International forensic science activity in modern realities is becoming increasingly popular and characterized by increasing globalization processes in international relations, creation of a single information space, in which transnational relations of human rights and law enforcement organizations and forensic institutions, as well as individual forensic experts and scientists specializing in forensic science and forensic science activity.

This article purpose is to consider standardization and accreditation procedures (as the main areas of international cooperation in the field of forensic science activity in the context of globalization) and key tools for recognizing research results and forensic expert conclusions. Emphasis is placed on the fact that application of international standards in the field of forensic science is a priority that contributes to increasing reliability, transparency and confidence in forensic evidence and conclusions made by forensic expert.

It was emphasized that one of the important factors in improving efficiency of forensic science at the international level is cooperation with the European Network of Forensic Science Institutes (ENFSI) whose main activity is to improve information exchange of in forensics and improve of forensic science quality. Certain steps are proposed on the way for ensuring forensic expert independence, improving quality of forensic expert conclusions provided and effectiveness of forensic science activity in general.
Keywords: accreditation; globalization; efficiency; international cooperation; forensic science activity; standardization.

Research Problem Formulation

In the context of globalization, each State is trying to create its own tools for solving urgent problems relying on the support of other states. This is due to the fact that global problems are deterministic; they have not yet solved one, as another emerges in time, even more complex.

An important role in preventing and overcoming globalization challenges is to develop effective governance mechanisms. One way or another, modern world should come to terms with the irreversibility of modern globalization processes and develop mechanisms to mitigate or even prevent their negative effects.

One of the important mechanisms for solving and preventing global problems is the developed cooperation between the states in the political, economic, humanitarian, information and military fields. This statement also applies to forensic science. Its effective development in the current conditions of globalization and democratization of public relations necessitates thorough research and implementation of international experience in this field, bringing national legislation in line with modern international standards and strengthening international cooperation between its actors.

Analysis of Essential Researches and Publications

In recent years, globalization has become one of the most widely used concepts in various scientific fields, while a single conceptual system of views on understanding its content and the impact nature has not yet been formed. As a multifaceted concept, globalization has several dimensions: financial, economic, political, etc. Clarifying essence of globalization concept causes a lot of discussions in scientific community, within which they comprehend theoretical and methodological approaches to this category content and create appropriate research areas and schools of thought. Globalization as a social phenomenon in different research traditions is viewed from different angles. At the same time, despite numerous attempts by scholars to offer a meaningful interpretation of this concept, it still remains methodologically contradictory and has a rather vague semantic meaning.

Thus, according to N. Kosolapov, “Globalization is a qualitatively independent, complex system of phenomena and relations,

1 E.g.: Войтович Р. В. Вплив глобалізації на систему державного управління (теоретико-методологічний аналіз) : монографія / за заг. ред. д-ра філософ. наук, проф. В. М. Князєва. Київ, 2007. С. 639. URL: http://www.dut.edu.ua/ua/lib/1/category/1179/view/1730 (date accessed: 24.11.2021).

2 Yameogo C. E. W., Omojolaibi J. A., Dauda R. O. S. Economic globalisation, institutions and environmental quality in Sub-Saharan Africa. Research in Globalization. 2021. Vol. 3. 100035. P. 1—9. DOI: 10.1016/j.resglo.2020.100035 (date accessed: 24.11.2021).
holistic in its systemic but internally contradictory”.

An important role in the context of clarifying essence of globalization belongs to the distinction between categories of globality and transnationality. This approach, in particular, is shared by M. L. Cheshkov, who understands transnationality as a moment, aspect of globalization with its spaces.

A slightly different position in understanding this distinction belongs to U. Bek, who identifies transnational forms with international, macro-regional, intra-national ones. Accordingly, he considers globalization through its multilevel and ambiguity of concrete existence forms.

A particularly important role in elucidating globalization essence belongs to the field of economic sociology, which methodological basis are research papers of such researchers as M. Weber, T. Veblen, E. Durkheim, M. Polanyi and others. Thanks to these researches, for the first time globalization essence processes is sociologically substantiated.

No less important for the attempt to clarify the meaning of globalization is the school of international political economy, especially developed in the Anglo-Saxon countries. The globalization essence is explained by most researchers who represent this area through the relationship between interstate relations and the economy. R. Underhill, L. Weiss, D. Held and others raise the question of the extent to which foreign policy affects world economic processes and thus leads to establishment of common standards of socio-economic and political development.

Indeed, currently approximation of national legislation to civilized world standards in the field of human rights requires compliance with international legal and professional standards. In globalization context, improving process of forensic science efficiency should take place not only by improving the legal regulation of forensic science and expanding the range of forensic expert tasks but by adopting and implementing the best World and European experience.

In the professional legal readings, the subject topic was international standards of human rights, evidence, pre-trial investigation, and other standards in the field of justice. The issue of international standards of forensic science is also...
the subject of research in the works of many scholars and practitioners. At the same time, we should agree with O. P. Uhrovetskyi and V. Ye. Malanchak, who consider the prerequisites for improving efficiency of forensic science to improve its legal basis, build a model of cooperation between forensic science institutions of Ukraine and EU countries based on international standards, human rights and freedoms in the field of justice, at the same time calling these preconditions theoretical and applied issues, that are still insufficiently developed and which need more attention from the scientific community. According to O. M. Kliuiev, the participation expansion of forensic institutions in international cooperation, strengthening their role in the further development of the theory and practice of criminalistics and forensic science is a topical issue at the present stage.

Thus, the solution of these issues is relevant for further research in order to form a theoretical and legal framework and practical recommendations.

Article Purpose

For considering standardization and accreditation as the main areas of international cooperation in the field of forensic science in globalization context.

Main Content Presentation

Nowadays, ties between countries are deepening, transforming different States into a single global system. Globalization has a significant impact on modernization of national public administration systems. It provides new opportunities for human development, becoming “integration of interests and opportunities in real time”, canceling historical time and, to some extent, even space. Theoretically, currently, any country and any nation, regardless of the specifics of its history, can enjoy economic, geopolitical and technological advantages that open up before if they are opened to the international community.

Globalization concept, forming a certain categorical complex to describe nature and character of civilizational changes has its own semantic load. This concept is actively used to describe modern changes in life, transition of humanity to a qualitatively new level; from the national-state to the transnational phase of societies and the post-industrial, informational phase of social development in general.

Globalization concept has become one of
Globalization has boosted productivity and economic growth for decades. It has helped integrate developing countries, spread technology, knowledge, culture and create an interconnected global community. Globalization in its modern version leads to *reformatting* structure of the modern world resulting in adjusting national systems of government, changing economic strategies, political and spiritual development creating a continuous interdependence of states that is the world basis. Interdependence of countries is increasing unifying and standardizing conditions and factors of development of individual states that is a kind of indicator of determining sustainability level of nation states, their potential to meet globalization challenges, that currently become the main criterion for integration. Only State that has an active governance system, implements its own geopolitical development strategy, maximally protects sovereignty, orients itself in global space and most importantly, has effective mechanisms of influence and manages them is able to resist such globalization challenges.

Specificity of the current globalization stage is primarily that it is a multifaceted process of significant change. It is known that the main condition for globalization is formation of a single political space, that should ensure the development of a single political language that would serve as a basis for understanding between world cultures. Without this, the political dialogue of civilizations remains at the level of nominal constructions, and is by no means a political practice of effective development of states. T. O. Kolomoiets and P. O. Baranchyк rightly noted that in today’s globalized world, the problem of rule of law goes beyond State borders. Without avoiding the development of legal science and law, globalization processes have their own specifics in various fields, including forensic science.

Modern challenges in the field of forensic science are due to a number of important factors, the main of which is the growth of transnational crime; international terrorism; illegal migration; digital transformation of all branches of human activity; rapid development of information technology and telecommunications; problems with respect for human rights.

Without integration with the international community, it is not possible to fully provide justice with quality expertise, so it is necessary to learn from foreign experience and use these developments to improve the efficiency of forensic science in our country. This is the reason for the need to improve forensic science in Ukraine with its transfer to a new level of use of specific expertise using the best world practices.
Globalization processes of in forensic science are implemented primarily through adaptation of national legislation on forensic science to European and unification of forensic research methods for all forensic institutions by accrediting them in accordance with international quality standards. Many scholars and practitioners aptly point out impossibility of forensic science existence within a single state and emphasize the need for forensic science responsibility in the country to comply with national principles and international legal and professional standards.

International standards exist in any field of legal regulation, but they are often identified with standards regulating technical field, as they are the most common.

However, currently it is difficult to imagine any area of public life in which there are no generally accepted international standards. Standardization is the main mechanism for organizing and maintaining a high level of quality in forensic science.

International conventions enshrine the principles of protection of human and civil rights, namely: the right to a fair trial within a reasonable time and the obligation of the state to effectively investigate any violations of fundamental human rights. Adherence to these principles should reassure everyone that forensic experts use reliable research techniques to obtain objective data, regardless of forensic agency or private expert will conduct the research.

Implementation of international standards in national legislation increases confidence in forensic expert conclusions and allows to reach a higher level of development of public relations (in particular, in forensic science activity).

The international standards term is used in various spheres of public life: it describes the requirements for certain activities, considering international law, world experience and practice of individual states. According to the Law of Ukraine: On Standardization, “international standard is standard adopted by an international organization for standardization and available to a wide range of users”.

18 E.g.: Сімакова-Єфремян Е. Б. До питання про взаємозалежність європейських інтеграційних процесів і тенденцій інтеграції спеціальних знань в Україні. Теорія та практика судової експертизи і криміналістики : зб. наук. пр. 2017. Вип. 17. С. 152—158. DOI: 10.32353/khrife.2017.18 (date accessed: 19.11.2021).

19 E.g.: Клименко Н. І., Купрієвич О. А. Міжнародне співробітництво судово-експертних установ. Вісник криміналістичного судочинства. 2015. № 4. С. 130—134 ; Клименко Н. І. Міжнародне значення судово-експертної діяльності. Судово-експертна діяльність: сучасний стан та перспективи розвитку : зб. мат-лів кругл. столу. Київ, 2015. С. 165—168. URL: http://elar.niau.kiev.ua/spui/handle/123456789/9038 (date accessed: 20.11.2021) ; Матвеєвський О. В., Бабін Б. В. Міжнародно-правові стандарти судової експертизи та їх національна реалізація. Прикарпатський юридичний вісник. 2018. Вип. 1 (22). Т. 4. С. 73—79. URL: http://www.pjv.nuoua.od.ua/v1-4_2018/16.pdf (date accessed: 19.11.2021).

20 Русєцький А. А. Про стандартизацію: Закон України від 05.06.2014 р. № 1315-VII (зі змін. та допов.). URL: https://zakon.rada.gov.ua/laws/show/1315-18#Text (date accessed: 19.11.2021).
Thus, international standard is the one developed by the International Organization for Standardization (ISO). According to the Great Explanatory Dictionary of the Ukrainian language: “International in relation to relations between peoples and countries existing between nations, extends to; in which representatives of different countries and peoples take part, and “standard is norm, sample, measure”.

Thus, international standards are a source of critical information, as they contain norms and rules based on advances in various fields of technology, technology and practical experience and recognized by consensus by representatives of all stakeholders.

Standardization of forensic activity is considered as a tool for building institution management system of providing quality and efficient research and, as a result, meet the needs of customers.

In the context of the of forensic science reform, world experience in the form of international standards should be taken as a basis and move in the same direction with colleagues from the entire forensic community of countries that share this approach. The efforts of professionals to influence changes in legislation and regulations should be aimed at developing uniform rules and regulations under which all subjects of forensic science, forensic science activity and all stakeholders will receive a result that will beyond doubt.

European practice of implementing legal standards indicates the existence of mandatory standards and standards that are of a recommendatory nature. Mandatory standards are based on legal norms that require proper conduct. This standard specific mostly recognizes the general development legal system direction, because by their legal nature, these rules are norms-principles and have a constitutive nature.

Optional standards are of a recommendatory nature and are a product of international law of the XX century, when the speed of their development did not coincide with capabilities and desires of individual States.

The division of European legal standards into outlined varieties has led to the functioning of law in the usual sense which is binding and “soft” law.

It should be noted that it is in the process of development of standardization in European law is a kind of development of social relations in the European Union (hereinafter referred to as EU). Defining the European legal standard as a separate category of European law, we should note that this term is used broadly as a legal standard that contains elements such as general principles of EU law and...
common EU values (they relate to human, environment, economic issues, etc.) 28.

Implementation of European standards in the activities of national forensic institutions is an extremely promising area for forensic science development. European legal standards are formed within two largest regional international associations: Council of Europe and the EU. The Council of Europe primarily sets standards in the humanitarian field (protection of human rights, environmental protection, constitutional law), that is determined by the objectives and purpose of its functioning. EU through directives, regulations and other regulations sets standards for most areas of life of the EU population 29.

Currently, requirement related to the recognition of research results at the international level is becoming relevant. Thus, for the international recognition of measurement results, activities of any laboratory should meet requirements of international standards. According to these requirements, all EU forensic laboratories should be accredited to international standard 30. Currently, in international practice, in order to increase the reliability of forensic results and reduce judicial errors, general forensic laboratories are actively accredited for compliance with ISO/IEC 17025 - General Requirements for the Competence of Testing and Calibration Laboratories and ISO/IEC 17020: Conformity assessment — Requirements for the operation of various types of bodies performing inspection “considering ILAC-G19:08/2014 31.

On the basis of these international standards, a comprehensive peer review of all factors influencing the results of peer reviews is conducted and used to evaluate forensic laboratories around the world. These standards are used by accreditation bodies to assess the following factors:

• technical staff competence
• validity and acceptability of research methods (tests);
• accuracy of measurements and calibration to national standards;
• serviceability, calibration and maintenance of measuring and testing equipment;
• testing environment;
• selection, processing and transportation of research objects and samples;
• quality assurance of test and measurement data 32.

Recently, the role of international cooperation in the field of forensic science is growing steadily33. In order to improve forensic methods and form...
common standards of forensic science, information exchange and other important tasks, a large number of organizations are successfully operating in the modern world today, which indicates the constant interest of the international community in the field of forensic science. As one of the leading factors in ensuring mutual recognition of expertise, quality of expert proceedings, as well as the formation of the basis for international integration of forensic organizations within regional and global processes, the world forensic expert community considers the process of accreditation of forensic laboratories.

Accreditation (from Latin. *accredere*: trust) is an effective way to demonstrate the level of technical competence of any laboratory (including forensic science one) and is a kind of means to improve the working quality, services and products. According to the Law of Ukraine: *On Accreditation of Conformity Assessment Bodies* (paragraph 2 of Article 1) “Accreditation of conformity assessment bodies” — certification by the national accreditation body of Ukraine that conformity assessment body meets the requirements of national standards harmonized with relevant international and European standards and if necessary, any additional accreditation requirements in the relevant areas to carry out certain conformity assessment activities”.

Within the accreditation procedure, standardization procedure is formalized according to a certain algorithm. Accreditation of forensic science laboratories is a reliable reflection of their technical competence recognized internationally. Accreditation is usually carried out by an accreditation body within a single system. Accreditation of testing laboratories in accordance with the requirements of ДСТУ EN ISO/IEC and EN ISO/IEC 17020 means that the results are not only justified but recognized standards that will not change under any circumstances (for example, if laboratory staff changes, etc.).

The accreditation purpose is to ensure a unified technical policy in the field of conformity assessment, creating conditions for mutual recognition of the results of accredited bodies at international level. Accreditation bodies, testing laboratories, metrological services and other participants in the system of technical regulation of metrology go through the accreditation procedure. Accreditation system is the basis for recognizing the results of confirmation of compliance both in Ukraine and abroad.

In view of the above, the main task of international accreditation in the field of forensic science is to ensure international recognition of domestic forensic expert conclusions by confirming their competence, so accreditation of forensic laboratories based on principles and procedures agreed at the international level is paramount step towards building mutual trust.

Main advantages provided by the laboratory accreditation are:

- determining general requirements for demonstrating laboratory
competence to perform specific tests or calibrations;
• creating and maintaining trust ambience and guarantees for customers and consumers to provide quality service in the field where the laboratory is accredited;
• continuous improvement of activities due to regular inspections by the accreditation body;
• expanding market share by recognizing laboratory results by market participants;
• reduction of time spent on proving laboratory competence;
• motivation increase, qualification and staff competence due to regular inspections by accreditation body;
• assistance in development and implementation of the laboratory quality system;
• creation of conditions for mutual recognition of activity results of accredited bodies and results of measurements at the international level;
• ensuring a common technical policy in the field of conformity assessment and reduction of technical barriers;
• reflection of positive dynamics of the development of methodological support of accredited bodies by differentiating scientific research;
• organization of wide information exchange (in particular, information and reference arrays of samples) with accredited bodies on a single methodological basis, etc.37

In the context of standardization generated by modern globalization processes, membership in international forensic organizations, in particular in the European Network of Forensic Science Institutions, is also an important step in ensuring international standards of forensic science. The modern version of globalization is accompanied by the homogenization of the world, which leads to the emergence of new actors in the world, the so-called transnational governance structures, which begins countdown to a new form of world self-organization 38.

Leading and most developed association of forensic institutions, which contributes to improving the quality of forensic science and improving the mutual exchange of information during forensic activities, is the European Network of Forensic Institutions (hereinafter referred to as ENFSI) founded in 1995 It is recognized European Network of Forensic Science Institutes which aim is support for science and researches, international cooperation and competence, education, development in the field of forensic science. ENFSI members are 73 institutions from 39 European countries.39

37 E.g.: Лилова Ю. Ю., Заковирко О. М. Щодо діяльності міжнародної організації із стандартизації. Актуальні питання судової експертизи та криміналістики: зб. мат-лів міжнар. наук.-практ. конф., присвяч. 100-річ. від дня народж. д-ра юрид. наук, проф., засл. діяча науки і техн. Укр. М. В. Салтевського (Харків, 07—08.11.2017). Харків, 2017. С. 87—89 ; Наранович О. В., Онорикенко С. А., Спасенко И. О. Op. cit. ; Хоша В. В. Міжнародний досягнення акредитації судово-експертних установ і його використання в Україні. Криміналістичний вісник. 2019. № 1 (31). С. 20—26. DOI: 10.37025/1992-4437/2019-31-1-20 (date accessed: 24.11.2021).
38 Войтович Р. В. Op. cit. С. 72.
39 Інститут спецтехніки та судових експертиз СБУ став членом Європейської мережі судово-експертних установ / Офіційний сайт служби безпеки України. URL: https://ssu.gov.ua/novyny/instytut-spetstekhniki-ta-sudovykh-ekspertyz-sbu-stav-chlenom-yevropeiskoi-merezh-sudovoekspertyz-ustanov (date accessed: 20.11.2021).
The more forensic agencies join the ENFSI, the more fruitful the cooperation in this area will be.

The impact of ENFSI on society, development of science and technology is that manufacturers of equipment and tools for forensic science bring their products in line with ENFSI standards. The main attention is focused on unification, certification and standardization of methods of forensic examination and improving quality of forensic examinations 40.

The main activity of ENFSI is to achieve a high level of organization in the field of forensic science by developing quality of forensic services at all proceeding stages: from the scene to the court, provided by the following conditions:

- membership in ENFSI combines production, scientific and methodological capabilities of forensic institutions;
- expansion of ENFSI membership strengthens the trust of law enforcement agencies and courts;
- establish and maintain business relations with other organizations whose activities are related to criminalistics and forensic science;
- activities of all ENFSI member institutions implementing modern research methods, international standards and ensure the competence of experts in various types of forensic science are strongly encouraged 41.

It should be recognized that membership in ENFSI is an important strategic direction of development for all domestic forensic science institutions, as it provides high international standards of forensic science activity, interaction on a wide range of issues with European partners opens new and promising development areas 42. At the same time, the lack of general funding for international forensic activities can negatively affect quality of forensic expert conclusions and image of the State in general on the world forensic science arena.

Conclusions

Modern globalization and integration processes of implementation of international norms into national legislation set new goals and objectives for the implementation of international quality standards in domestic forensic science. The study of international experience and practice of state regulation of such activities opens new perspectives for improving its efficiency and improving quality and professionalism of forensic expert research. Implementation of international quality standards in forensic science is a priority and a guarantee that the international community at the highest level recognizes the conclusions of forensic experts in Ukraine. Fruitful cooperation with ENFSI is an important factor in improving efficiency of forensic science activity at the international level.

An important direction in development of forensic science support of justice is the need for clear legislative regulation of guarantees for forensic expert activities of at the national and international levels. At the same time, sufficient state funding for this activity should be leading factor that will positively affect the image and quality of

40 Хазиев Ш. Н. Международные судебно-экспертные организации (часть 1). Теория и практика судебной экспертизы. 2009. № 1 (13). С. 171—177.
41 Де Киндер Я. Европейская сеть судебно-экспертных учреждений (ENFSI). Теория и практика судебной экспертизы. 2011. № 4 (24). С. 200—204.
42 Чернявський С. С., Чорноус Ю. М. Op. cit.
forensic expert research. Implementation of proposed measures will not only ensure forensic expert independence, make results of his work better but significantly increase efficiency of forensic science activity in general.

Судово-експертна діяльність в умовах глобалізації
Павлос Кіпоурас, Інесса Овсянникова

Міжнародна судово-експертна діяльність у сучасних реаліях набуває дедалі більшої популярності й характеризується посиленням глобалізаційних процесів у міжнародних відносинах, утворенням єдиної інформаційної простору, в умовах якого більш ефективними стають транснаціональні зв’язки як правозахисних і правоохоронних організацій, так і судово-експертних установ, а також окремих судових експертів та науковців, що спеціалізуються на питаннях судової експертизи й судово-експертної діяльності.

Метою статті є розглядання процесів стандартизації й акредитації як основних напрямів міжнародного співробітництва у сфері судово-експертної діяльності в умовах глобалізації і провідних інструментів визнання результатів дослідження та висновків судового експерта. Акцентовано увагу на тому, що застосування міжнародних стандартів в галузі судової експертизи є першочередним завданням, яке сприяє підвищенню надійності, прозорості й упевненості в судових доказах і зроблених експертом висновках.

Підкреслено, що один із важливих чинників підвищення ефективності судово-експертної діяльності на міжнародному рівні – співпраця з Європейською мережею інститутів судової експертизи (ENFSI), основним напрямом діяльності якої є покращення взаємобмінну інформацію в галузі криміналістики. Запропоновано певні кроки на шляху до забезпечення незалежності судового експерта, підвищення якості наданих ним висновків та ефективності судово-експертної діяльності загалом.

Ключові слова: акредитація; глобалізація; ефективність; міжнародне співробітництво; судово-експертна діяльність; стандартизація.

Судебно-экспертная деятельность в условиях глобализации
Павлос Кипоурас, Инесса Овсянникова

Международная судебно-экспертная деятельность в современных реалиях приобретает всё большую популярность и характеризуется усилением глобализационных процессов в международных отношениях, созданием единого информационного пространства, в условиях которого значительно эффективнее становятся транснациональные связи как правозащитных и правоохранительных организаций, так и судебно-экспертных учреждений, а также отдельных судебных экспертов и учёных, специализирующихся на вопросах судебной экспертизы и судебно-экспертной деятельности.

Целью статьи является рассмотрение процессов стандартизации и аккредитации (как основных направлений международного сотрудничества в сфере судебно-экспертной деятельности в условиях глобализации) и ключевых инструментов признания результатов исследования и заключений судебного эксперта. Акцентировано внимание на том, что применение международных стандартов в сфере судебной экспертизы является первоочередной задачей, способствующей повышению надёжности, прозрачности и уверенности в судебных доказательствах и сделанных экспертом выводах.

Подчёркивается, что один из важных факторов повышения эффективности судебно-экспертной деятельности на международном уровне – сотрудничество
с Европейской сетью институтов судебной экспертизы (ENFSI), основным направлением деятельности которой является улучшение взаимообмена информацией в сфере криминалистики и повышение качества судебных экспертиз. Предложены определённые шаги на пути к обеспечению независимости судебного эксперта, повышению качества предоставленных им выводов и эффективности судебно-экспертной деятельности в целом.

Ключевые слова: аккредитация; глобализация; эффективность; международное сотрудничество; судебно-экспертная деятельность; стандартизация.

Funding
This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Disclaimer
The funders had no role in the study design, data collection and analysis, decision to publish, or preparation of the manuscript.

Contributors
The authors contributed solely to the intellectual discussion underlying this paper, case-law exploration, writing and editing, and accept responsibility for the content and interpretation.

Declaration of Competing Interest
The authors declare that they have no conflict of interest.

References
Andrieieva, O. B., Sharapova, O. V. (2017). Vyznachennia naukovoi obgruntovanosti sudovo-ekspertnykh metodyk kriz pryzmu mizhnarodnoho dosvidu [Determining Scientific Validity of Forensic Methods through the Prism of International Experience]. Aktualni pytannia sudovoi ekspertyzy ta kryminalistyky : zb. mat-liv mizhn. nauk.-prakt. konf.-polilohu (Kharkiv, 15—16.04.2021). Kharkiv [in Ukrainian].

Antilevskaiia, Iu. A. (2017). O nekotorykh voprosakh kachestva sudebno-ehkspertnoi deiatelnosti [On Some Issues of Forensic Activity Quality]. Kriminalistichnii visnik. № 2 (28). URL: http://elar.naiau.kiev.ua/bitstream/123456789/16745/1/Visnik_2-28-2017-32-39.pdf [in Russian].

Bek, U. (2000). Obshchestvo riska. Na puti k drugomu modernu [Risk society. On the Way to Another Modern]: per. s nem. Moskva [in Russian].

Cherniavskyi, S. S., Chornous, Yu. M. (2021). Mizhnarodni standarty sudovo-ekspertnoi diialnosti [International Standards of Forensic Science]. Aktualni pytannia sudovoi ekspertyzy i kryminalistyky : zb. mat-liv mizhn. nauk.-prakt. konf.-polilohu (Kharkiv, 15—16.04.2021). Kharkiv [in Ukrainian].

Cheschkov, M. A. (2002). Smysh protivostoiianiia: ne alternativnost, no variabelnost [Meaning of Confrontation: not Alternative but Variability]. Mirovaia ekonomika i mezhdunarodnye otosheniia. № 6 [in Russian].

Chimmanee, K., Jantavongso, S. (2021). Practical mobile network planning and optimization for Thai smart cities: Towards a more inclusive globalization. Research in Globalization. Vol. 3. DOI: 10.1016/j.resglo.2021.100062.

Coleman, W. D., Underhill, G. D. (1998). Regionalism and Global Economic Integration. London. DOI: 10.4324/9780203058350.

De Kinder, Iа. (2011). Evropeiskaia set sudebnio-ekhsperntnykh uchrezhdenii (ENFSI) [European network of forensic science institutes (ENFSI)]. Teoriia i praktika sudebnoi ekhspersti. № 4 (24) [in Russian].

Diurkgeim, Eh. (1995). Sotsiologiia. Ee predmet, metod, prednaznachenie [Sociology. Its subject, Method, Purpose]; per. s fr. A. B. Gofmana. Moskva [in Russian].

Filipenko, N., Spitsyna, H., Shynkarenko, I., Tsybalistyi, V. (2021). Implementation of Preventive Activity; Foreign Experience in Criminological Work of Forensic Science Institutions. Electronic Scientific
Journal Socrates. № 1 (19). DOI: 10.25143/socr.19.2020.1.032-038.
Held, D., McGrew, A. (2007). Globalization theory: approaches and controversies. Cambridge — Massachusetts.

Instytut spetstekhiniki ta sudovykh ekspertyz SBU stav chlenom Yevropeiskoi merezhi sudovo-ekspertynykh ustanov [Institute of Special Equipment and Forensic Science of Security Service of Ukraine Became a Member of the European Network of Forensic Expert Institutes]/ Ofitsiinyi sait Sluzhby bezpeky Ukrainy. URL: https://ssu.gov.ua/novyny/instytut-spetstekhiniki-ta-sudovykh-ekspertyz-sbu-stav-chlenom-yevropeiskoi-merezhi-sudovoekspertynykh-ustanov [in Ukrainian].

Khaustova, M. H. (2017). Mizhnarodni standarty v konteksti yevrointehratsii protsesiv v Ukraini [International Standards in Context of European Integration Processes in Ukraine]. Visnyk Natsionalnoi akademii pravovykh nauk Ukrainy. № 2 (89). URL: http://nbuv.gov.ua/UJRN/vapny_2017_2_6 [in Ukrainian].

Khaziev, Sh. N. (2009). Mezhdunarodnye sudebno-ekspertnye organizatsii (chast 1) [International Forensic Science Organizations (Part 1)]. Teoriia i praktika sudebnoi ekspertizy. № 1 (13) [in Russian].

Khosa, V. V. (2019). Mizhnarodnyi dosvid akredytatsii sudovo-ekspertnykh ustanov i yoho vykorystannia v Ukraini [International Experience in Accreditation of Forensic Science Institutions and its Use in Ukraine]. Kriminalistichni visnyk. № 1 (31). DOI: 10.37025/1992-4437/2019-31-1-20 [in Ukrainian].

Khosa, V. V., Manulenko, O. V. (2009). Perspektyvy rozvytku sudovo-ekspertnykh ustanov Ministerstva yustysii Ukrainy v aspekti vstupu do yevropeiskoi systemy EFNSI [Prospects for Development of Forensic Institutions of the Ministry of Justice of Ukraine in Terms of Accession to the EFNSI European system]. Teoriia ta praktyka sudovoi ekspertyzy i kriminalistyky. Vyp. 9 [in Ukrainian].

Kliuiev, O. (2021). International Research Cooperation is Effective Mechanism for Forensic Science Improvement. Archives of Criminology and Forensic Sciences. № 1(3). DOI: 10.32353/acfs.3.2021.02.

Kliuiev, O. M. (2018). Dopytanniamizhnarodnoho spivrobitnytstva v haluzi sudovoii ekspertyzy [On the Issue of International Cooperation in the Field of Forensic Science]. Teoriia ta praktyka sudovoi ekspertyzy i kriminalistyky. Vyp. 18. DOI: 10.32353/khrife.2018.17 [in Ukrainian].

Klymenko, N. I. (2015). Mizhnarodne znachennia sudovo-ekspertnoi diialnosti [International Significance of Forensic Activity]. Sudovo-ekspertna diialnist: suchasnyi stan ta perspektyvy rozvytku : zb. mat-liv kruhl. stolu. Kyiv. URL: http://elar.naiau.kiev.ua/jspui/handle/123456789/9038 [in Ukrainian].

Klymenko, N. I., Kupriievych, O. A. (2015). Mizhnarodne spivrobitnytstvo sudovo-ekspertnykh ustanov [International Cooperation of Forensic Institutions]. Visnyk kryminalnoho sudochynstva. № 4 [in Ukrainian].

Kolomoiets, T. O., Baranchyk, P. O. (2012). Pryntsypy administratyvnoho prava [Principles of Administrative Law]: monohrafiia. Zaporizhzhia [in Ukrainian].

Kosolapov, N. (2001). Globalizatsiia: sushchnostnye i mezhdunarodno-politicheskie aspekty [Globalization: Essential and International Political Aspects]. Mirovaia ekonomika i mezhdunarodnye otnosheniia. № 3 [in Russian].

Lyløva, Yu. Yu., Zakovyrko, O. M. (2017). Shchodo diialnosti mizhnarodnoi orhanizatsii iz standartyzatsii [Regarding Activities of the International Organization for Standardization]. Aktualni pytannia sudovoi ekspertyzy ta kriminalistyky : zb. mat-liv
mizhnar. nauk.-prakt. konf., pryvsiach. 100-rich. vid dnia narodzh. d-ra yuryd. nauk, prof., zasl. diiacha nauky i tekhn. Ukr. M. V. Saltsevskoho (Kharkiv, 07—08.11.2017). Kharkiv [in Ukrainian].

Martseniuk, M. M., Hvozdetska, I. V. (2012). Mizhnarodni standarty yakosti [International Quality Standards]. Visnyk Khmelnytskoho natsionalnoho universytetu. Ekonomichni nauky. № 3. T. 2. URL: http://nbuv.gov.ua/UJRN/Vchnu_ekon_2014_3%282%29__35 [in Ukrainian].

Matvieievskyi, O. V., Babin, B. V. (2018). Mizhnarodno-pravovi standardy sudovoi ekspertyzy ta yikh natsionalna realizatsiia [International Legal Standards of Forensic Science and their National Implementation]. Prykarpatskyi yurydychnyi visnyk. Vyp. 1 (22). T. 4. URL: http://www.pjv.nuoua.od.ua/v1-4_2018/16.pdf [in Ukrainian].

Naranovich, O. V., Onoprienko, S. A., Spasenko, I. O. (2021). Neobkhidomost akkreditatsii sudebno-ekspertnykh laboratorii [The Need for Accreditation of Forensic Laboratories]. Sudebnaia ekspertiza: vchera i segodnia : sb. mat-lov nauch.-prakt. konf., posviashch. 70-let. Respublik. tsentra sudeb. ekspert. im. Kh. Sulaimanovoi (Tashkent, 30.06—01.07.2021). Tashkent [in Russian].

Polanyi, M. (1946). Science, Faith and Society: Eighteenth SeriesRiddell Memorial Lectures. London.

Rusetskyi, A. A. (2017). Pro orhanizatsii sudovo-ekspertnoi diialnosti: mizhnarodnyi aspekt [On Organization of Forensic Activities: International Aspect]. Teorii ta praktyka sudovoi ekspertyzy i kriminalistyky. Vyp. 17. DOI: 10.32353/khrife.2017.18 [in Ukrainian].

Shaihorodskyi, Yu. (2012). Hlobalizatsiia: nemynuchist konseptualnykh zmin [Globalization: Inevitability of Conceptual Change]. Politychnyi menedzhment. № 3 (54) [in Ukrainian].

Simakova-Yefremian, E. B. (2017). Do pytannja pro vzaimezalezhnist yevropeyskykh intehtsiiinnych protessi i tendentsii intehtsii spetsialnykh znan v Ukraini [On the Issue of Interdependence of European Integration Processes and Trends in Integration of Specific Expertise in Ukraine]. Teorii ta praktyka sudovoi ekspertyzy i kriminalistyky. Vyp. 17. DOI: 10.32353/khrife.2017.18 [in Ukrainian].

Smirnova, S. A. (2021). Sovremennye trendy razvitiiia sudebnoi ekspertizy [Modern Trends in Development of Forensic Science]. Sudebnaya ekspertiza: vchera i segodnya : sb. mat-lov naukh.-prakt. konf., posviashch. 70-let. Respublik. tsentra sudeb. ekspert. im. Kh. Sulaimanovoi (Tashkent, 30.06—01.07.2021). Tashkent [in Russian].

Tatarnikova, T. O. (2020). Standartyzatsiia sudovo-ekspertnoi diialnosti [Standardization of Forensic Science Activity]. Mists nederzhavnoi sudovoi ekspertyzy u zabezpechenni sudochynstva Ukrainy : mat-ly Vseukr. nauk.-prakt. konf.-dyskus. (Kyiv, 19.10.2020). Kyiv. URL: http://nnodes.org.ua/images/18112020.pdf [in Ukrainian].

Uhrovetskyi, O. P., Malanchak, V. Ye. (2019). Napriamky formuvannia suchashnoho teoretychnoho pidhruñtia sudovo-ekspertnoi diialnosti v Ukraini [Directions of Formation of Modern Theoretical Basis of Forensic Activity in Ukraine]. Sudova ekspertiza: suchasnist ta maibutnie : zb. mat-ly kruhl. stolu (Lviv, 25.01.2018). Lviv [in Ukrainian].

Veber, M. (1998). Sotsiolohiia. Zahalnoistorychni analizy. Polityka [Sociology. General Historical Analyzes. Policy]; per. z nim. O. Pohorilyi. Kyiv [in Ukrainian].

Veblen, T. (1899). The Theory of the Leisure Class: An Economic Study of Institutions. New York.

Veblen, T. (1919). The Place of Science in Modern Civilisation and Other Essays. New York.

Velykyi tlumachnyi slovnyk suchasnoi ukrainskoi movy (2005) (z dod. i dopov.) / uklad. i holov. red. V. T. Busel. Kyiv ; Irpin [in Ukrainian].

Voitovych, R. (2013). Modernizatsiia derzhavnogo upravlinnia v umovakh hlobalnoi intehtratsii [Modernization of Public Administration in Context of Global Integration]. Visnyk Natsionalnoi akademii derzhavnogo upravlinnia pri Prezydentovi Ukrainy. № 2. URL: http://nbuv.gov.ua/UJRN/Vnadu_2013_2_4 [in Ukrainian].
Voitovych, R. V. (2007). *Vplyv hlobalizatsii na systemu derzhavnoho upravlinnia (teoretyko-metodolohichnyi analiz)* [Globalization Impact on the System of Public Administration (Theoretical and Methodological Analysis)]: monohrafiia / za zah. red. d-ra filosof. nauk, prof. V. M. Kniazieva. Kyiv. URL: http://www.dut.edu.ua/ua/lib/1/category/1179/view/1730 [in Ukrainian].

Voitovych, R. V., Solokha, M. T. (2013). *Globalizatsiini protsesy v suchasnomu sviti* [Globalization Processes in Modern World]: navch.- metod. mat-ly ; uklad. H. I. Bondarenko. Kyiv [in Ukrainian].

Weiss, L. (1998). *The Myth of the Powerless State: Governing the Economy in a Global Era*. Oxford.

Weiss, L. (2005). The State Augmenting Effects of Globalisation. *New Political Economy*. Vol. 10. № 3. DOI: 10.1080/13563460500204233.

Yameogo, C. E. W., Omojolaibi, J. A., Dauda, R. O. S. (2021). Economic globalisation, institutions and environmental quality in Sub-Saharan Africa. *Research in Globalization*. Vol. 3. 100035. DOI: 10.1016/j.resglo.2020.100035.

Kipouras, Р., Ovsiannykova, I. (2021). Forensic science activity in globalization context. *Theory and Practice of Forensic Science and Criminalistics*. Issue 3 (25). P. 169—184. DOI: 10.32353/khrife.3.2021.12.