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PUBLIC PROCUREMENT AS A TOOL TO STIMULATE INNOVATION IN UZBEKISTAN ON THE EXAMPLE OF THE EXPERIENCE OF CHINA

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ABSTRACT

The state of public procurement as a tool for stimulating innovation is analyzed both in developed countries and in Uzbekistan. It is proposed to conclude that at different stages of placing and executing a government order, there are many risks, especially in countries where there is still a centralized procurement organization. It is necessary to use special methods of placing a state order and establish high qualification requirements both for the customer's personnel and for the specialists involved.

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Introduction. In foreign practice, public procurement acts as a significant tool to stimulate demand for innovative products. In Uzbekistan, despite the fact that the legislation sets a minimum limit for participation in state contracts for innovative products, there are problems in their implementation, and therefore the need to study the specifics of public procurement in foreign countries and the possibility of implementing this mechanism in Uzbekistan is especially relevant today. In the modern economy, there are two main models for organizing procurement activities: distributed (decentralized) and centralized. In a distributed organization, each division of the company (department, ministry, etc.) carries out the purchases necessary for its needs independently. This scheme should primarily include the American model of science management, which is adopted in the form of a program law. Taking the example of the United States, the share of research and development ordered and paid for by the US federal government on a contract basis is about 70% of the cost of innovative development performed by external contractors [1]. The number of contracts in the total is about 50%. Research and development contracts represent about 12% of the total value of all contracts awarded and executed by the US federal government [1]. The main tool of this process is the preparation of forecast plans, which are focused primarily on large purchases of goods, works and services. At the same time, especially large projects include projects worth more than \$ 2 million, namely: for the Ministry of Defense - more than \$ 7 million; for NASA and the Department of Energy - more than 5 million; for other ministries and departments - more than \$ 2 million. In addition, ministries and departments have the right, at their own discretion, to carry out similar procedures for less costly projects (as a rule, these are projects worth more than \$ 100 thousand) [1]. Purchases of less than \$ 100,000 are usually made from the operating budget, similar to past expenditures [3]. The Federal Regulation Code defines the following types of [2]:

- for the purchase of standard goods and the provision of standard services;
- for the provision of utilities;

- to provide services for which there is no established market;
- for design, engineering and architectural work;
- in the field of information and communication technologies;
- to carry out innovative developments;
- to create "critical systems".

In addition, US legislation provides for about 100 detailed types of contracts, including three basic types of contracts according to their price characteristics: contracts with a certain price; cost-recovery contracts; non-standard (hybrid) contracts [4].

Fixed-price contracts are organized with the assumption that the parties are able to calculate the current and projected costs of the order and the contract price.

Conversely, cost-recovery contracts are used when a fixed-price contract is either impossible or involves significant organizational and management difficulties. When concluding such a contract, the state customer submits the order program, and preliminary calculations for it are made and announced by the bidders. To reduce possible risks, the customer, as a rule, includes in the contract a special clause on limiting his own financial liability and names the acceptable maximum order value.

Non-standard (hybrid) contracts can contain elements of both fixed price and cost recovery contracts. For example, "performance" contracts provide that the government contract price is fixed, but the contractor is entitled to reimburse certain costs in addition to the fixed price [4]. There are contracts for complex incentives, the price formula used in them takes into account at least four parameters: volumetric and quality characteristics of the supplied goods; expenses; terms for providing the result; rate of return. When applying a distributed procurement model, great importance is attached to the qualifications of government customers, as evidenced not only by the requirements for customers formulated in American legislation, but also by the presence of large research and educational centers for training and retraining personnel for the federal contract system, such as, for example, established in 1991 by the Defense Acquisition University (DAU) and created in 1976 by the Federal Institute of Procurement (Federal Acquisition Institute, FAI) [10].

In recent years, there has been a trend towards reduce the use of cost-recovery contracts, while government contracts with fixed prices are preferred. The memorandum of the administrative-budgetary department under the president notes that in cases where the specifics of the purchased goods, work, services cause a high level of uncertainty, the expediency of using a contract with subsequent compensation of costs is undoubted. However, at present, government customers use this type of contracts for the procurement of standard products, which is unacceptable [14].

Materials and methods. Assessment of the level of uncertainty based on formalized methods and the use of contracts based on cost recovery is made only if these methods show a high level of uncertainty. Assessment of the level of uncertainty based on formalized methods and the application of contracts based on cost recovery is made only if these methods show a high level of uncertainty. When using contracts on the basis of cost recovery, the memorandum provides for the formation of a working group of the customer. It should be noted that the mechanism of competitive negotiations has been included in order to conduct a preliminary due diligence of the project, for the implementation of which it is planned to conclude a state contract. The centralized model of organizing procurement activities (which most of all corresponds to the modern Chinese system of public procurement) provides for the creation of a kind of center to which applications from divisions flock. The maximum level of centralization is achieved with the creation of a special agency or department responsible for all public procurement. The legal framework of the Chinese public procurement system is made up of such regulations as the laws "On public procurement", "On tenders and participation in tenders and contracts." The state order is placed based on the results of a tender. The use of tender procedures is mandatory not only for government agencies at all levels, but also for state-owned companies, as well as companies with state-owned capital. In addition to the tender (competition), Chinese legislation provides for other methods of placing an order: competitive negotiations, request for quotations and procurement from a single supplier [13]. However, tenders are recognized as the preferred method of placing an order, and a list of goods, works and services is legally established, the purchase of which is allowed exclusively based on the results of a competition (this list includes, among other things, orders for the implementation of infrastructure projects and the construction of facilities related to public safety, orders for implementation projects using loans or financial assistance provided by international organizations or foreign governments, the purchase of consulting services). A specific feature of the public procurement market of the KRN is a tough protectionist policy and protection of domestic producers. The PRC Public Procurement Law states that government agencies and legal entities with the participation of PRC state

capital must purchase “domestic” goods and services, unless the required goods or services cannot be purchased in China on “acceptable commercial terms.” I.e. if in China they are 20% more expensive than abroad [13]. In 2006, China published a medium and long-term plan for the development of science and technology (2006–2020), which provides, among other things, for the procurement of high-tech and (or) innovative products by government and local authorities, state-owned companies, exclusively from specialized catalogs. These catalogs include so-called “internal innovations” [12]. The manufacturer must be a Chinese resident for a product to be recognized as “internal innovation” and included in the relevant catalogs. The manufacturer must also be the owner of the trademarks, patents and other intellectual property items registered in the territory of the PRC necessary for the production of the product, or have an exclusive (exclusive) license to use the corresponding trademark, patent and other intellectual property items [7]. The directives on the development of the public procurement system of the State Council of the PRC emphasize that the development of this system should be carried out in accordance with national goals and priorities of socio-economic development, including taking into account the mandatory development and development of environmentally friendly energy resources. The 2009 Public Procurement Directives oblige government customers to prioritize energy efficient and environmentally friendly products. In this regard, bans on the purchase of “external” products are less stringent if they have undeniable advantages in terms of energy efficiency and / or environmental friendliness. [16]. The undoubted advantage of Chinese legislation is also the developed contract law in the scientific and technical sphere. Chinese law provides for a typology of contracts in the scientific and technical sphere. [13]. For each type of contracts, requirements are established for their content and conditions of execution, aimed at stimulating the scientific, technological and innovative development of the country, protecting the interests of the state, as well as legal entities when interacting with foreign counterparties. Thus, as the analysis of international experience shows, the effective use of the innovative potential of public procurement, both civil and defense oriented, presupposes the creation of institutional conditions that not only ensure the implementation of the basic principles of the concept of “procurement” (transparency, competition, efficiency, etc.), but also taking into account the specific features of public procurement of innovative products.

At the present stage, we can say that there are a number of key, generally recognized at the international level, specific features of the procurement of innovative products and methods of their accounting, which are reflected in the legal regulation of the sphere of public procurement [3].

Such features of innovative products as an object of purchase (order) are reflected in the table 1.

Table 1. Specificity of public procurement of innovative products and features of their legal regulation

Indicators	Specificity	Legal regulation (international experience)
Purchases of innovative products existing on the market	<ul style="list-style-type: none"> - the need for preliminary market research; - the obligation to assess the ratio of price and quality at all stages of the product life cycle; - the need to assess the possible socio-economic and environmental benefits and risks of procurement; - final identification of needs in the procurement process 	<ul style="list-style-type: none"> - qualification requirements for the customer's personnel; - independent examination of tender documents and proposals of potential suppliers; - the ability to clarify product requirements in the procurement process (request for proposals, two-stage tender, competitive negotiations)
Orders for the development of innovative products	<ul style="list-style-type: none"> - competition of ideas and concepts; - final identification of needs during the ordering process; - obligatory expert evaluation of tender documentation, qualifications of tender participants, their proposals; - the need to regulate the requirements for the qualifications of the customer's personnel, a specialized organization, involved experts and expert assessment procedures 	<ul style="list-style-type: none"> - search for innovations ("soft" requirements for the content of tender documentation); - involvement of the expert community at the stages of order formation and placement; - the ability to clarify needs in the process of placing an order (request for proposals, two- or multi-stage tender, competitive negotiations); - regulation of the requirements for the qualifications of the customer's personnel and the experts involved, the choice of experts, expert assessment procedures

Source: made by the author

Results. The main problem arising in the procurement of innovative products existing on the market is associated with the lack of objective criteria according to which one or another product can be classified as innovative. This makes it possible to purchase (by unscrupulous or insufficiently qualified customers) products that do not have innovative properties, or products that have innovative properties in which the customer (state, society) has no objective need. In addition, the degree of innovation of the purchased products may vary - according to the Oslo Manual, products are “new” or “significantly improved” [11]. But it can be “new” for the global or national market, or only for the manufacturer itself. This raises the question of the criterion of the degree of novelty, as well as the objective criteria for assessing this degree. In addition, it is obvious that the aforementioned assessment requires serious and often expensive market research, which the customer is not always able to carry out on his own. purchased products within certain limits of budgetary restrictions. At the same time, the assessment of innovative products offered by suppliers in terms of price-quality ratio should take into account not only the cost of the supplied batch and unit of the product, but also the cost of operation (consumption), as well as disposal at all stages of the product life cycle. The volume and duration of the supplier's warranty, the cost of repairs, spare parts and replacement of components, as well as the possible additional benefits and risks of such a purchase, cannot be discounted. In many situations, clear identification of customer needs requires serious market research, and sometimes it is only possible directly during the procurement process [8].

Discussion. Abroad, this problem is solved in two main directions [1]:

- setting high requirements for the customer's personnel, involving independent experts in the formation of tender documentation and evaluating proposals from potential suppliers, outsourcing the market research function and, in exceptional cases, organizing the entire procurement;
- selection of adequate procurement methods, allowing to clarify the requirements for purchased products directly in the procurement process, - request for proposals, competitive negotiations, a two-stage tender.

The list of orders for the development of innovative products consists, first of all, in the fact that the subject of the concluded state contract is the work, as a result of which a new product should be created. At the same time, there are certain risks and appropriate ways to minimize them.

This problem is solved in developed countries using a number of mechanisms, including:

- establishing “soft” requirements for tender documentation;
- using methods of placing an order, allowing the customer to clarify the requirements for the object of the order as a result of consideration of proposals from potential contractors: request for proposals, two-stage (multi-stage) tender, competitive negotiations;
- involvement of experts in the development of tender documentation and technical specifications, assessment of proposals of potential contractors, taking into account possible risks;
- “parallel” financing of several developments.

Abroad, it is envisaged to reduce the risks from improper performance of the contract [14].

However, the presentation of qualification requirements to participants in an order placement when ordering the development of innovative products can have both positive and negative consequences.

The experts of the European Commission identified the following main risks of the state order for innovation [14]:

- technological - leading to incompleteness, incomplete or improper functioning of the purchased goods (or services) for reasons related to the production or technical operation of the goods (or services); responsibility for these risks lies with the contractor;
- organizational - leading to the disruption of the order or shortage of goods due to reasons related to the functioning of the customer organization;
- social - associated with a lack of public confidence in a new or improved product (service) and its rejection;
- market risks from the demand side - associated with insufficient scale of the expected demand for a product (service) from private consumers with limited demand for a product (service) from the public sector. These risks are especially relevant in situations when the state, through procurement mechanisms and PPP mechanisms, is trying to become a catalyst for the development of new markets;
- market risks from the supply side - associated with the lack of reaction of potential contractors to announced tenders: they have no interest in the execution of the order due to the lack of technical or other capabilities, unreasonably high technical requirements for the subject of the order, unfavorable conditions for the execution of the order offered by the customer;

- financial - associated with the difficulties of forecasting the actual costs of the project and with guarantees of allocation of budgetary funds to the customer (protection of relevant budget items) when concluding long-term contracts;

- turbulent - associated with the difficulties of planning, forecasting and coordinating the activities of all parties involved in the implementation of large long-term projects.

These risks arise due to the scale of projects and the large number of parties involved, and make it difficult to comprehensively assess all possible events that may lead some participants to overestimate their priorities and expectations and inadequate reaction of other participants to this, which may result in a failure to implement the entire project.

Conclusions. There are gaps in the Uzbek legislation in the definition of general criteria and signs by which it would be possible to identify innovative activities. In developed countries, in such situations, preference is given to assessing the advantages of a potential contractor's proposal and his qualifications. In turn, the assessment of the consistency and advantages, proposals and qualifications of a potential contractor, not always expressed in quantitative parameters, is possible only by expert methods, which makes it mandatory to conduct an examination. Risks are mainly associated with information asymmetry (a potential performer always has more complete information about his qualifications and his offer than a customer), the probabilistic nature of obtaining innovative products with expected characteristics, as well as with possible risks of using (consuming) the resulting products [3]. Thus, due to the increased risks when orders for the development of innovative products, it becomes necessary to use special methods of placing an order and establishing requirements for the customer's personnel and the experts involved.

REFERENCES

1. Anti-corruption measures in public procurement: the experience of Canada [Electronic resource]. Retrieved from <http://bujet.ru/article/51922.php>
2. Balatsky E.V., Gusev A.B., Ekimova N.A. Protectionist policy on the public procurement market in Russia and abroad [Text] / E.V. Balatsky [and others]. 2007. - 112 p.
3. Buley N.V. Domestic and foreign experience in the development of the contract system in public procurement [Text] / N.V. Bulei // Economics and Entrepreneurship. - 2014. - Part 3. - No. 1. - p. 892.
4. Office COIP - the central body for procurement [Electronic resource], Retrieved from <http://www.acquisition.gov/far/>
5. Vershinina E.S. The effectiveness of public procurement [Text] / E.S. Vershinin // Young Scientist. - 2015. - No. 5. - p. 339-340.
6. WTO: foreigners will be allowed into the public procurement system [Electronic resource] // Rosbalt.ru. - 2011.
7. Galyaudinov R., Igumnova D., Kalinkin M. Management of supply and selection of suppliers [Electronic resource] / R. Galyaudinov [and others]; KubGTU. - S. 15. IZhB: <http://www.scienceforum.ru/2014/pdfZ2053.pdf>
8. Edovina T. Borders will be opened to state procurements [Text] / T. Edovina // Kommersant. - 2012. - No.12. - p. 2.
9. Ivanov V.V., Grig I.I. International practice of management of condominiums based on the mechanisms of the creative economy [Text] / pp.234-345.
10. Ideas of electronic government [Electronic resource]. EI KB: Retrieved from <http://e-gov.by>.
11. Korotkov S.A., Kulkov I.V. Development of BRICS [Electronic resource]. Retrieved from http://www.unido-russia.ru/archive/num11/art11_19/
12. Losev S. Rules for the protection of intellectual property in the Common Economic Space [Text] / S. Losev // Intellectual property. Copyright and related rights. - 2011. - No.1. - p. 65.
13. Mardanova, R.I (2019).Current usage of Economic Development in People's Republic of China. Journal of environmental treatment techniques, Elsevier, Vol.7(4) pp.814-817. Retrieved from <http://www.jett.dormaj.com>
14. Nabiullin V., Kuznetsova I. International experience of information support of procurement 2012 [Text] / V. Nabiullin, I. Kuznetsova // State order: management, placement, support. - 2012. - No. 30. - p. 122-135.
15. Policy of preferences in the field of government orders in foreign countries [Electronic resource], Retrieved from <https://prezi.com/m5eliaqdgya/>
16. Surgutskova I.A. Topical issues of calculating the initial (maximum) price of a contract for the supply of goods, performance of work, provision of services for state and municipal needs [Text] / I.A. Surgutskova // State and municipal procurement - 2012: collection of articles. report - M.: Jurisprudence, 2013. - p. 195.