Review of the scientific article "Analysis of the Effectiveness of Applying Digital Technologies in Data Accounting Systems During Gas Transportation"

The reviewed article "Analysis of the Effectiveness of Applying Digital Technologies in Data Accounting Systems During Gas Transportation" (*«Аналіз ефективності застосування цифрових технологій в системах обліку даних під час транспортування газу»*) addresses the important issue of implementing digital technologies in data accounting systems within gas transportation infrastructure. The topic is highly relevant, as the modernization of energy systems and the digital transformation of critical infrastructure require more reliable, accurate, and efficient methods of data collection, monitoring, and management.

In the introductory part, the authors explain the strategic importance of Ukraine's gas transportation system and clearly formulate the research objective, which is to assess the effectiveness of digital technologies in improving data accounting processes. The relevance of the study is well justified through the growing demand for accurate monitoring, operational decision-making, and enhanced system reliability.

The main body of the article provides a detailed description of the key parameters that require continuous monitoring during gas transportation and analyzes the limitations of conventional accounting systems. The authors discuss the advantages of introducing modern digital technologies, including IoT solutions, SCADA systems, automated metering devices, Big Data technologies, and artificial intelligence. The presented analysis consistently demonstrates how digitalization can improve operational efficiency, increase measurement accuracy, strengthen system security, and optimize resource management.

In the concluding section, the authors summarize the findings and emphasize the necessity of transitioning from outdated accounting systems to

integrated digital solutions. The conclusions are consistent with the objectives of the study and logically follow from the analysis presented in the article.

At the same time, the analytical part of the study could be further strengthened by providing a more quantitative comparison of traditional and digital data accounting systems. In particular, it would be useful to compare these approaches in terms of measurement accuracy, data availability, operational efficiency, and overall system reliability. Such quantitative indicators would help to substantiate the advantages of digital technologies and make the assessment of their effectiveness more objective.

The practical value of the research lies in its applicability to the modernization of gas transportation infrastructure and the improvement of operational management processes within the energy sector. The findings may be useful for engineers, system operators, and specialists involved in the digital transformation of gas transportation systems.

For future research, the authors may also consider complementing the study with practical case studies demonstrating the implementation of digital technologies under real operating conditions.

The article is well structured, addresses a relevant scientific and practical problem, and meets the requirements for scientific publications. It is recommended for publication in the journal.

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