WHAT DRIVES PUBLIC PROCUREMENT OF INNOVATIONS IN RUSSIA? EVIDENCE FROM SUPPLIER SURVEY RESULTS

Abstract. This study evaluates the factors influencing supplier participation in public procurement of innovative products in Russia. A large-scale online survey conducted in the first quarter of 2025 identified key incentives and barriers affecting the frequency of Russian companies' engagement in procurement procedures for innovative goods. Empirical findings reveal that the primary incentives for suppliers include intra-organizational non-financial motivators, streamlined bureaucratic procedures, reduced administrative barriers, and legislative preferences for suppliers of innovative products. Significant barriers cited by respondents include concerns about non-compliance with procurement legislation and negative prior experiences in such procurement processes. The research confirms two hypotheses: first, that institutional constraints significantly impact the participation rates of Russian companies in innovative procurement, and second, that financial incentives hold lesser importance for innovation-oriented suppliers compared to other factors.

Keywords: public procurement, innovations, supplier survey, drivers and barriers to procurement of innovations.

Introduction

Public procurement today is not only a tool for meeting the needs and requirements of the state, but also an important mechanism for influencing the economic development of territories, industries, and enterprises [Shadrina et al., 2022]. In particular, through the public procurement system,[1] it is possible to stimulate the introduction of new and high-tech technologies, support small and medium enterprises, strengthen the position of national business in the international arena, and implement priorities in the field of environmental protection and the principles of sustainable

[1] The term "public procurement" in the paper refers to state and municipal procurement that falls under the Federal Law of the Russian Federation dated April 5, 2013 No. 44-FZ "On the Contract System in the Field of Procurement of Goods, Works, and Services for State and Municipal Needs" (hereinafter referred to as 44-FZ), as well as state-corporate procurement regulated by the Federal Law of the Russian Federation dated July 18, 2011 No. 223-FZ "On the Procurement of Goods, works, services by certain types of legal entities" (hereinafter referred to as 223-FZ).

development [Edquist et al., 2015]. According to data from the Unified Information System (UIS),[2] in 2024, customers subject to the regulation of the Federal Law "On the Contract System in the Field of Procurement of Goods, Works, Services for State and Municipal Needs" dated 05.04.2013 No 44-FZ (hereinafter referred to as 44-FZ) placed notices for a total amount of 4,211.97 billion rubles, while customers placing purchases under the Federal Law "On Procurement of Goods, Works, Services by Certain Types of Legal Entities" dated 18.07.2011 No 223-FZ (hereinafter referred to as 223-FZ) – in the amount of 2,457.61 billion rubles. The total value of contracts concluded under 44-FZ and 223-FZ in 2024 amounted to 6,076.4 billion rubles. The volume of public procurement in Russia indicates that public procurement is an important tool for strengthening the country's technological sovereignty and is also a mechanism for stimulating innovation by supporting the scientific and technological development of domestic companies.

According to the "triple helix" model, the state, along with business and academia, is one of the main actors in the national innovation system, while the state plays a key role in the creation of formal institutions that regulate innovation activities, as well as ensures the implementation of innovation policy [Itskowitz, 2011; Volchik et al., 2022]. An analysis of the regulatory framework and institutional practices in the field of public procurement showed that the formalization of institutions in the field of innovation has a number of features related, among other things, to the compliance of strategic goals to support innovations with the operational capabilities of their implementation [Kashin et al., 2024]. Such features

[2] Unified information system in the field of procurement of the Russian Federation. Available at: https://zakupki.gov.ru/epz/main/public/home.html (accessed: 15.03.2024).

include difficulties with methods for identifying innovative products[3], the prevalence of price criteria over qualitative criteria for evaluating suppliers' applications, including in high-tech sectors, and the lack of production of innovative products in several industries. In this regard, there is a need to analyze both open data and the opinions of direct participants in the public procurement market – customers and suppliers of innovative products – in order to identify and assess the stimulating and constraining factors that affect both the conduct of public procurement of innovations and the participation of Russian business in these purchases. At the same time, the task of this study is to show the scale and volume of innovation procurement in Russia through the prism of the opinions of suppliers participating in public procurement of innovations.

Methods & materials

The supplier survey was conducted in the first quarter of 2025 using modern online technologies to analyze the conversion of respondents. The structure of the survey includes three key blocks. The first section of the questionnaire focuses on collecting basic demographic and operational data about respondents. It included: (a) issues on the form of ownership (LLC, JSC, IE, state-owned enterprises) with clarification of the share of state participation; (b) questions about the location of the organization with details to the federal district and region, which makes it possible to analyze regional differences in participation in public procurement; (c) economic

[3] The terms "innovation" and "innovative products" synonymous in this study mean a new or significantly improved product (product, service) or process that has been introduced, as well as a new sales method or a new organizational method in business practice, workplace organization or external relations (see Federal Law of August 23, 1996 No 127-FZ "On Science and State Scientific and Technical Policy" (as amended on July 24, 2023).

indicators: annual turnover of the company (in the ranges: up to 10 million rubles, 10-50 million rubles, 50-200 million rubles, over 200 million rubles), number of employees; (d) Specialization: OKVED codes. These data serve as the basis for further stratification of the sample. The second section included questions about the experience of suppliers in the procurement of innovative products, where respondents indicated how often their organizations participate in these procedures, what percentage of turnover falls on innovative procurement, and what is the volume of sales of innovative products. The third section of the questionnaire is built around behavioral scales adapted to the specifics of public procurement. Respondents were asked to rate 15 statements on a 5-point scale (1 – "strongly disagree", 5 – "strongly agree"), grouped into three clusters. The first was the constraining factors, which included regulatory risks: "Participation in the procurement of innovations is associated with the risk of violation of procurement laws", "Documentation requirements are excessively bureaucratic"; financial barriers: "Lack of working capital to meet applications", "High cost of developing innovative solutions to meet customer requirements"; organizational difficulties: "Lack of qualified personnel to prepare applications." The second cluster of issues is stimulating factors, in particular, state support: "Benefits for innovation providers increase our motivation to participate", "Grant programs compensate for part of the cost of R&D"; Market advantages: "Participation in procurement strengthens the company's reputation in the market", "Winning the tender allows you to enter new regional markets"; internal drivers: "Innovation is part of the company's mission", "Participation in innovation procurement stimulates cross-functional interaction between departments". The third cluster of issues is related to the assessment of the

impact of the external environment. It contained statements related to the assessment of competition in the innovation market: "The high activity of foreign suppliers limits our chances of winning", "Price pressure from large players makes participation impractical" and the assessment of technological trends: "Requirements for the digitalization of processes when participating in procurement create additional difficulties". To minimize respondent fatigue when answering questionnaire questions and increase the reliability of these questions, questions within the blocks were randomized, and the wording of double negatives was excluded.

The questionnaire was sent to respondents in several stages. At the first stage of data collection, a database of contacts of suppliers participating and winning in public procurement was created using automated parsers and previously collected open databases [Kashin et al., 2024]. The initial data set included 120,000 email addresses confirmed in open registers and professional databases (for example, SPARK, Rusprofile). After a multi-stage cleanup, including the removal of duplicates, checking domains for activity through specialized services, as well as manual verification of random sampling, the database of email addresses was reduced to 85,200 contacts.

As a result, 1,200 responses were received, of which 850 questionnaires were validated (completeness of ≥95%, no contradictions in the answers). Incomplete questionnaires (N=350) were analyzed separately to identify survey interruption patterns.

Results

Among the fully completed 850 questionnaires, there are patterns in the respondents' assessment of the significance of certain barriers, drivers and institutional conditions accompanying participation in innovation procurement procedures. First, the dominant influence of institutional restrictions on the decision on the participation of companies in procurement was confirmed. Almost 90% of respondents agreed with the statement that there is excessive bureaucracy in procurement procedures. The share of positive answers is especially high among small enterprises with a turnover of up to 50 million rubles per year.

Secondly, the high level of agreement of respondents (85%) with the statement that negative previous experience hinders participation in new procurements indicates the importance of the accumulated reputation and operational history among suppliers. Typical examples of negative experience were cases of delays in payment by customers, changes in the terms of terms of reference and refusal to accept the supplied innovative products due to the lack of approved methods for verifying their characteristics.

The third important area of analysis was the assessment of the impact of domestic non-financial incentives. More than 70% of suppliers indicated that they consider participation in innovation procurement as part of the company's mission related to technological development, increasing competitiveness and expanding its presence in new markets. The share of such answers is especially high among organizations supplying in high-tech industries (mechanical engineering, IT, instrumentation).

In addition, a correlation analysis was carried out between the type of company, the volume of supply of innovative products and perceived barriers. It has been established that suppliers with a high volume of sales of innovative products (more than 10% in annual turnover) are less sensitive to regulatory barriers and are more likely to note positive effects from participation in public procurement.

The results demonstrate that the key factors determining the activity of companies to participate in the procurement of innovative products in Russia are not only regulatory or financial conditions, but also reputational considerations, previous experience, internal organizational maturity and the nature of external support. The perception of transparency of procedures, the competence of customers and the institutional stability of interaction mechanisms play a special role. All this forms a system of coordinates in which Russian suppliers make decisions on participation in the procurement of innovations.

Conclusion

The results of the study allow us to clarify the existing ideas about the behavior of suppliers in the market of public procurement of innovative products. The study revealed the high role of non-financial incentives in motivating companies to participate in the procurement of innovations. This observation complements the findings of Edler and Yeow (2016), who pointed out that innovative supplies are not always dictated by short-term economic benefits, but are often linked to long-term capital, image considerations and the desire for sustainable development. The results of testing the hypothesis about the impact of negative experiences on reducing the likelihood of re-participation are correlated with the results of the work

of Uyarra et al. (2014) and Calzolari & Spagnolo (2009), which emphasize the importance of long-term effects from participation in public procurement of innovations. Partial confirmation of the hypothesis of a neutral role of competition indicates a more differentiated approach to the analysis of suppliers' opinions on this issue. The study found that companies with a strong innovation portfolio are more confident and more likely to participate in the supply of innovative products, while organizations that are new to procurement are more likely to report opaque procedures and a lack of information. It is also worth noting the importance of procurement information channels identified during the survey. A considerable proportion of respondents pointed to the need to participate in professional communities, which confirms the relevance of the concept of "market dialogue" [Holma et al., 2022], which involves the proactive involvement of suppliers in the formation and discussion of procurement needs before the stage of announcing a tender.

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