.org/10.1016/j.jsis.2019.01.003

Wang, C. L., & Ahmed, P. K. (2007). Dynamic capabilities: A review and research agenda. International Journal of Management Reviews, 9(1), 31–51. https://doi.org/10.1111/j.1468-2370.2007.00201.x

White, T. B., Lemon, K. N., & Hogan, J. E. (2007). Customer retention when the customer's future usage is uncertain. Psychology & Marketing, 24(10), 849–870. https://doi.org/10.1002/mar.20187

Yudelson, J. (1999). Adapting Mccarthy's Four P's for the Twenty-First Century. Journal of Marketing Education, 21(1), 60–67. https://doi.org/10.1177/0273475399211008

The essence and classification of cybercrime in the field of computer information

Сутність та класифікація кіберзлочинів в сфері комп'ютерної інформації

Written by:
Mykhailo Dumchikov[110]
https://orcid.org/0000-0002-4244-2419
Web of Science researcher code: ABC-1338-2020
Andrii Fomenko[111]
https://orcid.org/0000-0003-3517-1638
Web of Science researcher code:AAP-2665-2021
Oleksandr Yunin[112]
https://orcid.org/0000-0003-4846-2573
Web of Science researcher code:AAP-5453-2021
Volodymyr Pakhomov[113]
https://orcid.org/0000-0002-0501-524X
Web of Science researcher code: AAC-7713-2022
Yuliia Kabenok[114]
https://orcid.org/0000-0001-9342-3835
Web of Science researcher code: AAM-2356-2021

Abstract

Cimes in the field of computer information have become pressing issue in society today. Its relevance is evidenced by news from around the world, criminal statistics, problematic issues in the science of criminal law, as well as problems in criminal proceedings. All this is due to the fact that as a phenomenon, crimes in the field of computer information belong to the very specific category that is constantly evolves technological progress.

The purpose of the article is to study the phenomenon of crimes in the field of computer information, to define the concept of crimes in the field of computer information and types of these crimes, to provide general characteristics of crimes in the field of computer information, as well as to identify their classification.

Various methods of scientific knowledge were used as a methodological basis for writing this article. In particular, comparison methods, analogies and generalization methods were used.

Анотація

Злочини в сфері комп'ютерної інформації сьогодні є дуже актуальною проблемою суспільства. Про її актуальність свідчать новини по всьому світу, кримінальна статистика, проблемні питання науці кримінального права, а також проблеми в кримінальному процесі. Все це пов'язано з тим, що як явище, злочини в сфері комп'ютерної інформації є дуже специфічною категорією, яка постійно розвивається паралельно з технічним прогресом.

Метою статті є дослідження феномену злочинів у сфері комп'ютерної інформації, визначення поняття злочинів в сфері комп'ютерної інформації та видів зазначених злочинів, надати загальну характеристику злочинам в сфері використання комп'ютерної інформації, а також визначити ознаки які притаманні зазначеному виду злочинів та зробити їх класифікацію.

---

[110] Senior lecture. Department of Criminal Legal Disciplines and Procedure, Sumy State University, Ukraine.
[111] Candidate of Juridical Sciences, Rector, Dnipropetrovsk State University of Internal Affairs, Ukraine.
[112] Docror of Juridical Sciences, Vice Rector, Dnipropetrovsk State University of Internal Affairs, Ukraine.
[113] Doctor of Juridical Sciences, Professor, Department of Administrative, Economic Law and Financial and Economic Security, Sumy State University, Ukraine.
[114] Ph.D in Law, Associate Professor, Associate Professor of the Department of International, Civil and Commercial Law Kyiv National University of Trade and Economics, Ukraine.

In our time, cybercrime has spiraled out of the control of one state's law enforcement agencies and has become a significant interstate and transnational problem.

Keywords: crimes in the field of computer information, information crimes, cybercrime, crimes in the field of payment systems, computer crimes, COVID-19.

Методологічною базою для написання даної статті було використано різні методи наукового пізнання. Зокрема було використано методи порівняння, аналогії та метод узагальнення.

В наш час кіберзлочинність вийшла з-під контролю правоохоронних органів однієї держави та стала значною міждержавною і транснаціональною проблемою.

Ключові слова: злочини в сфері комп'ютерної інформації, інформаційні злочини, кіберзлочинизлочини в сфері платіжних систем, комп'ютерні злочини, COVID-19.

Introduction

The active use of computer technology in almost all fields of public life has become an integral part of todays life. It can be emphasized that the 21st century is the century of digital and information technologies.

New forms of crime are a challenge to our society, but at the same time the variety of offenses are developing. Until a few decades ago, there were very few mentions of crimes in the field of computer information, but in a short period of time, these crimes began to pose not only a particular threat to individuals or society, but also to the state as a whole. Moreover, the problem of computer crime is the most acute, as the consequences of untimely response to such a threat are much more dangerous than in most other crimes.

At present, crimes in the field of computer information cover virtually all fields of society, from the banking sector to the national security of the state. The purpose of the article is to formulate a scientifically sound definition of the concept of "crimes in the field of computer information" and identify types of these crimes, as well as to identify specific features inherent in the rolled type of crime. and the use of computers, systems and computer and telecommunication networks. The subject of the study is the nature and classification of cybercrime in the field of computer information.

Theoretical Framework

Analyzing the legal aspect of crimes committed with the help of electronic computers, it should be noted that the concept of a crime in the field of computer information and a crime committed with the help of computer technology are not identical concepts. In our opinion, criminal offenses in the field of computer information

should be considered as one of the subtypes of crimes using computer technology.

The public danger of crimes in the field of computer information is that illegal access to computer information can harm the activities of various public defense systems, the banking sector, municipal systems. Similarly, various types of actions to distort the accuracy of information can lead to problems of a national nature and harm the rights and interests of the individual.

The first concept of "crime in the field of computer information" was used in the 60s of the 20th century, when the first using computers crimes were discovered (Kurushin, 1998)

Today, there is no single definition for cybercrime. In particular, Bessonov V. under the definition of crime in the field of computer information means criminal, unlawful, culpable violation of other people's rights and interests in relation to automated data processing systems, full influence, subject to legal protection of property rights and interests, public and state security (Bessonov, 2000)

Smirnova T. under the definition of crime in the field of computer information means prohibited by criminal law socially dangerous intentional, guilty and illegal acts aimed at violating the inviolability of computer information protected by law and its material media, damaging the rights and interests of individuals and the state and public safety. (Smirnova, 1998)

Borovik V. defines crime in the field of computer information as intentionally socially dangerous acts that harm or threaten to harm public relations, regulating the safe production, storage,

use or dissemination of information or information resources (Borovukiv, 2015)

Begishev I. understands these crimes as a guilty, socially dangerous act committed for the purpose of violating the integrity, confidentiality, reliability and availability of digital information protected by law (Begishev, 2017)

Cybercrime is defined as crimes committed on the internet using the computer as either a tool or a targeted victim (Aghatise, 2006)

Baturyn Y. believes that in the legal sense, crimes in the field of computer information as a special group of crimes do not exist, but emphasizes that many traditional types of crimes have improved as a result of raising funds for computer technology, and therefore we can only talk about computer aspects of crimes without allocating them to a separate group (Baturin, 1991)

Michael Aaron Dennis says that cybercrime, also called computer crime, the use of a computer as an instrument to further illegal ends, such as committing fraud, trafficking in child pornography and intellectual property, stealing identities, or violating privacy (Michael, 2019)

Dobrovolsky D. under the concept of a crime in the field of computer information understands the criminal law guilty of socially dangerous acts aimed at violating the inviolability of legally protected electronic information and its media, carried out in the process of creating, using and disseminating electronic information, as well as aimed at disrupting computers, computer systems or their networks that harm the legitimate interests of owners or owners, life health, human and civil rights and freedoms, national security (Dobrovolsky, 2005)

We critically analyze the existing definitions, suggesting that crimes in the field of computer information are understood as intentional socially dangerous, illegal, culpable acts that encroach on and harm public relations, which regulate the storage, dissemination, use and protection of information.

Methodology

The basis of this study was using the variety of methods of scientific knowledge. In particular, the method of comparison and analogy was used to study the legal regulation of various types of crimes in the field of computer information, which is contained in the features and

classification of crimes in the field of computer information.

The observation method was used to determine the main features of computer information crimes and to get acquainted with the essence of computer information crimes and the general specifics of this phenomenon, which is contained in the features and classification of crimes in the field of computer information.

The generalization method was used to study various types of information security crimes, the information is contained in the parts of crimes in the field of payment systems, fraud in the field of computer information and crimes in the field of information security.

The analytical method was used to study the specifics of the development of crimes in the field of computer information and determine their relationship with other types of crimes and scientific and technological progress.

Results and Discussion

Signs and classification of crimes in the field of computer information.

The 2001 Cybercrime Convention, that was ratified by Ukraine in 2005, identifies 4 types of crimes in the field of computer information based on their generic nature (Verjovna Rada de Ucrania, 2001).

1. Crimes against confidential information;
2. Crimes related to the use of computers;
3. Crimes related to the content of information contained on electronic media and the Internet;
4. Crimes related to infringement of copyright and related rights.

In turn, the Criminal Code of Ukraine contains a slightly different classification of crimes in the field of computer information. In particular, section 16 criminal offenses in the field of computer use (computers), systems and computer networks and telecommunication networks includes 6 types of crimes in the field of computer information (Law № 2341-III, 2001)

1. Unauthorized interference in the operation of computers, automated systems, computer networks or telecommunication networks.
2. Creation for the purpose of use, distribution or sale of malicious software or hardware, as well as their distribution or sale.

3. Unauthorized sale or dissemination of information with limited access, which is stored in computers, automated systems, computer networks or media of such information.
4. Unauthorized actions with information processed in electronic computers (computer), automated systems, computer networks or stored on the media of such information, committed by a person who has the right to access it.
5. Violation of the rules of operation of electronic computers (computers), automated systems, computer networks or telecommunication networks or the order or rules of protection of information processed in them.
6. Interference with the operation of electronic computers (computer), automated systems, computer networks or telecommunication networks through the mass dissemination of telecommunication messages.

It should be noted that the list of crimes in the field of computer information contained in the Criminal Code of Ukraine does not cover the full range of criminal acts committed in cyberspace. In our opinion, crimes in the field of computer information should also include fraud committed in cyberspace, theft committed in cyberspace.

According to the report of the Cyber Police Department of Ukraine for 2018, 11131 crimes in the field of computer information were committed, and only 25% of them were solved. According to statistics, the largest number of crimes was committed in the field of payment systems and banking, respectively. In second place are crimes in the field of e-commerce and directly in the field of cybersecurity (Cyber police in Ukraine, 2018)

It is worth noting that under the quarantine restrictions associated with COVID-19, the number of computer information crimes has increased dramatically. This trend is primarily due to the fact that people increasingly prefer online services (billing, delivery, buying and selling goods, communication). In our opinion, it is necessary to identify the main features of crimes in the field of computer information that would emphasize their social danger, such as:

1. The latency of such crimes. Computer information crime is currently the most latent type of crime of all. First of all, this is primarily due to the fact that persons who have become victims of such crimes do not apply to law enforcement agencies, which are responsible for investigating crimes in the field of computer information. Secondly, a large number of victims of such crimes do not even realize that they have fallen into the trap of criminals. Third, a large proportion of victims of computer information crimes at the same time wanted to buy illicit goods, services, documents or information from an attacker, thus also committing an illegal act, but were deceived. Banks, credit institutions, online services and shops often do not report crimes against themselves in order to protect their reputation.
2. The distance of crimes in the field of computer information. Intruders with expert knowledge of computer networks can steal millions from the banking sector, deploy a satellite 180 degrees, turn off a patient's life support system in a hospital, and remain unnoticed anywhere in the world (Lyadskiy, 2014)
3. The transnational nature of crimes in the field of computer information. The place of commission of these crimes is cyberspace, namely the environment created by an organized set of information processes based on the common principles and rules of information, telecommunications and information and telecommunications systems, regardless of ownership.
4. The availability of materials necessary for committing crimes in the field of computer information. Currently, there are a large number of forums where both paid and free information on how to commit certain crimes in the field of computer information (carding, phishing, scamming). In addition, such resources provide information on the creation of separate software for further criminal activity.
5. The reduced age of persons committing crimes in the field of computer information. It is worth noting that due to the fact that crimes in the field of computer information, firstly, a very lucrative form of employment, and secondly, information on the commission of such crimes is freely available, there is a reduced age of such crimes.
6. The use of social engineering skills. Many computer crime crimes are committed with the help of social engineering skills. Social engineering is a type of attack that is based on human interaction and is often accompanied by manipulation of these people in violation of normal security procedures and is a best practice to gain access to systems, networks or for financial gain (Voitko, Marchenko, Antonov, 2020)

We would like to propose the following classification of crimes in the field of computer information:

1. Crimes in the field of payment systems:

    –   Skimming
    –   Carding
    –   Enroll
    –   Cash - trapping

2. Computer information fraud.

    –   Fishing
    –   Fraud in the field of online auctions
    –   Use of fictitious e-commerce entities

3. Crimes in the field of intellectual property

    –   Internet piracy
    –   Cardsharing

4. Crimes in the field of information security

    –   Forgery of computer information
    –   Creating malware
    –   Malware distribution
    –   Selling malware
    –   Damage to computer data or computer program data
    –   Change computer data or computer program data
    –   Computer espionage
    –   Illegal use of protected information.

Crimes in the use of payment systems.

In the criminal legislation of Ukraine, as well as in the scientific literature, there is no concept of crimes in the use of payment systems, most scholars consider such crimes as crimes in the financial and banking fields, or crimes in the field of financial and banking information (Vakulyk et al, 2019) Computer information crime in the use of payment systems is a type of cybercrime. In Ukraine, this type of fraud is gradually becoming widespread. In particular, one such crime is skimming.

Skimming - theft of card data using a special device - a skimmer (Dictionary of banking terms, 2022)

In general, skimming should be divided into 2 types:

–   Physical skimming. Attackers copy all information from the card's magnetic stripe (card name, card number, expiration date, CVV and CVC code), you can find out the PIN code using a mini-camera or keyboard pads installed on ATMs . You can become a victim of skimming not only by withdrawing cash, but also by paying for purchases at outlets. Waiters, cashiers, and hotel employees use portable skimmers or devices attached to the terminal to copy the data.
–   Software skimming. It involves the installation by attackers of certain malicious software that will copy the magnetic stripe of the card, the code and date of the card, and then send such data to the servers of attackers.

Privat Bank of Ukraine emphasizes that so-called anti-skimming pads are currently used, which significantly reduce the risk of installing skimmers on ATMs. In addition, specialists of the cybersecurity department of a private bank recommend the use of chip cards, which have a much higher level of protection, because the information contained in the chip has cryptographic protection that prevents it from being compromised (Privat Bank, 2022).

Another type of crime in the field of payment systems is carding. Carding is illegal financial transactions using payment cards and electronic payment systems that have not been confirmed or initiated by the cardholder or e-wallet holder. Payment card details are usually taken from various darknet services. The cost of e-wallet or plastic card varies from 2 to 300 dollars, depending on the country of the card or e-wallet holder, the amount of money on them, the type of card (business, corporate, gold), the bank that issued the card.

An attacker with a card or e-wallet can use the funds, for e-commerce products on the Internet, top up the phone number and then transfer it in cash, buy equipment in online stores with their subsequent sale. The most popular way to use such cards is to buy goods at various marketplaces yourself, this method, unlike others, allows you to use the entire balance of the card, first without intermediaries, and secondly without a commission for resale of purchased goods.

Similar to carding is another crime in the field of payment systems, Enroll can be called a predicate crime in some areas of carding, namely Enroll is a procedure by which an attacker obtains or creates new access to online banking

of the victim. After gaining access to the victim's online banking, the attacker significantly simplifies the procedure for confirming a transaction (even a very suspicious one) because the confirmation can be done in the online banking itself.

Cash - trapping is the theft of cash from an ATM by installing a special retaining pad on the ATM tent.

To commit such a criminal act, criminals close the hole for the issuance of money in the ATM with a special overlay (bar) with adhesive tape on the other side. Thus, when citizens carry out cash withdrawal operations, banknotes are seized - the money sticks to the tape, which prevents them from being issued to the legal cardholder. In most cases, the user of the ATM, without receiving money decides that transaction has failed or ran out of cash and is unaware of the fact of fraud. After that, the fraudsters come and take the cash (Yurchuk, 2017)

Computer information fraud.

Fishing is an innovative type of fraud in the Internet, which aims to obtain personal data, bank details, details of electronic payment systems and crypto wallets and data from e-accounts of online stores, with the subsequent sale of such data or using such data at its discretion.

It is worth noting that fishing websites are very difficult to recognize for their originality. Fishing websites completely copy the original websites, the only difference being the domain name address, which does not attract the attention of an untrained person due to a slight difference in letters or numbers. As an example, the crypto website MyEtherWallet.com, cybercriminals used a phishing site to steal about $ 700,000 in a few days. The attackers copied the original website and gave it the domain name myetherwaIlet.com, thus stealing the private keys responsible for accessing the ETH and ETC addresses.

The social danger of Fishing is the direct financial damage and the creation of a crisis of confidence in financial transactions carried out on the Internet. Because of the costs of fishing attacks, many financial and banking institutions refuse to pay and place all responsibility on the customer. In a broad sense, phishing undermines the marketing image of a company or financial institution and strongly affects its overall image,

dealing a severe blow to e-commerce (Klochko, Kulish, Reznik, 2016)

It can be difficult for the average Internet user to detect a fishing attack because of their gullibility and poor knowledge of constantly changing phishing methods and tactics (spam is increasingly combined with malicious software) (Kumar, Chatterjee, Díaz, 2020).

In our opinion, there are 3 main types of fishing

- Mass fishing. This type of phishing involves the use of spam emails, websites, fake advertising banners and push messages that are addressed to a large number of people. As a rule, the victims of this type of fishing are bank customers and so on. The main feature of this type of fishing is that it does not involve the identification of specific victims in advance, as the recipients of a fishing attack are taken from randomly obtained databases.
- Target fishing. The most dangerous type of fishing is targeted fishing, which is aimed at the target audience, about which information is specially collected to make the message addressed to it more convincing. This type of fishing is characterized by the following stages: planning, preparation, attack, collection, fraud, completion stage. At the planning stage, the attacker conducts some research on the victim or group of victims, selects vulnerabilities and analyzes them.

The preparation stage is characterized by compiling a phishing letter, or creating a phishing website and developing means of attack. At the stage of the attack, the attacker sends a fishing e-mail or malware. The next stage is the collection of information by malicious software and the subsequent analysis of the collected information. The stage of fraud is characterized by the sale of collected information, blackmail. In the final stage, the attacker eliminates the evidence and sweeps away the traces.

- Corporate fishing. It is characterized by the creation of websites that look like a complete copy of the original but have a different domain address. Such websites narrowly define the class of victims of fishermen. The main purpose of the fishermen is to make the victim perceive the fake website as legal and provide information about personal data. The purpose of the scammer is either to gain access to the protected site, or to disguise his

real identity. In this case, the scammer can steal the victim's address, falsifying information about the routing of the message, so that it seems that it came from the victim's account instead of his own (Rusch, 2005)

Fraud in the field of online auctions. Of all the types of online fraud in the field of computer information, online auctions come first. Mostly mythical lots are exhibited at online auctions, when a non-existent thing is behind the picture and description on the monitor screen. With the help of online auctions, gullible buyers are willing to spend thousands of dollars for a fictitious lot. The procedure of fraudulent actions is that the goods are exhibited at a lower price than the common kind of goods, but not so much that the victim is suspicious.

Use of fictitious e-commerce entities. Quite a common type of fraud, represented by one-page websites with a unique price offer for any product. As a rule, fictitious online stores operate on a partial or 100% prepayment. Accordingly, the victim, having transferred funds, does not receive the necessary goods. Then the site is blocked, and then "moves" to another hosting or changes the domain name and continues its illegal activities. Such a site can be filled with a lot of fake reviews in order to create the image of a bona fide online store and mislead potential victims. This type of fraud is one of the simplest methods of criminal activity on the Internet and causes great damage to the financial capacity of vulnerable and ignorant citizens, given their low level of information literacy (Sergeev, Lyubimenko, Savvateeva, 2020).

Crimes in the field of intellectual property

Internet piracy. The U.S. Copyright Act defines Internet piracy as the use of the Internet to illegally copy and / or distribute software (Copyright Law of the United States, 1999) The main purpose of Internet piracy is to profit from such activities. On the Internet, Internet pirates can make a profit from providing paid access to materials that are in private access or are paid at a price much lower than the price offered by the author. Internet pirates can also provide access to copyrighted materials for free, and make a profit by advertising on the resource where the pirated materials are posted, or even integrate advertising directly into pirated materials. In the worst case, pirated files may contain virus programs as a result of obtaining personal data that an attacker may use at its discretion. In our opinion, Internet piracy is the use of Internet

space for illegal copying, hacking and distribution of video content, audio content, literary works, software and other types of digital products that are placed on the Internet for further distribution on both paid and free basis.

One of the types of crimes in the field of intellectual property is card sharing. Cardsharing is the provision of illegal access to satellite and cable TV.

Crimes in the field of information security.

The following features are characteristic of crimes in the field of information security: heterogeneity of the object of encroachment (in practice we have that the object of crimes in the field of information security is not only computer information but also national security, public safety, economic sphere) , the use of computers as both the subject and method of committing a crime, the use of computer information as a means of committing a crime and as an object of crime.

The creation, distribution and sale of malicious software are usually combined with this type of crime in the field of computer information. It is, first of all, the conscious creation and use of such software, which allows: blocking, destruction, modification of computer information, copying of protected data.

Examples of such projects are locker viruses, Trojan viruses, clipper viruses, styler viruses, keylogger viruses. Locker viruses, or malware as they are called, are viruses that completely block the system when you get on your computer or phone. However, even after paying the attacker money and receiving a password to unlock, the victim's device system is completely destroyed.

Clipper viruses are a type of virus that replaces a victim's card or electronic account with an attacker's account, and when transferring funds, the victim actually transfers money to the attacker.

Virus stylists are a type of virus that steals information from your browser and makes an imprint of the victim's browser on the attacker's server. With such data, the attacker can easily use the full range of information contained in the victim's browser, from actions on social networks to buying goods at the expense of the victim.

Forgery of computer information. Creation, alteration, destruction, concealment of computer

data or computer programs or other interference with the processing of data in various ways, or the creation of conditions which, under national law, would constitute an offense such as forgery in the traditional sense.

Damage to computer data or computer program data. Unauthorized destruction, damage, or deterioration of computer data or computer programs.

Modification of computer data or computer program data Unauthorized modification of computer data or computer programs.

Computer espionage. Acquisition by illegal means or by unauthorized disclosure, transfer or use of a trade or commercial secret for the purpose of causing economic harm to a person entitled to the secret or gaining an illegal economic advantage for himself or a third party.

Illegal use of protected information.

Use a legally protected computer program without permission or illegally reproduce it for economic gain for yourself or a third party, or with the intent to harm the lawful owner of the program (Bolgov, Gladun, 2015).

Conclusions

Summarizing the above, it should be emphasized that crimes in the field of computer information are one of the most dangerous cybercrimes of our time, which is primarilo cause financial harm to individual users and organizations, and can pose a threat to national and international security. The public danger of crimes in the field of computer information is due to their main features, namely: latency, transnational nature, remoteness and reduced age of criminal liability.

According to the purpose of the study, the definition of the concept of crime in the field of computer information, namely, we propose to understand them as intentional socially dangerous, illegal, culpable acts that encroach on and harm public relations governing the storage, dissemination, use of information and their protection. We also highlighted the main specific features of computer information crimes, namely latency, remoteness, transnationality, reduced age of criminal responsibility and the use of social engineering skills. We have also proposed a classification of crimes in the field of computer information, we consider the following classification urgent: crimes in the field of payment systems, fraud in the field of computer

information, crimes in the field of intellectual property, crimes in the field of information security.

It is worth noting that due to the complex and specific nature of crimes in the field of computer information, there is no single universal model for identifying all possible categories of threats and directly investigating this type of crime, as evidenced by disappointing statistics.

The current state of cybercrime is dynamically transforming and adapting to the realities and needs of today, and therefore society and the state face new and new challenges that require immediate legal, organizational intervention to protect financial institutions, the banking sector and cyberspace in general. In today's world, the problem of computer information crime cannot be solved without legal countermeasures and norms of international cooperation.

Bibliographic references

Aghatise, E.J. (2008) Cybercrime Definition. Computer Research Center, Retrived from https://www.researchgate.net/publication/2653 50281_Cybercrime_definition#:~:text=Cybercr ime%20is%20defined%20as%20crimes,murde r%20or%20theft%20need%20not

Baturin, Y.M. (1991). Computer crime and computer security. M.: Legal Literature. Recovered from: https://ua1lib.org/book/3215802/04b963

Begishev, I. R. (2017). Concept and types of crimes in the sphere of digital information circulation. (PHD thesis). Kazan (Volga Region) Federal University. Recovered from: https://www.prlib.ru/item/1156241

Bessonov, V.A. (2000). Victimological aspects of crime prevention in the field of computer information. (Doctoral thesis). Nizhny Novgorod Law. Inst. of the Ministry of Internal Affairs of the Russian Federation. Recovered from: https://rusneb.ru/catalog/000200_000018_RU_ NLR_bibl_294121/

Bolgov, V.M., & Gladun, O.Z. (2015). The competence of the National Securities and Stock Market Commission in countering the legalization (laundering) of obtained incomes by criminal ways. Revision of the National Institute of Justice, 2(33). Recovered from: https://ibn.idsi.md/sites/default/files/imag_file/ 28_32_Kompetentsiya%20Natsionalnoy%20k omissii%20po%20tsennyim%20bumagam%20 i%20fondovomu%20ryinku%20v%20sfere%2 0protivodeystviya%20legalizatsii%20%28otm yivaniyu%29%20dohodov_poluchennyih%20p restupnyim%20putem.pdf

Borovukiv, V.B. (2015). Criminal Law. Kharkiv: Odyssey. Recovered from: https://stud.com.ua/53996/pravo/zagalna_chast ina

Copyright (1999). Copyright Law of the United States Title 17. Recovered from: https://www.copyright.gov/title17/

Cyber police in Ukraine. (2018). Official Web site. Recovered from: https://cyberpolice.gov.ua/results/2018/

Dobrovolsky, D.V. (2005). Actual problems of combating computer crime: Criminal-legal and criminological problems. (PHD thesis). Modern HUmanitarian Academy, Moscow. Recovered from: http://www.dslib.net/kriminal-pravo/aktualnye-problemy-borby-s-kompjuternoj-prestupnostju-ugolovno-pravovye-i.html

Dictionary of banking terms. (2022). Banki. Recovered from: https://www.banki.ru/wikibank/skimming/

Klochko, A.N., Kulish, A.N., & Reznik, O.N. (2016). The social basis of criminal law protection of banking in Ukraine. Russian Journal of Criminology, 10(4), pp. 790–800. Recovered from: https://essuir.sumdu.edu.ua/handle/123456789/49217

Kumar, A., Chatterjee, J.M., & Díaz, V.G. (2020). A novel hybrid approach of SVM combined with NLP and probabilistic neural network for email phishing. International Journal of Electrical and Computer Engineering (IJECE), 10(1), 486–493. doi: 10.11591/ijece.v10i1.

Kurushin, V. D. (1998). Computer crimes and information security. M.: New lawyer. Recovered from: https://www.twirpx.com/file/587744/

Lyadskiy, V.V. (2014). Crimes in the field of computer information. Electronic Bulletin of the Rostov Socio-Economic Institute, № 6. Recovered from: https://cyberleninka.ru/article/n/prestupleniya-v-sfere-kompyuternoy-informatsii

Law № 2341-III. Criminal Code of Ukraine. Information of the Verkhovna Rada of Ukraine, № 25-26, 2001. Recovered from: https://zakon.rada.gov.ua/laws/show/2341-14

Michael, A.D. (2019). Cybercrime: Facts & Related Content. The Information Architects of Encyclopaedia Britannica. Recovered from: https://www.britannica.com/facts/cybercrime

Privat Bank (2022) Official site. Recovered from: https://privatbank.ua/strahovaniye/zakhyst-vid-shakhraystva#:~:text=3.,4.

Rusch, J. (2005). The compleat cyber-angler: A guide to phishing. Computer Fraud & Security, (1), 4-6. doi: 10.1016/S1361-3723(05)00145-4.

Sergeev, D.R., Lyubimenko, O.A., & Savvateeva, O.V. (2020). Fraud on the internet as threat to economic security States. Theoretical Economics, 3, 76-84. Recovered from: https://cyberleninka.ru/article/n/moshennichestvo-v-seti-internet-kak-ugroza-ekonomicheskoy-bezopasnosti-gosudarstva/viewer

Smirnova, T. G. (1998). Criminal law fight against crimes in the field of computer information. (PHD thesis). Academy of Management of the Ministry of Internal Affairs of Russia. Recovered from: http://www.dslib.net/kriminal-pravo/ugolovno-pravovaja-borba-s-prestuplenijami-v-sfere-kompjuternoj-informacii.html

Vakulyk, O.O., Andriichenko, N.S., Reznik, O.M., Volik, V.V., & Yanishevska, K.D. (2019). International aspect of a legal regulation in the field of financial crime counteraction by the example of special services of Ukraine and the CIS countries. Journal of Legal, Ethical and Regulatory Issues, 22(1). Recovered from: https://www.abacademies.org/articles/international-aspect-of-a-legal-regulation-in-the-field-of-financial-crime-counteraction-by-the-example-of-special-services-of-ukr-7870.html

Verjovna Rada de Ucrania (2001). Cybercrime Convention: Convention, International document Voice of Ukraine from № 9-10. Recovered https://zakon.rada.gov.ua/laws/show/994_575#Text

Voitko, B.S., Marchenko, M.M., & Antonov, Yu. S. (2020). Social engineering as a tool for penetration into the information system of enterprise. Applied aspects of the use of information systems, 1. Recovered from: https://jait.donnu.edu.ua/article/view/9023

Yurchuk, A.M. (April, 2017). Types of cybercrime. In Korsun Yaroslav Petrovich (Presidency), VII regional interuniversity student scientific "practical conference" problems of ukrainian society: cyber crime. Separate structural subdivision "Rivne College of the National University of Life and Environmental Sciences", Rivne. Recovered from: http://prog-rdak.16mb.com/wp-content/uploads/2017/04/kiberzlochunu.pdf

Digitalization of economies of low and middle income countries in the context of digital transformation

Digitalización de las economías de los países de renta baja y media en el contexto de la transformación digital

Written by:
Tetiana Kulinich[115]
https://orcid.org/0000-0003-0110-7080
Yuliia Lisnievska[116]
https://orcid.org/0000-0003-3068-0791
Yuliia Zimbalevska[117]
https://orcid.org/0000-0003-2984-9553
Tetiana Trubnik[118]
https://orcid.org/0000-0002-0467-8930
Svitlana Obikhod[119]
https://orcid.org/0000-0002-0067-8394

Abstract

The article aims to quantify the relationship of the introduction of digital technologies on innovation, structural transformation of low- and middle-income economies through the correlation analysis of indicators of technological development (productivity of sectors) and structural transformation of Uzbekistan and Ukraine (share of value-added and employment of sectors of the economy) for 1991-2019 to assess the relationship between technology and structural shifts through the channels of value-added and employment. It is revealed that Ukraine and Uzbekistan have undergone structural transformations of the economy in favor of the service sector, while the agricultural and industrial sectors produce less and less. If Uzbekistan remains the industrial-agrarian country with an aggregate share of the added value of these sectors 59% in 2019, Ukraine transits to the post-industrial type of economy where the added value of the service

Resumen

El artículo tiene como objetivo cuantificar la relación de la introducción de tecnologías digitales en la innovación, la transformación estructural de las economías de bajos y medianos ingresos a través del análisis de correlación de indicadores de desarrollo tecnológico (productividad de los sectores) y la transformación estructural de Uzbekistán y Ucrania (participación de valor agregado y empleo de sectores de la economía) para 1991-2019 para evaluar la relación entre tecnología y cambios estructurales a través de los canales de valor agregado y empleo. Se revela que Ucrania y Uzbekistán han experimentado transformaciones estructurales de la economía a favor del sector de servicios, mientras que los sectores agrícola e industrial producen cada vez menos. Si Uzbekistán sigue siendo el país industrial-agrario con una participación agregada del valor agregado de estos sectores del 59% en 2019, Ucrania transita al tipo de economía posindustrial donde crece el valor agregado del

---

[115] Associate Professor, PhD in Economics, Lviv Polytechnic National University, Department of Management of Organizations, Ukraine.
[116] Candidate of political sciences, Associate Professor of Public Administration and Law, Educational and scientific institute of management, Communal institution of higher education "Dnipro academy of continuing education" of Dnipropetrovsk regional council", Ukraine.
[117] Associate Professor, Kyiv National University of Technologies and Design, Department of Marketing and Communication Design, Ukraine.
[118] Associate professor, PhD, Taras Shevchenko National University of Kyiv, Department of Statistics, Ukraine.
[119] Assistant Professor, PhD in Economics, Zhytomyr Polytechnic State University, Ukraine.

sector in GDP grows (55% compared to agrarian and industrial sectors at 42%).

Keywords: digital technologies, digitalization of the economy, innovative transformations, structural transformations, transformation of the economy.

sector servicios en el PIB (55% en comparación con sectores agrario e industrial en 42%).

Palabras clave: tecnologías digitales, digitalización de la economía, transformaciones innovadoras, transformaciones estructurales, transformación de la economía.

Introduction

The emergence of new and powerful digital technologies, digital platforms, digital infrastructure and the development of the ICT sphere have significantly changed innovation and contributed to the structural transformation of economies in different countries. The technology not only opens up new opportunities for economic activity based on innovation. It also has a significant impact on value creation and employment, causing the development of the service sector, which ensures the technologization of the economy and structural shifts. Technology has driven the digital transformation of the economy and social relations (Nambisan, Wright & Feldman, 2019). However, while in high-income countries, digital development began in the 1970s (e.g., Germany's share of communications, computer, information, and other services exports was 63% in 1975, 48% in 2008, 58% in 2017; the United States 49%, 47%, and 46% respectively; Britain 39%, 39%, and 46% respectively) (World Bank, 2021a), in low and middle-income countries the 1990s and even after 2005 through the political regime, has held back economic development and innovation. There are discussions in the scientific literature about the channels of influence of digital technology on the innovative, structural transformation of the economies of different countries. At the same time, there are no studies of the relationship between technological development and structural changes due to innovation in low- and middle-income countries.

This article aims to quantify the relationship of the introduction of digital technology on innovation, structural transformation of the economies of low- and middle-income countries.

Literature review

The workforce composition has changed substantially in recent decades (mostly since the early 200s), in part due to technological change, but the impact of digital technology on jobs, employment, and value-added in various sectors of the economy is far from certain (Bogoviz, 2020). On the one hand, the accumulated evidence of digital adoption indicates that it is moving beyond the usual scope of automation, conditioning the economic effects of technological change: recent estimates suggest that 47% of U.S. jobs will be automated over the next few decades. On the other hand, the data point to a lack of large-scale changes in employment and jobs due to technology and digitalization. For example, only 0.5% of the U.S. workforce is employed in digital industries since the early 2000s (Mysachenko, Komarov & Reshetov, 2020). It shows that there is a lack of research that proves the overall demand for jobs has declined through the computer revolution, as technologically stagnant industries (including health care, government services, and personal services) continue to create high employment opportunities (Schwertner, 2017). However, as the potential for automation expands, many sectors that were technologically stagnant in the past are becoming more technologically progressive (Berger & Frey, 2016; Hoberg, Krcmar & Welz, 2017).

Recent innovation research has tried to unpack these implications in more specific or concrete terms. For example, studies have shown how digital technologies fuel new forms of innovation initiatives that cross traditional industry/sectoral boundaries, embrace networks, ecosystems, and communities, integrate digital and non-digital assets, and accelerate the inception, scaling, and evolution of new ventures (Huang et al., 2017; Lyytinen et al., 2016; Rayna et al., 2015; von Briel et al., 2018; Younkin and Kashkooli, 2016).

Similarly, studies have also documented the ways by which established large companies (such as GE, Volvo, Johnson Controls, Caterpillar, and Boeing) have tried to redefine themselves and radically restructure their innovation strategies and practices to respond to digitization (e.g., Fitzgerald & Battilana, 2014; Svahn et al., 2017). More broadly, studies (Nambisan, 2017; Nambisan et al., 2017) have noted that the infusion of new digital technologies transforms the nature of uncertainty inherent in innovation (in terms of processes and outcomes) thereby, encouraging a radical rethink

of how individuals, organizations, and collectives may pursue creative endeavors. Importantly, digitization of innovation also holds implications at a broader regional/national and societal levels with the potential to inform policy-making entities and other stakeholders. For example, studies have indicated how digitization can translate into innovation productivity gains, increased regional entrepreneurial activity, and broader economic and social benefits (Burtch et al., 2018; Kenney and Zysman, 2016). Similarly, digital infrastructures and platforms have allowed for the emergence of new work structures that redefine industry/sectoral boundaries and shape local and regional economic health (Malone, 2018;). Digitization has also compelled government agencies and other public institutions to rethink the laws, regulations, and policies related to a wide range of issues, including intellectual property rights, data privacy and security, consumer rights, worker skills and training, entrepreneurial financing and securities, incubator/accelerator programs, and regional/local economic development (Martin, 2018; Sorenson et al., 2016; Zysman and Kenney, 2018).

Digital technology, technological change, and innovation provide economic diversification and influence the structural transformation of a country. The literature uses indicators of economic sophistication to assess the level of technological development and the state and evolution of a country's technological development (Freire, 2021). Freire (2021) proposes the following system of indicators of technological development of the country's economy:

1. Output per worker (in PPP US$ 2011).
2. Share in global merchandise exports (%).
3. High-technology manufactures exports (% of total merchandise trade).
4. Digitally deliverable services exports (% of total service trade).

5. ICT Service Exports (% of service exports, BoP).
6. Researchers in R&D (per million people) (2018).
7. Internet users (% of the population) (2017).

However, a major limitation to assessing these indicators is the lack of data, especially for low-income countries, where the adoption of digital technologies in various sectors of the economy is taking place with a significant lag compared to developed, high- and middle-income countries.

Methodology

This article uses the correlation analysis of indicators of technological development (productivity of sectors) and structural transformation of Uzbekistan and Ukraine (share of value-added and employment of sectors of the economy) for 1991-2019 to assess the relationship between technology and structural shifts through the channels of value-added and employment. Formed a system of indicators of technological and innovative development of Uzbekistan and Ukraine for 1991-2019, indicators of structural transformation of the economies of the countries.

Results

Uzbekistan is in a state of transition to a market economy, while Ukraine is actively joining the EU, fulfilling the conditions of the European integration agreement (market liberalization, development of competition, decentralization, development of e-democracy, etc.). The dynamics of adjusted net income per capita in the countries depend on the global market conditions. In Ukraine, there is a correlation between the economic recession and the decrease in income (Figure 1) in 2009 (for $1,240), In 2014-2015 (a decrease of $1,522) in Uzbekistan from 2002-2003, there is an increase in income by 2015 (an increase of $1978) and a decrease in 2017-2018 (for $1,038).
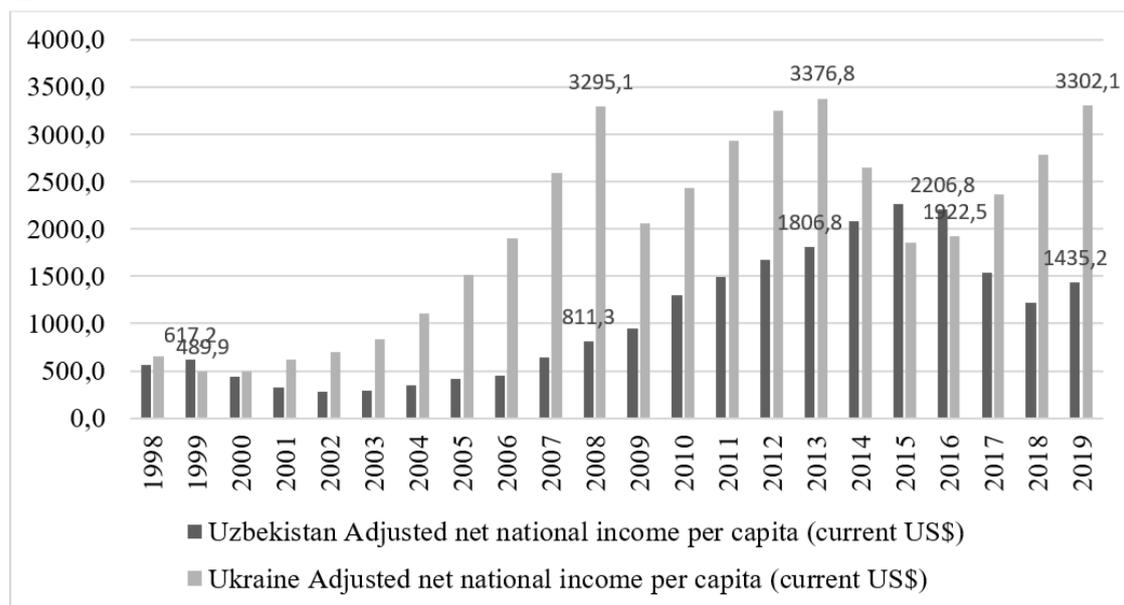
Figure 1. Uzbekistan and Ukraine adjusted net national income per capita (current US$), 1998-2019
Source: World Bank (2021a; b).

Uzbekistan's industrial-agrarian economy with an authoritarian regime As shown in Table 1, the value-added per worker in the agricultural sector of Uzbekistan was $5639,78 in 2019. In the industrial sector, it was $6723,15, and in the service sector - $4552,78. At the same time, the increase in value-added occurred in the industrial sector by $2844,88 during 2019-2010, while the service sector increased by $1788,03. The agricultural sector grew by $1475,55.

Table 1.

The dynamics of the technological and innovative development indicators of Uzbekistan, 1991-2019

Indicators of technological and innovative development	1991	2000	2005	2010	2015	2018	2019	Deviation +/- (2019-2010)
Agriculture, forestry, and fishing, value-added per worker (constant 2010 US$)	2250,96	2151,56	2835,09	4164,23	4989,13	5356,57	5639,78	1475,55
Communications, computer, etc. (% of service exports, BoP)	-	-	-	10,24	4,93	3,56	3,04	-7,20
Computer, communications, and other services (% of commercial service exports)	-	-	-	15,83	16,99	10,88	9,94	-5,90
High-technology exports (% of manufactured exports)	-	-	-	-	-	0,46	0,73	-
ICT goods exports (% of total goods exports)	-	-	-	-	-	0,11	0,12	-
ICT service exports (% of service exports, BoP)	-	-	-	-	-	-	-	-
Individuals using the Internet (% of the population)	0,00	0,48	3,34	15,90	42,80	55,20	70,40	54,50

Industry (including construction), value-added per worker (constant 2010 US$)	3560,98	2634,08	2734,81	3878,27	5134,62	6257,61	6723,15	2844,88
Merchandise exports to high-income economies (% of total merchandise exports)	-	9,08	9,19	9,19	9,19	5,27	4,58	-4,61
Merchandise exports to low- and middle-income economies outside region (% of total merchandise exports)	-	54,26	54,90	54,95	54,95	26,54	21,87	-33,08
Merchandise exports to low- and middle-income economies within the region (% of total merchandise exports)	-	36,38	35,83	35,86	35,86	41,47	38,17	2,31
Researchers in R&D (per million people)		662,25	632,78	544,96	497,42	476,18		-544,96
Services, value-added per worker (constant 2010 US$)	2847,16	2418,83	2302,59	2764,51	3908,94	4393,56	4552,54	1788,03

Source: calculated by the author based on World Bank (2021b).

The share of computer, ICT, and other technology exports in services exports is 10.24% in 2010, 3.04% in 2019 in Uzbekistan, decreasing by 7.2%. The share of computer, communications, and other services exports in commercial service exports also decreased by 5.9% in 2010-2019. The share of high-tech exports is only 0.73% in 2019, ICT goods exports are 0.12% in 2019, with absolutely no ICT services exports. Goods exports to high-income countries accounted for 9% of total goods exports on average from 2000-2015, falling to 4.58% in 2019. Goods exports to low- and middle-income countries outside the region accounted for 55% of total goods exports in 2000-2015, declining to 22% in 2019. Goods exports to low- and middle-income countries in the region were 36% of total goods exports in 2000-2015, declining slightly to 38% in 2019. Thus, digital technology and services are underdeveloped in Uzbekistan. The number of R&D researchers has decreased by 545 people per million population.

Compared to Uzbekistan, Ukraine has active processes of Europeanization and integration into the EU. The economy of Ukraine - raw material (the export of raw materials industries and agricultural sector in developed countries prevails) and industrial-agrarian. The value-added of the agrarian sector increased by $3,213.02 per employee in 2019-2020, while the added value of industry decreased by $915.06 per employee, which means a decrease in productivity in the industrial sector, and a gradual increase in productivity of the agrarian sector. At the same time, the service sector is growing moderately: the value-added increased by $233,18/per worker and is significantly higher than the agricultural and industrial sectors.

Compared to Uzbekistan, Ukraine has a more developed ICT sector: the share of ICT and equipment exports in total exports was 14.23% in 2019, which has decreased significantly in 2018-2019 (by 18.73%).

Table 2.

The dynamics of technological and innovative development indicators of Ukraine, 1991-2019

Indicators of technological and innovative development	1991	2000	2005	2010	2015	2018	2019	Deviation +/- (2019-2010)
Agriculture, forestry, and fishing, value-added per worker (constant 2010 US$)	1859,23	1400,27	1930,15	2501,31	4417,40	5401,08	5714,33	3213,02
Communications, computer, etc. (% of service exports, BoP)	-	26,17	25,78	32,96	46,89	16,03	14,23	-18,73
Computer, communications, and other services (% of commercial service exports)	-	26,17	22,51	30,70	45,84	51,33	53,05	22,35
High-technology exports (% of manufactured exports)	-	-	-	-	8,75	5,58	-	-
ICT goods exports (% of total goods exports)	-	1,52	0,51	1,07	0,82	0,98	-	-
ICT service exports (% of service exports, BoP)	-	1,22	1,50	3,92	16,92	-	-	-
Individuals using the Internet (% of the population)	0,00	0,72	3,75	23,30	48,88	62,55	70,12	46,82
Industry (including construction), value-added per worker (constant 2010 US$)	10270,32	5047,78	6899,92	6886,01	5298,05	5894,26	5970,95	-915,06
Merchandise exports to high-income economies (% of total merchandise exports)	-	41,42	39,69	32,00	41,13	50,08	49,22	17,22
Merchandise exports to low- and middle-income economies outside region (% of total merchandise exports)	-	17,96	20,49	22,06	28,31	27,18	29,51	7,46
Merchandise exports to low- and middle-income economies within the region (% of total merchandise exports)	-	39,93	39,82	44,94	30,30	22,72	21,26	-23,68
Researchers in R&D (per million people)	-	-	-	1327,99	1006,00	988,08		-1327,99
Services, value-added per worker (constant 2010 US$)	8938,59	4940,51	6533,17	6966,39	6185,42	6850,85	7199,57	233,18

Source: calculated by the author based on World Bank (2021c).

Meanwhile, the share of computer, communications, and other services in commercial service exports increased by 22.35% over 2019-2010 to 53.05%. The share of high-tech exports is 5.58% in 2018. Despite differences in technological development, countries have the same level of Internet use by the population - 70% in 2019. The share of ICT sector exports was 1-1.5% in 2000-2018 of total merchandise exports. The share of exports of ICT sector services increased significantly in 2015 to 17% from 4% in 2010 due to the active development of the IT industry in Ukraine.

Exports of goods to high-income countries accounted for 38.66% of total goods exports on average in 2000-2015, rising to 49.22% in 2019. Goods exports to low- and middle-income countries outside the region accounted for 22.2% of total goods exports in 2000-2015, rising to

29.51% in 2019. Exports of goods to low- and middle-income countries in the region accounted for 38.75% of total goods exports in 2000-2015, with a significant decline to 21.26% in 2019.

Thus, Uzbekistan is gradually undergoing an innovative and structural transformation of the economy: the country is increasing the productivity of the agricultural, industrial, and service sectors, but the ICT sector is virtually undeveloped. In comparison, in Ukraine, there are no significant structural transformations due to a significant drop in productivity of the industrial sector, with stable growth in productivity of the agricultural sector due to technology and a slight increase in productivity of the service sector. At the same time, Ukraine saw an increase in exports of ICT services in the country's commercial exports, and there is a significant excess of the added value of the services sector over the added value of the industry.

Table 3 shows the indicators of structural transformation of the economy of Uzbekistan. Despite the growth of productivity in the agricultural sector and industry, the share of the added value of agriculture in the country's GDP decreased by 11.55%, industry by 4%, while the share of the service sector increased by 6.37%. Accordingly, employment in the agricultural and industrial sectors decreased (by 15% and 3%, respectively), employment in services increased by 17.7% through 1991-2019. It means a gradual structural and innovative transformation of the economy at the expense of technology in Uzbekistan.

Table 3.

The dynamics of indicators of the economy structural transformation of Uzbekistan, 1991-2019

Indicators of the economy structural transformation	1991	2000	2005	2010	2015	2018	2019	Deviation +/- (2019-1991)	Deviation +/- (2019-2010)
Agriculture, forestry, and fishing, value-added (% of GDP)	37,09	30,06	26,33	28,70	30,77	27,95	25,54	-11,55	-3,16
Industry (including construction), value-added (% of GDP)	36,68	20,23	26,01	22,63	23,72	28,99	32,68	-4,00	10,05
Services, value-added (% of GDP)	26,54	37,19	37,04	35,88	35,92	31,85	32,90	6,37	-2,98
Employment in agriculture (% of total employment) (modeled ILO estimate)	40,67	39,08	33,69	26,81	27,58	26,65	25,71	-14,96	-1,10
Employment in industry (% of total employment) (modeled ILO estimate)	25,80	21,51	21,31	22,70	22,90	22,66	23,02	-2,78	0,32
Employment in services (% of total employment) (modeled ILO estimate)	33,53	39,41	45,01	50,49	49,52	50,69	51,27	17,74	0,78

Source: calculated by the author based on World Bank (2021b).

The share of the value-added of the agrarian sector in Ukraine is half as much as in Uzbekistan (9% and 25% respectively), which also decreased by 16% from 1991 to 2019. The share of the value-added industry in GDP has also significantly decreased - by 32% for 1991-2019, but the indicator is significantly lower compared to Uzbekistan (22.6% and 32.6% respectively). The share of the added value of the service sector in Ukraine's GDP increased by 25.5% over 1991-2019, significantly higher than that of Uzbekistan: 55% in 2019 compared to 33% of Uzbekistan.

Table 4.
The dynamics of structural transformation indicators of Ukrainian economy, 1991-2019

Indicators of the economy structural transformation	1991	2000	2005	2010	2015	2018	2019	Deviation +/- (2019-1991)	Deviation +/- (2019-2010)
Agriculture, forestry, and fishing, value-added (% of GDP)	24,61	14,49	9,13	7,45	12,06	10,14	8,97	-15,64	1,52
Industry (including construction), value-added (% of GDP)	54,55	30,81	28,39	25,90	21,73	23,32	22,61	-31,94	-3,29
Services, value-added (% of GDP)	28,88	39,53	50,25	55,08	51,17	51,31	54,46	25,58	-0,62
Employment in agriculture (% of total employment) (modeled ILO estimate)	25,11	26,50	23,34	20,33	15,26	14,42	13,82	-11,29	-6,51
Employment in industry (% of total employment) (modeled ILO estimate)	29,39	24,51	25,17	25,68	24,69	24,61	24,96	-4,43	-0,72
Employment in services (% of total employment) (modeled ILO estimate)	45,51	48,99	51,49	53,99	60,05	60,96	61,22	15,71	7,23

Source: calculated by the author based on World Bank (2021c).

Thus, Ukraine and Uzbekistan have undergone structural transformations of the economy in favor of the service sector, while the agricultural and industrial sectors produce less and less. If Uzbekistan remains an industrial-agrarian country with an aggregate share of value-added of these sectors at 59% in 2019, Ukraine is transitioning to a post-industrial type of economy in which the value-added of services in GDP is growing (55% compared to the agrarian and industrial sectors at 42%).

Correlation analysis of indicators of technological development (productivity of sectors) and structural transformations of Uzbekistan (share of added value and employment of sectors of the economy) indicate a strong direct connection between productivity in the agrarian and industrial sector of the country and productivity of service sector (correlation coefficients 0,9017 and 0,9858 respectively). In addition, a strong inverse relationship is found between the productivity of the three sectors and the level of employment in the agricultural sector. The reduction in employment in agriculture leads to an increase in the productivity of all sectors of the economy at the expense of technological development. At the same time, a strong direct relationship is found between productivity in all sectors and employment in the service sector. This means that structural changes in employment have a positive effect on labor productivity, which characterizes the innovativeness of the economy. It can also mean that the growth of productivity of the sectors of the economy of Uzbekistan, which characterizes innovativeness, contributes to the structural transformation of employment in the country.

Table 5.

The correlation analysis of technological development and structural transformation of indicators in Uzbekistan

	Agriculture, forestry, and fishing, value-added per worker	*Industry (including construction), value-added per worker*	*Services, value-added per worker*	*Agriculture, forestry, and fishing, value-added*	*Industry (including construction), value-added*	*Services, value-added*	*Employment in agriculture (%)*	*Employment in industry (%)*	*Employment in services (%)*
Agriculture, forestry, and fishing, value-added per worker	1,000								
Industry (including construction), value-added per worker	0,925	1,000							
Services, value-added per worker	**0,902***	**0,986***	1,000						
Agriculture, forestry, and fishing, value-added (% of GDP)	-0,061	0,123	0,125	1,000					
Industry (including construction), value-added (% of GDP)	0,0550	0,1963	0,196	-0,036	1,000				
Services, value-added (% of GDP)	0,004	-0,292	-0,288	-0,723	-0,529	1,000			
Employment in agriculture (% of total employment)	**-0,949***	**-0,775***	**-0,725***	0,204	0,022	-0,214	1,000		
Employment in industry (% of total employment)	0,003	0,183	0,222	0,481	0,669	-0,793	0,163	1,000	
Employment in services (% of total employment)	**0,904***	**0,705***	**0,649***	-0,284	-0,145	0,351	-0,983	-0,340	1,000

Source: calculated by the author
* significant at 5%

The correlation analysis of the technological development and structural transformations indicators (productivity of sectors) of Ukraine (the share of value-added and employment of economic sectors) indicate an average inverse relationship between the productivity of the agricultural, industrial sectors and the productivity of services (-0.723 and -0.529, respectively).

Table 6.
The correlation analysis of technological development and structural transformations indicators in Ukraine

	Agriculture, forestry, and fishing, value-added	Industry (including construction), value-added	Services, value-added	Agriculture, forestry, and fishing, value-added	Industry (including construction), value-added	Services, value-added	Employment in agriculture	Employment in industry	Employment in services
Agriculture, forestry, and fishing, value-added (% of GDP)	1,000								
Industry (including construction), value-added (% of GDP)	-0,036	1,000							
Services, value-added (% of GDP)	**-0,723**	**-0,529**	1,000						
Agriculture, forestry, and fishing, value-added (% of GDP)	**0,602**	**0,411**	**-0,724**	1,000					
Industry (including construction), value-added (% of GDP)	0,395	0,494	-0,535	0,784	1,000				
Services, value-added (% of GDP)	-0,464	-0,289	**0,512**	-0,837	-0,914	1,000			
Employment in agriculture (% of total employment)	0,035	-0,125	0,061	0,445	0,658	-0,709	1,000		
Employment in industry (% of total employment)	0,349	**0,664**	**-0,622**	0,682	0,824	-0,638	0,339	1,000	
Employment in services (% of total employment)	-0,122	-0,064	0,109	-0,570	-0,795	0,791	-0,969	-0,561	1,000

Source: calculated by the author based on World Bank (2021c).
The highlighted correlation coefficients are significant at 5%

The estimated correlation coefficients indicate an average direct relationship between the productivity of the agricultural and industrial sectors and the share of value-added of the agricultural sector (0.602 and 0.411, respectively). At the same time, there is a strong inverse relationship (-0.724) between the productivity of the service sector and the share of agricultural value-added in GDP. The productivity of the service sector contributes to its share of GDP value-added (0.512). The productivity of the industrial sector has a direct positive effect on employment in that sector (0.664). However, service sector productivity harms industrial employment (-0.622).

Discussion

In Uzbekistan, the development of the digital economy and society at the national level began only in 2018 with the adoption of the Decree of the President of the Republic of Uzbekistan "On Additional Measures for the Implementation of the Digital Economy, Electronic Government and Information Systems in Public Administration of the Republic of Uzbekistan" on December 13, 2018. The decree should help create conditions for the rapid development of the digital economy, further improvement of the public administration system, development of digital infrastructure, attraction and consolidation of investor funds for projects related to the development of the digital economy, promotion of privatization enterprises, and competition, introduction of innovative management with the involvement of qualified specialists, modernization and technological re-equipment of telecommunications equipment and the like. Digitalization of the country provides for step-by-step ensuring full coverage of the territory of the Republic of Uzbekistan with access to the global Internet at the level of

developed countries and ensuring the transfer of all government services to data centers (Shadibekova, 2019).

In Ukraine, as well, the intensification of the implementation of digital technologies to ensure innovative changes began in 2018 with the adoption by the Cabinet of Ministers of Ukraine of the Concept of development of the digital economy and society of Ukraine for 2018-2020 and the approval of the action plan for its implementation. Similar to Uzbekistan, in Ukraine users and the private sector are significantly ahead of the state (government) and industry, the agricultural sector in the digital development (the same level of use of the Internet by citizens). State technological changes are not enough for the innovative and structural shift in the economy. The main barriers to the introduction of digital technology in the economy of Ukraine are an institutional, infrastructural, ecosystem, public administration, and the development of e-government and democracy. In particular, the main institutional barriers are the low level of involvement of state institutions in the implementation of the Concept of Digital Economy and Society Development (Digital Agenda of Ukraine), the mismatch between the global digital challenges and the capabilities of the relevant legislation (lack of legality of progressively developed bills), the mismatch between national, regional, industry strategies and development programs to digital opportunities. In the field of digital infrastructure development, the following main problems are worth highlighting:

- the low level of coverage of the territory with digital infrastructure (about 60% in Ukraine);
- the lack of certain types of digital infrastructure (in particular, the Internet of Things infrastructure, electronic identification, etc.);
- unequal access of citizens to digital technologies, and new opportunities (digital gaps).

The main ecosystem barriers are weak state policy of stimulating and encouraging the development of innovative economy, immature market of investment capital, outdated education system, teaching methods, especially in IT specialties, lack of priorities in STEM education, supporting soft skills rather than entrepreneurial skills, imperfect models of technology transfer and consolidation of knowledge and skills; lack of highly qualified personnel who could provide the full development of digital economy and

digitalization In the field of e-government and governance ("state in a smartphone") there is a low level of digitalization of public services through the weak motivation of government institutions (there is no full understanding of the potential benefits of full digitalization).

Conclusion

Uzbekistan's industrial-agrarian economy with an authoritarian regime is in a state of transition to a market economy, while Ukraine is actively joining the EU, fulfilling the conditions of the European integration agreement (market liberalization, development of competition, decentralization, development of e-democracy, etc.). Digital technologies and services are poorly developed in Uzbekistan. The number of R&D researchers has decreased by 545 people per one million population. Compared to Uzbekistan, Ukraine has active processes of Europeanization and integration into the EU. The economy of Ukraine - raw material (the export of raw materials industries and the agrarian sector in developed countries prevails) and industrial-agrarian. Compared to Uzbekistan, Ukraine has a more developed ICT sector: the share of ICT and equipment exports in total exports was 14.23% in 2019, declining significantly in 2018-2019 (by 18.73%). Uzbekistan is gradually undergoing an innovative and structural transformation of its economy: the country's agricultural, industrial, and service sectors are growing in productivity, but the ICT sector is virtually undeveloped. In comparison, in Ukraine, there are no significant structural transformations due to a significant drop in productivity of the industrial sector, with stable growth of productivity of the agricultural sector due to technology and a slight increase in productivity of the service sector. At the same time, Ukraine saw an increase in exports of ICT services in the country's commercial exports, and there is a significant excess of value-added of the services sector over the value-added of industry. Ukraine and Uzbekistan have seen a structural transformation of their economies in favor of the service sector, while the agricultural and industrial sectors are producing less and less. While Uzbekistan remains an industrial-agrarian country with a combined value-added share of these sectors at 59% in 2019, Ukraine is transitioning to a post-industrial type of economy with a growing value-added of services in GDP (55% compared to the agrarian and industrial sectors at 42%).

Bibliographic references

Berger, T., & Frey, C. B. (2016). Structural transformation in the OECD: Digitalization, deindustrialization and the future of work. OECD https://dx.doi.org/10.1787/5jlr068802f7-en

Bogoviz, A. V. (Ed.). (2020). Complex Systems: Innovation and Sustainability in the Digital Age. Studies in Systems, Decision and Control. Vol 1. Springer. doi: https://dx.doi.org/10.1007/978-3-030-44703-8

Burtch, G., Carnahan, S., & Greenwood, B. N. (2018). Can you gig it? An empirical examination of the gig economy and entrepreneurial activity. Management Science, 64(12), 5497-5520.

Fitzgerald, M., & Battilana, D. (2014). Fantasia: music evolved. In ACM SIGGRAPH 2014 Computer Animation Festival (pp. 1-1).

Freire, C. (2021). Technological transformation and innovation for economic diversification and structural transformation in CDDCs. United Nations conference on trade and development https://unctad.org/system/files/non-official-document/DITC_COM_2021_D_BN03_en.pdf

Hoberg, P., Krcmar, H., & Welz, B. (2017). Skills for digital transformation. Technical university of Munich, chair for information systems, Study.

Huang, J., Henfridsson, O., Liu, M. J., & Newell, S. (2017). Growing on steroids: Rapidly scaling the user base of digital ventures through digital innovation. Mis Quarterly, 41(1).

Kenney, M., & Zysman, J. (2016). The rise of the platform economy. Issues in science and technology, 32(3), 61.

Lyytinen, K., Yoo, Y., & Boland Jr, R. J. (2016). Digital product innovation within four classes of innovation networks. Information Systems Journal, 26(1), 47-75.

Malone, T. W. (2018). How human-computer 'Superminds' are redefining the future of work. MIT Sloan management review, 59(4), 34-41.

Martin, K. (2018). The penalty for privacy violations: How privacy violations impact trust online. Journal of Business Research, 82, 103-116.

Mysachenko, V. I., Komarov, V. Y., & Reshetov, K. Y. (2020). Innovation and structural transformation of industry. In Complex Systems: Innovation and Sustainability in the Digital Age (pp. 257-265). Springer, Cham.

Nambisan, S. (2017). Digital entrepreneurship: Toward a digital technology perspective of entrepreneurship. Entrepreneurship theory and practice, 41(6), 1029-1055.

Nambisan, S., Lyytinen, K., Majchrzak, A., & Song, M. (2017). Digital Innovation Management: Reinventing innovation management research in a digital world. MIS quarterly, 41(1).

Nambisan, S., Wright, M., & Feldman, M. (2019). The digital transformation of innovation and entrepreneurship: Progress, challenges and key themes. Research Policy, 48(8), 103773. https://doi.org/10.1016/j.respol.2019.03.018

Rayna, T., Striukova, L., & Darlington, J. (2015). Co-creation and user innovation: The role of online 3D printing platforms. Journal of Engineering and Technology Management, 37, 90-102.

Shadibekova, D. (2019). Challenges on digital economy in sample of various income economies as a development instrument in Uzbekistan. Scientific research archive [Arkhiv nauchnykh issledovaniy]. American Journal of economics and business management, 2(2).

Schwertner, K. (2017). Digital transformation of business. Trakia Journal of Sciences, 15(1), 388-393.

Sorenson, O., Assenova, V., Li, G. C., Boada, J., & Fleming, L. (2016). Expand innovation finance via crowdfunding. Science, 354(6319), 1526-1528.

Svahn, F., Mathiassen, L., & Lindgren, R. (2017). Embracing Digital Innovation in Incumbent Firms: How Volvo Cars Managed Competing Concerns. MIS Q., 41(1), 239-253.

von Briel, F., Recker, J., & Davidsson, P. (2018). Not all digital venture ideas are created equal: Implications for venture creation processes. The Journal of Strategic Information Systems, 27(4), 278-295.

World Bank (2021a). Communications, computer, etc. (% of service exports, BoP) - United Kingdom. https://data.worldbank.org/indicator/BX.GSR.CMCP.ZS?locations=GB

World Bank (2021b). Uzbekistan. https://data.worldbank.org/country/uzbekistan?view=chart

World Bank (2021c). Ukraine. https://data.worldbank.org/country/ukraine

Younkin, P., & Kashkooli, K. (2016). What problems does crowdfunding solve?. California Management Review, 58(2), 20-43.

Zysman, J., & Kenney, M. (2018). The next phase in the digital revolution: intelligent tools, platforms, growth, employment. Communications of the ACM, 61(2), 54-63.

Mishchenko, A., Lukianets-Shakhova, V., Abdel Fatah, A., Sklema, T., Ustinova-Boichenko, H. / Volume 11 - Issue 51: 312-321 / March, 2022

312

Legal limitations of socio-economic rights: positive and negative experience of Europe

Limitaciones legales de los derechos socioeconómicos: experiencia positiva y negativa de Europa

Written by:
Alina Mishchenko[120]
https://orcid.org/0000-0003-2578-510X
Valentyna Lukianets-Shakhova[121]
https://orcid.org/0000-0003-2397-613X
Anna Abdel Fatah[122]
https://orcid.org/0000-0001-9494-7614
Tetiana Sklema[123]
https://orcid.org/0000-0002-4921-4929
Hanna Ustinova-Boichenko[124]
https://orcid.org/0000-0001-5821-3832

Abstract

The article shows the review of legislative restrictions in European countries which deal with the limitations of the socio-economic rights of the population. The research aims to analyze the limits of human and civil rights and freedoms in modern conditions and directly related relations based on the study and generalization of the doctrinal heritage of legal science, current European legislation, and practice of its application. The article highlights the critical analysis of scientists' opinions on the formation and limitation of socio-economic rights, makes a general assessment of the legislative regulation of this issue. As a result, the features of legislative protection of human rights in European countries, the place of socio-economic rights in the general human rights, and their importance for the socio-economic development of society are shown. Furthermore, the main principles of legislative regulation and practical restrictions are shown: the supreme source of law, indivisibility, and interrelatedness of rights, the doctrine of the supreme public right over the

Resumen

El artículo muestra la revisión de las restricciones legislativas en los países europeos que se ocupan de las limitaciones de los derechos socioeconómicos de la población. La investigación tiene como objetivo analizar los límites de los derechos y libertades humanos y civiles en las condiciones modernas y las relaciones directamente relacionadas a partir del estudio y la generalización del acervo doctrinario de la ciencia jurídica, la legislación europea actual y la práctica de su aplicación. El artículo destaca el análisis crítico de las opiniones de los científicos sobre la formación y limitación de los derechos socioeconómicos, hace una valoración general de la regulación legislativa de este tema. Como resultado, se muestran las características de la protección legislativa de los derechos humanos en los países europeos, el lugar de los derechos socioeconómicos en los derechos humanos generales y su importancia para el desarrollo socioeconómico de la sociedad. Además, se muestran los principios fundamentales de la regulación legislativa y las restricciones prácticas:

[120] PhD student, constitutional law and human rights department, National Academy of Internal Affairs, Ukraine.
[121] Candidate of Law Science , Associate Professor, professor of constitutional law and human rights department, constitutional law and human rights department, National Academy of Internal Affairs, Ukraine.
[122] Ph.D. candidates, lecturer, Department of Civil and Commercial Law, Donetsk State University of Internal Affairs, Ukraine.
[123] Graduate student, teacher, faculty No. 2 Department of civil and economic law, Donetsk State University of internal affairs, Ukraine.
[124] PhD in law, Docent, assistant professor, Kryvyi Rih Educational and Scientific Institute, Department of Civil and Commercial Law, Donetsk State University of Internal Affairs, Ukraine.

individual one, the principle of formation of rights and restrictions under the national specifics. All this allowed, as a result, to make a comparative analysis of the positive and negative experience of state regulation of socio-economic rights and summarize the conclusion that ensuring social and economic rights of some people can create prerequisites for the formation of socio-economic restrictions for others. In such situations, the state must perform a controlling function, which will ensure a balance between the rights of some parties and the limits of others.

Keywords: socio-economic rights, individual rights, Covid-19, ecological development.

la fuente suprema del derecho, la indivisibilidad e interrelación de los derechos, la doctrina del derecho público supremo sobre el individual, el principio de formación de los derechos y las restricciones en el orden nacional. detalles específicos. Todo esto permitió, como resultado, hacer un análisis comparativo de la experiencia positiva y negativa de la regulación estatal de los derechos socioeconómicos y resumir la conclusión de que garantizar los derechos sociales y económicos de algunas personas puede crear requisitos previos para la formación de derechos socioeconómicos. Restricciones para otros. En tales situaciones, el Estado debe realizar una función de control, que asegure un equilibrio entre los derechos de unas partes y los límites de otras.

Palabras clave: derechos socioeconómicos, derechos individuales, Covid-19, desarrollo ecológico.

Introduction

A democratic society cannot exist without forced restrictions on social and economic rights. The community has to limit its interests for the sake of the public good and the achievement of consensus of peaceful coexistence. The indicated restrictions directly relate to the human and civil rights and freedoms that can be legally, and most importantly, practically ensured and guaranteed only in democracies.

Legislators of the EU countries have developed many laws aimed at improving the socio-economic life level through restricting the rights and freedoms of an individual. Tariffs, reforms, taxes, fines, subsidies, and other modern regulations have become legal restrictions for people, making life quite difficult. As a result, such rules work to improve the overall social and economic situation in the country. Still, at the same time, they can harm the rights of specific people, so they may not be able to cope with organizing their own lives. On the one hand, such policies are capable of forming a developed democratic society, but, on the other hand, threaten to undermine social conditions and, as a consequence, mental and physical health and even death. The observance of a balance in the state's regulation and restriction of social and economic rights is the main problem in the formation of states' socio-economic policy. Practice shows that quite often, such limitations may not always be legitimate. Cases of illegal abuse of opportunities by both the population and the authorities are also possible, leading to human and civil rights violations. Such situations can often be met in inviolability problems,

property rights, possession of information, activities of political organizations, and judicial proceedings. The article's relevance was strengthened by the pandemic restrictions of 2020-2021, which made the problem even more acute. Many people have lost their means of living under quarantine restrictions, and some are losing their health and lives altogether under the state's failure to provide free treatment.

The purpose of the article is to analyze the limitations of human and civil rights and freedoms in modern conditions and directly related relations based on the study and generalization of the doctrinal heritage of legal science, current European legislation, and the practice of its application.

Literature Review

The issue of theoretical aspects of the formation of human rights restrictions is quite studied. In particular, there is enough modern literature that examines the problem in the context of certain countries today. It is worth highlighting the study of Mernyk A. et al. (2020), who studied theoretical and practical aspects of restrictions on human rights and freedoms on the example of Ukraine.

The literature study shows that, in general, scientific researchers are consistent in the perception of social and economic law. Thus, Veprytskij R. (2008), in his dissertation, reveals the content of the concept of "socioeconomic rights" as "the opportunities of a person and

citizen in the sphere of property, entrepreneurship, labor and recreation, social protection, housing, and health care. The law aims to create conditions for the formation and development of the personal property, work, and the security of workers who find themselves in a difficult situation in the state and society. European researchers Piovesan F. (2005); Fredman S & Wesson. (2009); also agree with this interpretation.

Equally important is the issue of clarifying the essence of the concept of "human rights restrictions". It can be defined as international and national law interventions that lead to changes in the scope of human rights and freedoms in the public interest and ensure the balance of interests to protect constitutional values (Kostytskij, 2010; Fredman & Wesson, 2009).

However, these studies have only dealt with the theoretical aspect of limiting socioeconomic human rights. Theoretical and practical analysis of this topic was conducted only concerning fundamental human and civil rights, which does not allow to consider the criteria of limitation of human and civil rights and freedoms in modern conditions. That is why this study is of particular relevance since it has theoretical and applied content.

It should be emphasized that, given the increase in the actualization of social and economic rights under pandemic conditions, it is worth highlighting practical studies by Ortiz (2021), in particular in Spain, that adopted the strictest restrictions. There are also generalized studies on the world as a whole (Simões, 2021). Although many people suffered from limitations of their right to work, the authors conclude that such restrictions are legitimate and essential for society. Still, at the same time, they point to the need to harmonize measures on the part of all states. Zaryaeva & Oliynyk's (2021) legal research shows that the actions used to combat coronavirus are not clearly defined from a legal perspective. Even though to 2021, the legislative part in many countries is elaborate, the executive branch does not have the resources to ensure that all legislative restrictions are implemented to the necessary level. At the same time, the better developed the state and the more established the law enforcement agencies and the democratic foundations of society are, the fewer problems arise with the infringement and restriction of human rights and freedoms. In turn, developing countries, lacking sufficient resources and organization of the executive branch, often

formally organize social and economic human rights. Mendzhul &Melehanych (2020), Zaryaeva & Oliynyk (2021), Emmons, S. (2020) also highlighted the problem. They believe that during the fight against the pandemic socioeconomic restrictions are necessary, but they must be legal and equal for all citizens, regardless of their social status, economic status, influence, and other factors.

Today, the European legislative and judicial practice is the benchmark for the legal regulation of developing European countries. Therefore, to build research, the legal and regulatory aspects of restrictions on social and economic freedoms were studied, which assess the success and ineffectiveness in transferring the experience of regulation to developing countries.

Methods of research

The object of scientific research is human rights; in their context, the institute of rights restriction will be analyzed. For a clear understanding of the latter, let us define the approaches to understanding the object of the scientific article.

- implementation of the general analysis of human rights and freedoms;
- to allocate classifications of rights and freedoms;
- determination of the theoretical basis of the institute of limitation of economic and social rights and freedoms of a person;
- analysis of European legislation in the sphere of human rights and their limitations;
- studying the mechanism of practical limitation of human rights and providing suggestions for its improvement;
- formation of general conclusions about positive and negative facts of legislative restrictions of social and economic freedoms of citizens.

The use of general scientific methods of cognition based on the analysis of regulatory legal acts and the results of judicial proceedings of European practice allows:

- systematize the field of regulation of restrictions of socio-economic rights (analysis and synthesis);
- group the results of research to highlight the main points in the theoretical and practical state regulation of social and economic rights (grouping);
- extract from the general flow of information the main points of discussion which relate to

the normative-legal regulation of socio-economic restrictions of citizens (induction);
– form recommendations and assumptions that would solve the main problem of socio-economic restrictions (deduction).

A research subject is normative legal documentation, academic articles, law journals, and media publications related to socio-economic restrictions of citizens' rights worldwide.

Results and discussion

Human rights are their subjective abilities to independently, freely, and independently determine the measure and way of own behavior that is not prohibited by law and does not violate the rights and freedoms of others (Mernyk et al., 2020).

In addition, human rights are equated with this option of behavior, which is defined as an opportunity to enjoy social benefits provided by the state (Mernyk et al., 2020). The proposed definitions have both shortcomings related to

abstract, universal human rights and rational components. For the purposes of this study, let's use the first definition of human and civil rights and freedoms.

The different definitions of the legal category of human rights consider different human rights. There are the following criteria for classifying human and civil rights and freedoms: by subjects, by origin, by time of conception, by the nature of the formation, by type of subject, etc. However, the majority of the listed criteria are of theoretical significance. Instead, the classification of human rights and freedoms by content that takes on theoretical and practical importance:

1) individual (right to life, liberty, personal inviolability, the secrecy of correspondence, etc.)
2) political (electoral right, right of access to public service, etc.)
3) socio-economic (right to work, entrepreneurial activity, right to property, social security)
4) cultural-ecological (right to education, right to the safe ecological environment).
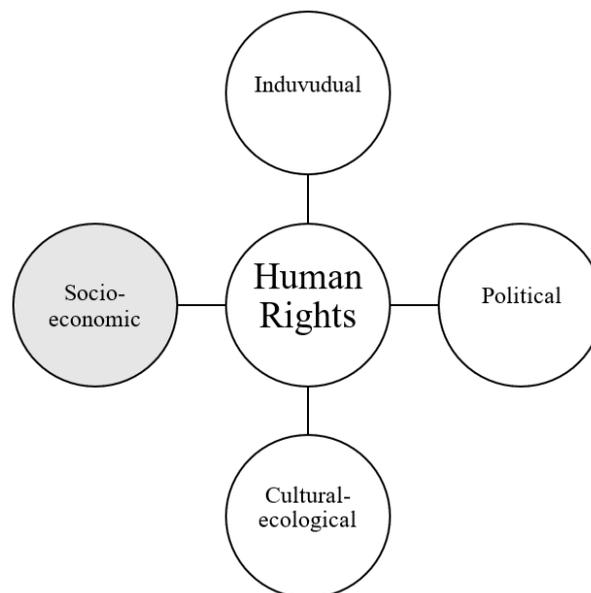
Figure 1. The place of socio-economic human rights in general rights

The object of our study is socio-economic rights. However, based on Figure 1, we can see that this is only a part of rights, which significantly differs from other civil-political rights that assert fundamental freedoms: the right to life and personal integrity, equality before the law, property, freedom of thought, conscience, beliefs and their expression, freedom to seek, receive and impart information and ideas by any means,

to peacefully assemble and form associations, to take part in the government of the country, etc.

In contrast to individual and civil rights, it is clear that socio-economic human rights are much less universal (Bogoraz, 1995). The lesser universality is particularly evident in two respects.

1. Non-permanent nature. This form of right is historically and culturally fluid, its limits changing over social time. However, in contemporary industrial and post-industrial socio-economic societies, socio-economic rights predominantly affect the area of labor relations and directly related spheres.

2. Labor relations. Socio-economic rights entirely apply to the economically active population, mainly to those in paid employment. Moreover, socio-economic rights, as they are currently understood, make sense in regulating non-elite workers. For top managers and the political and cultural elite, social security, protection from unemployment, safe working conditions, or the right to a healthy home and a decent standard of living become critically important only in exceptional cases. Whereas for employed citizens, this problem is an ever-present one (Sirotkin, 1993).

In short, socio-economic rights are not the rights of the population but the rights of the economically active people, who are full-time employees of companies or entrepreneurs and business owners. They account for at least 60-70% of the active population in developed countries. Therefore, the limitation of the effect of these legal restrictions in the context of the individual's socioeconomic status is the central aspect of the debate in positive and negative experiences of legal limits in the EU.

To assess the practical aspects of the action of legislative acts in the context of socio-economic restrictions, let's examine theoretical principles and practical examples of legislative regulation and practical restrictions.

International regulation over national regulation

For EU members or countries planning European integration, the question of regulating state restrictions on the socio-economic rights of citizens must take into account the international norms and standards adopted by the EU. In this case, all these international standards are complemented by the European Court of Human Rights jurisprudence, according to which all courts must apply the practice of the European Court and the Convention as a source of law.

It is important to remember that EU members are simultaneously the member states of the Council of Europe and parties of the central part of its international human rights instruments, the European Convention for the Protection of Human Rights and Fundamental Freedoms (European Court of Human Rights, 1950). Therefore, in the application of European law, the member states must fulfill in good faith their international obligations in the field of protection of social and economic human rights restrictions.

International human rights law recognizes economic, social, and cultural rights as an integral part of the totality of human rights. Major international treaties specifically addressing economic, social rights include the following:

− Universal Declaration of Human Rights (1948);
− International Covenant on Economic, Social and Cultural Rights (United Nations, 1966);
− Declaration of Social Progress and Development (1969);
− Convention on the Elimination of All Forms of Discrimination against Women (1979);
− Declaration on the Right to Development (1986);
− Convention on the Rights of the Child (1989);
− International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families (1990).

The International Covenant on Economic, Social, and Cultural Rights (United Nations, 1966) remains the fundamental treaty on economic and social rights. It recognizes the following rights:

− The right to self-determination (Article 1);
− the equality of men and women (art. 3);
− right to work and to enjoy good working conditions (Articles 6 and 7);
− right to form and join trade unions (Article 8);
− Right to social security (Article 9);
− right to protection of the family, mothers, and children (Article 10);
− right to an adequate standard of living, including adequate food, clothing, and housing (Article 11);
− right to the highest attainable standard of health and medical care (Article 12);
− The right to education (Article 13);
− the right to free and compulsory primary education (Article 14);

The right to participate in cultural life, enjoy the results of scientific progress and benefit from the protection of any scientific, literary or artistic

production of which one is the author (Article 15).

Practical aspect: case 26/62 Van Gend en Loos, where the Court of Justice reasoned that the EU creates a new legal order in international law, in favor of which States have limited their sovereign rights, while also limiting the rights of citizens. A similar approach was revealed in the decision of 6/64 Costa v. ENEL. It was noted there that "unlike ordinary international agreements, the Treaty on the European Economic Community created its legal system, which is an integral part of the member states' legal systems and which their courts are bound to respect" (Fomin, 2019). It means that the law of the European Union has supreme legal force over the national law of the member states.

Indivisibility and interdependence of all rights

The indivisibility and interdependence of all human rights (civil, cultural, economic, political, and social) are basic international human rights principles repeatedly affirmed at the 1993 World Conference on Human Rights.

Inseparability and interdependence of all human rights mean that economic and social rights apply to all persons equally, without discrimination. However, they create specific obligations for governments, are justiciable, and can and should be enforceable.

To promote and protect human rights, national human rights institutions need to pay equal attention to all rights.

Practical: The objective impossibility of providing distance work to all has formed an active resistance by entrepreneurs to the prohibition of trade, stores, and entertainment centers. For example, in the Czech Republic, the ban on trade in construction materials was overturned in court (Kučera & Jiří Maršál, 2021), because anti-crisis measures and restrictions should be based on objective and reasonable justification, which the Czech authorities have failed to do. The situation was similar in the U.S. Thus, such conditions were judicially lifted on the rights of unreasonableness and to ensure equality and fairness (Hull Eikho et al., 2021).

Public rights above individual human rights

Article 29 of the 1948 Universal Declaration of Human Rights states that: "In the exercise of his rights and freedoms, everyone shall be subject only to limitations determined by law solely to secure due recognition and respect for the rights and freedoms of others and to secure the requirements of morality, public order, and the general welfare in a democratic society."

This declaration proclaimed for the first time since the Second World War the limits and grounds for limitations of human rights, as well as social and economic rights, at the international level. Thus, the permissible limit of human rights limitations is defined by ensuring recognition and respect for the rights and freedoms of others, i.e., the realization of one's rights ends where the rights and legitimate interests of others begin.

Based on the 1948 Universal Declaration of Human Rights proclaimed by the United Nations General Assembly, "Limitations permitted under this Convention in respect of the mentioned rights and freedoms shall not apply for other purposes than those for which they are prescribed."

Subsequently, the UN General Assembly adopted the International Covenant on Economic, Social and Cultural Rights in 1966, which defined the grounds for restrictions on the right to form and join trade union organizations:

1) in the interests of national security;
2) in the interests of public order;
3) to protect the rights and freedoms of others (Article 8).

Practical aspect: individual decisions of the European Court of Human Rights define the procedure and grounds for constitutional-legal restrictions of socio-economic rights. Therefore, the European Court of Human Rights activities is a core in regulating and protecting the limitation of these rights. An analysis of the European Court of Human Rights practice demonstrates the existence of decisions on cases involving legitimate limits on the right to property, restrictions on social benefits, restrictions on the right to pension security, and restrictions on the right to strike.

For example, mentioned international legal acts have repeatedly noted the legitimacy of social and economic rights limitations in the public interest. For example, the European Court of Human Rights practice in the case of James and others v. The United Kingdom (Oxford Reports on International Law, 1986) set forth the legal position. The seizure of property to implement a lawful socio-economic policy may be carried out in the public interest.

In 2020, it was pretty common to see situations in the world where public members sued the judiciary in favor of lifting restrictions on economic activity through quarantine restrictions. A judge ruled that emergency-related restrictions (notably the Covid-19 pandemic) were not violations of human rights (Hudson, 2020). According to the authors, such court decisions can be the basis for other precedents in the U.S. and other countries where society faces such a problem.

Limitations of state regulation of social and economic relations

Although EU countries have formed legislation that protects social and economic rights, other documents were signed in 1996 that impose some restrictions. Such a document is the European Social Charter. The state may derogate from its essential obligations to protect social and economic rights in cases of threats to national security, public health, or morals. The Charter's restrictions on rights and obligations apply only for strict purposes (Council of Europe, 1996).

To meet human rights standards, restrictions on socio-economic rights must:

- Be provided for by law;
- be necessary for a democratic society;
- be based on sound scientific evidence;
- be neither arbitrary nor discriminatory;
- be subject to examination;
- be limited in time;
- be proportionate to the objectives to be achieved;
- take into account the differential impact on specific categories of the population.

Under the provisions of Article 53 of the EU Charter on the Level of Protection, none of the provisions of this Charter can be regarded as limiting the social and economic human rights established in the EU and the European Society and States (Official Journal of the European Communities, 2000) in conditions that do not involve a threat to security, health or morals.

In December 2009, following the entry into force of the Lisbon Treaty, the 2000 Charter of Fundamental Rights of the European Union became a priority document in the European legal system. As a result, the EU Charter is now the primary source of human rights protection standards, particularly limitations on socio-economic rights for all bodies of the European Union.

Restrictions on rights and freedoms occur in accordance with the financial capacity of states to protect people's rights

Despite the sufficient level of legal regulation of socio-economic restrictions, another essential fact must be mentioned. Any regulation is not a guarantee of implementing the rule of law until the executive authorities organize the execution of laws, orders, and decrees of the legislative bodies. At the same time, as mentioned above, having a good legislative framework, many countries do not have the resources to ensure a high level of protection of social and economic rights.

Practical aspect: in the case of Autism-Europe v France (Council of Europe, 2002), the Committee pointed out that if securing a certain right related to the implementation of the European Social Charter is complex and requires significant financial resources, the state must take measures allowing achieving the objectives of the European Social Charter in a reasonable time and using the maximum possible resources necessary for rights implementation. Thus, the Committee has identified a characteristic dependence of the level of implementation of social and economic rights on the financial capacity of the national economy of the country and, accordingly, further permissible cases of their restriction. At the same time, states must ensure the minimum requirements for implementing social and economic rights.

Thus, based on the results of this study, it is possible to highlight the following positive and negative European experiences with limitations of rights.

Table 1.
Europe's positive and negative experiences in restricting social and economic rights

Positive experience	Negative experience
Standardized uniform regulation of the protection of the rights and freedoms of Europeans makes it possible to increase the overall level of social and economic protection of Europeans	The different development levels of states do not allow the application of European standards to all countries due to budgetary constraints. National regulation of socio-economic rights considers the peculiarities of national socio-economic relations. Still, it may not comply with European rights protection standards, which forms the preconditions for violations of socio-economic rights in the protection of rights in the European Court.
Socio-economic human rights and restrictions are the same levels of importance as other civil or personal human rights.	Due to the limitations of the scope of regulation of socio-economic rights by the active, employed population, the importance of these rights is reduced for society compared to individual and civil rights, which have no limitations on the scope of regulation.
Socio-economic individual rights are exercised on the basis of equality	Social and economic rights can be exercised as long as they do not violate the public interest
The state clearly sets the boundaries of social and economic rights and restricts them when they pose a threat to national security	Because of insufficient legislative regulation of state action in the face of contingencies that may threaten the public, socioeconomic rights may be illegitimately infringed upon and restricted or regulated in a non-transparent manner

The question of the realization and limitations of the socio-economic rights of the population of Europe always has two sides: positive and negative. On the one hand, we can see how, at the legislative level, European countries are trying to organize the basic principles of democracy and equality. However, on the other hand, there are many practical situations in which certain persons can use restrictive standards for the population to their advantage.

The issue is always more acute when it comes to protecting the rights of the rich and the poor, managers and staff, officials, and the population.

Despite the principles of the indivisibility of all rights and the equality of socio-economic rights with other human and civil rights, in practice, it is clear that socio-economic rights play a secondary role in today's world. However, they should be on the same level as individual rights by European standards (Fredman & Wesson., 2009).

On the one hand, absolute social equality makes free use of abilities, total freedom of labor, property, and ownership impossible. But, on the other hand, within the framework of such mutual contradictions and restrictions, the danger of transforming ideas of social justice and social equality into an ideology of total unfreedom increases sharply.

Large-scale production, mainly that using hired labor, is organized so that its participants are divided into managers and ordinary workers, specialists, and lower executives. The second category, conventionally denoted by the term "workers," although covering the majority of the economically active population, is in many respects socially weaker than the first. That is since the owners and managers of production in social relations will always favor the company and its profitability. Yet, at the same time, rank-and-file workers cannot resist the organization's socio-economic order without special efforts (Connell, 2011).

A natural consequence of these trends is the slow growth or even decline in workers' living standards, the widening gap between the poor and the rich. In such a situation, the danger of a social explosion inevitably arises.

It might seem that the most effective way to achieve balance and harmony is direct state intervention in production and social life. However, the experience of the totalitarian regimes of recent times and communism has shown that state intervention is a threat to the market economy. The lessons of the twentieth century show that achieving a natural equilibrium in the interaction of participants in social relations requires limited, cautious (more often indirect than direct) state intervention in social and economic life.

Given that the state cannot regulate all the circumstances faced by economically active people, it must at least organize a transparent judicial system to confront the large-scale human rights violations in a market economy (Beer & Vettori, 2017). Furthermore, it is critical to control the restriction of workers' rights, the abuse of power by officials, and the equal distribution of state revenues.

Conclusions

Limitation of human rights and freedoms is an institute of law that consists of a large number of interrelated, coordinated norms of constitutional, criminal, civil, administrative, ecological, and other branches of law that establish the procedure, legitimacy, mechanisms of restriction of the content and size of human rights.

All these norms are complemented by the judicial practice of state courts, the European Court of Human Rights. The courts must apply the Convention and the Court's decisions as a source of law when considering cases.

Analyzing the core theoretical and legal aspects of the constitutional and legal limitations of social and economic human rights under the EU standards, let's make several conclusions:

1) all international legal acts proposed for consideration determine that states may enshrine the right of public authorities to limit socio-economic rights in constitutions, which must comply with European standards.
2) the area of socio-economic rights limitations must be defined at the constitutional level. At the same time, these restrictions and freedoms must not contradict public rights and national security.
3) European Court of Human Rights decisions provide an expansive interpretation of specific cases of constitutional and legal restrictions of human rights. They are a guideline for forming principles of protection of constitutional limits of socio-economic rights of man and citizen in national courts.

The analysis of the positive and negative experiences of European regulation of socio-economic rights allows us to draw the following conclusions:

1. An individual socio-economic rights may be quite infringed compared to other rights.
2. In the same way, the opposite pattern may occur when securing the rights of individuals may contradict the rights of other citizens.
3. Government regulation is an option for balancing the rights of some with the restrictions of others.
4. State regulation of socio-economic rights and restrictions can only occur at the legislator and the judiciary level because any interference in market processes can lead to violations of the socio-economic development of society.

Bibliographic references

Beer, R., & Vettori, S. (2017). The Enforcement of Socio-Economic Rights. Potchefstroom Electronic Law Journal [Potchefstroomse Elektroniese Regsblad], 10(3). URL: DOI: https://doi.org/10.17159/1727-3781/2007/v10i3a2798

Bogoraz, L. (1995). Inalienable human rights and freedoms. Natural human rights. Collection of the seminar of the Moscow Helsinki Group, 4.

Connell, P. (2011). The Death of Socio-Economic Rights. Modern Law Review, 74(4). DOI: https://doi.org/10.1111/j.1468-2230.2011.00859.x

European Court of Human Rights (1950) Convention for the Protection of Human Rights and Fundamental Freedoms. Rome (4.XI.1950). URL: https://www.echr.coe.int/documents/convention_eng.pdf

Emmons, C. (2020). International Human Rights Law and COVID-19 States of Emergency. Constitution Blog [Verfassungsblog]. URL: https://verfassungsblog.de/international-human-rights-law-and-covid-19-states-of-emergency/#:~:text=At%20present%2C%20this%20means%20national,for%20those%20deemed%20non%2Dderogable

Council of Europe. (1996). European Social Charter (Revised). Strasbourg (3.V.1996). URL: https://rm.coe.int/168007cf93

Fomin, D. (2019). Van Gennd of Loos against the administration of the internal revenues of the Netherlands. The right of the European Union. Url: https://eulaw.ru/translation/van-gend-en-loos-protiv-administratsii-vnutrennih-domodov-niderlandov/

Fredman, S., & Wesson, M. (2009). Social, Economic and Cultural Rights. Public Law URL: https://www.researchgate.net/publication/256063950_Social_Economic_and_Cultural_Rights

Hudson, Jr. D.L. (2020). COVID-19 emergency measures and the First Amendment. Fire. URL: https://www.thefire.org/first-amendment-library/special-collections/covid-19-emergency-measures-and-the-first-amendment/

Hull Eikho, K., Plunkett, S., Martin-Patterson, R., Levine, J.A., & Clow, G.H. (2020) Litigation Advisory: Constitutional Challenges to Pandemic Restrictions: What's Happening Now. Alston & Bird. URL: https://www.alston.com/en/insights/publications/2020/09/constitutional-challenges-to-pandemic/

Council of Europe. (2002). International Association Autism-Europe (IAAE) v France URL: https://www.coe.int/en/web/european-social-charter/processed-complaints/-/asset_publisher/5GEFkJmH2bYG/content/no-13-2002-international-association-autism-europe-iaae-v-france?inheritRedirect=false

Kostytskij, V. (2010). Legal regulation of protection of social morality: collection of nnormal legal acts. Kyiv: National Commission, p.118.

Kučera, Z., & Jiří Maršál, J. (2021). Czech Republic: Czech Constitutional Court Overturns COVID-19-related Store Closures. Mondaq. URL: https://www.mondaq.com/constitutional-administrative-law/1039882/czech-constitutional-court-overturns-covid-19-related-store-closures

Mendzhul, M., & Melehanych, H. (2020). Personal security and freedom of movement of citizens: challenges in the context of global pandemic in 2020. Euromentor Journal - Studies about education, 4.

Mernyk, A., Kuzmina, V., & Burlakov, B. (2020). Limitation of human rights and freedoms in modern conditions: theoretical and practical aspects. Legal scientific electronic magazine, 2, pp.42-46. DOI:

https://doi.org/10.32782/2524-0374/2020-2/9

Official Journal of the European Communities (18.12.2000). Charter of Fundamental Rights of the European Union. European Parliament. URL: https://www.europarl.europa.eu/charter/pdf/text_en.pdf

Ortiz, M. (2021). Restrictions on freedom of movement and residence in the European Union due to Covid-19. Journal of Modern Science, 45(2). DOI: https://doi.org/10.13166/jms/130707

Oxford Reports on International Law (1986) James and ors v United Kingdom, Merits, App No 8793/79 (A/98). URL: https://opil.ouplaw.com/view/10.1093/law:ihrl/55echr86.case.1/law-ihrl-55echr86

Piovesan, F. (2005). Social, economic and cultural rights and civil and political rights. Revista Internacional de Direitos Humanos, 1(1).

Simões, F. (2021). COVID-19 and International Freedom of Movement: a Stranded Human Right? SSRN Electronic Journal. DOI: https://doi.org/10.2139/ssrn.3781792

Sirotkin, S. (1993). Social and economic rights in the draft Constitution of the Russian Federation. Social problems and human rights. Collection of materials of the seminar of the Moscow Helsinki Group, 3.

United Nations (1966). International Covenant on Civil and Political Rights. URL: https://www.ohchr.org/en/professionalinterest/pages/ccpr.aspx

Veprytskij, R. (2008). Legal regulation of protection of socio-economic rights in the field of labor. (Abstract of the dissertation of the candidate of legal sciences). Kharkiv National University of Internal Affairs.

Zaryaeva, N.P., Oliynyk, I.L. (2021). Restriction of the freedom of movement under a high-alert regime. Penitentiary Science, 15(2 (54)), 418–427. DOI: 10.46741/2686-9764-2021-15-2-418-427. (In Russian)

Tatarova, T., Shchupakivskyi, R., Shkliarenko, A., Zhuravel, O., Kashperska, T. / Volume 11 - Issue 51: 322-327 / March, 2022

322

Promising areas for improving fiscal control procedures in Ukraine

Перспективні напрями вдосконалення процедур здійснення фіскального контролю в Україні

Written by:
Tatarova Tetiana[125]
https://orcid.org/0000-0002-9575-7940
Shchupakivskyi Roman[126]
https://orcid.org/0000-0002-2036-0332
Shkliarenko Andrii[127]
https://orcid.org/0000-0001-8983-8544
Zhuravel Oleg[128]
https://orcid.org/0000-0002-6213-1343
Kashperska Tamara[129]
https://orcid.org/0000-0002-6104-3632

Abstract

The aim of the article is to identify promising areas for improving the procedures for fiscal control in Ukraine. The subject of the study is fiscal control of the State. The methodological basis is a number of modern methods of scientific knowledge, in particular: the method of documentary analysis, method of interpretation, monographic method, system and structural method, modeling and predicting method, etc. The results of the research can be used in both theoretical and practical areas in the framework of improving the practical activities of the actors of implementation of fiscal control procedures in Ukraine. Practical meaning. Based on the analysis of scientific views of domestic and foreign scientists and the rules of current legislation, the ways to improve the procedures for fiscal control in Ukraine are identified. Value/originality. The scientific novelty of the article is that it solves the problem of implementing procedures for fiscal control in Ukraine.

Keywords: actors of fiscal control control, fiscal control, improvement, procedures.

Анотація

Метою статті є визначення перспективних напрямів вдосконалення процедур здійснення фіскального контролю в Україні. Предметом дослідження є фіскальний контроль у державі. Методологічну основу становить низка сучасних методів наукового пізнання, зокрема: метод документального аналізу, метод тлумачення, монографічний метод, системно-структурний метод, метод моделювання та прогнозування, тощо. Результати дослідження можуть бути використані як у теоретичній, так і практичні сфері в рамках вдосконалення практичної діяльності суб'єктів реалізації процедур здійснення фіскального контролю в Україні. Практичне значення. Спираючись на аналіз наукових поглядів вчених та норм чинного законодавства, було встановлено напрямки вдосконалення процедур здійснення фіскального контролю в Україні. Наукова новизна статті полягає у тому, що в ній дістала подальшого вирішення проблема реалізації процедур здійснення фіскального контролю в Україні.

Ключові слова: вдосконалення, процедури, контроль, фіскальний контроль, суб'єкт фіскального контролю.

---

[125] PhD in Law, Doctoral Student of the National Academy of Internal Affairs, Ukraine.
[126] Doctor of Law, Senior Research Fellow of the Scientific Institute of Public Law, Ukraine.
[127] PhD in Law, Associate Professor of the Department of Public Management and Administration of the National Academy of Internal Affairs, Ukraine.
[128] PhD in Law, Associate Professor of the Department of Civil Law Disciplines of Dnipropetrovsk State University of Internal Affairs, Ukraine.
[129] PhD in Law, Senior Lecturer of the Department of Civil Law Disciplines of the National Academy of Internal Affairs, Ukraine.

Introduction

World practice clearly shows that, regardless of the level of development of the State, the results of the tax system of any of them depend on the quality of fiscal control. The need to stabilize the financial system, ensure sustainable budget revenues, compliance with tax discipline as a condition for quality performance by individuals and legal entities of their obligations to the State led to the formation of such a direction of public financial control as fiscal control. Ukraine is no exception, and it also pays a great attention to fiscal control. However, it is too early to say that today in our country a highly effective mechanism of the studied control has been finally formed.

The need to stabilize the financial system, ensure sustainable budget revenues, compliance with tax discipline as conditions of quality performance of natural and legal entities' obligations to the State, led to the formation of a new direction of public financial control – fiscal control. In general, control is a classic element of administrative (managerial) activity; in other words, without monitoring, the management process is neither qualitative nor complete. Control allows to solve a number of tasks related to determining and assessing the level of efficiency of the object of management, as well as to identify and cease possible violations, in particular in the context of tax discipline. At the same time, the practice shows that there are a number of problems in this area, which makes it necessary to find ways to improve the procedures for fiscal control in Ukraine.

In view of the above, the purpose of the scientific article is to work out the ways to improve the procedures for fiscal control in Ukraine. In order to achieve this aim it is necessary to solve the following tasks: to analyze the norms of current legislation governing public relations in the relevant area; to summarize the scientific opinions of the scholars, who have studied some problematic issues related to the procedures of fiscal control in Ukraine.

Methodology

The application of the method of documentary analysis allows to identify the problems in current legislation, the rules of which regulate this area of public relations.

The method of interpretation helps in the explanation of the concepts of "fiscal control", "fiscal efficiency", "single window" and "single office".

Monographic method is useful in the examination of scientific works of domestic and foreign scholars, who considered the ways and methods of improving fiscal control.

System and structural method is applied for the determination of priority areas for improving the procedures for fiscal control in Ukraine, as well as for identifying of fiscal control procedures and the demands placed on fiscal control procedures.

Modeling and forecasting method is used to outline promising areas for improving fiscal control procedures in Ukraine.

Literature Review

A number of scholars have considered some problematic issues related to the procedures of fiscal control in Ukraine in their scientific works. Thus, Pukhalskyi (2021) points out that the issues of developing effective tax control measures on identification of schemes of activity of economic entities, which are used for non-payment or reduction of payments to the budget, have not yet been solved. A range of tax evasion schemes has been revealed, which ultimately lead to the deterioration of the economic situation in the country due to the lack of significant budget-generating taxes. Based on the study, the author proposes recommendations for improving certain tax control procedures, the use of which will help reduce tax evasion.

Dozorets (2015) points out that the conceptual basis for the necessary changes and innovations in the fiscal control of the State Tax Service of Ukraine are the main scientifically sound and socially necessary areas of improving administrative (priority of the «public-service» component) and tax (refocusing on achieving the greatest possible harmonization of relations between bodies of the State Tax Service and business entities) reform.

Shulatova (2014) emphasizes that one of the key criteria for improving the procedures for fiscal control should be the level of efficiency of fiscal activity. The author reveals the relevant areas.

Buday and Kolesov (2019) considered use of digital capabilities to improve the efficiency of control and supervision of different public authorities, including fiscal ones.

Chernikova and Prokoskin (2014) studied the most important and modern trends in the development of the state financial control with an aim of strengthening financial and budget discipline.

Results and Discussion

Consideration of the areas for improving the procedures for fiscal control should begin by identifying the existing and normative rights of the State Tax Service of Ukraine. The regulation enshrines a fairly wide range of rights of employees of this service (more than 36 points), which often leads to vagueness and unjustified restriction of the rights of taxpayers.

According to Dozorets (2015, pp. 119 – 120) "nowadays there is a need to reform the ideological principles of control over the bodies of the State Tax Service of Ukraine. The integrative purpose of such activities under these conditions should be determined not only in the context of fiscal sustainability and the State capacity to pay, but also aimed at ensuring business development and economic well-being of the society, improving the overall level of tax culture of taxpayers and employees of control bodies, which logically leads to a shift of emphasis on the implementation of not only fiscal and punitive, but above all preventive, prophylactic and methodological functions".

Shulatova (2014, p. 453) argues that "the peculiarity of the State Tax Service of Ukraine is its fiscal orientation, the main component of which, in her opinion, is the formation of financial resources, filling of the income part of the state budget of Ukraine by accrual, recovery and transfers to the budget of taxes, fees and other social payments and transfer to the budget of taxes, fees and other social payments. In this regard, it is logical that the evaluation of the effectiveness of fiscal activities of the State Tax Service of Ukraine is based on the assessment of the effectiveness of the formation of financial resources of the State, i.e. that is, filling the revenue part of its budget".

We also agree with the thesis of a number of scientists who add another very important element of fiscal efficiency – a high level of partnership between the fiscal authority and the actors of taxes, fees and other social payments, which results in an appropriate level of awareness of their rights and obligations. languages and economic activity of the latter. Besides, they note that along with the fiscal orientation of the State Tax Service of Ukraine,

its service, control and law enforcement orientation is no less important. Thus, serving as the main focus of the joint tax authority is mainly to create favorable conditions for the payment of taxes, fees and other social payments by their payers and their compliance with tax and customs legislation and administration of a single contribution to compulsory social insurance by providing them with quality services in these areas.

For its part, controlling and law enforcement focus of the State Tax Service of Ukraine, clearly, is closely linked and manifested in the control of compliance with legislation in the tax, customs and administration of a single contribution to compulsory social insurance, and, respectively, in the prevention, detection and elimination of violations of the law in the mentioned areas by performing legally defined actions. From the above, it can be concluded that the nature of the focus of the State Tax Service of Ukraine consists of four components, including fiscal, service, control and law enforcement ones.

According to the practice of the developed countries, the increase in control powers in the fiscal sphere does not always contribute to the amount of revenue from taxpayers. In this aspect, we must agree with the statement of Oliinyk and Muliavka (2016, pp. 109 – 110) that "establishing a proper model of the fiscal service in Ukraine requires a set of special measures of legal, organizational and political nature. Exclusively systemic changes in all directions at the same time will contribute to the improvement of services to citizens and legal entities in the fiscal sphere. In addition, establishing effective fiscal model free of corruption will significantly improve various aspects of the functioning of this service, restore the confidence of taxpayers, minimize further risks. The administrative and legal status of tax authorities is the complex, the main components of which are the competence (rights and obligations), supplemented by responsibility, structure and order (procedure) of the activity".

It should be agreed that in order to effectively improve the legal norms of tax legislation, the following principles should be followed:

1) improvement of legal norms should take place in strict compliance with the principles of the constitutional system, taking into account the fiscal concerns of the State and interest in regulating the functions of taxation to ensure effective market

infrastructure in the country; tax regulation should take into account the realities of market relations in the country and ensure the progressive development of the country's economy;

2) the effectiveness and efficiency of tax regulation for market relations, which are related to capital, private property and tax rates that allow the development of production;

3) institutions of tax legislation should meet the economic requirements of the State and society, the level of tax and legal culture; be understandable, accessible, concise, with little need for interpretation;

4) the institutions of tax legislation should reflect the realities of society and be compatible with the legal system (Kovalchuk 2017, p. 171).

All fiscal control procedures can be divided into the following groups:

1) strategic procedures (control to achieve a specific result);

2) preventive procedures (control aimed at limiting the possibility of potential risk and preventing a negative outcome);

3) evaluation procedures (control to determine whether undesirable outcome was the result of the implementation of the management decision);

4) corrective procedures (control designed to correct undesirable results that have already been implemented).

Thus, among the priority areas for improving the procedures for fiscal control in Ukraine, it is appropriate to highlight:

construction and further development of tax authorities as the service: the maximum possible harmonization of relations between tax authorities and business entities ("single window", "single office"). The terms "single window" and "single office" began to be used in 2002 – 2004 when launching a fundamentally new system of local government service for businesses when issuing permissions. At that time, the novelty was not only the norm to ensure the issuance of permits in one room, but also the introduction of a qualitatively new approach to their issuance – the opportunity not to pass all procedures, and entrust them to an administrator who will do it for free. The principle of organizational unity applies to all types of permit documents issued by local authorities, and is essentially a combination of the principles of "single window" and "single office". According

to the law, an entrepreneur has the right to choose the method of obtaining permissions: directly by applying to the relevant local permitting authorities, whose representatives receive the first in one room ("single office principle") or by applying to the administrator ("single window" principle). That is, the "single office" is in fact the union of all permitting services in one room, where the entrepreneur goes through all the necessary procedures; when using "single window" he transfers the necessary package of documents to one person (State administrator) and within the time set by the legislation comes to receive the already formalized permit;

detailed legislative consolidation of procedural issues regarding the control activities of tax authorities, clear regulation of directions and methods of control, types, grounds and procedure for the implementation of the latter;

establishment of an effective fiscal model free from corruption, which will improve various aspects of its functioning and restore the confidence of taxpayers;

reforming the ideological principles of control activities of tax authorities (the purpose of such activities should be determined not only in the context of fiscal sustainability and State capacity to pay, but also to ensure business development and economic well-being of the society, improving the overall tax culture of taxpayers and employees of control bodies);

ensuring maximum fiscal efficiency (adequacy of revenue, minimization of expenditures on revenue collection and prevention of evasion of payments to the budget, as well as the flexibility of the tax system);

achieving a high level of partnership between the fiscal authority and the actors of taxes, fees and other social payments, which results in an appropriate level of awareness of their rights and responsibilities and economic activity of the latter.

In our opinion, nowadays it is crucial to update the existing approaches to the formation of the list of key principles of control activities of tax authorities (the purpose of such activities should not be limited by ensuring budget filling and the State's capacity to pay; it is also important to secure business development and economic well-being of the society, raise the general level of tax culture of both taxpayers and employees of control bodies).

We believe that fiscal control procedures should meet the following requirements: 1) expediency (fiscal efficiency); 2) sequence; 3) frequency; 4) efficiency; 5) validity; 6) compliance with control objectives.

In addition, it should be emphasized that today, given the new realities, it is extremely important to ensure a high level of partnership between the fiscal authority and the actors of taxes, fees and other social payments, which requires introduction along with effective algorithm of control activity in the field of taxation of agreed modalities for appropriate interaction.

To support the inclusion of this view, we can provide the examples of numerous protests that systematically take place in Ukraine, especially in the capital of our country, regarding the introduction of fiscal registrars for small businesses, regulation of selected market surveillance issues, mandatory use of cash registers, reduction of pressure in the fiscal sphere, etc. In our opinion, these issues have become especially acute as a result of the rapid spread of COVID-19 coronavirus infection since the beginning of 2020 (as Kharytonov et al. (2021, p. 158) correctly point out, the COVID-19 pandemic has been going on for two years now, threatening the lives and health of people, the stable functioning of economic mechanisms, and the social existence of society); small business representatives have repeatedly noted that in the context of a pandemic they will not withstand such innovations. It should be emphasized that the representatives of public authorities partially took into account the demands of the protesters, in particular in relation to the postponement of the mandatory use of cash registers, and made appropriate additions and amendments to national legislation.

Therefore, we consider it necessary to emphasize the need to establish a constructive dialogue between supervisory authorities and taxpayers, in particular in terms of harmonizing fiscal control, taking into account the issues facing taxpayers, and making agreed decisions considering the realities of today. But, at the same time, such a dialogue should take place exclusively within the legal field using the appropriate administrative and legal methods of discourse.

Finally, I would like to draw attention to the need for legislative regulation of issues related to fiscal control, and taking into account the specifics of fiscal services in crisis situations under different legal regimes (martial law, state of emergency, etc.). Given that Art. 92 of the Constitution of Ukraine (Law of Ukraine No. 254k/96-VR, 1996) enshrines the existence of different legal regimes, the problems of fiscal control at this time also need their scientific study in the context of clarifying the peculiarities of the functioning of the relevant administrative and

legal relations. As a result, it will allow to develop a comprehensive mechanism for effective fiscal control in different legal regimes at both regional and national levels.

Conclusion

Thus, summarizing the above, priority areas for improving the procedures for fiscal control in Ukraine are the following:

– construction and further development of tax authorities as a service: the highest possible harmonization of relations between fiscal authorities and business entities ("single window", "single office");
– detailed legislative consolidation of procedural issues regarding the control activities of tax authorities, clear regulation of directions and methods of control, types, grounds and procedure for the implementation of the latter;
– creation of an effective fiscal model free from corruption, which will improve various aspects of its functioning and restore the confidence of taxpayers;
– reforming the ideological principles of control over tax authorities (the purpose of such activities should not be limited by ensuring budget filling and the State's capacity to pay; it is also important to secure business development and economic well-being of the society, raise the general level of tax culture of both taxpayers and employees of control bodies);
– ensuring maximum fiscal efficiency (adequacy of revenue, minimization of expenditures on revenue collection and prevention of evasion of payments to the budget, as well as the flexibility of the tax system);
– achieving a high level of partnership between the fiscal authority and the actors of taxes, fees and other social payments, which results in an appropriate level of awareness of their rights and responsibilities and economic activity of the latter;
– taking into account the specifics of the work of fiscal services in crisis situations under different legal regimes (martial law, state of emergency, anti-terrorist operation, environmental protection, etc.).

Bibliographic references

Buday, S. and Kolesov, M. (2019). Use of digital capabilities to improve the efficiency of control and supervision. Amazonia Investiga, 8(23), pp. 734-738.

https://amazoniainvestiga.info/index.php/am
azonia/article/view/928/861

Chernikova, E. and Prokoshin, M. (2014). Effective development process of the state financial control in Russia. Annual Center Review 2019 – 2020, No. 12-13, pp. 36-39. DOI: 10.15290/acr.2019-2020.12-13.06. https://repozytorium.uwb.edu.pl/jspui/bitstre am/11320/10864/1/ACR_12_13_2019_2020 _E_Chernikova_M_Prokoshin_Effective_de velopment_process_of_state_financial_contr ol_in_Russia.pdf

Dozorets, P. (2015). Control over the payment of taxes and other mandatory payments is the priority of the State Tax Service of Ukraine. Scientific Bulletin of Kherson State University, 2(5), pp. 117 – 120. [In Ukranian]

Kharytonov, E., Kharytonova, O., Kolodin, D., Tkalych, M., Larkin, M., Tolmachevska, Y., Rojas-Bahamon, M. J., Arbeláez-Campillo, D. F., & Panchenko, O. I. (2021). Distance learning in the conditions of Covid-19: problems and prospects of their solution. Amazonia Investiga, 10(48), pp. 157-169. https://doi.org/10.34069/AI/2021.48.12.17

https://amazoniainvestiga.info/index.php/am
azonia/article/view/1849/2254

Kovalchuk, K. (2017). Topical issues of improving tax control in Ukraine. Economic Bulletin of the National Mining University, No. 4. pp. 100–106. http://nbuv.gov.ua/UJRN/evngu_2017_4_14

Law of Ukraine No. 254k/96-VR. The Constitution of Ukraine. Official Web site of the Verkhovna Rada of Ukraine, June 28, 1996. Available online. In: https://zakon.rada.gov.ua/laws/show/254%D 0%BA/96-%D0%B2%D1%80#Text

Oliinyk, O. and Muliavka, D. (2016). Legal status of tax authorities of Ukraine and Member States of the European Union: monograph. Irpen: National University of the State Tax Service of Ukraine. [In Ukranian]

Pukhalskyi, V. (2021). Improving the forms and procedures of tax control in counteracting tax evasion. Economy and State, No. 4, pp. 92-98. [In Ukranian]

Shulatova, I. (2014). The concept and essence of the State Tax Service of Ukraine. Law Forum, No. 3, pp. 447–455. http://nbuv.gov.ua/j-pdf/FP_index.htm_2014_3_76.pdf

Criminal and legal protection of land resources in Ukraine and Latin America: comparative legal analysis

Кримінально-правова охорона земельних ресурсів в Україні та країнах Латинської Америки: порівняльно-правовий аналіз

Written by:
Roman Movchan[130]
https://orcid.org/0000-0003-2074-8895
PUBLONS: Web of Science ResearcherID: AAK-1080-2021
Andrii Vozniuk[131]
https://orcid.org/0000-0002-3352-5626
PUBLONS: Web of Science ResearcherID: AAJ-1865-2020
Dmitriy Kamensky[132]
https://orcid.org/0000-0002-3610-2514
PUBLONS: Web of Science ResearcherID: AAQ-4357-2021
Iryna Koval[133]
https://orcid.org/0000-0001-9348-3061
PUBLONS: Web of Science ResearcherID: AAE-4448-2022
Olga Golovko[134]
https://orcid.org/0000-0001-8963-6598
PUBLONS: Web of Science ResearcherID: F-8644-2016

Abstract

The purpose of the article is to conduct a comparative study of criminal law protection of land resources under the law of Ukraine and Latin America states. Based on the results of such study, positive experience will be identified, which should be taken into account in the process of further improvement of domestic criminal law, as well as negative practices aimed at avoiding its implementation in Ukraine.

During the course of covering legal framework in selected countries, proving the hypotheses, substantiating conclusions a wide range of scientific methods has been used. Among them are the following: comparative law, formal logic, philosophical (dialectical) nethods, methods of systems analysis and modeling.

Based on the analysis, it has been concluded that when improving the current Criminal Code of Ukraine primarily those provisions of criminal

Анотація

Метою статті є проведення компаративістського дослідження кримінально-правової охорони земельних ресурсів за законодавством України та країн Латинського Америки. За результатами такого дослідження має бути виявлений як позитивний досвід, який має бути врахований у процесі подальшого вдосконалення вітчизняного кримінального законодавства, так і негативна практика, що дозволить уникнути її впровадження в Україні.

При дослідженні законодавства обраних держав, доведенні викладених гіпотез, обґрунтуванні висновків використано широкий спектр наукових методів, серед яких насамперед варто виділити наступні: порівняльно-правовий, формально-логічний, філософський (діалектичний), методи системного аналізу та моделювання.

---

[130] Doctor of Law, Professor, Professor Department of Constitutional, International and Criminal Law, Vasyl'Stus Donetsk National University, Ukraine.
[131] Doctor of Law, Professor, Head of the Research Laboratory, National Academy of Internal Affairs, Ukraine.
[132] Doctor of Law, Professor, Head of Law Courses Department, Berdyansk State Pedagogical University, Ukraine.
[133] Doctor of Law, Professor, Professor of Civil Law and Procedure Department, Vasyl'Stus Donetsk National University, Ukraine.
[134] PhD in Law, Senior Lecturer, Department of intellectual property and private law Faculty of Sociology and Law, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", Ukraine.

law of Latin American countries can be taken into account, according to which possession of not only a whole all but also a part of land (real estate) constitutes a crime. At the same time, it has been proved that applying approaches of some states is inexpedient, where parliamentarians: 1) refuse to use aggravating elements, when constructing the relevant corpus delicti, which does not allow to ensure the implementation of the principle of differentiation of criminal liability; 2) provide for criminal liability for land crimes of "environmental" nature in the provisions of special laws on the regulation of liability for environmental crimes.

Keywords: crime, criminal liability, criminal law protection, land resources, land, soil, land rights, illegal possession, environment, pollution.

На підставі проведеного аналізу висновується, що такими, що можуть бути враховані під час удосконалення чинного Кримінального кодексу України, насамперед є положення кримінального законодавства латиноамериканських країн, відповідно до яких злочинним визнається незаконне заволодіння не лише всією, а й частиною земельної ділянки (нерухомістю). Водночас доведено недоцільність запозичення досвіду тих держав, парламентарії яких: 1) при конструюванні відповідних складів злочинів відмовилися від використання кваліфікуючих ознак, що не дозволяє забезпечувати реалізацію принципу диференціації кримінальної відповідальності; 2) передбачили кримінальну відповідальність за земельні злочини «екологічної» спрямованості у нормах спеціальних законів, присвячених регламентації відповідальності за екологічні злочини.

Ключові слова: злочин, кримінальна відповідальність, кримінально-правова охорона, земельні ресурси, земельна ділянка, земля, ґрунт, права на землю, незаконне заволодіння, довкілля, забруднення.

Introduction

The current Criminal Code (hereinafter – the Criminal Code) of Ukraine is marked by the presence of a fairly extensive system of norms on the regulation of liability for crimes in the field of land relations. Moreover, while corresponding to the relevant provisions of the Constitution of Ukraine, this system takes into account the need for criminal law protection as a "proprietary" function, which is the mission of Art. 197-1 of the Criminal Code of Ukraine, and the "environmental" function of land as the main national asset, which is addressed by Articles 239, 239-1, 239-2 and 254 of the Criminal Code of Ukraine.

At the same time, it should be noted that despite the above-mentioned system of norms and fixing the special status of Ukraine's land resources at the highest legislative level, their current condition is close to critical, and overall the situation in the field of criminal counteraction to land violations remains unsatisfactory. The existence of the latter fact should be attributed not least to the shortcomings of the relevant criminal law prohibitions, which indicates the need for research aimed at developing proposals for their improvement.

It should be kept in mind that recently there had been an axiomatic provision under which in order to achieve the highest efficiency of criminal law of Ukraine, including those devoted to the regulation of criminal liability for crimes in the field of land relations, the latter must take into account all best achievements of world criminal law and foreign criminal law doctrines. In order to do this, it is important to conduct comparative research and skillfully dispose of their results in lawmaking (Khavronyuk, 2013), since one of the tasks of comparative law is to develop specific proposals for improving national legal systems based on critical and comprehensive research of foreign countries' legal experience (Dodonov, 2009).

This fully applies to the legislation of Latin America states, which experience in the field of criminal law protection of land resources will be studied within this research paper. It should be noted that as an object for comparative analysis, legislation of Latin American countries has been chosen not accidentally, since:

– first, like Ukraine, these countries have a significant impact on corruption in all spheres of life (Orlovskyi, Shapoval, & Demenko, 2018; Vasylevych, Mozol,

Poklonskyi, Poklonska, & Zeleniak, 2021; Kvasha, Zahynei, Shapoval, Kurylo, & Nikitenko, 2019);

- secondly, Latin America region is a powerful center of biodiversity. The large number of flora, fauna and mineral resources in the region makes it vulnerable to environmental crime. Low risks and high returns associated with the environmental crime, including in the field of land relations, attract organized crime groups in both Ukraine and Latin America region (Duri, 2020; Walters, 2014; Bruinsma, & Weisburd, 2014).

Literature Review

A significant contribution to the research of criminal law protection of land relations has been made in the works of such authors as G. Aboso, M. Barreiro, A. Brisman, G. De Medeiros, O. Dudorov, J. Duri, V. Ladychenko, M. Hanneke, O. Oliinyk, A. Savchenko, N. South, D. Rodríguez Goyes, S. Sánchez Zapata, A. Spadotto, Yu. Turlova, O. Uliutina, O. Yara and somer others.

At the same time, it should be noted that in these scholars' works, as, by the way, in a number of comparative studies published by the authors of this article, attention had been mainly paid to: studying only international (Lammers, 2001) or European experience in criminal law (Movchan, 2015; Movchan, 2016; Movchan, Vozniuk, Burak, Areshonkov, & Kamensky, 2021); studying legislation of only certain countries (Eshmurodov, 2020); or comprehensively studying issues of criminal liability for crimes against property or the environment in general (Comte, 2003; Turlova, 2016); or studying only environmental aspects of the issues at hand (Rodríguez Goyes, Hanneke Mol, Brisman, & South (eds), 2019; Ladychenko, Yara, Uliutina, & Golovko, 2019; Hollins, & Percy, 1998; Lisova, & Sharapova, 2020; Meiyappan, Dalton, O'Neill, & Jain, 2014; Movchan, Vozniuk, Kamensky, Dudorov, & Andrushko, 2021; Yara, Uliutina, Golovko, Andrushchenko, 2018; Ladychenko, Yara, Golovko, Serediuk, & 2019; Savchenko, Babikov, & Oliinyk, 2017; Savchenko, Drozd, & Oliinyk, 2017). There are currently no separate studies in the legal literature that would include a comprehensive comparative analysis of the criminal law protection of land resources in the legislation of Ukraine and Latin American countries.

Methodology

This research extensively employs comparative legal method, which was used to clarify existing approaches in seventeen Latin American countries to regulate liability for crimes in the field of land relations. This research method is widely used in modern works related to various issues of criminal liability for specific crimes (Minchenko, Lutsyuk, Kamensky, Kolodin, & Shamota, 2021).

The dogmatic method was useful in the course of interpretation of the norms on liability for land crimes.

The philosophical (dialectical) method allowed to comprehend various research issues, its methodological bases, to structure research, to comprehend the object of research on a step by step basis. Using the modeling method, the provisions of the legislation of Latin American countries were determined, which can be used in improving the relevant provisions of the Criminal Code of Ukraine.

As the focus of this research, we have selected the legislation of certain Latin American countries, which provide for criminal liability for crimes in the field of land relations. These are: Argentina, Bolivia, Brazil, Venezuela, Guatemala, Honduras, Ecuador, Colombia, Costa Rica, Mexico, Nicaragua, Panama, Peru, Puerto Rico, El Salvador, Uruguay and Chile. The choice of such a wide range of countries is explained by the proven fact that the study of foreign experience of as many states as possible contributes to the transposition of relevant provisions of criminal law of different foreign countries, their adaptation, convergence, harmonization, unification and more (Movchan, Dudorov, Vozniuk, Areshonkov, & Lutsenko, 2021; Vozniuk, Dudorov, Tytko, & Movchan, 2020).

Results and discussion

Same as in Ukraine, parliamentarians of the vast majority of Latin American countries have followed the path of criminalizing two groups of land offenses, which can be labeled as land crimes of 1) "property" and 2) "environmental" meaning.

1. ***Land crimes of "proprietary" orientation.*** As one might know, Latin American countries (except for Paraguay and partially Ecuador, which, according to historical traditions, belong rather to the "German"

and "French" Romano-Germanic criminal justice systems, respectively) have based their criminal law on the Spanish model, based on 1870 Criminal Code of Spain. Therefore, it is not surprising that, same as for the Spanish, the criminal law of the analyzed countries is characterized by a fairly extensive system of rules that provide for liability for violations of land rights.

In particular, just like in Spain, within the structure of criminal codes of almost every country in Latin America there is a separate chapter "Illegal appropriation" («*De la usurpación*»), which is traditionally classified as a crime against property (criminal codes of Argentina, Brazil, Venezuela, Guatemala, Honduras, Colombia, Costa Rica, Mexico, Nicaragua, Panama, Peru, El Salvador, Chile). And only in the criminal law of countries such as Ecuador, Puerto Rico and Uruguay, this title was given not to a chapter, but to a separate article(s), placed (or) or simply in the section "Crimes against property" (criminal codes of Ecuador and Puerto Rico), or in a separate chapter V "Crimes against real estate rights" (Criminal Code of Uruguay) (Movchan, 2017).

As for the content, we must note that all acts, which are held liabile by the rules of the above mentioned chapters, can be divided into two major groups:

1) well-known to the criminal law of European countries, representatives of the Italo-Iberian group of criminal law, three types of offenses that are considered criminal in all countries of the analyzed group:

a) **occupation or seizure of real estate** («*Usurpaciones de inmuebles*»), which consists in unlawful obstruction of possession or attempt to unlawfully deprive the right of ownership of immovable property, or unlawful invasion or occupation of immovable property;

b) **change of boundary markers** («*Remoción o alteración de linderos*») – change of boundaries or boundary signs with the purpose of seizing or illegally using real estate or its part;

c) **illegal change of the channel (appropriation) of the reservoir** («*Usurpación de aguas*») – illegal use of public or private reservoirs to which the perpetrator is not entitled, committed in personal interests or in the interests of others and to the detriment of third parties, as well

as obstacles to the exercise of the legal right of others to use water bodies;

2) the second group of criminally punishable violations of land rights is represented by such type of tort as **"violation of possession"** («*Violenta perturbación de la posesión*»), recognized as criminal by parliamentarians of only some Latin American countries (Argentina, Brazil, Guatemala, Costa Rica, Nicaragua, Peru, Puerto Rico, El Salvador, Uruguay). The content of this act is the use of violence or other acts that interfere with the exercise of the right to own real estate by third parties.

Separately, we note that parliamentarians of El Salvador have allocated a special rule on the regulation of liability for illegal use or occupation of immovable property (Article 345-A).

Interestingly enough, in some states, liability for all the above mentioned acts is provided for within two or more criminal law provisions (Articles 228, 230 of the Criminal Code of Bolivia, Articles 471-472 of the Criminal Code of Venezuela, Articles 256-260 of the Criminal Code of Guatemala, Articles 378-380 of the Honduran Criminal Code Articles 200–201 of the Ecuadorian Criminal Code, Articles 261–264 of the Colombian Criminal Code, Articles 225–226 of the Costa Rican Criminal Code, Articles 288–292 of the Nicaraguan Criminal Code, Articles 228–229 of the Panama Criminal Code, Articles 202, 204 of the Peruvian Criminal Code, Articles 219– 220 of the Criminal Code of El Salvador, Articles 354-355 of the Criminal Code of Uruguay, Articles 457-462 of the Criminal Code of Chile), in others – within one prohibition (Article 181 of the Criminal Code of Argentina, Article 161 of the Criminal Code of Brazil, Article 395 of the Criminal Code of Mexico, Article 196 of the Criminal Code Puerto Rico).

At the same time, it should be noted that the extensive system of regulations contained in the countries of the first of these two groups does not actually affect the differentiation of liability for various violations of land rights, since sanctions of the relevant criminal law norms are about the same severity. In view of this, the experience of those countries (conditionally of the second group) in which the responsibility for all types of violations of land rights is unified seems more convincing.

When analyzing the experience of criminal law protection of land rights in Latin America, we

cannot neglect two distinctive features related to the legislative description of the characteristics of the objects of the studied crime category.

First, legislation of the vast majority of countries in this group considers criminal protection of land rights as an integral part of a broader object of protection – that is real estate rights. That is why the titles and dispositions of the relevant norms mostly refer to such universal concept as "real estate" and not "land" or "land parcel"[135].

Secondly, legislators of the vast majority of countries (Argentina, Bolivia, Brazil, Venezuela, Colombia, Costa Rica, Panama, Peru, El Salvador, Uruguay) integrate not only full but also partially possession of certain types of real estate property, including land parcels, into the area of criminal activity. In such way, the criminal law of the covered group of countries positively differs from the current version of Art. 197-1 of the Criminal Code of Ukraine, the literal interpretation of the provisions of which makes it impossible to prosecute for the unauthorized occupation of part, and not the entire land parcel. Such experience must be taken into account in the process of further improvement of domestic criminal law.

It is also noteworthy that, despite the existence of a fairly extensive system of rules governing liability for various land rights violations, when constructing the relevant provisions, parliamentarians of the vast majority of Latin American countries refused to refer to aggravating circumstances. Thus, within all the countries under our research, criminal law of only five states can "boast" availability of qualified staff of certain types of illegal possession of real estate, in the vast majority of which there is increased liability for illegal possession by a group of persons or leadership (organization) of such a group, or with the use of weapons (Articles 228, 230 of the Criminal Code of Bolivia, Part 2 of Article 472 of the Criminal Code of Venezuela, Part 2 and Part 3 of Article 395 of the Criminal Code of Mexico, Article 204 of the Criminal Code of Peru, Part 2 of Article 220 of the Criminal Code of El Salvador). We believe that, given the need to ensure the implementation of the principle of differentiation of criminal liability, such experience, unlike the previously mentioned, should not be copied by the Ukrainian legislator.

2. **Land crimes of "environmental" orientation.** Having analyzed criminal legislation of Latin America, it is safe to say that, when compared to combating violations of land rights, the issue of criminal law protection of the ecological function of land in it receives much less attention. First of all, this should be explained by the fact that the efforts of public authorities in environmental protection in Latin America have generally faced expansionist policies of large industries, whose representatives, in particular, have argued that control over industrial and entrepreneurial activities by public authorities will lead to rising unemployment (Aboso, 2021).

An eloquent illustration of this is the fact that within criminal codes of many Latin American countries such regulations are either non-existent or limited to a single ban. This is despite the fact that, as in some other countries (Hamidaha, Hamzani, & Mariyono, 2021), exploitation of natural resources by corporations in Latin American countries has already led to unprecedented negative consequences for the environment.

It is also noteworthy that, in contrast to the rather unified regulations on the criminal law protection of land rights, the norms on liability for land and environmental crimes sometimes have no common features whatsoever.

Thus, in some countries, liability for land pollution is provided under the universal provision on pollution of not only land but also water resources and air (Article 347 of the Criminal Code of Guatemala), in some cases including subsoil (Article 334-A of the Criminal Code of Colombia), as well as flora, fauna and ecosystem in general (Articles 414–416 of the Criminal Code of Mexico).

In turn, Art. 311 of the Criminal Code of Peru describes acts similar in content to those provided for in Part 1 of Art. 254 of the Criminal Code of Ukraine, namely: "unauthorized use of agricultural land for urban development, extraction and processing of building materials". As one might see, in contrast to Part 1 of Art. 254 of the Criminal Code of Ukraine, this rule is not about any wasteful use of land, but only about one of the types of such actions – improper use of *agricultural land* for a clearly defined purpose

---

[135] Articles 261 and 263 of the Colombian Criminal Code serve as exceptions here.

– urban development, extraction and processing of building materials.

If the content of the act provided for in Part 1 of Art. 254 of the Criminal Code of Ukraine has many common features with the features of the tort mentioned in Art. 311 of the Criminal Code of Peru, the consequences, as similar to those referred to in Part 1 of Art. 254 of the Criminal Code of Ukraine, serve as crime constituting elements provided by Art. 252 of the Criminal Code of Ecuador and Part 2 of Art. 403 of the Criminal Code of Panama, which establish liability for the burning of forest or vegetation, which has caused *loss of fertility, soil erosion or drought.* We should also note that Art. 252 of the Criminal Code of Ecuador provides for liability for such illegal use of land, which leads not only to the destruction of the fertile soil layer and erosion, mentioned in Part 1 of Art. 254 of the Criminal Code of Ukraine, but also to the desertification; at the same time, the level of liability is increased in the case when relevant acts have been committed for selfish purposes or led to serious and irreversible consequences. The maximum punishment provided by the sanction of the corresponding criminal law norm (5 years of imprisonment) is imposed for such acts.

In contrast, in some other Latin American countries, liability for socially dangerous encroachments on the environment is not regulated by criminal codes, but by separate laws that deal exclusively with liability for environmental crimes.

Thus, in Brazil there is a special law on environmental crime ("*Lei de Crimes Ambientais (1998)*"), Art. 54 of which provides for imprisonment for a period of 1 to 4 years and a fine for pollution of any kind that has caused harm to human health, death of animals or significant destruction of flora. At the same time, Art. 53 contains a special reservation, according to which the punishment provided for in Art. 54 should be increased by 1/6 to 1/3, if soil erosion results from contamination (Lei 9605/98, 1998). At the same time, some scholars believe that specific provisions of Brazilian law are more effective than those, for example, contained in the Criminal Code of Colombia (Spadotto, Barreiro, & De Medeiros, 2017), which are currently not considered effective (Burgos Claros, 2018; Sánchez Zapata, 2016).

Venezuela also has a special law on crimes against the environment ("*Ley Penal Del Ambiente*"). Articles 99 and 102 of this document provide for liability for contamination of soil or subsoil with harmful substances and waste caused by violation of special rules (Gaceta Oficial N° 39.913, 2012). However, Art. 63 is entirely devoted to such land offense as land degradation, which carries a penalty of 5 to 8 years imprisonment or a fine of 5,000 to 8,000 tax units.

In contrast, in Puerto Rico, liability for environmental offenses is provided within "ordinary" environmental law framework – the Puerto Rico Public Environmental Policy Act ("*Ley sobre Política Pública Ambiental*") (Art. 16).

At the same time, taking into account peculiarities and historical traditions of the domestic legal system, the named approach (conditionally the second) to regulate liability for relevant offenses in the norms of not a separately codified criminal act, but special environmental legislation, obviously should not be implemented into domestic legal system.

Conclusion

Based on the results of a comparative study of criminal law protection of land resources in Ukraine and Latin American countries (legislation of seventeen countries), we can conclude that:

1. Criminal law of Latin American countries contains an extensive system of rules that provide for liability for the following violations of land rights: occupation or seizure of real estate, change of boundary marks, illegal change of course (appropriation) of water (in all countries) and violation of possession (Criminal Codes of Argentina, Brazil, Guatemala, Costa Rica, Nicaragua, Peru, Puerto Rico, El Salvador, Uruguay). However, given the lack of differentiation of liability for most of these actions, the need for an appropriate system is unlikely to exist, as relevant goals could be achieved through the single provision.

2. The Latin American mechanism of criminal law protection of land rights is characterized by two features related to the legislative description of the characteristics of the objects of the researched category of crimes:

    –   first, within legislation of the vast majority of countries, criminal protection of land rights is considered an integral part of a broader object of protection – real estate rights. However, given the special status and

value of land in Ukraine, such borrowing experience is not worth the effort;

– secondly, legislators of the vast majority of countries (Argentina, Brazil, Venezuela, Colombia, Costa Rica, Panama, Peru, El Salvador, Uruguay) include not just full but also partial illegal possession of certain real estate, in particular, land plots within the list of criminal offenses. In such way, criminal law of the covered group of countries differs in a favorable way from the current version of Art. 197-1 of the Criminal Code of Ukraine, the literal interpretation of the provisions of which makes it impossible to prosecute for the unauthorized occupation of partial and not entire land parcel. Therefore, we are convinced that such experience must be taken into account in the process of further improvement of domestic criminal law.

At the same time, we consider it inexpedient to borrow the experience of those Latin American countries, whose parliamentarians, despite having a fairly extensive system of rules governing liability for various violations of land rights, refused to use aggravating circumstances, which does not allow to ensure the implementation of the principle of criminal liability differentiation.

3. Compared to combating violations of land rights, criminal law of Latin American countries pays much less attention to the issues of criminal law protection of the land's ecological function.

It should be noted that while in some countries criminal liability for land crimes of "environmental" substance is provided directly in the articles of criminal codes (Guatemala, Ecuador, Mexico, Panama, Peru), in others (Brazil, Venezuela, Puerto Rico) it is provided in the norms of special laws on the regulation of liability for environmental crimes. Taking into account peculiarities of the domestic legal system, we support the first of these methods of regulating criminal liability for land offenses of "environmental" spectrum.

Acknowledgements

Bibliographic references

Aboso, G. E. (2021). Derecho penal y medio ambiente. Cuestiones dogmáticas básicas en la punición de los delitos ambientales. Revista de la Facultad de Derecho y Ciencias Sociales y Políticas, 9(17), 15-153. Retrieved from: https://revistas.unne.edu.ar/index.php/rfd/article/view/5332.

Bruinsma, G., & Weisburd, D. (2014). Encyclopedia of Criminology and Criminal Justice. New York: Springer.

Burgos Claros, O. (2018). Eficacia jurídica del derecho al ambiente sano en acciones contra la minería ilegal de la Policía Nacional colombiana. Revista Logos Ciencia & Tecnología, 10(3), 133-147. Retrieved from: https://revistalogos.policia.edu.co:8443/index.php/rlct/article/view/593/pdf

Comte, F. (2003). Criminal Environmental Law and Community Competence. European Environmental Law Review, 12 (5), 147-156.

Dodonov, V. (2009). Comparative criminal law. General part: monograph. Moscow: Yurlitinform [in Ukrainian].

Duri, J. (2020). Corruption and environmental crime in Latin America. U4 Helpdesk Answer. Retrieved from https://www.u4.no/publications/corruption-and-environmental-crime-in-latin-america.pdf

Eshmurodov, E. (2020). Issues Of Criminal Liability For Violation Of The Requirements Of The Law On Ecology And The Environment. The American Journal of Political Science Law and Criminology, 2(11), 93–98. Retrieved from: https://usajournalshub.com/index.php/tajpslc/article/view/1462/1394.

Gaceta Oficial N° 39.913. Ley Penal Del Ambiente do Venezuela del 02 de mayo de 2012. Retrieved from: http://euroclimaplus.org/intranet/_documentos/repositorio/Ley%20Penal%20del%20Ambiente%20(2012).pdf.

Hamidaha, A., Hamzani, A.I., & Mariyono, J. (2021). Environmental Crime and Law Enforcement in Indonesia: Some Reflections on Counterproductive Approaches. Environmental Policy and Law, 51 (6), 409-416. DOI: https://doi.org/10.3233/EPL-210024.

Hollins, M., & Percy, S. (1998). Environmental Liability for Contaminated Land: Towards a European Consensus. Land Use Policy, 15 (2), 119-133

Khavronyuk, M. (2013). Scientific understanding of legal doctrine and criminal

law of foreign countries. Bulletin of the Association of Criminal Law of Ukraine,1, 298–347 [in Ukrainian].

Kvasha, O., Zahynei, Z., Shapoval, M., Kurylo O., & Nikitenko V. (2019). Corruptive abuses of senior public officials in the banking sphere as a determinant of the Ukrainian economy criminalization. Banks and Bank Systems, 14(2), 89-105. DOI: http://dx.doi.org/10.21511/bbs.14(2).2019.08.

Ladychenko, V., Yara, O., Golovko, & L., Serediuk, V. (2019). Groundwater management in Ukraine and the EU. European Journal of Sustainable development, 8(1), 31–39. Retrieved from: https://ecsdev.org/ojs/index.php/ejsd/article/view/763/758.

Ladychenko, V., Yara, O., Uliutina, O., & Golovko, L. (2019). Environmental Liability in Ukraine and the EU. European Journal of Sustainable Development, 8(2), 261–267. Retrieved from: http://ojs.ecsdev.org/index.php/ejsd/article/view/810/805.

Lammers, J.G. (2001). International Responsibility and Liability for Damage Caused by Environmental Interferences. Environmental Policy and Law, 31 (1), pp. 42-50.

Lei 9605/98. Lei de Crimes Ambientais do Brasil, Presidência da Republica de 12 de fevereiro de 1998Retrieved from: https://presrepublica.jusbrasil.com.br/legislacao/104091/lei-de-crimes-ambientais-lei-9605-98.

Lisova, T., & Sharapova, S. (2020). Legal issues of protection of agricultural land in Ukraine at the present stage. Amazonia Investiga, 9(27), 209-216. Retrieved from: https://amazoniainvestiga.info/index.php/amazonia/article/view/1229/1105. DOI: DOI: http://dx.doi.org/10.34069/AI/2020.27.03.22

Meiyappan, P., Dalton, M., O'Neill, B., & Jain, A. (2014). Spatial modeling of agricultural land use change at global scale. Ecological Modelling, 291, 152–174. Retrieved from: https://www.sciencedirect.com/science/article/pii/S0304380014003640.

Minchenko, R., Lutsyuk, P., Kamensky, D., Kolodin, A., & Shamota, O. (2021). Civil and criminal liability in the field of transport relations: the impact of the Covid-19 pandemic. Amazonia Investiga, 10(40), 212-221. Retrieved from: DOI: https://doi.org/10.34069/AI/2021.40.04.21.

Movchan, R. (2015). Criminal legal protection of land resources under the legislation of Western Europe. Law and civil society, 4, 74-104 [in Ukrainian]. Retrieved from: http://lcslaw.knu.ua/index.php/arkhiv-nomeriv/4-12-2015/item/246-kryminalno-pravova-okhorona-zemelnykh-resursiv-za-zakonodavstvom-krayin-zakhidnoyi-yevropy-movchan-r-o.

Movchan, R. (2016). Criminal legal protection of land resources under the legislation of post-socialist countries of Central and Eastern Europe. Visegrad Journal on Human Rights, 3, 130-135. [In Ukranian]

Movchan, R. O., Vozniuk, A. A., Kamensky, D. V., Dudorov, O. O., & Andrushko, A. V. (2021). Problems of criminal liability for illegal amber mining in Ukraine. Naukovy Visnik National Hirnohoho University [Naukovyi Visnyk Natsionalnoho Hirnychoho Universytetu], 6, 113–117. Retrieved from: http://nvngu.in.ua/jdownloads/pdf/2021/6/06_2021_Movchan.pdf. DOI: https://doi.org/10.33271/nvngu/2021-6/113

Movchan, R., Dudorov, O., Vozniuk, A., Areshonkov, V., Lutsenko, Y. (2021). Combating commodity smuggling in Ukraine: in search of the optimal legislative model. Amazonia Investiga, 10(47), 142-151. Retrieved from: DOI: https://doi.org/10.34069/AI/2021.47.11.14.

Movchan, R., Vozniuk, A., Burak, M., Areshonkov, V., & Kamensky, D. (2021). Criminal law counteraction to land pollution in the EU countries: searching for the optimal model. Amazonia Investiga, 10(42), 15-23. Retrieved from DOI: https://doi.org/10.34069/AI/2021.42.06.2.

Movchan, R.O. (2017). Criminal and legal protection of land resources under the laws of Latin America. Economic and Law Paradigm of Modern Society, 2, 174-179 [in Ukrainian].

Orlovskyi, R., Shapoval, R., & Demenko, O. (2018). Possibilities of adapting the typologies of the international standards for establishing criminal liability for corruption-related crimes in Ukraine. Journal of eastern European and central Asian research, 5(2), 1-12. Retrieved from: https://ieeca.org/journal/index.php/JEECAR/article/view/230/pdf. DOI: https://doi.org/10.15549/jeecar.v5i2.230.

Rodríguez Goyes, D., Mol, H., Brisman, A., & South, N. (2019) Environmental Crime in Latin America: The Theft of Nature and the Poisoning of the Land. International Journal for Crime Justice and Social Democracy, 8(3), 112-115. Retrieved from: https://media.proquest.com/media/hms/PFT/

1/1JgRB?_s=ZBfGtpW%2BK9LvKZUvKl2aOFL0dEE%3D.

Sánchez Zapata, F. S. (2016). La protección penal del medio ambiente. Análisis del art. 338 del Código Penal colombiano sobre minería ilegal. Trans-Pasando Fronteras, (9), 77-113. Retrieved from: https://www.icesi.edu.co/revistas/index.php/trans-pasando_fronteras/article/view/1633/3230. DOI: https://doi.org/10.18046/retf.i09.1633

Savchenko, A.V., Drozd, O.Y., Oliinyk, O.S. (2017). Comparative and legal analysis of criminal and legal protection of individual components of natural environment: European and international experience. Journal of Advanced Research in Law and Economics, Volume VIII, Fall, 7 (29), 1897–1193.

Savchenko, A., Babikov, O. & Oliinyk, O. (2017). Comparative and Legal Analysis of Criminal and Legal Protection of Individual Components of Natural Environment: European Experience. Journal of Advanced Research in Law and Economics, 8(7), 2209–2216.

Spadotto, A. J., Barreiro, M. D. P. R., & De Medeiros, G. A. (2017). Inferencias sobre la ley brasilera de delitos ambientales en comparación con el código penal colombiano. Veredas do Direito: Direito Ambiental e Desenvolvimento Sustentável, 14(28), 221-249. DOI: https://doi.org/10.18623/rvd.v14i28.957.

Turlova, Yu. (2016). The system of environmental crimes. Uzhhorod National University Herald. Series "Law", 2(36), p. 103–109.

Vasylevych, V., Mozol, S., Poklonskyi, A., Poklonska, O. & Zeleniak, P. (2021). Regulatory framework for the fight against corruption in the National Police of Ukraine. Questiones Politicas, 39(68), 682-695. Retrieved from https://produccioncientificaluz.org/index.php/cuestiones/article/view/35443

Vozniuk, A., Dudorov, O., Tytko, A., Movchan, R. (2020). Implementation of UN and EU recommendations on criminalization of organized crimes. Amazonia Investiga, 9 (28), 234-240. Retrieved from https://amazoniainvestiga.info/index.php/amazonia/article/view/1307/1175. DOI: http://dx.doi.org/10.34069/AI/2020.28.04.26

Walters R. (2014) Organized Crime and the Environment. Encyclopedia of Criminology and Criminal Justice. New York, NY: Springer. Retrieved from: https://doi.org/10.1007/978-1-4614-5690-2_285.

Yara, O., Uliutina, O., Golovko, L., & Andrushchenko, L. (2018). The EU Water Framework Directive: Challenges and Prospects for Implementation in Ukraine. European Journal of Sustainable development, 7(2), 175–182. Retrieved from: https://ecsdev.org/ojs/index.php/ejsd/article/view/649/645.