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**INNOVATIVE PUBLIC PROCUREMENT IN RUSSIA, THE USA,  
AND CHINA**

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**Abstract**

The article covers the issues of innovative public procurement. The author has conducted a comparative legal study of current procurement systems in Russia, the USA, and China. It has been found that innovative public procurement is actively debated around the world to see how governments can promote the development of new technologies, businesses, scientific research, and, consequently, the economy. The author concludes that the problem has attracted great attention in the world, but it is still difficult to find a public procurement system that can promote innovations beyond the field of national defense and security. Though the US public procurement has a strategic orientation, even the American system is not much related to innovations. After analyzing the corresponding legislation, the author has classified public procurement according to what is procured, for whom, and why. On the first level of classification, there is general and strategic procurement. Procurement is considered strategic when the demand for certain technologies, products, or services is spurred in order to boost a certain market. Any public procurement implemented to meet the buying agency's need for finished products refers to general public procurement. In the end, to determine how efficient a public procurement system is, three main roles of innovative public procurement were identified as well as the stages of high-tech product procurement.

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## **1. Introduction**

Nowadays, among the various tools of economic policy, innovation-oriented public procurement (IOPP) is considered extremely effective, since it allows the state to act as a leading buyer, stimulating the innovative development of domestic companies and achieving social goals by such procurement. At the same time, this type of procurement has not been properly developed in the world. The issues in question have repeatedly become the object of scientific research. The author pays attention to the inefficiency of the modern public procurement systems, covering rather narrow issues related to innovative developments and high-tech production. In this regard, the legal environment for innovative public procurement, i.e. the well-formed system of legal rules is extremely important. It would serve as a platform for the development and implementation of other measures needed to ensure efficient public procurement (Law on Public Procurement of the People's Republic of China, 2002).

## **2. Problem Statement**

The public procurement system reform has been a red-hot issue in recent decades. The study discusses the best practices in the sphere of public procurement, comparing them to the habitual practices of the Russian government.

It is also essential to understand that investing in innovations is an expensive and risky gamble. Therefore, an emphasis on minimizing costs and risks in the procurement legislation may hinder innovations. In the same way, the tightening of financial management can increase an administrative burden, which would keep the most innovative organizations away from participating in procurement.

## **3. Research Questions**

The major research issues include the following:

- 1) The elaboration of proposals for promoting innovations through public procurement tools;
- 2) The analysis of regulatory instruments governing innovative public procurement in Russia, the US, and China;
- 3) Picking individual indicators out of the established requirements, i.e. the indicators that would show that the goals of innovative public procurement are being achieved.

## **4. Purpose of the Study**

The purpose of the study is to develop criteria of the legislation efficiency in the field of public procurement from the point of innovative developments and high-tech production. The criteria should be developed in light of contemporary economic, environmental, and social challenges.

## **5. Research Methods**

The study is based on general scientific methods. The comparative legal method has been used to analyze and compare the characteristics of procurement legislation in Russia, the US, and China. Specific

scientific methods have also been applied, e.g. the method of analysis has been used for collecting and summarizing the data from Russian and foreign studies together with the methods of deduction and classification.

## 6. Findings

An important element of innovation policy development is boosting the demand for high-tech products. Of course, one of the tools to generate such demand is public procurement, since through the public procurement system it is possible to effectively eliminate systemic failures, especially with regard to the interaction between users and manufacturers.

Innovative public procurement can be defined as the purchase by a state-owned company of products, which do not yet exist but can be produced by the supplier within a reasonable period. The products are to be manufactured on the basis of additional or new research as well as science and technology.

Innovative public procurement is actively debated all over the world. Though this issue has been studied a lot in Europe, there are very few research papers on this issue in the US. Moreover, American public procurement primarily embraces innovations in the sphere of national defense and security. Most of the strategic procurement in the US is aimed at achieving social goals, e.g. environmental protection, energy conservation, and assistance to socially vulnerable groups.

Thus, the US government encourages the procurement and the development of innovative solutions to meet various social needs. However, a direct reference to the purchase of advanced technologies through federal procurement was found only in one US Executive Order No. 13834 of 17 May 2018. In this Executive Order, the Congress has enacted a wide range of statutory requirements related to energy and environmental performance of executive departments and agencies (agencies), including with respect to facilities, vehicles, and overall operations. It is the policy of the United States that agencies shall meet such statutory requirements in a manner that increases efficiency, optimizes performance, eliminates unnecessary use of resources, and protects the environment. In implementing this policy, each agency shall prioritize actions that reduce waste, cut costs, enhance the resilience of Federal infrastructure and operations, and enable more effective accomplishment of its mission (Efficient Federal Operations, 2018).

Public procurement can be classified in different ways according to what is procured, for whom, and why.

On the first classification level, there is general and strategic procurement. Any public procurement implemented to meet the buying agency's need for finished products refers to general public procurement. Procurement is considered strategic when the demand for certain technologies, products, or services is spurred in order to boost a certain market.

The next basis for classification is the forms of innovative public procurement. They depend on the level of promoted innovations. Development procurement refers to the acquisition of technologies that must be developed almost from scratch. Adaptive procurement refers to the acquisition of innovations, which are necessary to refine some specific technology when the basic technology already exists (Edquist et al., 2000).

Another classification of public procurement is based on the end-user of acquired goods, services, and works. Direct public procurement takes place when the final consumer of the things purchased is the Government itself. Cooperative public procurement is defined as joint purchasing, i.e. state-owned companies buy something jointly with private buyers. Afterward, both public and private parties use the purchased innovations. Catalytic public procurement happens when a public agency initiates a purchase, but afterward, the innovation is used exclusively by a private person.

On top of it, three main roles of innovative public procurement have been identified. The creation of a market occurs if there is no market for a procured technology. Market escalation is triggered when there is a stable market for the technology, but it requires further development to attain commercial success. Market consolidation helps to standardize the criteria or technical specifications for the technology to be used in the public sector. This entails similar changes in the private sector.

In China, it is argued that innovation-oriented public procurement is a stimulating factor. The factor includes the huge domestic markets and the intention to catch up with developing countries (OECD, 2008). In 2006, the Chinese government explicitly stated in its National Medium- and Long-Term Program for Science and Technology Development (2006–2020) that China was going to use innovation-oriented public procurement to stimulate endogenous innovation. After that, many steps were taken both at the national and regional levels.

The emphasis on enterprises is a key factor in China's innovative development. It makes it more realistic to promote innovation through public procurement tools. China is gradually moving away from the formal practice of public procurement, aimed only at saving budget funds and increasing transparency, to the concept of innovation-oriented public procurement.

In 2002, the Government Procurement Law of the People's Republic of China was adopted. It legalized the practice of conducting formal procurement. Therefore, budget expenditure has steadily increased over the past decades (According to MOF website, expenditure on public..., 2020).

Even though the share of public procurement expenditures in China's GDP increased from 0.59 percent in 2001 to 2 percent in 2008, it is still much lower than in many OECD countries (OECD, 2008).

This indicates that innovation-oriented public procurement in China may have even greater potential if more budget funds are spent on public procurement in general. Such policy is likely to become a trend in the coming years.

As mentioned above, discussing the National Medium- and Long-Term Program for Science and Technology Development (2006–2020), the Chinese Government for the first time explicitly declared that innovation-oriented public procurement was going to become an instrument of the state's innovation policy.

To fulfill this initiative, in 2006 and 2007, the Ministry of Finance and the National Development and Reform Commission (NDRC) of China took a number of legislative measures to implement the program, which formed the regulatory framework for public procurement in China and covered many aspects, e.g. spending budget funds, tax reduction, financial support, protection of intellectual property rights, and training of specialists. They also covered practical issues of innovative procurement, e.g. contract management, quality assessments, budget management, pre-sale negotiations, and purchases of imported products.

Currently, China is pursuing a policy of developing national innovative industries. This policy is a part of the long-term 15-year strategy for science and technology development. Its purpose is to create an independent innovation base in China while weakening the competitiveness of foreign companies in the national market. A key role in the implementation of these tasks has been assigned to public procurement. As a result, a product which is seen as innovative and nationally important receives a price preference of 5 to 10 percent.

Based on the analysis of the government documents mentioned above, it is possible to identify several factors which make up the public procurement tool in China:

1. Stakeholders, i.e. policymakers (governmental officials and relevant local authorities), expert groups or think tanks, customers (professional buyers, governments, and other agencies), suppliers, users, and assessors.
2. Regulatory acts, i.e. international and domestic legal frameworks, policy guides (e.g. the Innovation Development Program for 2006–2020), and other measures.
3. Development programs in certain areas (environment, energy, etc.).
4. Innovation catalogs (national or regional) and key equipment catalogs. These catalogs serve to ensure joint operation of all the factors.

An important regulatory document on public procurement of innovative products in China is the Order of the Ministry of Finance of 26 July 2013 “On Government Primary Procurement of Innovative Products”. The term “primary procurement” refers to products manufactured or developed by domestic enterprises or research institutions, but the products are currently not competitive in the market. Nevertheless, they meet the requirements of national economic development, being advanced technological solutions that should be first delivered to the market through public procurement.

The contract on the public procurement of the ordered products must be concluded with enterprises and organizations that have the status of a legal entity in China. At the same time (it is very important), Chinese legislation strictly bans subcontracting when public procurement is in question.

The public procurement system reform has been an urgent issue in recent decades. This study reflects the best practices in the field of public procurement, comparing them to the habitual practices of the Russian government.

It is also important to realize that investing in innovations is an expensive and risky gamble. An emphasis on minimizing costs and risks in the procurement legislation may impede innovations. Similarly, the tightening of financial management can increase an administrative burden, which would keep the most innovative organizations away from participating in procurement.

The current Russian legislation requires customers to undertake marketing research to determine the availability of goods, services, or works, which could meet the customer's requirements, and procure them if necessary. For procurement of goods, services, and works, acquisition procedures and contract terms are simplified. This entails the simplification of procurement documentation and shortening the time for contract performance.

The driving force should be cooperation between suppliers and customers. Customers and suppliers will benefit from cooperation by identifying the best commercial practices and determining the need for their implementation.

Now contracts which are based on the results of procurement procedures, assume that customers fix their requirements for the purchased product, service, or work in the terms of reference. They determine in advance what they want. Consequently, there is a very limited opportunity for contractors to provide their own ideas. Therefore, it is necessary to introduce an innovative type of contract which could be concluded at the early stages of product development.

Price is always an important factor in public procurement, but it cannot be decisive in innovative procurement. The search for the best value should become an essential factor when purchasing high-tech products. “Cost realism” should also be used to determine whether the overall concept makes sense to the customer.

## **7. Conclusion**

So, we have found that, for the sake of innovation, the public procurement system should allow industrial enterprises to cooperate with customers at all stages. Of course, the production at high-tech enterprises needs to be supervised. There should be a strict schedule for fulfilling obligations and mandatory guidance on how to fulfill obligations under the contract. Public procurement, first of all, serves a demand function, determining the costs and operational characteristics of procurement. Of course, procurement should open the way for contractors to offer innovative solutions. Otherwise, the customer can actually kill innovation where a state-owned company strictly and narrowly prescribes what it wants to acquire.

Thus, the process of high-tech product procurement should go through the following stages:

1. An initial notice placement. This requires placing a notice about the need to conduct a preliminary risk assessment and an independent cost analysis.

At this stage, the customer should decide if he/she wants to produce new products or buy existing ones.

2. The conformation of the necessary product development stages. The checks and balances stage consists of independent cost analysis, updating the risk assessment, basic product performance indicators, and financial obligations.
3. Procurement and the best offer choice.
4. Contract signing and product manufacturing.

Thus, the procurement lifecycle includes the identification of requirements, the scope of work, feasibility studies, product purchase, and fulfillment of contractual obligations.

When developing requirements, it is necessary to use performance-based metrics. This will make detailed descriptions unnecessary.

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