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BIBLIOMETRIC ANALYSIS OF PUBLICATIONS ON ECONOMIC SECURITY OF OIL AND GAS COMPANIES

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Abstract. *This article presents a bibliometric analysis of publications on the economic security of companies in the oil and gas sector. The study identifies key trends in the scientific literature, highlighting the main clusters related to the efficiency of oil and gas companies, digital transformation, and cybersecurity. The research focuses on examining the dynamics of scientific publications and their impact on the development of effective strategies for ensuring economic security. It is concluded that there is a growing emphasis on innovative technologies and the digitalization of the oil and gas sector to enhance its resilience to modern challenges. The findings of this study can serve as a basis for further research into the economic security of companies in the oil and gas industry, particularly in the context of cybersecurity and digital transformation.*

Key words: *economic security, oil and gas sector, bibliometric analysis, digital transformation, cybersecurity, companies efficiency.*

Introduction.

The relevance of the issue of ensuring the economic security of oil and gas companies is due to the growing challenges of global energy security [1]. The oil and gas industry plays a strategic role in the functioning of national economies, and its sustainability determines the overall level of economic security of the state [2]. Building an effective state policy in Ukraine aimed at strengthening the economic security of the oil and gas sector is of particular importance in the context of martial law. Challenges related to the destruction of critical infrastructure, changes in the logistics of energy supplies, and the need to ensure the energy sustainability of the state require a comprehensive approach to assessing the existing scientific heritage.

Main text.

One of the key tools for such an assessment is bibliometric analysis, which allows us to identify the main trends in research, determine its strategic directions, and identify the most influential publications and authors. The use of bibliometric methods makes it possible not only to systematize scientific achievements and assess their dynamics, identify interdisciplinary connections, but also to identify priority research areas that

can contribute to strengthening the economic security of oil and gas companies.

In the current conditions of rapid growth of scientific information, the use of digital platforms for structuring and analyzing scientific publications is becoming especially relevant. One of the most effective tools for bibliometric research is the Connected Papers platform [3], which allows visualizing scientific connections between publications, which contributes to a deeper understanding of the development of research topics. The main functionality of Connected Papers is to build graphical maps of the literature, which allows identifying key research areas, determining the relationships between publications, and identifying the most influential works in a particular scientific field. The platform's algorithm analyzes common bibliographic references between articles, creating a network model of scientific knowledge that allows researchers to quickly find relevant sources and assess the degree of their influence.

The following keywords were used for the search query: “economic security”, “oil and gas companies”, “oil and gas complex”. According to the results of the search, the most relevant publications for the period from 2013 to 2024 were obtained and a map of scientific research on the economic security of oil and gas companies was built (Figure 1).

One of the main aspects that should be taken into account when interpreting the results is the identification of clusters of scientific papers. Evaluating these clusters helps to understand which sub-topics are most relevant at the moment, as well as to identify priority areas for further research. When interpreting the results, it is also important to pay attention to the key publications and authors that define the scientific discourse in the field of study. This allows us to identify the most significant works that have contributed to the development of the theoretical foundations of the problem under study, as well as to understand which ideas and approaches have been most influential.

The platform also helps to identify interdisciplinary connections. In addition, the results of Connected Papers can be used to identify research gaps, which allows us to identify under-researched aspects of the problem.

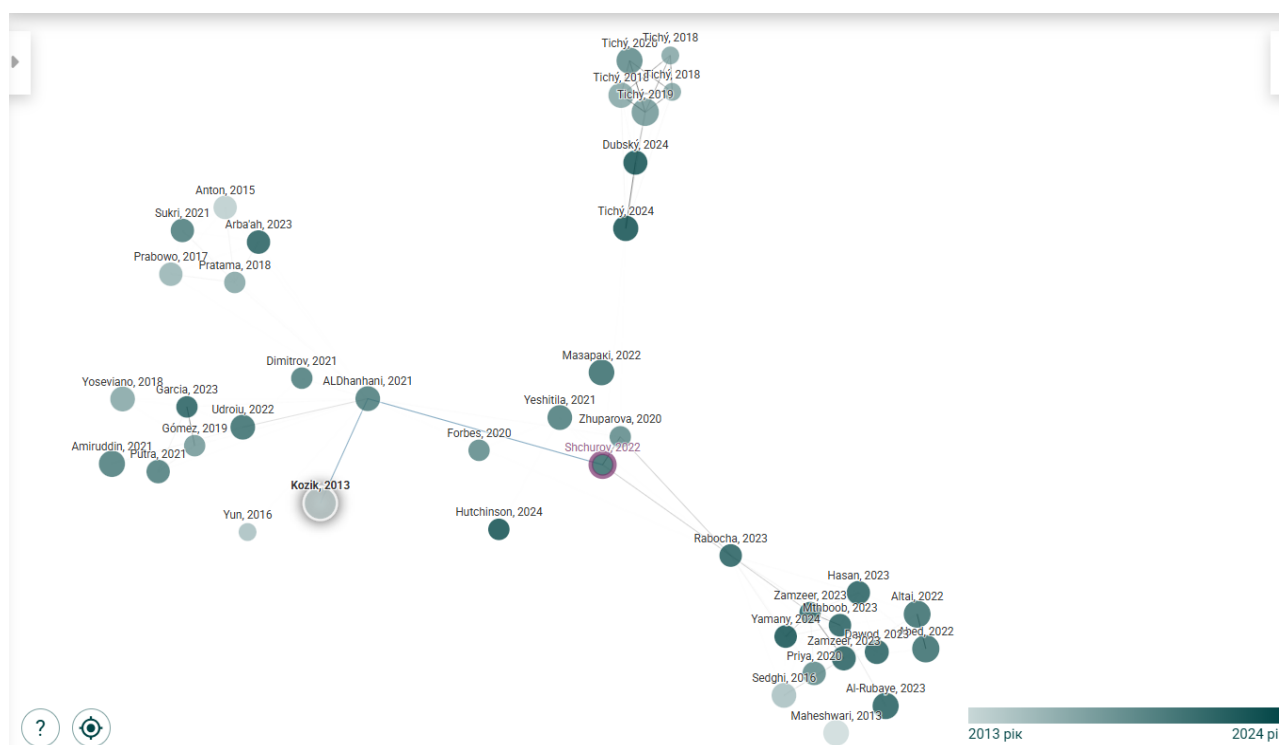


Figure 1 - Visualization of links between scientific publications by selected keywords, created on the Connected Papers platform

A source: created by the author using Connected Papers

The conducted bibliometric analysis allowed us to identify several main clusters of scientific publications related to the economic security of oil and gas companies. The first cluster includes works on general aspects of economic security of companies, in particular, the study of theoretical and practical approaches to ensuring the sustainability of organizations in the face of various internal and external threats. The second cluster brings together research focused on the specifics of the functioning of oil and gas companies, in particular, the efficiency of their activities in the face of economic instability, political risks and the impact of environmental factors. The third cluster reveals the relevance of the problems of digital transformation of the oil and gas industry and the need to integrate modern information technologies to ensure cybersecurity of companies in this sector.

Summary and conclusions.

The analysis of the research results suggests that at the present stage, scientific developments in the field of economic security of oil and gas companies are focused on such important areas as improving the efficiency of management processes in the

context of globalization challenges, ensuring the stability of financial flows, and introducing innovative technologies to ensure cyber security. The use of bibliometric methods to analyze scientific publications allows not only to identify the main scientific trends, but also to identify key areas for further research, which are important for developing a comprehensive strategy for ensuring the economic security of oil and gas companies.

The conclusions obtained from the bibliometric analysis allow us to recommend further in-depth study of the problems of digital transformation and cybersecurity in the oil and gas sector, which is extremely relevant in the context of rapid technological development and the growing number of cyber threats. In addition, it is necessary to strengthen research on the efficiency of management and financial processes at oil and gas companies to increase their resilience to internal and external challenges.

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