

Digitalization of public procurement in the context of environmental safety of the state

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Abstract. The subject of this research is the legal nature of digital state services within the Unified Information System (hereinafter referred to as the UIS) and their impact on the environmental safety of the state. The study of the stated problem was based on the dialectical method of scientific cognition, as well as on individual specialized scientific methods. The aim of the research is to analyze the dynamics of the formation and development of the UIS, the influence of electronic services on the implementation of the state procurement process, ensuring environmental safety and the quality of protection of the rights and interests of the state customer. To achieve this goal, the following tasks were formulated and systematically addressed in this study: 1. The legislative framework of state procurement was analyzed, along with the changes introduced in legislation regarding the digitization of the zakupki.gov.ru electronic portal and the implementation of legal norms regulating the electronic document flow of the procurement sphere. 2. The role of electronic progress in the state procurement process was determined as a means of protecting the interests of the state customer for the efficient use of state budget funds. 3. The influence of the digitalization process of public procurement on the environmental safety of the state has been studied. 4. Conclusions were drawn regarding the necessity of balancing the interests of the state customer and business entities (contractors of state contracts) in the implementation of innovations in the electronic services of the UIS. 5. Solutions for the development and efficient utilization of electronic services within the UIS were proposed.

1 Introduction

Currently, the institution of state procurement in the Russian Federation has reached a high level of development. However, in modern conditions, when the state acts as a buyer in natural market relations, the process of transformation and modernization is constantly needed.

Following the spirit of the times, state procurement, like the entire economy, requires electronic-digital progress. The Russian Federation, being part of the global community,

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follows modern trends in the development of digital innovations. Thus, by the Decree of the President of the Russian Federation dated July 21, 2020, No. 474 "On the national goals of the development of the Russian Federation for the period up to 2030," it was established that one of the goals of digital development of the economy in Russia is digital transformation, namely the introduction of data processing technology using electronic technologies to reduce costs in the performance of works, provision of services, and production of goods [1-10].

The digital development of the economy has predetermined new approaches to regulating the field of state procurement. The introduction of new electronic technologies into the contractual system took place within the framework of the development of the information society, where the main task of launching electronic services was to ensure the availability and openness of government services. Thus, M.V. Shmeleva asserts that "Information support" is an integral element of the system, but with the increasing level of digitization of state procurement, it can be argued that without information support, the implementation of procurement becomes impossible.

2 Literature Review and Research Methodology

The study of electronic services in the sphere of state procurement has repeatedly been the subject of research by civil law scholars. Thus, organizational-economic aspects and the problem of the development of digital technologies in the procurement sphere have been analyzed by L.V. Andreeva, O.A. Belyaeva, V.E. Belov, and M.V. Shmeleva. Digitization and the development of individual electronic services have been repeatedly mentioned in the monographs and scientific articles of O.A. Belyaeva and M.V. Shmeleva and have been analyzed in the materials of international scientific-practical conferences by Y.V. Vinichenko and S.M. Amosov [11-15].

Theoretical and applied issues of the implementation and development of electronic services have been considered by V.E. Belov, V.A. Vaipan, I.P. Gladilina, N.N. Kadyrov, and E.V. Stroganova [16-24].

The methodological basis of this research is presented through both general scientific and specific methods of scientific cognition: systemic-structural, inductive, deductive, and content analysis.

3 Results

1. Electronic services in the sphere of state procurement are being created and implemented within the Russian information system, which serves as the foundation and digital platform. The creation of the Unified Information System (UIS) marked a new stage in the development of state procurement in the Russian Federation.

2. Technological progress and economic efficiency, particularly the efficiency of state procurement, are closely linked to the introduction of electronic innovations in all areas of governance.

3. The system of state procurement requires greater flexibility and should evolve at the same pace as the changing world. An important step towards the development of digitization in state procurement was the change in procurement legislation.

4. Statistical data indicate a simultaneous increase in the volume of state contracts and the number of violations in the procurement sector. According to the Russian Accounts Chamber, despite constant improvement in procurement legislation, the number of violations identified by control (audit) bodies in the procurement sector has not decreased. The total number of violations increased fourfold from 2014 to 2023, from 21.5 thousand to

83.5 thousand violations, and the total amount of financial violations almost increased sixfold, from 66.1 billion to 362 billion rubles.

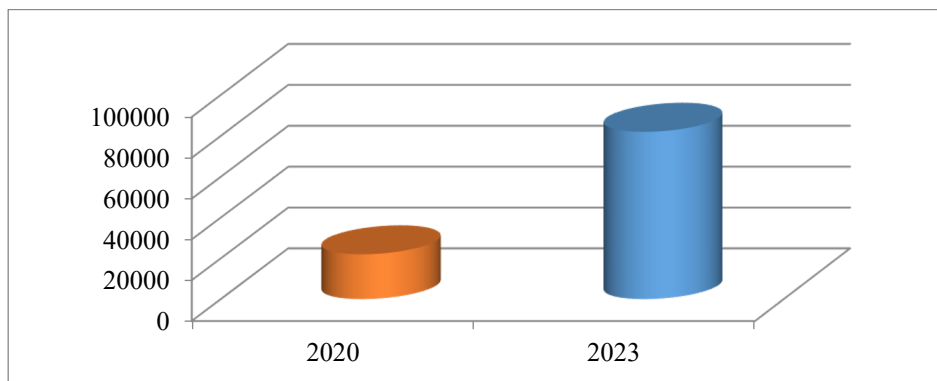


Figure 1. Violations in the Sphere of State Procurement

In this regard, it is necessary not only to strengthen control by regulatory bodies but also to develop electronic services that will simplify the procurement process for both the customer and the supplier, as well as make it more transparent. (Where are they?) Bring them, then describe them with this block.

5. The introduction of structured contracts into state procurement will allow for the reduction of timelines, simplification of filling in necessary fields, and avoidance of technical errors. However, smart contracts require refinement in terms of their editability at the contracting stage.

6. It is justified that the introduction of the digital ruble into the sphere of state procurement as a means of payment is necessary for government contracts concluded using budgetary funds.

4 Discussion

The initial version of the electronic portal for state procurement was developed in 2004 by order of the Ministry of Economic Development to publish information on tenders conducted from 2002 to 2005. With the enactment of Federal Law No. 94-FZ "On Placing Orders for the Supply of Goods, Performance of Work, and Provision of Services for State and Municipal Needs," in accordance with the Government Resolution No. 229-r of February 20, 2006, the official publication of information on placing orders on the Internet was determined as the website zakupki.gov.ru.

Since January 1, 2011, government and municipal customers have been obliged to purchase goods and services on open electronic platforms, which necessitated the improvement of the state procurement portal. In accordance with the current Contract Law No. 44-FZ "On the Contract System in the Sphere of Procurement of Goods, Works, Services for Ensuring State and Municipal Needs," the creation of an electronic database was established, which subsequently became the Unified Information System (UIS) portal - zakupki.gov.ru. The Government Resolution of the Russian Federation dated September 30, 2014, assigned the Federal Treasury responsibility for the development and uninterrupted operation of the UIS, which was officially put into operation on January 1, 2016.

V.E. Belov fairly divided the digital transformation of the economy, including the digitization of the contractual system, into three stages. According to the author, the third

(main) stage began in 2019 when amendments to the contract system law related to the implementation of electronic procurement procedures were introduced.

Thus, following the course of digitization since 2019, all state procurement has been transitioned to electronic form (except for government contracts with a single supplier), and since January 1, 2020, registration in the UIS has become mandatory for all participants. By 2022, the share of electronic procedures already accounted for more than 90% of all purchases.

The ongoing modernization of the contractual system at each stage has encountered resistance from both customers and participants in the procurement process. This is primarily due to technical problems (updating software, staff training) and psychological barriers, as "breaking" established rules and reluctance to learn new things became the main reasons for protest. An accurate assessment of digital transformation is given by M.V. Shmeleva, who states that "changes are never easy, sometimes they can even be painful, but they are necessary. The system of state procurement must adapt and develop at the same pace as the changing world. Rapid technological changes require greater flexibility from the procurement system."

It is worth noting that the digital development of government and municipal procurement is also ensured by several information systems of various departmental affiliations, such as the Treasury's "Electronic Budget" information system, approved electronic trading platforms (ETPs), including the specialized electronic platform of the AST Gosoboronzakaz, regional and municipal information systems in the procurement sector, and the information system of the Federal Antimonopoly Service of Russia, which maintains a register of unscrupulous suppliers (contractors).

The UIS represents a relatively autonomous system that accumulates information on state and municipal procurement (except for small purchases). However, the main interaction processes between participants and customers of the contractual system are carried out outside the UIS and are carried out on the platforms of ETPs. Moreover, it is the ETP operators who ensure interaction with banks (opening special accounts for participants to account for the movement of funds intended to secure applications, including their automatic blocking and unblocking and debiting (in specified cases) based on messages from the electronic platform operator). Thus, electronic trading platforms reduce the technological load on the UIS system and thereby increase the possibility of ensuring transparency and openness of procurement procedures.

However, it is worth acknowledging that the current electronic system of state procurement remains far from perfect. Statistical data indicate insufficient control in the procurement sphere, imperfect contractual legislation, the presence of unfair competition, gaps in procurement digitalization allowing unscrupulous participants in contractual relations to enrich themselves at the expense of state funds.

Modernization and digital transformation are necessary to improve the implementation of procurement activities and address current problematic issues. New requirements arise for communications, information systems, and services. The need for constant modernization is due to a significant increase in the overall workload on systems due to a large number of users online.

An important step in the transformation of electronic procurement was the introduction of electronic document management (EDM) into the UIS, the implementation of which was planned from April 1, 2021, but actually started in the middle of 2021 due to various circumstances, including unpreparedness of departments. The formation and approval of documents for accepting goods, works, or services using the UIS functionality (Electronic Acceptance) became mandatory for the established list of state budget managers (GBMs) by Government Directive No. 1659-r of June 18, 2021. Other government customers are recommended to include electronic acceptance conditions in government contracts. Since

January 1, 2022, the use of EDM has become mandatory for all government customers and suppliers in accordance with Federal Law No. 360-FZ adopted on July 2, 2021.

Participants and customers of the contractual system face corruption risks, dishonesty, and insolvency of suppliers (contractors, performers) of a state (municipal) contract, poor performance of the order, incomplete or untimely fulfillment of a state (municipal) contract. However, the implementation of the electronic document workflow service optimizes and simplifies the work of government institutions, controlling authorities, and participants in contractual relations. It reduces the time for document submission, payment, and acceptance of goods, reduces paper document flow, expenses for document creation and submission, reduces the risk of technical errors, and thus increases the transparency and openness of the procurement process.

Electronic platforms actively use EDM in their work. They send accounting documents such as invoices, acts, and universal transfer documents (UTDs) to procurement participants.

An important introduction since July 2021 has been the use by procurement participants of new functionality in the UIS for submitting complaints electronically to the Federal Antimonopoly Service of Russia and its territorial bodies. According to UIS data, the launch of this functionality was an important step towards transitioning to electronic document workflow and automating the complaint review process. The following figures for 2021 confirm this:

- More than 2300 complaints were filed through the UIS, accounting for over 15% of the total number of complaints.
- There was a 1.5 times reduction in refusals to accept complaints filed through the UIS compared to complaints filed on paper.
- Using electronic complaint submission significantly reduces labor costs and minimizes errors in preparing and submitting complaints. It also allows managing the complaint submission and withdrawal process through the participant's personal account in the UIS.

The electronic modernization of the state procurement sector has provided government customers with more information about participants and performers. Furthermore, the state procurement portal and other electronic trading platforms offer a wide range of products, which contributes to increased competition and, consequently, to the improvement of the quality of the offered goods. The advantages of using electronic services in the interaction of contractual system entities include minimizing the risk of collusion between the customer and procurement participants, reducing other corruption risks, making state procurement more open and secure. The digitization of procurement procedures has led to positive changes in the field of state procurement. According to the Accounts Chamber of the Russian Federation, "the time for conducting procurement procedures has been reduced, competition has increased by 0.4 applications in competitions conducted in electronic form, and savings have increased by 6.9% when switching to electronic tenders, reaching additional savings of up to 72.9 billion rubles in 2021."

Since the fall of 2023, customers and suppliers have been granted the right to conclude contracts in a structured (electronic) format. This format of government contract was developed with the help of the UIS. As of October 1, 2023, the legislature obliged customers to prepare notices in a structured format, and suppliers to submit identical applications. Thus, the possibility of exporting a digital contract directly from the application emerged. From April 1, 2024, the new rules for signing electronic contracts following open and closed electronic procedures will become mandatory. From July 2024, electronic contracts with sole suppliers, and agreements on changes in electronic form, conclusion, and termination of contracts by customers will be formed and signed exclusively in the UIS. Agreeably, the positive aspects of implementing digital contracts will allow the automation and acceleration of the process, namely:

- automatically fill in most of the electronic fields, reduce the number of technical errors, shorten the review period during approval and control;
- the ability to independently monitor the contract's performance at all stages and ensure that the counterparty has fulfilled its obligations;
- verification of the counterparty and the security of contract conditions.

Globally, in the perspective, the use of structured contracts will increase the transparency of the government sector, reduce the risks of corruption and distortion of information, and increase the efficiency of interaction with government agencies.

However, there are a number of difficulties. For instance, an electronic contract lacks sufficient flexibility, and making changes at the contract signing stage will be impossible. In the event that one of the parties violates the fixed conditions, the non-compliance with the corresponding contract conditions will be automatically displayed, followed by a series of sanctions for violation. Thus, all possible agreements on contract conditions can only take place at the application review stage.

Despite the presence of drawbacks and difficulties, the necessity of implementing electronic contracts is evident. On the path to optimizing the electronic procurement process, standardization and structuring of electronic contracts are necessary to facilitate their application, reduce time frames, and technical errors.

Modern society is rapidly developing, and digitization covers almost all areas of citizens' activities (work, daily life, leisure, travel). The contractual system of state procurement should follow these trends, gradually modernizing and improving. However, constant changes in contract legislation complicate the process for both the government customer and procurement participants. According to developers of digital government procurement services, digitization aims to simplify the process and prevent unnecessary complexities of the electronic procurement procedure.

Recently (since August 2023), the introduction of the digital ruble in Russia has been legislatively established. The creation of a digital platform for working with the digital ruble took a considerable amount of time because the safety and security of electronic money are one of the principles of legislative innovation. The national electronic currency, issued and regulated by the Central Bank of the Russian Federation (CBRF), is backed by state reserves, thus ensuring reliable protection. In the near future, the circulation of funds in the form of the digital ruble is planned to be implemented in the budgetary process and the sphere of state procurement. It is believed that payment with the digital ruble for the performance and execution of government contracts will significantly increase the transparency of the procurement procedure. However, the realization of this process requires extensive collaborative work from interested ministries and agencies to integrate electronic systems and services.

It is evident that the prospect of introducing digital currency into the payment system for government contracts will reduce paperwork, simplify the process of controlling the use of budgetary funds, attract potentially technology-active companies to participate in procurement, reduce the number of intermediaries, thereby increasing the transparency of the government procurement process and protecting the financial interests of both parties to the government contract.

5 Conclusion

Currently, the entire procurement cycle, from the announcement of an electronic auction to the completion of contract execution, is visible in the open part of the Unified Information System (EIS) for each procurement. Overall, it can be said that the rapid development of electronic services in the sphere of government procurement implies greater determination and flexibility from the legislature in making technological decisions. The importance of

implementing digital modernization of procurement processes also lies in the complexity and volume of procurement legislation, and solving some problems may lead to the emergence of new ones. However, it is evident that further development and implementation of electronic technologies will simplify the procedure of government procurement, reduce the risks of violating contract legislation, accelerate the interaction process between the customer and the participant of government procurement, and increase the efficiency of control by government authorities and local self-government.

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