Public Procurement Management as a Factor of National Sustainability (the Case of KPI Implementation in Russia)

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Abstract. In the context of international mutual economic restrictions, Russian contract system is becoming a relevant tool to solve problems in domestic policy. There is no single model to assess the effectiveness of procurement system in the world practice. In Russia, the assessment of this system performance is done by a number of executive authorities for their specific purposes. It is necessary to create an intelligent system of key performance indicators for public management budget procurement. Such system is required for current and rapid adjustments of decisions at all levels of a complex and multiple public procurement system in the Russian Federation. The article summarizes the possibilities to use principles of key performance indicators methods for performance assessment of public procurement management in Russia. A more detailed performance examination of specific groups of participants in the procurement system ranged according to the management levels and regions will enable in an integrated manner to evaluate the relevance of each group to the world procurement standards, to the professional requirements and to the performance appropriateness in accordance with the set goals. The article presents the effect of the overall assessment of the procurement system in five main areas. Delayed assessment criteria are identified. It is pointed out that their effectiveness is appropriate to evaluate in dynamics.

1. Introduction

Conceptual features of the formation of the public procurement system, distinctive directions and performance characteristics are a current aspect in determining the vectors of development of any state. The Contractual system of public budget purchases being formed since 2014 is currently an effective mechanism for implementing a dozens of multidirectional tasks in the field of economic policy of the Russian Federation. To ensure transparent evaluation of the results of ongoing activities in the field of public procurement, analysis of their impact on the overall state of the economy and society a unified system of performance indicators is required. However, there is no single approach in the assessment of the effectiveness of the existing administrative features of the procurement in Russia (Akimov, 2013), wherefore the authors have set the goal to develop key indicators for diagnosing the administrative impact in this area. The complexity of this study is that such indicators must simultaneously meet several criteria – they must be understandable, informative, easy to calculate, and objective.

Research tasks:
- identify indicators characterizing the results of the purchasing policy in public budget purchases in the Russian Federation,
- test the identified indicators subject to the requirements of simplicity and informativity,
- assess the effectiveness of the national procurement system based on such indicators.

Key Performance Indicators (KPI) methodology has shown its high efficiency in evaluating the activities of various business structures (Parmenter, 2007), and introduced clarity and unity of all management levels in assessing the performance of organizations. The concepts, more or less based on KPI, include Management by Objectives by Peter Drucker (1954), Tableau de bord by J.L. Malo (1932) and his followers, Total Performance Scorecard by Hubert Rampersad (2003), Effective Progress and Performance Measurement by K. Roberts and P. Adams (1993), the Balanced Scorecard by Norton and Kaplan (1992), and others.

Peter Drucker (1954) considered KPI as a perfect and effective system of motivating and stimulating employees of the company, that is, through KPI-functioning in the business environment (Drucker, 2006). The theory of Tableau de bord suggests through its key indicators to identify causal relationships of various resources of the company and form on this basis a general model of the business functioning as a system (Chiapello & Lebas, 2001). Carrying the KPI methodology over to the public procurement sector provides a potential opportunity to assess the current state, and helps in assessing the implementation of the state strategic goals. The closest in global practice methodology for assessing procurement systems applicable to the set tasks is the World Bank assessment and OECD-MAPS (Benchmarking Public Procurement).

Adaptation of the KPI methodology within the administrative environment of public procurement will provide an assessment tool for the activities of the main elements of the procurement system. In connection with the federal structure of Russia and the substantial decentralization of public procurement the subjects of the public procurement system require such a tool for assessing the effectiveness of current activities, which will allow taking into account the goals and specificity of each given actor, and will be universal at the same time. According to the authors, this is possible through a system of integrated indicators based on the KPI methodology, with their further application both at the level of the national assessment, and at the level of regional and municipal procurement and customers. This paper presents an analysis of the public procurement system and identification of key indicators of the effectiveness of public procurement management at the national level.

2. Generation of the data

This paper is based on the analysis of the KPI-result and KPI-functioning as the most suitable for the evaluation of the national policy of public procurement management.

It is generally accepted that management effectiveness is dual in nature, and therefore requires a comprehensive assessment of both economic and social aspects. The economic efficiency of public procurement is expressed in terms of the beneficial end results of its activities to the total resources spent through the reasonable use of funds (value for money); it is basically estimated on the sum of the economy of monetary resources with respect to the planned volumes of expenses as a result of the actions and procedures performed within a certain period of time. Such assessment of effectiveness is based on the optimal balance of the resources of the society to achieve the best satisfaction of its needs.

Social efficiency is expressed in assessing the degree of satisfaction of social needs rather than in quantitative (measurable) indicators. The evaluation complexity is shown in different approaches and requirements for results, in various purposes of the evaluating subjects, in the variety of evaluation indicators, and is subjective in nature.

Thus, proceeding from the multicriterion nature of the evaluation objectives and having analyzed the implementation practice of the national procurement policy within the contract system of Russia, the following is revealed. The effectiveness of public procurement management can be expressed in performance indicators, which characterize the degree of achievement of the planned result; economical indicators, which assess the reduction of costs per unit of services provided, as well as
social security indicator, illustrating the degree of social satisfaction (social needs) and provision of customers (state needs).

2.1. Theoretical model

The theoretical model is built upon the evaluation of the effectiveness of public procurement, based on the categories of economic rationality, and is aimed at maximum possible satisfaction of social needs at limited economic resources and choice of the optimal option for their use.

The conducted structural analysis of the sphere of public budget procurement of Russia for 2014-2016 allowed correlating and grouping the management activities in this sphere, measurable results and the possibility of their measurement. Within the framework of the study, the authors derived the indicators characterizing the effectiveness of the national system of public procurement such as ensuring public needs, supporting domestic economic agents. As the criteria of social security, the creation of a favorable economic and social environment and the sustainability of the procurement system are given.

The paper also presents a basic criterion set, identified by the expert assessment method for such indicators as "efficiency of procurement policy to meet public needs", "sustainability of the procurement system", as well as for an overall assessment of the integrity of the procurement policy. As experts, 80 leading specialists in this field were involved and distributed in 10 equivalent groups based on their experience, education, position. The developed assessment matrices including the detailing and adjusting possibilities were tested by two groups of experts, who later took a direct part in the evaluation of the proposed indicators. The results were processed using standard software; the result of evaluation of the expert estimates was taken into account.

The data from official sources (Report of the RF Ministry of Economic Development, 2016; National Rating of Procurement Transparency, 2017) quantitatively illustrate the content of each given criterion, which simplifies the calculation and the possibility of any constituent entity of the national public procurement system to assess its procurement activities in the future.

2.2. Controlled factors

Using the KPI methodology, considered by the authors as a tool for measuring the set goals, in the identification of key indicators of the effectiveness of public procurement and based on their content, the measurable values of the effectiveness of achieving the set tasks are derived. For the efficiency and objectivity of the assessment it was required to identify the indicators simple in calculation, involving no costs for additional data preparation, and providing the possibility to diagnose the state of the system for assessing the control action and actual deviations from the desired state.

The relationship between the objectives of the administrative impact of the public procurement system and measurable performance criteria can be presented as follows:

1. Meeting social needs as the implementation of the main goal of the state (through social security indicators).
2. Supporting the domestic economic agents under compulsion to import phase-out (through performance indicators).
3. Creating a favorable economic and social environment through reduced corruption, increasing professionalism, developing competition, transparency (through performance and social security indicators).
4. Reasonable use of budgetary funds as the main principle of the state activity financing (through economical indicators).
5. The sustainability of the procurement system as the goal of striving to minimize the harm to the environment. This goal is declared by the concepts of Sustainable Public Procurement (SPP) and Green Public Procurement (GPP), which integrate three dimensions of sustainable development: economic development, social development and environmental protection (through performance and social security indicators).
The possible risks of using these criteria are that they are institutional in nature, rigid and may be inert to rapid market changes.

3. Results

The review of the main quantitative indicators based on the results of monitoring of public procurement for 2016 is shown in Table 1. The World Bank data, the data of the Ministry of Economic Development of the Russian Federation, the data of the National Procurement transparency project, and the information from the official website of the unified information system in the sphere of procurement of the Russian Federation were used as a statistical information. The information in the table is used to identify KPI of public procurement at the national level.

Table 1. Statistical data of the public procurement area of the Russian Federation for 2016.

| Indicator                                                                 | Unit of measurement | Quantity   |
|---------------------------------------------------------------------------|---------------------|------------|
| Number of the registered and active customers                              | organizations, un.  | 190,171    |
| Average number of the executors of purchasing policy of the customers     | persons              | 570,513    |
| Number of competitive procurement                                         | un.                 | 3,081,823  |
| The amount of the consolidated total annual volume of public procurement   | trillion rubles      | 6.5        |
| subject to non-competitive procedures                                     |                     |            |
| Total number of failed procedures                                         | un.                 | 564,800    |
| including procedures failed without contract execution                    | trillion rubles      | 1.2        |
| Number of violations detected in the customers’ activities during scheduled and unscheduled inspections | un.                 | 16,442     |
| Number of complaints about actions (inaction) of the customer            | un.                 | 84,373     |
| The level of public satisfaction with the quality of government services in Russia | %                   | 83.3       |
| Actual volume of concluded contracts in support of small-scale business in Russia | billion rubles       | 610.9      |

Based on the given statistical characteristics and subject to the proposed five-element KPI system, the public procurement area of the Russian Federation for 2016 was assessed.

1. Assessment of the provision of public needs.

1.1. Customer performance.

\[ E_{cp} = \frac{V1 - V2}{NCS} \]

\( E_{cp} \) - customer performance,
\( V1 \) - volume of competitive procurement (in value or in kind),
\( V2 \) - volume of contracts terminated by customers (in value or in kind),
\( NCS \) - number of the customer’s specialists accompanying the execution of the procedure.

\( E_{cp} \) in kind is estimated at 5.38 units, in value terms - at 11 thousand rubles.

Contracts terminated unilaterally by the customers or by court decision to the amount of about 199.1 billion rubles amounted to 3.8% of the total volume of concluded contracts. That is, the customer performance on concluded contracts for the period under study was 96.20%.
Conclusion on the assessment: after exclusion of criteria with high corruption potential from the calculation, the evaluation of the competitive procedures conducted by the customers illustrates highly effective professional activity of the customers in general, despite the complexity of the performance of these labor functions.

Conclusion on the indicators: the information requires no additional processing, is available in a single information system (zakupki.gov.ru); it is possible to perform calculations for other time intervals for comparison in dynamics. Undoubtedly, the averaged result is shown, especially in view of the disproportion in the number of customers ranked by the volume of procurement, however, the indicator does not allow making the general conclusion.

1.2. Effectiveness of procurement policy to meet public needs:

\[ Ef_{pi} = \left[ Ef_{cp} \cdot Ps \cdot W \right] \]

\( Ef_{pi} \) - performance index
\( Ps \) - public satisfaction with state services,
\( W \) – weight of the criterion of influence of the purchasing policy quality in the provision of state services.
\( Ef_{pi} \) in kind amounts to 1.93, in value terms – 4.1 thousand rubles.

According to the results of expert assessments, the weight of the criterion of the importance of the procurement policy in ensuring the quality of the provided services is 0.43 (43%). Using the simple relationships method, it was determined that the effective actions of purchasers currently provide 36% of the return in the implementation of this objective.

Conclusion on the assessment: The quality of the provided state services depends more than one-third on the conducted procurement policy.

Conclusion on the indicators: an indirect effect of the implementation of the state function is assessed; it may be applicable along with the previous indicator; due to the lack of any specific universal formula for this type of assessment, the calculation is based on a subjective characterization of the importance of the procurement policy in ensuring the quality of the services provided.

2. Support to the domestic economic agents under compulsion to import phase-out (through performance indicators).

The planned volume of contracts in support of small business in Russia should be at least 15% of the total annual volume of public procurement only for competitive procedures - 975 billion rubles. The actual volume of contracts concluded in support of small business in Russia amounts to 610.9 billion rubles.

Effectiveness of the support to the domestic economic agents.

\[ Ef_{ea} = \frac{Va_{ssb}}{Vp_{ssb}} \]

\( Ef_{ea} \) - effectiveness,
\( Vp_{ssb} \) - planned volume of contracts in support of small-scale business,
\( Va_{ssb} \) – actual volume of concluded contracts in support of small-scale business.

Effectiveness of the support to the domestic economic agents in value terms for 2016 is 63%.

Conclusion on the assessment: the expected effect of the measures of protective policies of domestic economic actors lags behind the planned one. There may be several reasons: poor awareness and readiness of small enterprises, insufficient motivation of purchasers to cooperate with these entities, change in the number of purchasers and their financial means channeled to competitive procedures during the year, administrative barriers, and corruption deviations.

Conclusion on the indicators: quantitatively measures the degree of implementation of the norm on support of domestic economic agents - recipients of preferences - by purchasers; it is simple in calculation and can be used by any purchaser (group of purchasers), representatives of public and state control, due to the availability of the calculation information in a single information system (zakupki.gov.ru).
3. Creation of a favorable economic and social environment through reduced corruption, increasing professionalism, developing competition, transparency (through performance and social security indicators).

3.1. Indicators of assessment of the information space, its availability, usability, and quality, are calculated during evaluation of the transparency of the public procurement system. We shall use the results of a survey of public procurement systems in 77 countries conducted by the World Bank in 2016. The system of information support of procurement in the Russian Federation got 100 points of 100 possible, that is, showed 100% effectiveness.

Conclusion on the assessment: the maximum effectiveness of the Russian e-procurement management system has been obtained.

Conclusion on the indicators: the indicator can be attributed to a group of indicators that evaluate external effects (externalities) not reflected in the quantitative evaluation of the result of the procurement policy. The presented calculation characterizes the situation of a positive external effect, however, we shall note a gradual regression of its influence on the result. This is due to both the advancing activity of the development of the information space and electronic environment, and the constantly increasing demands for technical implementation and infrastructure of the e-procurement system.

3.2. The influence of corruption deviations on the effectiveness of the procurement policy can be estimated by two indicators. The first one is index of one application calculated by the Ministry of Economic Development of the Russian Federation, which determines the number of procedures with one participant with respect to the total number of competitive procedures. The average value of the index of one application in 2016 was 6.6%.

The second one is the share of contracts concluded at the initial maximum contract price in the total number of contracts. The larger this segment is, the lower the competition conditions and the higher probability of corrupt collusion are. In 2016, the share of such contracts was 32%, which indicates a high corruption potential, inefficient placement of orders and unstable competitive environment.

This result can be compared with the world practice by studying the Corruption Perception Index calculated by the Transparency International agency. In 2016, Russia ranked 131 out of 176, which is a confirmation of the general conclusion on the indicator.

Conclusion on the assessment: The measures taken to level the corruption deviations have shown no appropriate effectiveness, therefore, attention should be paid to other ways of stimulation and prevention, perhaps by analyzing carefully the best foreign experience and calculating its adaptability to Russian conditions.

Conclusion on the indicators: calculation at the national level is performed without any technical failures, while at other levels the difficulty will be only in additional statistical identification of the number of procurement with one application for participation and contracts concluded at the maximum price. Since all information for analysis is stored in the electronic database zakupki.gov.ru, the labor costs for the primary collection of information for calculation won't be high. It is rather difficult to "weight" corruption in the sphere under study using the direct indicators; the proposed indicators provide information on the most likely corruption solutions.

3.3. Customer professionalism.

Estimated by the ratio of detected errors (violation of terms, requests for clarification) to the total number of procedures.

\[
P_{pd} = \frac{E_{r}}{C_{p}} \times 100\%
\]

\(P_{pd}\) - level of professional performance discipline,
\(E_{r}\) – customer's errors during procurement procedures.
\(C_{p}\) - volume of competitive procurement (in value or in kind).

The customers showed qualitative execution of regulated procedures in 86.71% of cases of procurement.
Conclusion on the assessment: even subject to the imbalance in the number and volume of financial means and procurement, the customers execute their labor functions effectively. The decision of the legislator on the mandatory implementation of procurement policy on a professional basis, without changing the functional nature of the customer's task solving technology, in addition to the overall reduction in procurement costs, produces also an indirect effect through both creating a professional environment for procurement and favorable conditions for suppliers, and ultimately meeting the needs of society.

Conclusion on the indicators: calculated based on the "reverse" principle, that is, the customer's actions performed improperly, incorrectly in technical terms, and subject to the "human factor" are measured. Technical calculation and necessary information in the information resource are present.

4. Reasonable use of budgetary funds as the main principle of the state activity financing (through economical indicators).

4.1. Budget saving

\[ Ef_{bf} = \frac{Pr_{max}}{Pr_{cc}} \]

\( Ef_{bf} \) – budget financial resource saving,
\( Pr_{max} \) – The amount of planned initial maximum prices set by the customer,
\( Pr_{cc} \) – Prices of the concluded contracts.

Total savings for 2016 amounted to 419.4 billion rubles, which is 6.8% of the total financial resources of the procurement sector.

Conclusion on the assessment: the savings have been also channeled to meet the public needs and execute the functions of the state.

Conclusion on the indicators: informative and easy to perform for any category of purchasers.

4.2. The indicator of state losses from purchases in low-competitive environment.

According to the estimates of the experts of the project "National Rating of Procurement transparency", such losses of the public sector, taking into account inflation, amounted to 179.37 billion rubles.

The share of state losses from purchases in low-competitive environment:

\[ L_s = \frac{VLs}{TCaa} \]

\( L_s \) – the share of state losses,
\( VLs \) – the volume of losses in value terms,
\( TCaa \) – total consolidated aggregate annual volume of public procurement.

The share of state losses from procurement in low-competitive environment for 2016 is 3%.

Conclusion on the assessment: even taking into account the losses of the sector, the positive effect of saving shows a positive calculated indicator of the budget expenditure optimality in value terms. However, undoubtedly, it is necessary to include additional measures to minimize the volume of losses.

Conclusion on the indicator: the calculation requires determining the volume of losses, a set of failed procedures, and an inflation index, therefore it will require additional time and labor. However, all the necessary volume for analysis is available in the information resource.

5. The sustainability of the procurement system as the goal of striving to minimize the environmental damage.

In accordance with the ideas of Ronald Coase (1991), internalization of external effects in the case of the state's influence on economic agents, creating negative externalities, such as environmental impact, is carried out using corrective taxes that fully cover external costs. In addition to these tools, the state uses incentive measures to voluntarily transition to the economical consumption of those resources that are currently subject to depletion and the rational use of inexhaustible resources, that is, the basic principles of the green economy concept. Following the trend of greening management systems, the desire for sustainability of the domestic procurement system is justified and logical. However, such a comprehensive assessment in Russia has not been carried out yet.
Based on the expert survey, a list of sub-criteria for assessing this criterion has been made in respect to the procurement management in the contract system of the Russian Federation.

- regulatory requirements (using comparative analysis and expert assessments, with the formalization of Heuristic information on the Harrington scale), including the presence of environmental regulations and standards, environmental improvement of the management system, sanctions for violation of environmental requirements.
- functional requirements (using comparative analysis and expert assessments, with the formalization of Heuristic information on the Harrington scale), including environmental programs, environmental examination, monitoring and audit, and the environmental impact of the procurement results.
- performance discipline (synthesis of reporting indicators, expert assessments, with the formalization of Heuristic information on the Harrington scale), including contracts concluded subject to the Green Public Procurement, environmental responsibility promotion measures, assessment of staff competencies in the environmental area.

\[
\begin{array}{|c|c|c|c|c|c|c|}
\hline
\text{Standa} \text{rd} & \text{Fact} & \text{Weighted estimate} & E_{1-2} & E_{3-5} & E_6 & E_{7-10} \\
\hline
\text{Regulatory requirements} & & & & & & \\
1. availability of environmental regulations and standards & 1 & 0.71 & 0.62 & 0.73 & 0.71 & 0.65 & 0.71 \\
2. management system greening & 1 & 0.56 & 0.49 & 0.57 & 0.53 & 0.61 & 0.57 \\
3. sanctions for violation of environmental requirements & 1 & 0.57 & 0.48 & 0.70 & 0.55 & 0.56 & 0.52 \\
\hline
\text{Functional requirements} & & & & & & \\
4. environmental programs & 1 & 0.54 & 0.47 & 0.56 & 0.52 & 0.59 & 0.55 \\
5. environmental examination & 1 & 0.60 & 0.52 & 0.60 & 0.60 & 0.60 & 0.60 \\
6. monitoring and audit of the environmental impact of procurement results & 1 & 0.36 & 0.31 & 0.40 & 0.37 & 0.31 & 0.35 \\
\hline
\text{Performance discipline} & & & & & & \\
7. contracts concluded subject to the Green Public Procurement & 1 & 0.23 & 0.20 & 0.31 & 0.21 & 0.16 & 0.21 \\
8. environmental responsibility promotion measures & 1 & 0.37 & 0.31 & 0.41 & 0.37 & 0.32 & 0.36 \\
9. assessment of staff competencies in the environmental area & 1 & 0.31 & 0.27 & 0.31 & 0.28 & 0.32 & 0.34 \\
\hline
\text{Expert assessment weighing result (by experience, education, position)} & & & 0.06 & 0.09 & 0.08 & 0.13 \\
\hline
\end{array}
\]

The analysis of Table 2 and Figure 1 shows that the group of regulatory requirements, according to experts, is formed at a sufficient level (in linguistic terms – well formed), the functional requirements are satisfactory, however the problem of monitoring the environmental impact of procurement requires significant improvements.
Figure 1. Aggregate assessment of the state of the sustainability indicators of the procurement system for 2016.

According to expert estimates, a group of performance discipline criteria shows a low level of satisfaction, the main cause of which is the initial stage of the process: it takes time to transform the connections and evaluate the lagging criteria.

Conclusion on the assessment: through the prism of the theory of life cycles, the greening of the purchasing policy of Russia is currently at the stage of growth.

Conclusion on the indicator: the assessment is subjective, but it is important, because with its help it is possible to track the achievement of established goals at all stages of implementation and to make well-founded management decisions for timely correction of development.

The text of your paper should be formatted as follows:

- 11 point Times or Times New Roman.
- The text should be set to single line spacing.
- Paragraphs should be justified.
- The first paragraph after a section or subsection heading should not be indented; subsequent paragraphs should be indented by 5 mm.

4. Discussion and Conclusion

According to the results of the evaluation of the indicators in Table 3, the following should be considered in developing the adjustment measures for the management activities in the area of national public procurement. For meeting social needs, it is required to reduce the impact of negative indicators. The sources of negative influence are an increase in the number of terminated contracts, low qualification requirements of contractors, incorrect selection of the procurement method and quality of the supplied products that underlie the services provided by the state. There is a need for 100% training of the purchasers’ staff, with knowledge updating at least every five years, as well as mandatory use of standards for the procurement subject description.

In the line of support provided to the domestic economic agents under compulsion to import phase-out it was revealed that 37% of potential support is not implemented. It is necessary to study in details the reasons preventing the provision of support to the customers in the established volume. The support of the domestic suppliers must be in priority, rather than the creation of "overprotection" by reducing competition. Measures should be also taken to encourage foreign companies to create production facilities in the territory of the Russian Federation.

The third criterion requires maintaining the information field, developing the e-procurement system, taking active de-corruption measures for procurement (The Corruption Perceptions Index, 2016), including an analysis of successful world practices (Public Procurement: Directions of Development, 2015), and taking into account the recommendations of international organizations (OECD, 2013).
Table 3. RF public procurement KPI chart for 2016 (national level).

| KPI indicator | Indicator description | Summary calculation result for 2016 |
|---------------|-----------------------|-------------------------------------|
| 1. Provision of public needs | Performance criterion through the calculation of the customers' performance, state service quality assurance and the degree of customer professionalism | the quality of the provided state services depends more than one-third on the conducted procurement policy |
| 2. Support to the domestic economic agents | Performance criterion through the calculation of the degree of support to small-scale business, the established prohibitions, restrictions, and national regime, | efficiency of the norm for small business is 63%, overall efficiency is reduced due to low returns from import phase-out |
| 3. Creation of a favorable economic and social environment | Criterion of social security through evaluation of a sustainable system of procurement (information space, the influence of corruption deviations). | The transparency has shown 100% efficiency, the share of procurement with high corruption potential is 32%, the share of competitive procedures in the total volume decreased by 2% from 2015 |
| 4. Rational use of budget funds | Economical criterion through the mathematical calculation of the financial resources savings adjusted for the volume of state losses from procurement in low-competitive environment | savings - 6.8% of the volume of financial resources of the procurement sector, state losses from purchases in low-competitive environment - 3% |
| 5. Procurement system sustainability | Criterion of social security (expert assessment) | regulatory requirements in the linguistic five-point scale - 4, functional requirements - 3, the monitoring of the environmental impact of procurement requires improvements; performance discipline - 2, the main reason is the initial stage of implementation |

Overall assessment of the procurement policy integrity | Efficiency criterion of the funds, resources, assets, and authorities in accordance with the set goals (expert assessment) | regulatory and methodological support in the linguistic five-point scale - 4, functional requirements - 4 |

For the purpose of creating a favorable economic and social environment it is necessary to maintain a high level of transparency; improve the methodology for the initial purchase pricing; reduce the overall corruption burden of public procurement; and conduct a more detailed assessment of the professional competence of the customers in the context of the constituent entities of the Federation and management levels.
For the correct assessment of the reasonable use of budgetary funds the customer errors at setting the planned initial maximum prices must be minimized, which will multiply reduce the cases of collusion and other violations.

To improve the sustainability of the procurement system, attention should be paid to the features of the performance discipline, to the provision of the opportunities for monitoring, including public one, and analysis to identify quantitative criteria of the environmental impact of the procurement results. Further monitoring and control requires introducing the statistical accounting of sustainable procurement at the state level. It is necessary to develop an infrastructure for the implementation of the green economy in procurement, as well as provide methodological support for the environmental requirements for procurement items.

In terms of the general integrity assessment, it is required to consider measures of advanced management of public procurement, as well as to maintain accounting of the costs of participation in the procurement cycle of all subjects of public procurement when calculating the effectiveness of their activities.

The revealed indicators are consistent with the management decisions in the field of public procurement; they allow linking the key functions of the national policy with the results obtained, identifying barriers and limiting factors of the economy and management. In addition, the preparatory for Russia stage of the process of joining the Agreement on Government Procurement (Agreement on Public Procurement, 2017) requires applying a set of indicators for the rapid assessment of the readiness of the national economy to accept the conditions of international public procurement markets. Analysis of the specifics of the purchasing policy of Russia also suggests a high potential for applying the evaluation methodology through the KPI indicators to compare the performance of each individual entity in the national procurement sphere.

The effects of the introduction of public procurement KPI are multi-faceted and complex; in addition, most of the effects are quantifiable. The proposed model is not universal, however it can offer measurable criteria for adjusting management decisions in procurement, identify the most problematic segments, and facilitate further goal setting and evaluation.

Thus, the considered indicators assess the actual state of the system, and do not tend to the reference state in the future (lagging indicators). In this light, the approach of comparative evaluation by years for the period of 2016-2019 will be interesting, when we will get the results of the events of the Year of Ecology in Russia and a number of other initiatives affecting the management of public procurement in 2017.

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