

Visualization of the problems and categories of the sphere of resourcing of the security and defence sector of Ukraine using the content analysis method

Anatolii Loishyn^{* 1 A}; Ilona Korenivska^{2 B}; Ivan Tkach^{3 B}; Mykola Tkach^{4 B}

*Corresponding author: ¹ Doctor of Philosophy, e-mail: aloishyn@gmail.com, ORCID: 0000-0003-2769-9336

² PhD, Senior lector, e-mail: kilon1981@gmail.com, ORCID: 0000-0002-0544-6082

³ Dr, prof., Honored Economist of Ukraine, Head of the Center, e-mail: tim68@ukr.net, ORCID: 0000-0001-5547-6303

⁴ Dr, Head of the Department, e-mail: nyck1985@ukr.net, ORCID: 0000-0002-8832-1268

^A General Inspectorate of the Ministry of Defense of Ukraine, Kyiv, Ukraine

^B National Defence University of Ukraine named after Ivan Cherniakhovskiy, Kyiv, Ukraine

Received: June 2, 2022 | Revised: July 20, 2022 | Accepted: September 30, 2022

JEL Classification: O13, P48, F52.

DOI: 10.5281/zenodo.7256953

Abstract

The results of this study are of interest to scientists and managers of all levels in all spheres of human activity. The research was carried out by means of content analysis of the plane of the sphere of resourcing of the security and defence sector of Ukraine. As a result of the analysis, the main centres, the main scientific ones, were identified and communications in the subject area were built. The main (most common) keywords are determined, the existing scattering of scientific thought on the classification of the economic concepts “resource”, “provision” is proved, the main directions of scientific publications and their systematization are determined. A typology of problems in the sphere of resourcing of the security and defence sector of Ukraine in the period from 2006 to the present is formulated and the proportion of each of its elements is determined. The study covered more than 200 scientific publications in the field of the development of the security and defence sector, 74 of which directly relate to the issue of resource support for the components of the security and defence sector, in the public domain from 2006 to the present day. The study used the following methods of scientific knowledge: analysis (content analysis), synthesis, generalization. The study was carried out within the framework of identifying a scientific problem regarding the inconsistency of existing approaches (mechanisms) in the field of resourcing of the security and defence sector of Ukraine with the requirements of the modern environment and the rapidity of technological changes. According to the results of the study, the need to develop a modern concept of resource support for the security and defence sector of Ukraine is partially justified, which is supported by the results of content analysis of a number of scientific publications and guidance documents in subject areas and highlighting urgent problems that need to be addressed.

Key words: resources, resource management, security and defence sector, national security.

Introduction

Since 2014, Ukraine has begun an intensive reform of the security and defense sector, which is primarily associated with a change in the security environment, re-equipment of the world's leading armies with the latest weapons, the development of new security concepts, the development of new types of weapons and military equipment (Kovalova, O. V., Korniienko, M. V., & Pavliutin, Y. V., 2020; Zahorulko, A., 2020; Yakoviyk, I., Chyzhov, D., Karpachova, N., Hlushchenko, S., & Chaliuk, Y., 2020). Today, another component has been added to the plane of warfare – cyberspace. Attention

should be paid to the asymmetry of the means of warfare. Thus, with the help of information technology, it is possible to disable both weapons and military equipment of the enemy, as well as disrupt existing state communications and defeat critical infrastructure (Liik K.). The asymmetry of the forms and methods of modern armed struggle is forcing the development of total and territorial defense as effective models in countering hybrid threats (Rusetskyi, A. A., Lelet, S. M., Dopilka, V. O., & Tsybulnyk, N. Y., 2020; Hrebenuk, M., Hrytsiuk, V., & Shchypanskyi, P.; Galeotti M., 2019; Horbulin V., 2020).

All of the above forces us to revise the existing models of building national security and the security and defense sector of the state, taking into account the latest changes in the security sector (On the decision of the National Security, №392/2020). Nevertheless, any model of ensuring national security certainly requires an appropriate system of provision aimed at timely provision of the necessary resources, goods, services for the needs of defense. The results of the study prove the fact of the imperfection of the existing system of resource provision and the need for its improvement, taking into account the dynamic development of science and technology.

All this can be used when developing a new approach (new concept) of resourcing, as well as reviewing existing approaches to managing available resources in the security and defense sector of Ukraine.

Thus, the relevance of the issue of building a modern system of resourcing for the security and defense sector in countering military and non-military forms (methods) of aggression, the need to implement the best world practices in ensuring national security is beyond doubt.

This study was carried out within the framework of identifying a scientific problem in the field of resourcing of certain conceptual state documents in the field of national security of Ukraine (On the decision №121/2021) of its constituent elements, as well as in the directions and approaches to its provision.

The study covered over 200 scientific publications in the field of development of the security and defence sector. 74 publications have been identified that directly relate to the issue of resource support for the components of the security and defence sector of Ukraine, and are in the public domain from 2006 to the present day. It is based on these publications that the graphic materials of this study are built.

The purpose of the article is a content analysis of the sphere of resourcing of the security and defence sector of Ukraine in order to formulate the key directions of its reform and improvement in a dynamic security environment and rapid scientific and technological progress.

Material and methods

To achieve the goal defined in the study, its decomposition was carried out. Therefore, within the framework of achieving the goal, the following tasks were performed:

1) Organization of content analysis (selection of scientific sources, definition of categories of analysis, definition of semantic units, mechanical sampling of the necessary information).

To solve the problem, the methods of scientific knowledge were used: a systematic approach in comprehensive consideration of the sphere of resource provision, analysis (content analysis) to determine the numerical indicators used in the study, synthesis – a combination (grouping) of elements (indicators) of the study.

2) Analysis of the results obtained (analysis and interpretation of the results, graphical generalization of the research results, and identification of urgent problems in the field of resource support for the security and defence sector).

To solve the set partial task, the methods of scientific knowledge were used: synthesis for generalizing information and its grouping.

3) Elaboration of conclusions on the need to develop a modern concept of resource support for the security and defence sector (grouping of existing problems and analysis of its repetition for the presence of a systemic nature).

To solve the problem, the methods of scientific knowledge were used: synthesis and generalization of the research results.

Results and discussion

The research was carried out using content analysis in certain areas (categories). So, several categories were formed to be analyzed, including for their presence, such as year of publication, the number of authors, research institution, names of authors, their number, type of source, origin, information about keywords in the publication, scope of research, the direction of research, the presence of a formulated problem, the direction of the problem (its subject matter), the presence of the term and type (type) of “provision”, the presence of the term and type of “resources”, the nature (group) of factors, identification of the main idea, which consists in the need to carry out the appropriate measures.

The analysis was carried out based on modern approaches to conducting content analysis (Serafini, F., & Reid, S. F., 2019; Floyd, E. G., & Haning, M. A., 2015; Lytvyn, V., Vysotska, V., Veres, O., Rishnyak, I., & Rishnyak, H., 2016, September; Uzunboylu, H., & Özcan, D., 2019) of a wide array of information sources by sampling pre-defined semantic (meaningful) units, their grouping and systematization.

Content analysis is a method of a qualitative and quantitative study of the content of the relevant content to obtain reliable information about the functioning of a certain process, phenomenon, object, properties, and the like. The method is effective for identifying the existing discussion in scientific and other circles caused by a certain resonance, relevance and relevance of the research subject. The German political economist Max Weber first applied content analysis in 1910 to study and analyze press coverage of political events in Germany. Content analysis is a formed research method that was used to study mass communications. In 1937, in the United States, content analysis was used to study the inaugural speeches of American presidents to characterize the political aspects of their activities (Iudyn, A. A. & Ryumyn A. M., 2010).

Today, content analysis is widely used in researching existing content on social networks, marketing, and market research. In the open access on the Internet and scientific publications, there is a considerable number of publications on the use of content analysis.

At the same time, the organization and conduct of content analysis require spending considerable time for sampling, formulating and subsequent analysis of categories and content units. Nevertheless, in the context of global digitalization of processes on the software market, there are software products designed for content analysis: ATLAS.t (Martinez, V.S. (Sanchez Martinez, Victoria), 2016), TABARI (KEDS) (Best, R. H., Carpino, C., & Crescenzi, M. J., 2013), HyperRESEARCH (Hesse-Biber, S., & Dupuis, P., 2000), LEXIMANCER (Lemon, L. L., & Hayes, J., 2020), QDA Miner (Derobertmeasure, A., & Robertson, J. E., 2014), WordStat (Udoh, E., & Rhoades, J., 2006, April), and MonoConc (Nurjain, L. R., Fajriah, Y. N., Hamzah, A., Setiawati, P., & Novita, L., 2019, December).

This study was conducted without the involvement of a specialized content analysis software product, but using Microsoft Excel for working with spreadsheets, created by Microsoft Corporation. The logical scheme of our content analysis, taking into account the peculiarities of the subject area, is shown in fig. 1.

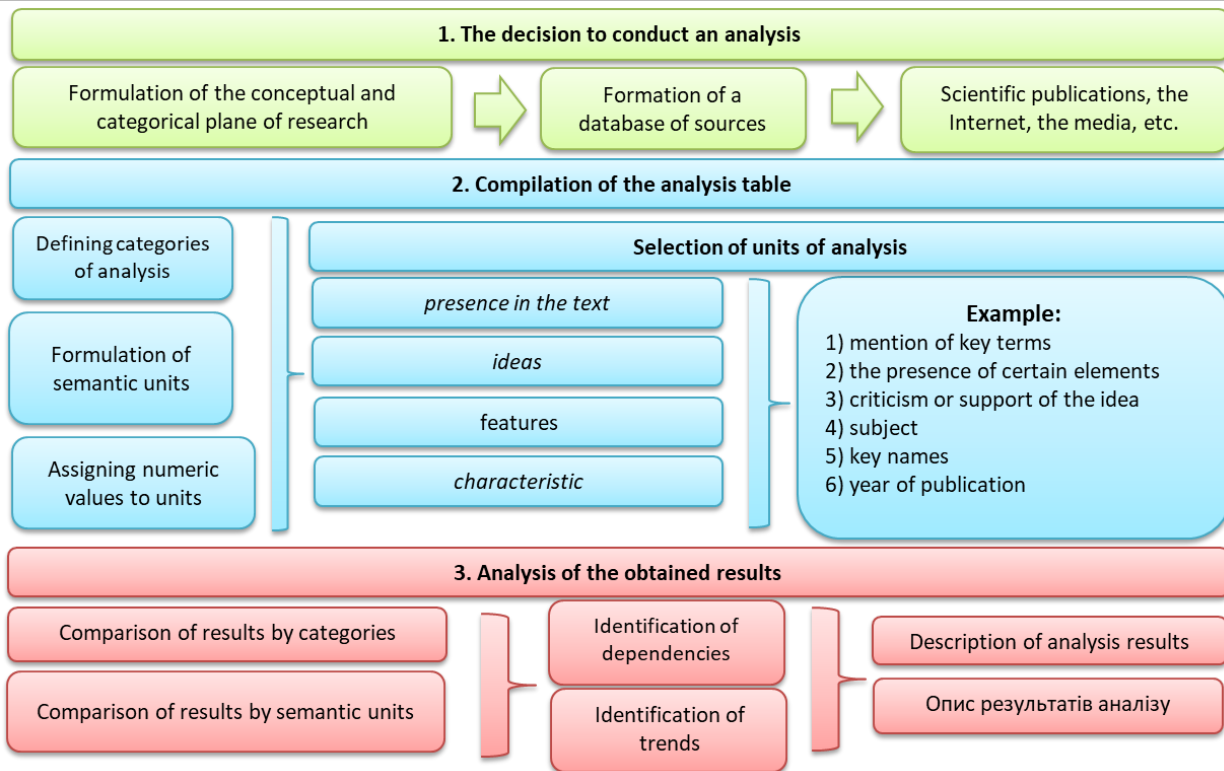


Figure 1 – Logic of the content analysis

Source: developed by the author.

It should be recalled that a preliminary analysis of the available scientific publications showed that today there are 74 publications that directly relate to the sphere of resource support for the security and defense sector of Ukraine. All 74 scientific articles published in the period from 2006 to 2021 were considered through the prism of the previously identified categories and content units indicated above.

Figure 2 shows the number of published scientific works in the field of resource provision of the security and defense sector of Ukraine (Fig. 2).

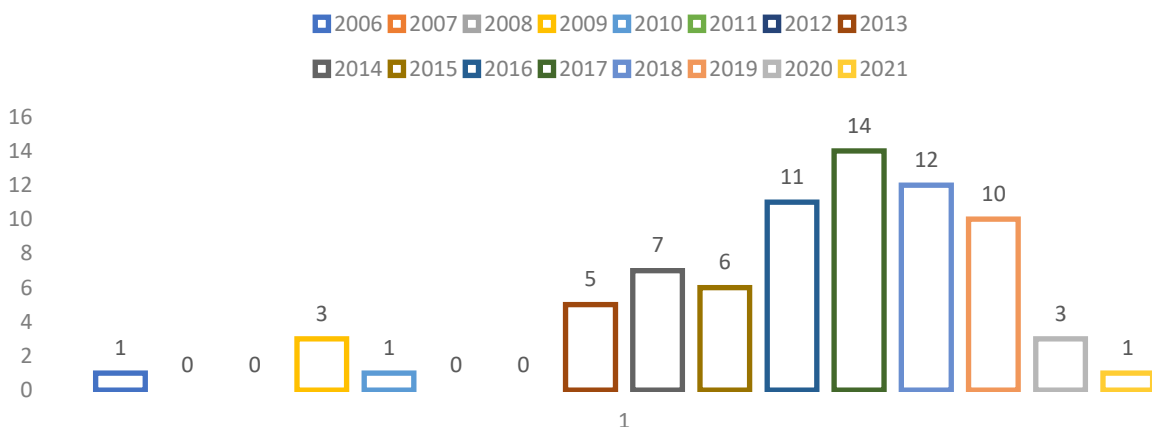


Figure 2 – The number of published scientific works in the field of resource provision of the security and defense sector of Ukraine

Source: developed by the author.

Thus, the analysis of articles and subject categories available in them showed the most

significant publications in terms of the number of semantic units (Table 1). The largest number of published works is considered in 2017. This is primarily due to the fact that in May 2016 the Strategic Defense Bulletin of Ukraine was published, which defined a roadmap for defense reform, defining ways of its implementation on the basis and principles that govern NATO member states. This became the starting point for the scientific justification of certain goals and development prospects. It should also be noted that a feature of this document was the complete reorientation of the security and defense sector of Ukraine towards the implementation of the standards of the NATO member states and the implementation of the best Western practices in the management of defense resources.

Further, in order to understand the main research centers where research is carried out and to compare the corresponding performance indicators, the most significant scientific publications with the largest number of semantic units were identified, in accordance with which 74 publications were ranked, five of which are shown in the table (Table 1).

Table 1 – The most important publications by the number of content units

Name of the article	Authors	Year	Journal
Formation of approaches to planning the capabilities of troops (forces), taking into account their resource provision (Boiko, R. V., Butenko, M. P., Hudym, V. M., 2017)	Boiko R., Butenko M. Hudym V.	2017	Collection of scientific works of the Center for Military Strategic Studies of the National Defence University of Ukraine named after Ivan Cherniakhovskiy
Financial support of the Armed Forces of Ukraine: trends and ways of reforming (Levchuk, O. V., 2020)	Levchuk O.V.	2020	Collection of scientific works of the Center for Military Strategic Studies of the National Defence University of Ukraine named after Ivan Cherniakhovskiy
Modern approaches to the concept and classification of resources and resource support (Tkach, I., & Malanchuk, M., 2017)	Tkach I.	2017	Journal of Scientific Papers "Social development and Security"
Ukraine's defense adequacy as a factor in deterring military aggression against Ukraine (Zamana, V. M., 2013)	Zamana V.	2013	Actual problems of military science. Honor and law.
Problems of comprehensive review of the security and defense sector of Ukraine and ways to solve them (Sahanyuk, F. V., et al., 2015)	Sahanyuk F. Hlushkevych O., Zahorka, I., Fuchko A.	2015	Collection of scientific works of the Center for Military Strategic Studies of the National Defence University of Ukraine named after Ivan Cherniakhovskiy

Source: developed by the author.

Taking into account the information presented in Table 1, it can be concluded that among the most significant scientific publications, the scientific achievements of scientists from the National Defence University of Ukraine named after Ivan Cherniakhovskiy (Kyiv, Ukraine) prevail. In general, the total number of scientific publications of the specified educational institution are the

authors of scientific publications in the subject area is 79 people (64% of the total number of scientists) out of a total of 123 scientists and managers who were engaged in subject issues. This clearly confirms that the National Defence University of Ukraine named after Ivan Cherniakhovskyi is an advanced scientific center in the study of the sphere of resource support for the security and defense sector. Other institutions researching the subject matter are the Institute for Strategic Studies under the President of Ukraine, the National Academy of Public Administration under the President of Ukraine, the National Academy of the Security Service of Ukraine, the National Academy of the National Guard of Ukraine, etc.

The study also paid significant attention to the role and meaning of these keywords in the publications that were analyzed. A corresponding table of the most important keywords (phrases) was compiled, which was noted by scientists for further search for scientific publications in the subject area (Fig. 3).

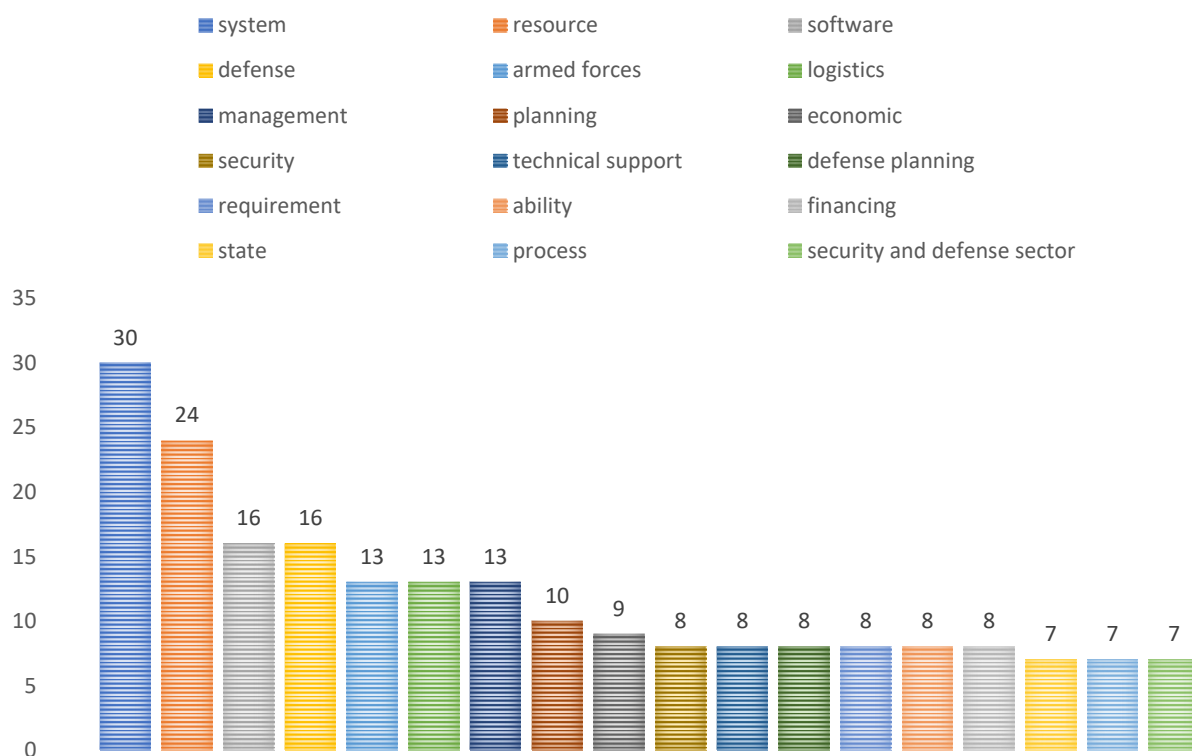


Figure 3 – The most used keywords in the field of resource provision of the security and defense sector of Ukraine

Source: developed by the author.

Considering fig. 3, we can conclude that the most frequently used keywords were system, resources, support, defense, logistics, armed forces. The main point, in our opinion, is that the majority of scientists regard the sphere of resource provision as a system consisting of appropriate elements. This allows for further research to correctly determine the appropriate research methods: a systematic approach, expert and statistical methods, operations research, simulation, and the like.

Also in the course of the research the connections between the authors during the research were analyzed, which allows to single out the so-called key authors (scientists) dealing with the subject issues, among which: Fatalchuk A., Boiko R., Butenko M., Boiko V., Vasiukhno S., Krykun P., Poliakova O., Petrushen M., Rybydailo A., Sahaniuk F. (Fig. 4).

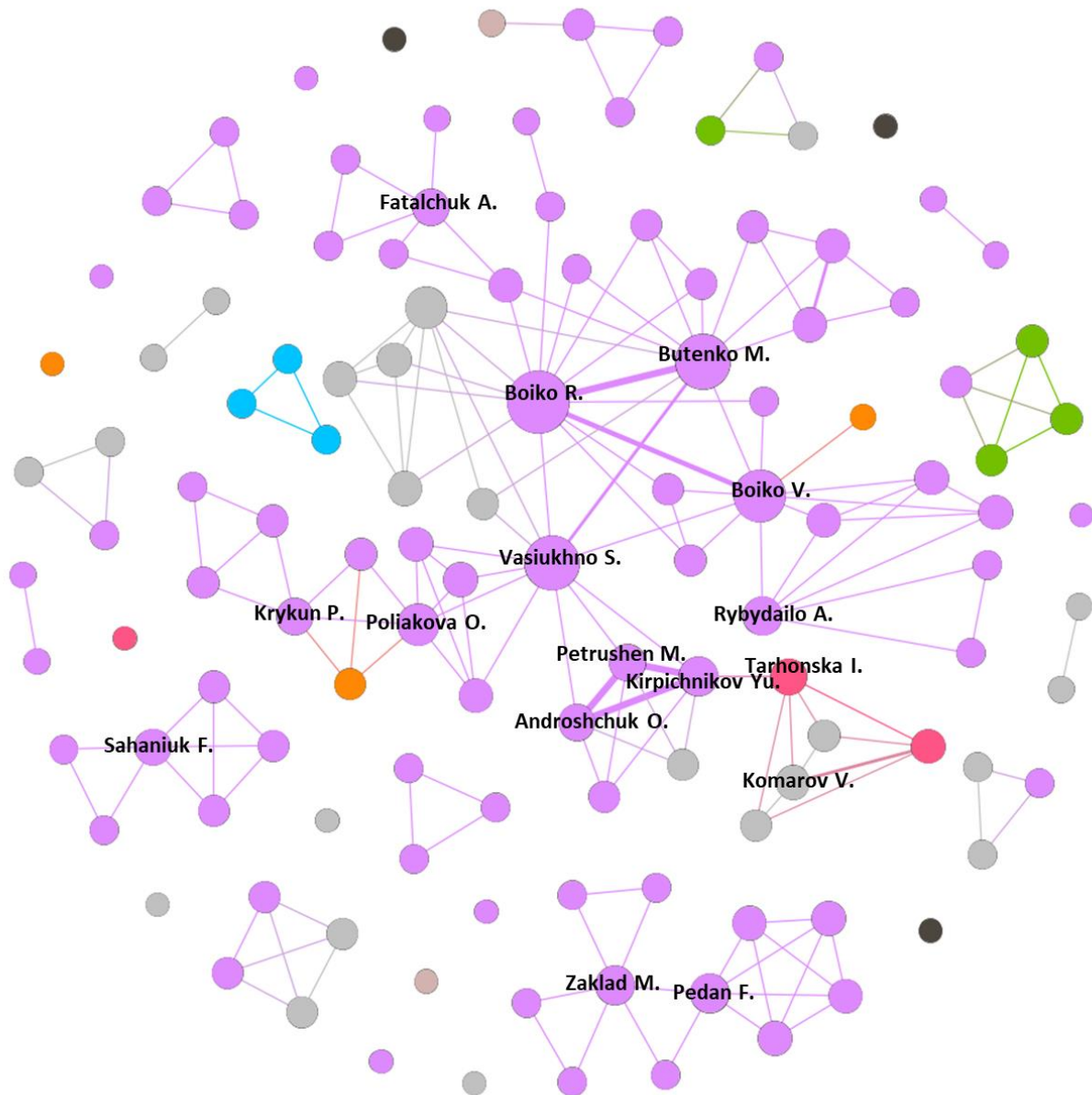


Figure 4 – Key scientists in the study of resourcing of the security and defense sector of Ukraine

Source: developed by the author.

Among the key authors (scientists) dealing with the subject matter, the largest number of scientific publications in the subject area have (Table 2):

Table 2 – Authors with the largest number of scientific publications in the field of resourcing of the security and defense sector

Author	Institution	Number of publications	Years of publications	Publication messages
Boiko R.	The National Defence University of Ukraine named	7	2014-2019	(Boiko, V. O., et al., 2014), Boiko, V. O., Boiko, R. V., Khrapach, H. S., 2016), (Boiko, R. V., Butenko, M. P., Hudym, V. M., 2017), (Boiko, R. V., Butenko, M. P., Fatal'chuk, A. V., 2017), (Boiko,

Author	Institution	Number of publications	Years of publications	Publication messages
	after Ivan Cherniakhovskyi			R. V., Semenenko, O. M., Vodchyts', O. H., Dobrovol's'kyy, Yu. B., & Abramov, A. P., 2019), (Tkach, M. Ya., Boiko, R. V., Loishyn, A. A., & Boiko, V. O., 2019), (Boiko, R. V., Leontovych, S. P., Marko, Ye. I., & Butenko, M. P., 2020)
Butenko M.	The National Defence University of Ukraine named after Ivan Cherniakhovskyi	6	2014-2020	(Boiko, V. O., et al., 2014), (Boiko, R. V., Butenko, M. P., Hudym, V. M., 2017), (Boiko, R. V., Butenko, M. P., Fatal'chuk, A. V., 2017), (Shaptalenko, M. I., Hrinenko, O. I., Kutovyy, O. P., & Butenko, M. P., 2016), (Semenenko, O. M., Vasyukhno, S. I., Bokiy, V. H., & Butenko, M. P., 2019), (Boiko, R. V., Leontovych, S. P., Marko, Ye. I., & Butenko, M. P., 2020)
Petrushen M.	The National Defence University of Ukraine named after Ivan Cherniakhovskyi	5	2017-2020	(Kirpichnikov, Yu. A., Androshchuk, O. V., Petrushen, M. V., 2017), (Kirpichnikov, YU. A., Androshchuk, O. V., Petrushen, M. V., & Vasyukhno, S. I., 2018), (Kirpichnikov, Yu. A., Androshchuk, O. V., Holovchenko, O. V., & Petrushen, M. V., 2019), (Petrushen, M. V., 2020)

Source: developed by the author.

After the identification of the main centers and participants in the research of the subject area, the main directions of research related to the sphere of resource provision were identified; the analysis showed that the largest number of publications concerns the direction:

- 1) problems of approaches to the development of the security and defense sector (29);
- 2) directly improving the resource provision system (25);
- 3) defense planning (17).

In general, the distribution between areas of research in percentage terms is shown in the figure (Fig. 3).

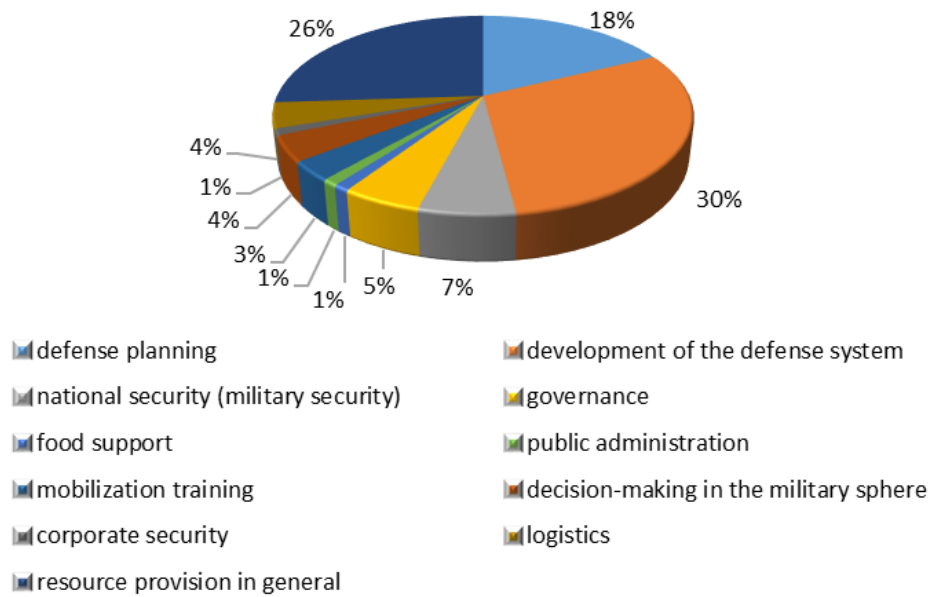


Figure 5 – Distribution of scientific publications by research areas in the field of resourcing of the security and defense sector of Ukraine

Source: developed by the author.

Attention should also be paid to the approaches to mentioning the types of security that are present in the analysis of certain areas of research in the field of resource provision of the security and defense sector of Ukraine (Fig. 6).

From the above information in Fig. 6, there is a tendency to define resource provision as the main type of supply with an emphasis on the economic category “resource”.

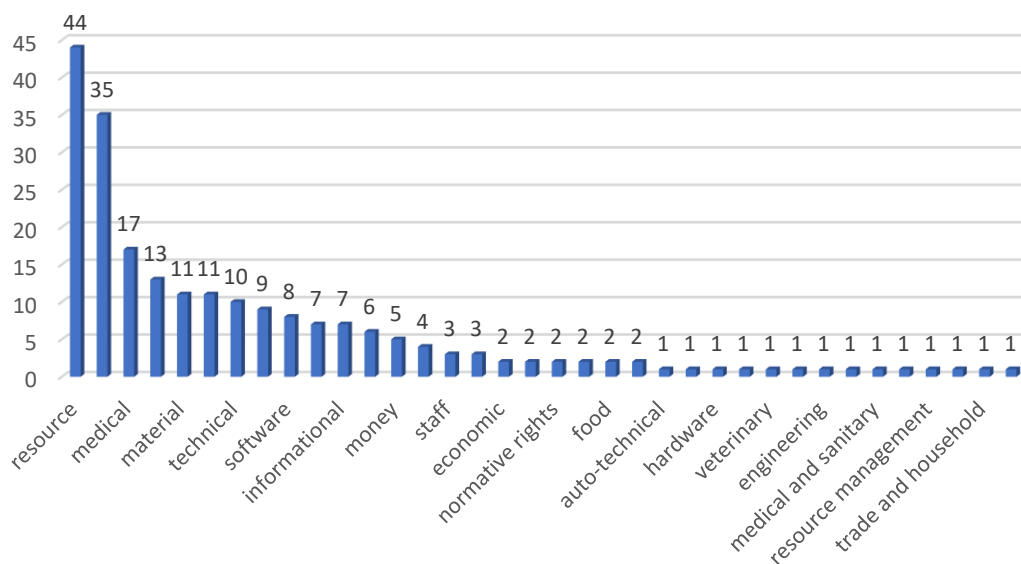


Figure 6 – Distribution of scientific publications by research areas by types of support in the field of resourcing of the security and defense sector of Ukraine

Source: developed by the author.

One of the main objectives of the study was to identify the main issues in the subject area and the approach to understanding the resource as an economic category, as the main content unit of the content analysis. Scientists have identified 24 types of resources, the most mentioned of which are: material, financial, human, information (Fig. 7).

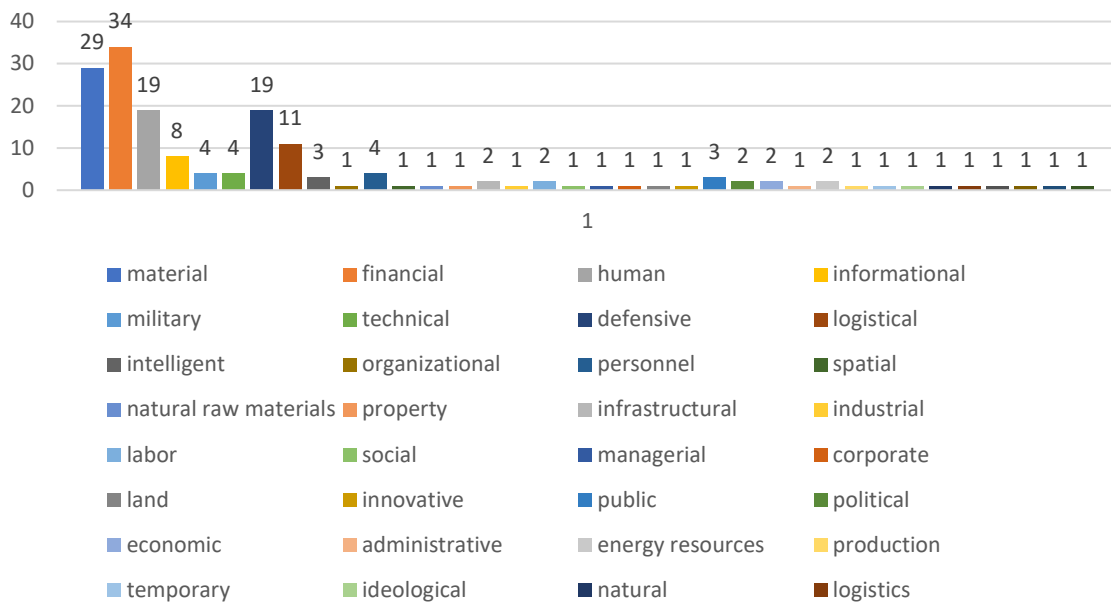


Figure 7 – Types of resources in the system of resource provision of the security and defense sector of Ukraine

Source: developed by the author.

However, in the Doctrine of “Defense Resources Management” [VKP 8-00 (03).01 in the section “basic terms and definitions” under defense resources means: “defense resources – financial, material and human resources directed by the state for the development and maintenance of defense forces”.

In the Doctrine of Unified Logistics (VKP 4-00 (01).01 resources) are available in the unit, part, connection, group or allocated to meet their needs (support) forces and means of logistics, armaments and military equipment, logistics, other assets or capabilities. Where logistics is defined as a set of measures, including the design, development and modernization of armaments, military special equipment. This in turn emphasizes the presence of intangible assets, information technology, information and knowledge.

As of today, the armed struggle takes place in five dimensions: on land, at sea, in the air, in space and cyberspace. The last dimension emphasizes the rapidity of technological change, especially in energy, biotechnology, development in the field of artificial intelligence. The National Security Strategy of Ukraine notes the rapid growth of information technology in all spheres of public life. Klaus Schwab in his work “The Fourth Industrial Revolution” (Schwab K.; Gulin K.A., Uskov V.S.) in 2016 noted the power of technological change and transformation of various systems that will radically change our world.

Because of the above, there is an urgent need to systematize the existing views in the scientific community dealing with the issue of resource provision of the security and defence sector and national security of Ukraine in terms of the modern classification of resources in the context of rapid technological change and increasing the role of digital technologies. Even in modern management theory, international management standards, accounting, resource classification is much broader than that set out in the above documents, which is one of the prospects for further research.

As noted in the article, the purpose of the analysis was to identify and identify current and pressing issues in the field of resource provision of the security and defence sector of Ukraine. The

analysis showed a certain typology of issues in the subject area in the period from 2016 to the present time (Fig. 8, 9) and the presence of chronic problems observed from year to year.

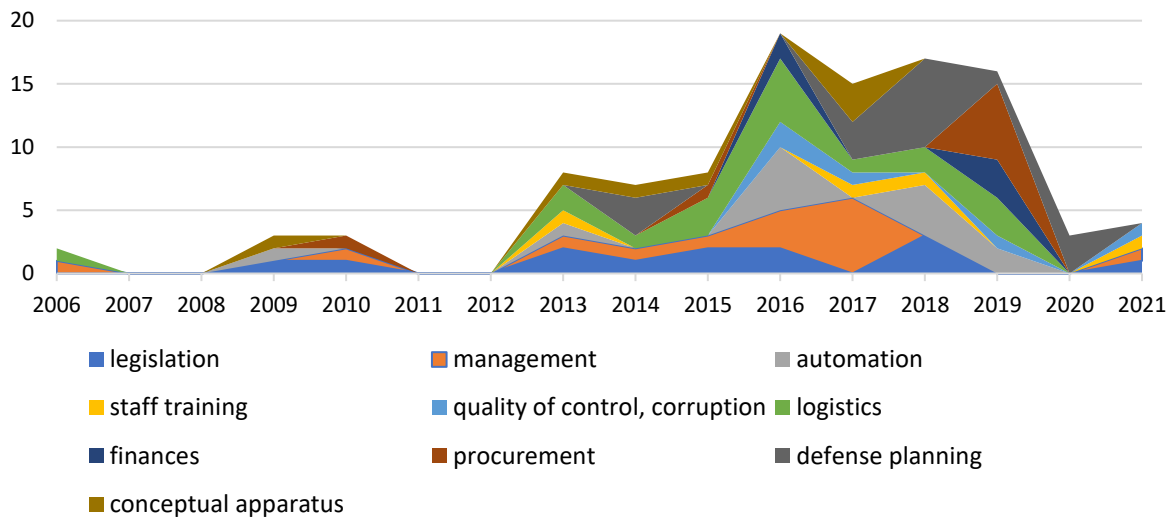


Figure 8 – Typology of issues in the field of resource provision of the security and defense sector of Ukraine in the period from 2006 to the present

Source: developed by the author.

In addition to the above, the content analysis allowed to identify the main problem areas in the subject area that need to be addressed and which focus the attention of the scientific community, among them the need to improve subject legislation, improve the management system, implement modern approaches to logistics, improve financial mechanisms and the search for additional sources of funding, the need for widespread use of information (digital) technologies and automation of resource provision processes for the needs of Ukraine’s defence.

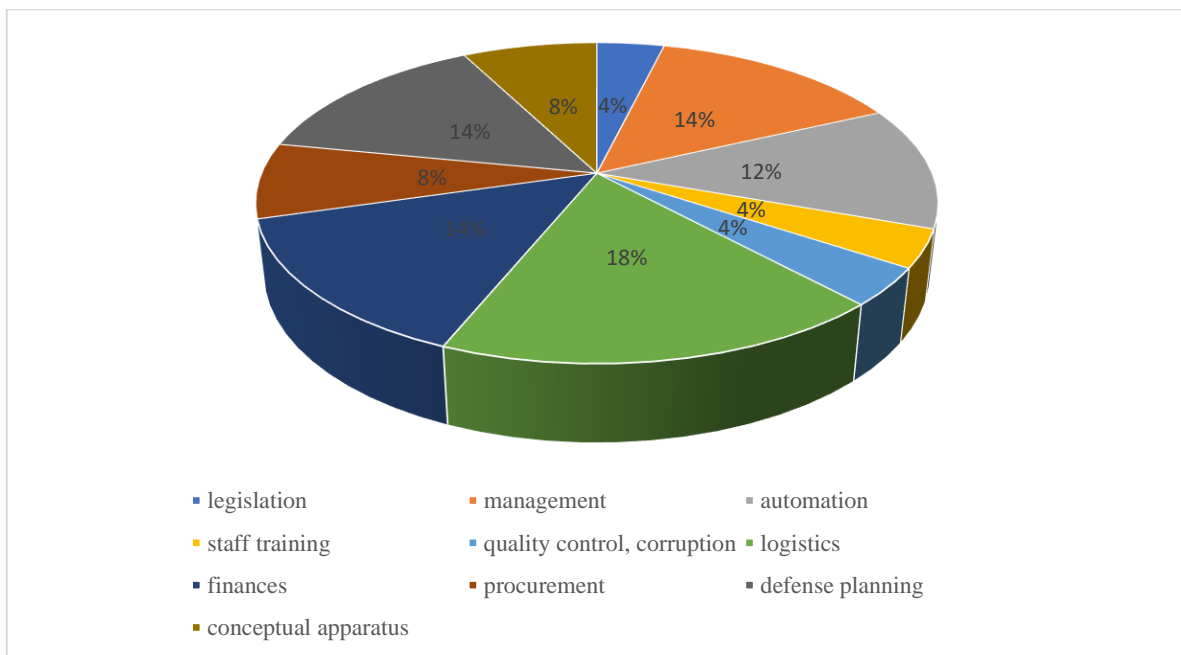


Figure 9 – The share of types of issues in the field of resource provision of the security and defense sector of Ukraine

Source: developed by the author.

Conclusions

The analysis showed the share of scientific contribution of scientists of the National University of Defense of Ukraine named after Ivan Cherniakhovskiy, this confirms the existence of a scientific school that deals with the issue of resource provision of the security and defense sector. This analysis will be useful for scientists and managers who are in scientific research in the subject area and are interested in establishing effective communications for joint research. In addition, the urgency of the issue is confirmed by the presence of scientific work in the subject area at the Institute for Strategic Studies under the President of Ukraine, the National Academy of Public Administration under the President of Ukraine, the National Academy of Security Service of Ukraine, the National Academy of the National Guard of Ukraine.

As of today, there is a lack of generally accepted definitions and subject classification in the field of resource provision, which is confirmed by the corresponding discrepancy of the information contained in scientific publications and guidelines.

Based on the implementation of the National Security Strategy of Ukraine and conducting this study, there is an urgent need to formulate effective measures to develop a new approach to building a modern resource system not only for national security of Ukraine but also the security and defense sector as its component, taking into account the experience of leading countries and national characteristics in a difficult security situation.

Thus, the revision of existing mechanisms and approaches to ensure the functioning of the resource sector of the security and defense sector of Ukraine confirms the priority of developing a modern concept (model) of resource provision of the security and defense sector in the overall system of comprehensive defense of Ukraine in counteracting hybrid threats.

In addition, the coverage of partial research results is aimed at building effective communications among the scientific and management community in the subject area to develop common views on areas of further research and focus on key promising elements of future research and bring to a broad scientific discussion the relevance and priority of further research in the context of developing this concept (model).

References

- Assarroudi, A., Heshmati, N. F., Armat, M. R., Ebadi, A., & Vaismoradi, M. (2018). Directed qualitative content analysis: the description and elaboration of its underpinning methods and data analysis process. *Journal of Research in Nursing*, 23(1), 42-55.
- Babkov, Yu. P., Kocherha, D. A., Shapoval, O. M. (2018). Problemy derzhavnoho upravlinnya rozvytkom Natsional'noyi Hvardiyi Ukrayiny u sferi zabezpechennya natsional'noyi bezpeky i oboronozdatnosti [Problems of state management of the development of the National Guard of Ukraine in the field of national security and defense]. *Chest' i zakon*, 1(64), 9-16. [in Ukrainian].
- Best, R. H., Carpino, C., & Crescenzi, M. J. (2013). An analysis of the TABARI coding system. *Conflict Management and Peace Science*, 30(4), 335-348.
- Bilyetov, V. I., Vorona, T. O., Vasyukhno, S. I., Polyakova, O. V., & Uvarova, T. V. (2016). Formalizovana model' upravlinnya pidvozom material'nykh zasobiv v operatsiyakh (boyovykh diyakh) viys'k (syl) [The model of management of delivery of material means in operations (combat operations) of armies (forces) is formalized]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovs'koho*, 1(56), 93-98. [in Ukrainian].
- Boiko, R. V., Butenko, M. P., Fatal'chuk, A. V. (2017). Otsinka ekonomichnoyi efektyvnosti i lohistrychnykh protsesiv material'no-tekhnichnoho zabezpechennya viys'k (syl) [Assessment

- of economic efficiency and logistics processes of logistics of troops (forces)]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' Natsional'noho universytetu oborony Ukrainy imeni Ivana Chernyakhovs'koho*, 1, 59-63. [in Ukrainian].
- Boiko, R. V., Butenko, M. P., Hudym, V. M. (2017). Formuvannya pidkhodiv do planuvannya spromozhnostey viys'k (syl) z vrakhuvannyam yikh resursnoho zabezpechennya [Formation of approaches to planning the capabilities of troops (forces) taking into account their resource provision]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' Natsional'noho universytetu oborony Ukrainy imeni Ivana Chernyakhovs'koho*, 3, 50. [in Ukrainian]. Available at: <<http://znp-cvds.nuou.org.ua/article/view/124100>>.
- Boiko, R. V., Leontovych, S. P., Marko, Ye. I., & Butenko, M. P. (2020). Formuvannya pidkhodiv do oboronnoho planuvannya na osnovi spromozhnostey z urakhuvannyam resursnoho zabezpechennya [Formation of approaches to defense planning on the basis of capabilities taking into account resource provision]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovs'koho*, 3(70), 62-69. [in Ukrainian].
- Boiko, R. V., Semenenko, O. M., Vodchyts', O. H., Dobrovol's'kyy, Yu. B., & Abramov, A. P. (2019). Analiz stanu zabezpechennya Zbroynykh Syl Ukrainy finansovymy resursamy ta porjadok kompleksnoho planuvannya yikh rozvytku [Analysis of the state of providing the Armed Forces of Ukraine with financial resources and the procedure for comprehensive planning of their development]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovs'koho*, 1(65), 51-58. [in Ukrainian].
- Boiko, V. O., Boiko, R. V., Khrapach, H. S. (2016). Demokratychnyy tsyvil'nyy kontrol' syl oborony, problemni pytannya v orhanizatsiyi viys'kovo-tsyvil'nykh vidnosyn [Democratic civilian control of the defense forces, problematic issues in the organization of military-civil relations]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' Natsional'noho universytetu oborony Ukrainy imeni Ivana Chernyakhovs'koho*, 2, 115-120. [in Ukrainian].
- Boiko, V. O., et al. (2014). Perekhid do ratsional'noho rozpodilu oboronnykh resursiv pry oboronnomu planuvanni, oriyentovanomu na spromozhnosti [Transition to the Rational Allocation of Defense Resources in Capability-Oriented Defense Planning]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' Natsional'noho universytetu oborony Ukrainy imeni Ivana Chernyakhovs'koho*, 1, 116-119. [in Ukrainian].
- Derobertmeasure, A., & Robertson, J. E. (2014). Data analysis in the context of teacher training code sequence analysis using QDA Miner. *Quality & Quantity*, 48(4), 2255-2276.
- Dmytrenko, H. V. (2010). Derzhavne upravlinnya v konteksti efektyvnosti vykorystannya byudzhetnykh koshtiv, vydilenykh na zabezpechennya prodovol'stvom viys'k Zbroynykh Syl Ukrainy [Public administration in the context of efficiency of use of budget funds allocated for supply of Armed Forces of Ukraine]. *Ekonomika ta derzhava*, 8, 119-121. [in Ukrainian].
- Doctrine of "Defense Resources Management": military guidance publication to military organizational structures on the views and basic provisions on the management of defense resources of the VKP 8-00 (03).01, approved by the Commander-in-Chief of the Armed Forces of Ukraine on November 13, 2020.
- Dyenezhkin, M. M. (2018). Upravlinnya oboronnyymi resursamy: metodychnyy pidkhid do vyznachennya potreby v resursakh na rozvytok zbroynykh syl u khodi oboronnoho planuvannya [Defense resource management: a methodological approach to determining the need for resources for the development of the armed forces in the course of defense planning]. *Nauka i tekhnika Povitryanykh Syl Zbroynykh Ukrainy*, 1(30), 123-129. [in Ukrainian].

- Dyenyehkin, M. M. (2018). Otsinyuvannya rezul'tativ oboronnoho planuvannya v Zbroynykh Sylakh Ukrayiny [Evaluation of the results of defense planning in the Armed Forces of Ukraine]. Zbirnyk naukovykh prats' Kharkivs'koho natsional'noho universytetu Povitryanykh Syl, 2, 22-27. [in Ukrainian].
- Dyubanov, O. O. (2017). Systemnyy pidkhid do vrehulyuvannya problemnykh protsesiv avtotekhnichnoho zabezpechennya Sukhoputnykh viys'k Zbroynykh Syl Ukrayiny [A systematic approach to the settlement of problematic processes of auto technical support of the Land Forces of the Armed Forces of Ukraine]. Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovs'koho, 3(61), 119-125. [in Ukrainian].
- Fatal'chuk, A. V., Zhupins'kyy, P. O., Voznyy, A. F. (2015). Sposoby zabezpechennya material'no-tekhnichnyimi resursamy potreb Zbroynykh Syl u myrnyy chas ta osoblyvyy period [Ways to provide material and technical resources for the needs of the Armed Forces in peacetime and special periods]. Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' Natsional'noho universytetu oborony Ukrayiny imeni Ivana Chernyakhovs'koho, 3, 125-129. [in Ukrainian].
- Floyd, E. G., & Haning, M. A. (2015). Sight-singing pedagogy: A content analysis of choral methods textbooks. *Journal of Music Teacher Education*, 25(1), 11-22.
- Galeotti M. (2019). The mythical "Gerasimov Doctrine" and the language of threat. *Critical Studies on Security*, 7(2), 157-161.
- Gulin K.A., Uskov V.S. Trends of the Fourth Industrial Revolution (a review of the monograph: Schwab K. The Fourth Industrial Revolution. Translated from English. Moscow: Izd-vo "E", 2017). *Economic and Social Changes: Facts, Trends, Forecast*, 2017, vol. 10, no. 5, pp. 216-221. Available at: < <https://doi.org/10.15838/esc/2017.5.53.15> >
- Halahan, V. I., Polishko, S. V., Bondarchuk, S. V. (2018). Zastosuvannya system pidtrymky pryynyattya rishen' v upravlinni nerukhomym viys'kovym maynom Zbroynykh Syl Ukrayiny [Application of decision support systems in real estate management of the Armed Forces of Ukraine]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovs'koho*, 1(62), 74-79. [in Ukrainian].
- Hesse-Biber, S., & Dupuis, P. (2000). Testing hypotheses on qualitative data: The use of hyper research computer-assisted software. *Social Science Computer Review*, 18(3), 320-328.
- Horbulin V. (2020). Yak peremohty Rosiyu u viyni maybutn'oho [How to defeat Russia in the war of the future]. Kyiv: Brayt Buks. [in Ukrainian].
- Hrebenuk, M., Hrytsiuk, V., & Shchypanskyi, P. Historical Periodization of the Anti-Terrorist Operation in Eastern Ukraine (April 14, 2014 – April 30, 2018). *Ukrainskyi Istorychnyi Zhurnal Issue*, 4, 176-191.
- Hrinenko, O. I., Ustyenko, O. V., Kutovyy, O. P. (2016). Problemy zabezpechennya Zbroynykh Syl Ukrayiny ozbroyennyam ta viys'kovoyu tekhnikoyu u khodi vedennya boyovykh diy [Problems of providing the Armed Forces of Ukraine with weapons and military equipment during hostilities]. Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovs'koho, 2(57), 87-94. [in Ukrainian].
- Iudyn, A. A. & Ryumyn A. M. (2010). *Kontent-analiz tekstiv: komp'yuterni tekhnolohiyi* [Content analysis of texts: computer technology: textbook] Nyzhniy Novhorod, 37 s. [in Russian].
- Kirpichnikov, Yu. A., Androshchuk, O. V., Holovchenko, O. V., & Petrushen, M. V. (2019). Vyznachennya tekhnolohichnykh rishen' shchodo stvorennya Yedynoyi informatsiynoyi systemy upravlinnya oboronnyimi resursamy [Determination of technological solutions for the creation of a Unified information system for defense resources management]. Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana

- Chernyakhovs'koho, 1(65), 86-91. [in Ukrainian].
- Kirpichnikov, Yu. A., Androshchuk, O. V., Petrushen, M. V. (2017). Analiz ponyattya intehtratsiynoyi platformy ta metodiv intehtratsiynoyi danykh informatsiynykh system upravlinnya oboronnykh resursamy [Analysis of the concept of integration platform and methods of data integration of information systems for defense resources management]. Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' Natsional'noho universytetu oborony Ukrayiny imeni Ivana Chernyakhovs'koho, 2, 73-78. [in Ukrainian].
- Kirpichnikov, YU. A., Androshchuk, O. V., Petrushen, M. V., & Vasyukhno, S. I. (2018). Teoretychni pidkhody do pobudovy arkhitektury informatsiynoyi systemy upravlinnya oboronnykh resursamy na osnovi servisno-oriyentovanoi modeli [Theoretical approaches to building the architecture of the information system of defense resources management on the basis of service-oriented model]. Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' Natsional'noho universytetu oborony Ukrayiny imeni Ivana Chernyakhovs'koho, 1(1), 1-85. [in Ukrainian].
- Kirpichnikov, Yu. A., et al. (2017). Shlyakhy intehtratsiynoyi danykh informatsiynykh system upravlinnya oboronnykh resursamy [Ways of integration of data of information systems of management of defense resources]. Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovs'koho, 3(61), 74-77. [in Ukrainian].
- Kolesnikov, V. O., Zhupins'kyi, P. O., Tymoshenko, R. R. (2016). Aktual'nist' mobilizatsiynoyi stratehiyi rozvytku ekonomiky derzhavy v aspekti zabezpechennya oboronozdatnosti [The relevance of the mobilization strategy for the development of the state economy in terms of defense]. Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovs'koho, 2(57), 121-126. [in Ukrainian].
- Komarov, V. S., et al. (2018). Voyenno-ekonomichni vymohy do protsesu formuvannya perspektyvnoho obrysu Zbroynykh Syl Ukrayiny pid chas formuvannya prohram yikh rozvytku [Military and economic requirements for the process of forming a promising outline of the Armed Forces of Ukraine during the formation of programs for their development]. Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' Natsional'noho universytetu oborony Ukrayiny imeni Ivana Chernyakhovs'koho imeni Ivana Chernyakhovs'koho, 2(63), 52-56. [in Ukrainian].
- Komarov, V. S., Pekulyak, R. O., Tarhons'ka, I. M., & Borysenko, I. S. (2018). Voyenno-ekonomichni vymohy do protsesu formuvannya perspektyvnoho obrysu Zbroynykh Syl Ukrayiny pid chas formuvannya prohram yikh rozvytku [Military and economic requirements for the process of forming a promising outline of the Armed Forces of Ukraine during the formation of programs for their development]. Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovs'koho, 2(63), 52-56. [in Ukrainian].
- Kovalova, O. V., Korniienko, M. V., & Pavliutin, Y. V. (2020). The Role of Public Organizations in Ensuring National Security of Ukraine.
- Krykun, P. M., et al. (2017). Rozvytok oboronnoho planuvannya yak skladovoyi natsional'noyi systemy planuvannya u sferi bezpeky i oborony za umov nablyzhennya do protsedur ta standartiv NATO [Development of defense planning as a component of the national security and defense planning system in the context of approximation to NATO procedures and standards]. Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovs'koho, 2(60), 44-48. [in Ukrainian].
- Kryshtanovych, M. (2014). Systema material'noho zabezpechennya personalu Ministerstva vnutrishnykh sprav yak vazhlyvyi faktor vyrishennya zavdan' natsional'noyi bezpeky Ukrayiny [The system of material support of the personnel of the Ministry of Internal Affairs as an important factor in solving the problems of national security of Ukraine]. Zbirnyk naukovykh

- prats'. Efektyvnist' Derzhavnoho Upravlinnya, 39, 152-158. [in Ukrainian].
- Kuz'muk, O. I. (2013). Stratehichna perspektyva bezpeky i oborony Ukrayiny. Aktual'ni pytannya rozvytku Zbroynykh Syl Ukrayiny [Strategic perspective of security and defense of Ukraine]. *Nauka i tekhnika Povitryanykh Syl Zbroynykh Syl Ukrayiny*, 2(11), 7-13. [in Ukrainian].
- Kyvlyuk, V. S., et al. (2016). Vyroblennya yedynykh pohlyadiv shchodo stvorenniya suchasnoyi derzhavnoyi systemy lohistyky Zbroynykh Syl Ukrayiny [Development of common views on the creation of a modern state logistics system of the Armed Forces of Ukraine]. *Zbirnyk naukovykh prats' Viys'kovoho instytutu Kyivskoho natsional'noho universytetu imeni Tarasa Shevchenka*, 51, 100-109. [in Ukrainian].
- Lemon, L. L., & Hayes, J. (2020). Enhancing trustworthiness of qualitative findings: Using Leximancer for qualitative data analysis triangulation. *The Qualitative Report*, 25(3), 604-614.
- Leonov, V. V., Nalyvayko, A. D., Polyayev, A. I. (2016). Novi tekhnolohiyi, novi systemy ozbroynennya, novyy kharakter viyn [New technologies, new weapons systems, the new nature of wars]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovskoho*, 1(56), 119-125. [in Ukrainian].
- Leontovych, S. P. (2020). Zavdannya z avtomatyzatsiyi osnovnykh protsesiv lohistyky na riznykh rivnyakh upravlinnya [Tasks for automation of basic logistics processes at different levels of government]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovskoho*, 2(69), 92-97. [in Ukrainian].
- Levchuk, O. V. (2020). Finansove zabezpechennya Zbroynykh Syl Ukrayiny: tendentsiyi ta osnovni shlyakhy reformuvannya [Financial support of the Armed Forces of Ukraine: trends and main ways of reform]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovskoho*, 2(69), 53-64. [in Ukrainian]. Available at: <<http://znp-cvds.nuou.org.ua/article/view/212750>>.
- Levchuk, O. V., Levchuk, V. D. (2019). Analiz normatyvno-pravovoyi bazy zdiysnennya oboronnykh zakupivel' [Analysis of the regulatory framework for defense procurement]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovskoho*, 2(66), 42-46. [in Ukrainian].
- Liik K. Winning the normative war with Russia: an EU-Russia power audit. London: European Council on Foreign Relations. 2018. Available at: <https://ecfr.eu/publication/winning_the_normative_war_with_russia_an_eu_russia_power_audit/>
- Lobanov, A. A., Trots'ko, V. V., Chernenko, A. D. (2017). Obgruntuvannya systemy pokaznykiv dlya otsinyuvannya efektyvnosti vytrat na utrymannya i rozvytok Zbroynykh Syl Ukrayiny v interesakh zabezpechennya oboronnoyi dostatnosti derzhavy na korotkostrokovyy period [Substantiation of the system of indicators for assessing the effectiveness of expenditures for the maintenance and development of the Armed Forces of Ukraine in the interests of ensuring the defense adequacy of the state in the short term]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovskoho*, 1(59), 41-47. [in Ukrainian].
- Lytvyn, V., Vysotska, V., Veres, O., Rishnyak, I., & Rishnyak, H. (2016, September). Content linguistic analysis methods for textual documents classification. *In 2016 XIth International Scientific and Technical Conference Computer Sciences and Information Technologies (CSIT)* (pp. 190-192). IEEE.
- Martinez, V.S. (Sanchez Martinez, Victoria) (2016). ATLAS t(t) over-bar Resonance Searches. *Nuclear and particle physics proceedings*, 273, 2814-2815.
- Nadtochiy Yu. B., & Gorelova L. I. (2019). Problemy resursnogo obespecheniya predpriyatiy raketno-kosmicheskoy otrasli [Problems of resource support for the enterprises of the rocket and

- space industry]. *Voprosy innovatsionnoy ekonomiki*, 9(2), 541-558. [in Russian].
- Nahornichevs'kyy O. (2015). Kontseptual'ni zasady derzhavnogo upravlinnya u sferi material'no-tekhnichnogo zabezpechennya zbroynykh syl krayiny v konteksti natsional'noyi bezpeky [Conceptual principles of public administration in the field of logistics of the country's armed forces in the context of national security]. *Zbirnyk naukovykh prats' "Efektyvnist' derzhavnogo upravlinnya"*, 42, 223-229. [In Ukrainian].
- Nalyvayko, A. D., Krykun, P. M., Polyayev, A. I. (2018). Planuvannya resursiv pid chas oboronnoho ohlyadu [Resource planning during the defense review]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' Natsional'noho universytetu oborony Ukrayiny imeni Ivana Chernyakhovs'koho imeni Ivana Chernyakhovs'koho*, 2(63), 57-62. [in Ukrainian].
- Nalyvayko, A. D., Krykun, P. M., Polyayev, A. I. (2018). Planuvannya resursiv pid chas oboronnoho ohlyadu [Resource planning during the defense review]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovs'koho*, 2(63), 57-62. [in Ukrainian].
- Nurjaini, L. R., Fajriah, Y. N., Hamzah, A., Setiawati, P., & Novita, L. (2019, December). Your language is easily recognized: A language clustering software in linguistic analysis. In *Journal of Physics: Conference Series* (Vol. 1402, No. 7, p. 1-5). IOP Publishing.
- On approval of the Procedure for organization and implementation of defense planning in the Ministry of Defense of Ukraine, the Armed Forces of Ukraine and other components of the Defense Forces: order of the Ministry of Defense of Ukraine dated 22.12.2020 № 484.
- On defense procurement: Law of Ukraine of 17.07.2020 № 808-IX.
- On the decision of the National Security and Defense Council of Ukraine of September 14, 2020 "On the National Security Strategy of Ukraine": Decree of the President of Ukraine №392/2020.
- On the decision of the National Security and Defense Council of Ukraine of March 25, 2021 "On the Strategy of Military Security of Ukraine": Decree Of The President Of Ukraine №121/2021.
- On the organization of short-term planning of measures for the maintenance and development of the Armed Forces of Ukraine for 2021, 2022 and two subsequent years: a joint order of the Minister of Defense of Ukraine and the Commander-in-Chief of the Armed Forces of Ukraine dated 19.02.2021 № 46/45.
- Pedan, F. P., Rudens'ka, H. V., Tkachenko, M. V., & Fedorenko, R. M. (2016). Porivnyal'nyy analiz informatsiynykh system avtomatyzatsiyi protsesiv upravlinnya finansovo-ekonomichnoyu diyal'nistyu [Comparative analysis of information systems for automation of financial and economic management processes]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovs'koho*, 2(57), 95-100. [in Ukrainian].
- Petrushen, M. V. (2020). Analiz vymoh do protsesiv upravlinnya funktsional'nykh servisamy yedynoyi informatsiynoyi systemy upravlinnya oboronnykh resursamy [Analysis of requirements to the processes of management of functional services of the unified information system of defense resources management]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovs'koho*, 2(69), 110-115. [in Ukrainian].
- Poltorak, S. T. (2015). Holovne zavdannya pidvyshchennya oboronozdatnosti derzhavy [The main task of increasing the defense capabilities of the state]. *Nauka i oborona*, 2, 3-8. [in Ukrainian].
- Postnikov, A., Yassenko, S., & Drynov, D. (2021). Some aspects of problematic issues in the management of defense resources. *Journal of Scientific Papers «Social Development and Security»*, 11(1), 229-236. Available at: <<https://doi.org/10.33445/sds.2021.11.1.20>>.
- Punda, Yu., Hrebenyuk, M. (2014). Transformuvannya ta rozvytok Zbroynykh Syl Ukrayiny

- [Transformation and development of the Armed Forces of Ukraine]. *Nauka i oborona*, 4, 37-46. [in Ukrainian].
- Rudens'ka, H. V. (2020). Modeli ta protsesy zhyttyevoho tsykladu informatsiynoyi systemy upravlinnya oboronnyimi resursamy [Models and processes of the life cycle of the information system of defense resources management]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovs'koho*, 3, 59-65. [in Ukrainian].
- Rudens'ka, H. V., Pedan, F. P., Tkachenko, M. V. (2017). Vykorystannya systemy klyuchovykh pokaznykiv pry otsintsi finansovoho zabezpechennya Zbroynykh Syl Ukrayiny [Use of a system of key indicators in assessing the financial support of the Armed Forces of Ukraine]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovs'koho*, 1(59), 48-52. [in Ukrainian].
- Rudkovs'kyi, O. V. (2014). Problematyka resursnoho zabezpechennya systemy korporatyvnoyi bezpeky [Problems of resource provision of the corporate security system]. *Visnyk ZHDTU: Ekonomika, upravlinnya ta administruvannya*, 2(68), 154-159. [in Ukrainian].
- Rusetskyi, A. A., Lelet, S. M., Dopilka, V. O., & Tsybulnyk, N. Y. (2020). Legal Regulation of Territorial Defense of Ukraine and the Place of Administrative Legislation in it. *Jurnal Cita Hukum*, 8(2), 231-242.
- Rybydaylo, A. A., Boiko, V. O., Levshenko, O. S., Zotova, I. H., & Hrytsyuk, V. V. (2016). Analiz shlyakhiv polipshennya sklads'koyi lohistyky voyennoho vidomstva [Analysis of ways to improve the warehouse logistics of the military department]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovs'koho*, 1(56), 63-68. [in Ukrainian].
- Rybydaylo, A. A., Tureychuk, A. M., Prokopenko, O. S. (2017). Analiz dosvidu providnykh krayin svitu shchodo formuvannya ta vykorystannya kadrovoho rezervu u zbroynykh sylakh [Analysis of the experience of the world's leading countries in the formation and use of personnel reserves in the armed forces]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovs'koho*, 2(60), 121-128. [in Ukrainian].
- Sahan, V., Vasylevs'kyi, V. (2017). Analiz osoblyvostey lohistychnoho zabezpechennya providnykh derzhav svitu [Analysis of the peculiarities of the logistics of the world's leading countries]. *Zbirnyk naukovykh prats' Natsional'noyi akademiyi Derzhavnoyi prykordonnoyi sluzhby Ukrayiny*, 1, 211-225. [in Ukrainian].
- Sahanyuk, F. V., et al. (2015). Problemy kompleksnoho ohlyadu sektoru bezpeky i oborony Ukrayiny ta shlyakhy yikh vyrishennya [Problems of comprehensive review of the security and defense sector of Ukraine and ways to solve them]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' Natsional'noho universytetu oborony Ukrayiny imeni Ivana Chernyakhovs'koho*, 2, 12-17. [in Ukrainian].
- Sahanyuk, F., Romanov, I., Solovey, O. (2009). Problemy rozvytku Voyennoyi orhanizatsiyi derzhavy [Problems of development of the Military organization of the state]. *Politychnyy menedzhment*, 3, 63-71. [in Ukrainian].
- Salo, A. Ya. (2016). Problemy ta stan material'no-tekhnichnoho zabezpechennya Zbroynykh Syl Ukrayiny na kinets' 2013 roku [Problems and state of logistics of the Armed Forces of Ukraine at the end of 2013]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovs'koho*, 3(58), 122-125. [in Ukrainian].
- Schwab K. The Fourth Industrial Revolution / Klaus Schwab. – World Economic Forum : Geneva, 2016. – 184 p.
- Semenchenko, A. I., Lysenko, O. I., Chekanova, i. V. (2014). Prohnozne modelyuvannya resursnoho zabezpechennya protsesiv oboronnoho planuvannya [Predictive modeling of resource provision of defense planning processes. Proceedings of the international scientific-practical

- conference]. *Materialy mizhnarodnoyi naukovo-praktychnoyi konferentsiyi, Ukraine, 2*, 388. [in Ukrainian].
- Semenenko, O. M., Vasyukhno, S. I., Bokiy, V. H., & Butenko, M. P. (2019). Metodychnyy pidkhd do prohnzuvannya dynamiky rozvytku Zbroynykh Syl Ukrayiny z urakhuvannyam dostatnosti ta efektyvnosti osvoyennya vydilenykh finansovykh resursiv [Methodical approach to forecasting the dynamics of development of the Armed Forces of Ukraine taking into account the adequacy and efficiency of the development of allocated financial resources]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovskoho*, 3(67), 59-65. [in Ukrainian].
- Serafini, F., & Reid, S. F. (2019). Multimodal content analysis: expanding analytical approaches to content analysis. *Visual Communication*. Available at: <<https://doi.org/10.1177/1470357219864133>>.
- Shaptalenko, M. I., Hrinenko, O. I., Kutovyy, O. P., & Butenko, M. P. (2016). Rozroblennya propozytsiy do proektiv zakonodavchykh ta normatyvno-pravovykh aktiv (vnesennya zmin do diyuchykh) shchodo zabezpechennya Zbroynykh Syl Ukrayiny ozbroyenniam, viys'kovoyu tekhnikoju, inshymy material'no-tekhnichnymy zasobamy v osoblyvyi period [Development of proposals for draft laws and regulations (amendments to existing ones) to provide the Armed Forces of Ukraine with weapons, military equipment and other material and technical means in a special period]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' Natsional'noho universytetu oborony Ukrayiny imeni Ivana Chernyakhovskoho*, 3, 87-91. [in Ukrainian].
- Shchypans'kyi, P. V., Vdovin, O. H. (2019). Mobilizatsiynnyy rezerv yak faktor zbil'shennya mozhlyvostey natsional'noyi ekonomiky zadovol'nyty potreby Zbroynykh Syl Ukrayiny [Mobilization reserve as a factor in increasing the capacity of the national economy to meet the needs of the Armed Forces of Ukraine]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovskoho*, 2(66), 22-28. [in Ukrainian].
- Snitsarenko, P. M., Sarychev, Yu. O., Tkachenko, V. A. (2016). Monitorynh obstanovky yak nevid'yemnyy element zabezpechennya oboronozdatnosti ta voyennoyi bezpeky derzhavy [Monitoring the situation as an integral part of ensuring the defense capability and military security of the state]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' Natsional'noho universytetu oborony Ukrayiny imeni Ivana Chernyakhovskoho*, 2(57), 44-48. [in Ukrainian].
- Sokurenko, V. V. (2015). Deyaki pytannya finansovoho zabezpechennya sfery oborony Ukrayiny v konteksti publicnogo administruvannya [Some issues of financial support of the defense sphere of Ukraine in the context of public administration]. *Yurydychna nauka*, 11(53), 109-116. [in Ukrainian].
- Surkov, O. O. (2014). Analiz pidkhdov shchodo otsynuvannya ryzykiv u khodi dovhostrokovoho oboronnoho planuvannya [Analysis of approaches to risk assessment in the course of long-term defense planning]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' Natsional'noho universytetu oborony Ukrayiny imeni Ivana Chernyakhovskoho*, 2, 132-136. [in Ukrainian].
- Surkov, O. O. (2016). Metodyka otsynuvannya ryzykiv pid chas analizu resursnykh mozhlyvostey derzhavy shchodo zadovolennya potreb Zbroynykh Syl Ukrayiny [Methods of risk assessment during the analysis of the state's resource capabilities to meet the needs of the Armed Forces of Ukraine]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovskoho*, 1(56), 69-74. [in Ukrainian].
- Surkov, O. O. (2017). Formuvannya intehrovanoyi systemy upravlinnya ryzykamy yak skladovoyi

- systemy oboronnoho planuvannya [Formation of an integrated risk management system as a component of the defense planning system]. Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' Natsional'noho universytetu oborony Ukrayiny imeni Ivana Chernyakhovskoho, 2, 17-23. [in Ukrainian].
- Surkov, O. O., Bilyk, V. I., Ruban, D. V., Ustymenko, V. V. (2017). Systemnyy analiz vzayemozv'yazku "spromozhnosti", "mozhlivosti" ta "zdatnosti" syl oborony [Systematic analysis of the relationship between "capability", "capability" and "capability" of the defense forces]. *Naukovyy chasopys Akademiyi natsional'noyi bezpeky*, 3-4(15-16), 60-74. [in Ukrainian].
- Sysoyev, V. V. (2009). Metodolohiya kompleksnoyi optymizatsiyi upravlinnya potokovymy protsesamy v iyerarkhichnykh systemakh resursnoho zabezpechennya sylovykh struktur [Methodology of Complex Optimization of Flow Process Management in Hierarchical Systems of Resource Provision of Power Structures]. *Modelyuvannya ta informatsiyi systemy v ekonomitsi*, 80, 159-174. [in Ukrainian].
- Sysoyev, V. V. (2014). Model' upravlinnya postachannyam syl sektora bezpeky i oborony derzhavy v yedyniy systemi material'no-tekhnichnoho zabezpechennya [The model of supply management of the security and defense sector of the state in a single logistics system]. *Problemy ekonomiky*, 2, 144-153. [in Ukrainian].
- Sysoyev, V. V. (2015). Kontseptsiya modelyuvannya lohistychnoho upravlinnya postachannyam syl sektoru bezpeky i oborony derzhavy [The concept of modeling the logistics management of the supply of forces to the security and defense sector of the state]. *Problemy ekonomiky*, 3, 342-351. [in Ukrainian].
- Tarasenko, A. (2013). Pravovi pidstavy do vyznachennya ponyattya ta zmistu material'no-tekhnichnoho zabezpechennya sub'yektiv sektoru bezpeky y oborony Ukrayiny [Legal grounds for defining the concept and content of logistics of the security and defense sector of Ukraine]. *Visnyk Kyivskoho natsional'noho universytetu imeni Tarasa Shevchenka. Yurydychni nauky*, 4, 106-109. [in Ukrainian].
- Tarasenko, A. V. (2013). Naukovi pidkhody do vyznachennya zmistu katehoriyi material'no-tekhnicne zabezpechennya sub'yektiv sektoru bezpeky y oborony [Scientific approaches to determining the content of the category of logistics of the security and defense sector]. *Yevropeys'ki perspektyvy*, 7, 54-59. [in Ukrainian].
- The Doctrine of "United Logistics": a military guiding publication to military organizational structures on the views and basic provisions on the management of defense resources of the VKP 4-00 (01).01, approved by the Commander-in-Chief of the Armed Forces of Ukraine on September 19, 2020.
- Tkach, I., & Malanchuk, M. (2017). Modern approaches to the concept and classification of resources and resource support. *Journal of Scientific Papers «Social Development and Security»*, 1(1), 69-83. Available at: <<https://doi.org/10.33445/sds.2017.1.1.6>>.
- Tkach, M. Ya., Boiko, R. V., Loishyn, A. A., & Boiko, V. O. (2019). Rekomendatsiyi shchodo finansovoho ta ekonomichnoho zabezpechennya potreb natsional'noyi oborony pid chas protydiy hibrydnyy viyni [Recommendations for financial and economic support of national defense needs in combating hybrid warfare]. Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovskoho, 3(67), 66-71. [in Ukrainian].
- Udoh, E., & Rhoades, J. (2006, April). Mining Documents in a Small Enterprise Using WordStat. In *Third International Conference on Information Technology: New Generations (ITNG'06)* (pp. 490-494). IEEE.
- Uzunboylu, H., & Özcan, D. (2019). Teaching methods used in special education: A content analysis study. *International Journal of Cognitive Research in Science, Engineering and*

Education, 7(2), 99-108.

- Vashchenko, I. V., Tkachenko, M. V., Fedorenko, R. M., Pedan, F. P., & Rudens'ka, H. V. (2016). Systema klyuchovykh pokaznykiv efektyvnosti finansovoho zabezpechennya Zbroynykh Syl Ukrayiny [System of key indicators of efficiency of financial support of the Armed Forces of Ukraine]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovs'koho*, 1(56), 126-129. [in Ukrainian].
- Yakoviyyk, I., Chyzhov, D., Karpachova, N., Hlushchenko, S., & Chaliuk, Y. (2020). National security policy in Ukraine: a change in the system of power relations of the modern world. *Revista San Gregorio*, 42, 224-235.
- Yermolenko A. (2006). Perspektyvy rozvytku Zbroynykh Syl Ukrayiny v konteksti udoskonalennya voyennoyi orhanizatsiyi derzhavy [Prospects for the development of the Armed Forces of Ukraine in the context of improving the military organization of the state]. *Politychnyy menedzhment*, 4, 89-97. [in Ukrainian].
- Zahorulko, A. (2020). National Security Strategy of Ukraine: Conceptual Principles and Efficiency. *Hrvatska i komparativna javna uprava: časopis za teoriju i praksu javne uprave*, 20(4), 677-698.
- Zakalad, M. A., Belyachenko, V. V., Mulyavka, A. S. (2019). Pidkhody do orhanizatsiyi upravlinnya ryzykamy vprovadzhennya Yedynoyi informatsiyanoi systemy upravlinnya oboronnykh resursamy [Approaches to the organization of risk management implementation of the Unified information system of defense resources management]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovs'koho*, 2(66), 73-81. [in Ukrainian].
- Zakalad, M. A., Pedan, F. P., Romanchenko, O. A. (2018). Pidkhody do formuvannya osnovnykh kharakterystyk avtomatyzovanykh system upravlinnya lohistrychnoho zabezpechennya ZS Ukrayiny [Approaches to the formation of the main characteristics of automated control systems for logistics of the Armed Forces of Ukraine]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' NUOU imeni Ivana Chernyakhovs'koho*, 1(62), 97-101. [in Ukrainian].
- Zakalad, M. A., Utyushev, M. K., Bobrov, S. V. (2018). Pidkhody do avtomatyzatsiyi protsesiv lohistrychnoho zabezpechennya Zbroynykh Syl Ukrayiny [Approaches to automation of logistics processes of the Armed Forces of Ukraine]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' Natsional'noho universytetu obrony Ukrayiny imeni Ivana Chernyakhovs'koho*, 3, 61-64. [in Ukrainian].
- Zamana, V. M. (2013). Oboronna dostatnist' Ukrayiny yak faktor strymuvannya voyennoyi ahresiyi proty Ukrayiny [Ukraine's defense adequacy as a factor in deterring military aggression against Ukraine]. *Aktual'ni problemy voyennoyi nauky. Chest' i zakon*, 4(47), 4-9. [in Ukrainian]. Available at: <<https://cutt.ly/HQ5giDJ>>.
- Zhupins'kyy, P. O. & Vavilova, N. V. (2017). Uzhodzhennya protsesu obronnoho planuvannya na osnovi spromozhnostey z protsesom seredn'ostrokovoho byudzhetnoho planuvannya [Coordination of the process of defense planning on the basis of capabilities with the process of medium-term budget planning]. *Zbirnyk naukovykh prats' Tsentru voyenno-stratehichnykh doslidzhen' Natsional'noho universytetu obrony Ukrayiny imeni Ivana Chernyakhovs'koho*, 2, 39-43. [in Ukrainian].