

UDC 351.712:339.138:330.34(477)

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EFFICIENCY AND DYNAMICS OF PUBLIC PROCUREMENT IN UKRAINE UNDER MARTIAL LAW

The article examines the efficiency of the functioning of the public procurement system and its dynamics in Ukraine under martial law. Particular attention is paid to the analysis of transformations that have occurred in the procurement system under the influence of crisis factors, including changes in the institutional environment, regulatory mechanisms, and market structure. Within the framework of the study, the relationship between the concepts of effectiveness and efficiency was considered, the traditional approach to procurement evaluation was analyzed, and the feasibility of applying a multi-level approach to efficiency assessment was substantiated, which involves its analysis at the micro-, macro-, and meta-levels. Special attention is given to the study of new tools and procedures introduced to improve procurement efficiency, including the use of non-price evaluation criteria, life-cycle costing, simplified procedures, and other mechanisms aimed at cost optimization and improving the quality of procurement. In addition, key performance indicators (KPIs) of public procurement were identified. The empirical part of the study is based on the analysis of official data presented in the annual reports of the Ministry of Economy of Ukraine. In the course of the research, the dynamics of key indicators were analyzed, including changes in the level of competition, the number of procurement participants, the structure of applied procedures, the difference between expected values and contract amounts, the number of successfully conducted competitive procurements, as well as the specifics of the use of tender evaluation criteria. The obtained results made it possible to identify key trends in the development of the public procurement system under martial law, in particular changes in the structure of procurement, the transformation of the level of competition, and the efficiency of the system's adaptation to conditions of increased uncertainty.

Keywords: public procurement, contracting authorities, bidders, efficiency, martial law, key performance indicators (KPI), competitive process, electronic procurement system, state regulation, tender procedures, non-price criteria.

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ЕФЕКТИВНІСТЬ ТА ДИНАМІКА ПУБЛІЧНИХ ЗАКУПІВЕЛЬ В УКРАЇНІ В УМОВАХ ВОЄННОГО СТАНУ

У статті досліджено ефективність функціонування системи публічних закупівель та динаміку в Україні в умовах воєнного стану. Особливу увагу приділено аналізу трансформацій, що відбулися у закупівельній системі під впливом кризових факторів, зокрема змін інституційного середовища, регуляторних механізмів та структури ринку. У межах дослідження було розглянуто співвідношення понять результативності та ефективності, проаналізовано традиційний підхід до оцінки закупівель, а також обґрунтовано доцільність застосування багаторівневого підходу до оцінювання ефективності, який передбачає її аналіз на мікро-, макро- та метарівнях. Особливу увагу приділено дослідженню нових інструментів та процедур, запроваджених з метою підвищення ефективності закупівельної діяльності, зокрема використанню нецінових критеріїв оцінки, вартості життєвого циклу, спрощених процедур та інших механізмів, спрямованих на оптимізацію витрат і підвищення якості закупівель. Окрім того, було виділено ключові показники ефективності публічних закупівель. Емпірична частина дослідження ґрунтується на аналізі офіційних даних, представлених у щорічних звітах Міністерства економіки України. У процесі дослідження було проаналізовано динаміку ключових показників, зокрема зміну рівня конкуренції, кількості учасників закупівель, структури застосовуваних процедур, різницю між очікуваною вартістю та сумами укладених договорів, кількість проведених успішних конкурентних закупівель, а також особливості використання критеріїв оцінки тендерних пропозицій. Отримані результати дозволили виявити ключові тенденції розвитку системи публічних закупівель в умовах воєнного стану, зокрема зміну структури закупівель, трансформацію рівня конкуренції та ефективність адаптації системи до умов підвищеної невизначеності.

Ключові слова: публічні закупівлі, замовники, учасники, ефективність, воєнний стан, ключові показники ефективності (KPI), конкуренція, електронна система закупівель, державне регулювання, тендерні процедури, нецінові критерії.

Introduction. The public procurement system plays a crucial role in ensuring the efficient use of public resources and the implementation of state functions in the economic sphere. It is a vital instrument for the formation of demand from the state, and it affects the development of

competitiveness, transparency of economic processes and improvement of the quality of public services.

In modern economic conditions, public procurements are considered as one of the basic mechanisms for the redistribution of financial resources, which requires compliance

with the principles of openness, equal access of bidders and effective use of budget funds. These processes are of particular importance in periods of economic instability and increased risks when the need for promptness and effectiveness in making management decisions increases.

In Ukraine, the public procurement system has faced with significant transformations in the direction of digitalization and increased transparency, in particular through the introduction of electronic tools for conducting procurement procedures. At the same time, its functioning under martial law is accompanied by the need to balance between ensuring the speed of decision-making, the efficiency of the use of funds and compliance with the principles of competition and transparency.

Materials and methods. The issue of researching the efficiency of public procurement has long been in the focus of attention of domestic and foreign scientists, since this area integrates issues of public administration, economic efficiency, transparency of the use of budget funds and ensuring competitive process in the public procurement market. The works of researchers focus on improving procurement mechanisms, increasing their efficiency and ensuring the appropriate level of transparency of procedures, which forms a theoretical and methodological basis for further applied research.

The purpose of the article is to evaluate the efficiency and analyze the dynamics of public procurement in Ukraine under martial law, determine key performance indicators and study the features of the functioning of the procurement system during a period of increased security and economic risks.

Results. In 2022, with the beginning of the Russian full-scale invasion, procurement procedures faced with significant changes, as there was a need to adapt legal framework to the current situation. Initially, contracting authorities received the right to conduct rapid direct procurement, since it was necessary to ensure defense needs in a timely manner. However, since July 2022, the procurement process has been returning to the Prozorro system. Since then, the Cabinet of Ministers of Ukraine has been implementing measures that would simultaneously restore transparency and competitiveness to the procurement process and enable ordinary and defense customers to respond to the challenges of wartime, meeting their needs in a promptly and effective manner. Thus, on October 12, 2022, Resolution №1178 "On approval of the features of public procurement of goods, works and services for contracting authorities provided for by the Law of Ukraine "On public procurement" for the period of the legal regime of martial law in Ukraine and within 90 days from the date of its termination or cancellation" was adopted [1; 2]. For contracting authorities in defense sector, the government developed and approved on November 11, 2022, Resolution №1275 "Some issues of defense procurement for the period of the legal regime of martial law" [3].

Subsequently, the provisions of the resolution were repeatedly amended and supplemented, which was due to the need to respond promptly to new challenges, particularly those related to security risks. The changes made reflect the state's desire to ensure the appropriate speed of decision-making while adhering to the principles of transparency and competitiveness, which are key to achieving the effectiveness of public procurement.

Of particular importance is the need to combine the transparency of procedures with security requirements, which involves protecting information, market participants and customers from potential military threats.

The main principles of economic activity in a market economy are effectiveness and efficiency. Effectiveness characterizes the achievement of set goals, and efficiency – the means, methods, and ways used to achieve these goals. Assessment of the effectiveness of procurement, accordingly, includes the determination of economic and organizational efficiency, as well as an analysis of the timeliness of procurement [4, p. 72]. Considering the need for a comprehensive assessment of both the results and the procurement processes, an approach based on a combination of several interrelated criteria has been developed in international practice. Traditionally, the evaluation of public procurement is based on the concept of the "three Es", which include Economy, Efficiency and Effectiveness of planned results [5, p. 3]. These principles provide a structured framework for assessing how public funds are used and whether procurement processes deliver value. At the same time, for a deeper comprehending of the efficiency of public procurement it is important to consider not only the criteria for its evaluation, but also the levels at which such evaluation is conducted.

To increase the level of procurement efficiency, new tools have been developed, and existing procedures have been improved:

- 1) the possibility of using non-price criteria and life cycle cost to evaluate proposals;
- 2) the possibility of applying a new procurement procedure;
- 3) restricted tenders, which are used if a preliminary verification of the qualifications of participants is required through a qualifying selection and if the procurement cost is above the European thresholds;
- 4) the possibility of preserving the most advantageous tender offer;
- 5) changes in the procurement appeal process;
- 6) completion of the transformation process regarding the organization of procurement, which began in 2016, in terms of the transition from the work of tender committees to authorized persons [6, p. 172].

The efficiency of these innovations depends primarily on level of compliance in practice. Formally consolidation of progressive norms in legislation does not guarantee the achievement of the expected results without an adequate level of implementation, control and compliance by all bidders in the procurement process.

The efficiency of public procurement is assessed at three levels: at the tender/contract level (micro level), at the contracting authority level (macro level), and at the national/system level (meta level). Key performance indicators (KPIs) help determine whether procedures are achieving optimal results and providing value for money. Efficiency is understood as the ratio of results to resources spent, while effectiveness reflects the extent to which planned objectives are achieved and depends on the quality-of-service delivery.

KPIs can include indicators of time and cost savings, the level of competition and market participation, as well as the duration of procurement procedures, particularly the stage of evaluation of proposals. In addition to general indicators, there are separate subcategories of evaluation:

procurement planning, the use of efficiency tools (for example, framework agreements or dynamic purchasing systems), contract changes, professionalization of process participants and payment issues [7, p. 9–11]. The use of a system of key performance indicators allows for a comprehensive assessment of the functioning of public procurement at various levels. In the case of Ukraine, the use of KPIs is particularly important for assessing changes in the efficiency of public procurement that occurred under the influence of martial law and the transformation of the regulatory environment. A generalized list of key performance indicators of public procurement is given in Figure 1.

Using the above indicators allows not only to assess the current state of the public procurement system, but also to analyze their change over time. For this purpose, the study used data from annual reports of the Ministry of Economy of Ukraine, which allows to trace the dynamics of procurement efficiency during the war period.

According to the data of the electronic procurement system (hereinafter referred to as the EPS), in 2024, more than 3.44 million procurements were announced with a total expected value of over UAH 1.18 trillion. Compared to 2023, the number of procurements decreased by 2.97%. At the same time, the amount of contracts concluded as a result of procurements in 2024 exceeded UAH 888 billion and indicates an increase in the indicator compared to 2023 and 2022, despite the ongoing martial law (Figure 2), which indicates the stability and adaptability of the public

procurement system, even under martial law conditions [8]. It is worth noting that a large part of defense procurements is conducted outside the electronic system for the protection of contracting authorities in the defense sector and the ability to quickly respond to the needs and requests of the front. Thus, procurement in accordance with paragraph 43 of the Resolution of the Cabinet of Ministers of Ukraine dated November 11, 2022 No. 1275 “Some issues of defense procurement for the period of the legal regime of martial law” involves the use of significant amounts of funds, as these are purchases of weapons, military, special equipment, their components, etc. [3].

In addition, it should be mentioned that in 2024 the indicator of the total number of contracting authorities who conducted procurements tends to decrease compared to 2022 and 2023. Significantly more activity in the procurement process is observed in the fourth quarter. This pattern is associated with the need to use budget funds by the end of the current year. At the beginning of the year, procurement planning is fulfilled, sources of financing are searched, and in the summer period, the decrease in activity is associated with the vacation period.

The number of procurement bidders also decreased by 20 206 in 2024, but the figure is still higher than in 2022. These changes are caused by the continuation of armed aggression by the Russian Federation, the worsening economic situation, and the cessation of operations of some businesses in occupied and frontline territories. At the same time, the emergence of new bidders is recorded,

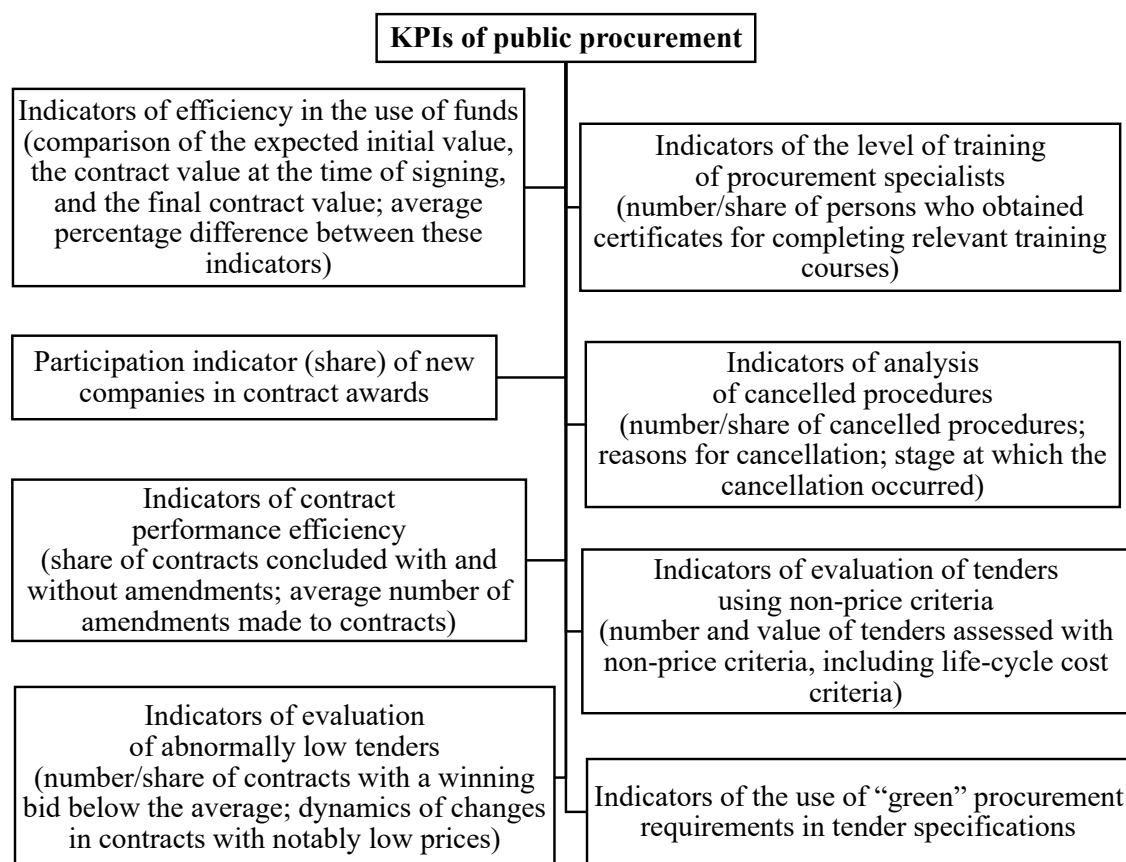


Figure 1. Key performance indicators of public procurement

Source: compiled by the authors based on [4, p. 76]

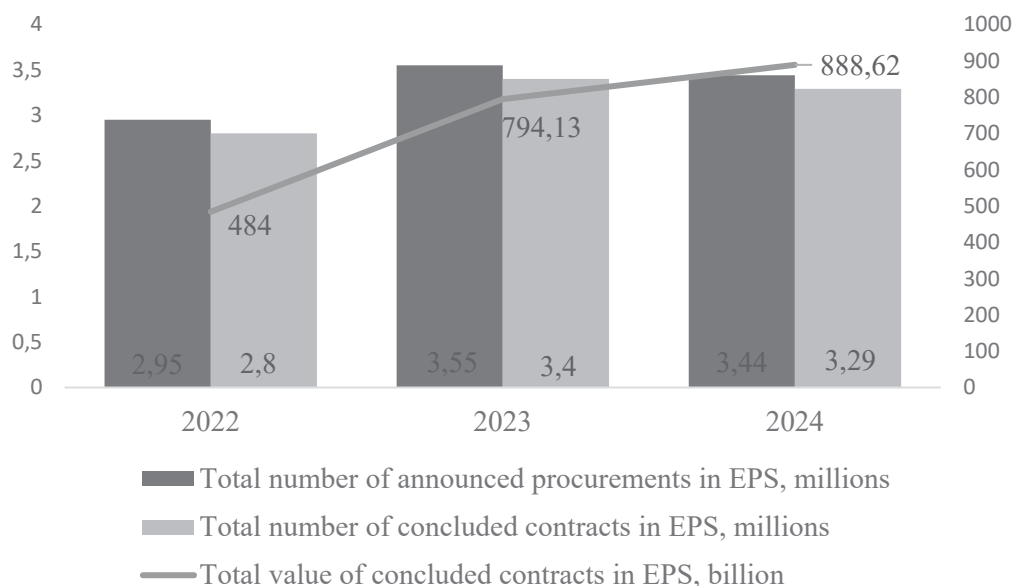


Figure 2. Number and total value of concluded contracts

Source: compiled by the authors based on [8]

which indicates further development and a desire to join the sphere of public procurement. The reduction in the number of procurement bidders affects not only the level of competition, but also the structure of the procurement procedures used. In this context, it is advisable to analyze the distribution of procurement by type of method, which allows us to assess the peculiarities of the functioning of the system under martial law (table 1).

The structure of public procurement in 2024 is dominated by reports on contracts concluded without the use of the EPS, which account for 89.72% of the total number of procedures. At the same time, their share in the total expected value is significantly lower (32.21%), which indicates that this tool is used mainly for lower-value procurements. In contrast, open tenders with specific features account for only 5.57% of the number of procedures but cover the largest share of the expected value of procurements – 59.83%, which indicates their key role in the implementation of large-scale procurements. Procurement by requesting suppliers' proposals occupies

a significant share both in terms of quantity (4.52%) and value (7.57%), which indicates their active use. Other procurement methods, in particular simplified procedures, framework agreements and negotiated procedures, are used much less frequently and have a small share both in terms of quantity and value.

In order to ensure the efficient implementation of procurement, the legislation in the field of public procurement provides for the right of the contracting authorities to determine the criteria for evaluating tender offers, as well as the methodology for their application, indicating the specific weight of each criterion. In particular, price, life cycle cost or a combination of price with other non-price indicators can be used as evaluation criteria. An analysis of the practice of applying these criteria in 2024 indicates the dominance of the price approach, since it was the price criterion that was most often used by contracting authorities, regardless of the type of procurement object, which is reflected in Table 2.

Table 1

Number and total expected value of successful procurements (lots) by type of procurement method

Type of procurement method	Number of procurements	Number of procurements, %	Expected cost of procurements, billion UAH	Expected cost of procurements, %
Report on a procurement contract concluded without using EPS	2 971 278	89,72%	302,66	32,21%
Open bidding with features	184 543	5,57%	562,28	59,83%
Request for proposals from suppliers	149 672	4,52%	71,11	7,57%
Simplified procurement procedure	6 178	0,19%	2,48	0,26%
Framework agreement procurement	174	0,005%	0,92	0,10%
Negotiated procedure	88	0,003%	0,28	0,03%
Open tender with English publication	5	0,0002%	0,03	0,003%
Open Tender	11	0,0003%	0,01	0,001%
Total	3 311 949	100,00%	939,78	100,00%

Source: compiled by the authors based on [8]

Table 2

Application of tender evaluation criteria by the contracting authorities

Type of procurement item	Evaluation criteria	Number of procurements (lots)
Goods	price	377099
	life-cycle cost	17
	price combined with other evaluation criteria	212
Works	price	14415
	life-cycle cost	2
	price combined with other evaluation criteria	46
Services	price	84088
	life-cycle cost	2
	price combined with other evaluation criteria	48

Source: compiled by the authors based on [8]

In 2024, the largest difference between the amounts of concluded contracts and actual payments was recorded in the procurement of services (88.58%), which indicates a higher level of their implementation. The smallest difference is observed in the procurement of goods (74.68%), which may indicate partial implementation or adjustment of contracts (Figure 3).

In addition, such differentiation between types of procurement may be due to the specifics of their implementation under martial law, in particular, the difficulties of logistical support, instability of supplies and changes in state spending priorities. At the same time, a higher level of implementation of contracts in the service sector may indicate their greater flexibility and adaptability to conditions of increased uncertainty.

It is worth noting that during 2024, 340,583 successful competitive procurements (lots) were conducted in the EUS with an expected value of UAH 636.84 billion, while the number of non-competitive procurements was 2,971,366 with a total expected value of procurements of UAH 302.94 billion, which is more than two times less than in competitive procurements. This ratio indicates a significant difference between the quantitative and

cost characteristics of procurements: non-competitive procedures dominate in terms of quantity, but the main financial resources are concentrated in the competitive segment. This indicates that large-scale procurements are usually conducted using competitive procedures, which contributes to increased transparency and efficiency in the use of budget funds.

The results obtained indicate that the public procurement system in Ukraine under martial law operates in a mode of increased adaptability and institutional transformation. Despite the reduction in the number of procedures, contract authorities and bidders, the system maintains an elevated level of financial burden and ensures the concentration of major budget resources within competitive procedures. This confirms the preservation of the basic principles of transparency and competition even under the restrictions of the war period.

Conclusions. Despite the difficult conditions in Ukraine, the public procurement sector continues to function and demonstrates its ability to adapt to martial law. For this purpose, an appropriate regulatory framework has been formed, which is constantly being improved considering new challenges, and mechanisms have been

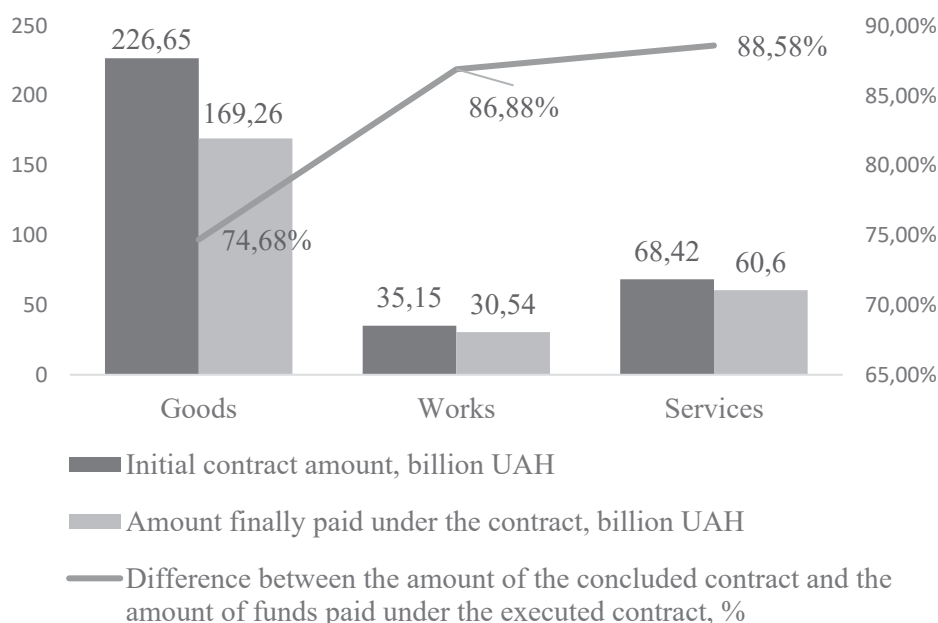


Figure 3. Assessment of contract performance

Source: compiled by the authors based on [8]

created to ensure the protection of contracting authorities and procurement bidders.

Having analyzed the key performance indicators and dynamics of public procurement, it is worth noting that there is currently a decrease in the number of procurements, the number of contracting authorities and bidders. However, a positive trend is the emergence of new contracting authorities and bidders in the procurement process. It should be noted that competitive procurement procedures covered the largest share of the

expected procurement cost, which is confirmation of openness and transparency. The possibility of using non-price criteria contributes to increasing the efficiency of public procurement, although their use is currently not frequent. Analysis of concluded contracts and paid funds makes it possible to observe high indicators of their implementation. Thus, even in conditions of martial law, the public procurement system has proven its efficiency, ability to meet the needs of contracting authorities and attract new bidders.

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Дата надходження статті: 20.07.2026

Дата прийняття статті до публікації: 28.08.2026

Дата публікації статті: 02.10.2026