Developing the Accounting Concept in the Public Sector

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Abstract:
The main goal of this study is to develop an accounting concept for the public administration sector of the Russian Federation with state (municipal) institutions as an example. To fulfill this task, the specifics of the state (municipal) institutions were explored, the international practice of arranging accounting in the public sector was analyzed, and the current state of the information and administration function of accounting in the institutions under study was examined.

Because of the analysis, specific proposals for the development of the information function of accounting were developed through the application of the accounting policy template and the development of management accounting for obtaining information for internal users. Regarding the development of the control function of accounting in state (municipal) institutions, the use of a risk map, a register of risks and other administration tools and procedures was justified.

The scientific novelty of the study is in systematization of the problems existing in the formation of the accounting system in state (municipal) institutions and in the development of proposals to improve its efficiency.

Keywords. Russian Federation; accounting; internal control; internal financial control; management accounting; state (municipal) institutions; analytical accounting; risk map.

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1. Introduction

The state authorities of the Russian Federation currently use market methods for the public administration sector, in combination with a high degree of external and internal financial control over the efficiency and effectiveness of the allocation of budgetary funds and appropriations. The state (municipal) institutions are given more and more economic independence in the provision of paid-based services, disposal of property (except for real estate and the most valuable movable property) and use of additional income received from income-generating activities for the institution’s own needs. This affects the administration ways and methods used by the heads of the state (municipal) institutions and defines certain requirements for the information support of managerial decisions (Thalassinos and Liapis, 2014; Liapis and Thalassinos, 2013).

The accounting system in the state (municipal) institutions performs information and control functions. As such, due to the constantly changing conditions for the state (municipal) institutions’ operation, there is a need for their constant improvement and development. The information formed in the accounting system of a state (municipal) institution is required for the development and justification of operational, tactical and strategic managerial decisions, as well as for their activities monitoring.

No clear definitions of the content of accounting functions have been considered in the academic or practice-oriented economic literature for a fairly long period of time. Accounting functions were considered separately from each other as independent scientific disciplines. In the practice of the public-sector organizations, this approach envisaged the creation of special structures in the administration system. At the same time, the main accounting feature was not considered – the systemic nature of the action, which manifested itself in practice as the unity of information, control and analytical functions (Suryanto and Thalassinos, 2017; Denisova et al., 2017).

The well-known German scientist J.F. Schar, the founder of the balance theory (1846-1924), pointed to the need for the interconnection of all functions of the accounting system. He noted that accounting was a science that "reveals the processes of production, movement, distribution, conservation and consumption of goods, taking the existing capital into account and facilitating labor; it establishes an estimate, operational account, report and control for each individual or corporate economy" (Schar, 1925).

The renowned Russian accountant, a scientific author of accounting theories A.P. Rudanovsky (1863-1931) upheld the same position and stressed that the task of accounting "is reduced... to the coordination of the economic life phenomena to calculate them with exhaustive completeness in three mutually complementary areas... to take economic relations, legal relations, account administrative relations that determine the turnover of the economy into account" (Rudanovsky, 1925). He noted that "the purpose of accounting... is to study the economic activity in all of its predominantly external manifestations, which are relations to third parties, the
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property position (inventory) and the results of economic turnover, leading to a change in both the relations to third parties and the property position” (Rudanovsky, 1925).


Therefore, the goal of the study is to develop the concept of information and control function of accounting in the state (municipal) institutions amid the constantly changing conditions of the external and internal environment.

2. Methods

The theoretical and methodological basis of the study consists of the works of leading Russian and foreign scientists on the development of information and control functions of accounting in the public administration sector, legislative and regulatory standards of the organization and methodology of accounting and internal control in the state (municipal) institutions.

The methodology of the study is based on the system approach used in studying the information and control function of accounting using general scientific methods of analysis and synthesis, deduction and induction, comparison, generalization, grouping and classification.

3. Results

Within the reform of the public administration sector, which had been implemented as part of the budget reform initiated in Russia in 2000, the total number of state (municipal) institutions for the period from 2011 to 2017 decreased by 30,960 or 15% and amounted to 170,688 as of 01.03.2017 (Table 1). Of these, the share of budgetary institutions was still high 63%, the share of state institutions was 27%, and the share of autonomous institutions was 10%. The growth in the number of state institutions by more than 2.5 times in 2014 was due to the conversion of budgetary institutions into state institutions as part of the implementation of the budget network reforming. The increase in the share of autonomous institutions was associated with their greater autonomy compared with other types of institutions.

<table>
<thead>
<tr>
<th>Types of institutions</th>
<th>As of 01.05.2011</th>
<th>As of 01.06.2014</th>
<th>As of 01.11.2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>share, %</td>
<td>Number</td>
</tr>
<tr>
<td>State</td>
<td>19,714</td>
<td>9.8</td>
<td>50,095</td>
</tr>
</tbody>
</table>

Table 1. Information on the number of state (municipal) institutions by type.
Many types of costs, activities, as well as public services and works performed force the state (municipal) institutions to apply different, more diverse methodological approaches to the organization of analytical accounting, calculation of performance indicators, formation of reporting on the activities of the institution and by responsibility centers.

It becomes necessary to collect and summarize information of different purposes to form an efficient forecast, plan, control and make efficient managerial decisions. The influence of reliable information on the efficient management of the state (municipal) institution is constantly growing, which can be implemented through methods and ways of management accounting.

The study revealed that accounting in the public sector had been more complex and structured. Its main distinguishing features are: 1) special chart of accounts; 2) need to organize accounting in the context of articles of the budget classification; 3) clear accounting of income and expenses; 4) purposeful nature of spending budget funds; 5) treasury system of budget execution; 6) differences in the composition and forms of reporting.

The information function of accounting in the public administration sector is to obtain accounting and analytical information for external and internal users, required for assessing the actual state of financial and economic activities of the state (municipal) institution and making efficient managerial decisions at various levels. Accordingly, the control function should allow for a permanent monitoring of the safety of non-financial assets, the implementation of the plan for financial and economic activities (estimates) by the state (municipal) institution, etc.

One of the current ideas of the budget reform in the Russian Federation is the need to restructure accounting in the public administration sector, following the pattern of accounting in commercial organizations.

Critical articles on the results of the accounting reforming in the public sector in economically developed countries have appeared increasingly in the professional literature in recent years, which is associated with the social function of the public sector and the inability to directly copy the accounting rules of the commercial sector of the economy. These publications include articles by M. Arnaboldi and I. Lapsley (2009), I. Lapsley (2009), I. Lapsley, R. Mussari and G. Paulsson (2009), K. Warren (2012), M. Christensen (2007) and others. Unfortunately, this process (the process of commercialization) is carried out in the public sector of the government and in the Russian Federation.
At present, the accounting methodology in the public sector is being transformed towards international standardization. The International Public-Sector Accounting Standards (IPSAS) were published in 1997, which gave a new impetus to the reform. IPSAS had been developed by the International Public-Sector Accounting Standards Board (IPSASB), which was established under the Council of the International Federation of Accountants.

The Russian Federation has taken measures to harmonize accounting in the public administration with IPSAS over the past 15 years. The orders of the Ministry of Finance approved five new Federal Accounting Standards for public sector organizations in December 2016. In total, 37 federal accounting standards for public sector organizations must enter into force before 2020.

Analysis of the subject matter of scientific publications reveals that many problems of accounting in state (municipal) institutions of the Russian Federation remain unresolved. For example, the publication of G.I. Koblova discusses the aspects of arranging cost accounting in this area (Koblova, 2012). The study of T.P. Grezina points out at the existence of problems in accounting for non-financial assets of treasury property (Grezina, 2012). The publication of T.P. Erofeeva and A.Yu. Shikhov suggests the presence of bottlenecks in the accounting of liabilities in state (municipal) institutions (Erofeeva and Shikhov, 2015). Significant problems remain in the accounting of fixed assets and intangible assets of these institutions, which is confirmed by publications of V.I. Suprotkina (2012), M.V. Bespalov (2014), O.V. Monaco (2014) and several other researchers. Issues of accounting for funds in state (municipal) organizations are also discussed. These aspects are covered in the papers of M.V. Bespalov (2013), N.N. Parasotskaya (2012), V.V. Semenikhin (2014) and several other scientists.

The problems of creating reserves of forthcoming expenses in the state (municipal) institutions remain largely unregulated. This is evidenced by the paper of O.E. Kachkova (2015a; 2015b). The issues of accounting for incomes and expenditures also remain unresolved (V.A. Manyaeva (2013), T.Yu. Druzhilovskaya et al. (2014), T.S. Maslova (2012), Albekov et al. (2017), Nechaev, and Antipina (2016)).

The issues of formation of the accounting policy in the state (municipal) institutions cause discussion. A large number of scientific publications are devoted to these issues (L.B. Trofimova (2015), I.N. Chentsova and T.V. Bubnovskaya (2015), S.A. Ratovskaya (2015), L.V. Kashirskaya et al. (2013), T.I. Krishtaleva (2016), E. Kuznetsova et al. (2017), I. Bruna et al. (2017) and a number of other scientists).

Specifics of the activities of the state (municipal) institutions in the Russian Federation and their fulfillment of the social mission determine the requirements for the formation of their accounting policies. It must ensure the maximum effect from accounting, which means timely provision of financial and management information, its reliability, objectivity, accessibility, etc.
To form the accounting policy template for the state (municipal) institution, you can use the content of accounting policy sections for the main objects of accounting (Table 2).

**Table 2. Content of accounting policy sections for the main objects of accounting for the state (municipal) institution**

<table>
<thead>
<tr>
<th>Accounting policy sections</th>
<th>Content</th>
</tr>
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| Accounting for non-financial assets | - algorithm for determining the useful life of fixed assets, if it is not listed in the classifier;  
- procedure for determining the current estimated value of fixed assets (through a commission, using expert judgment), the value of the liquidated parts of fixed assets and the depreciation accrued;  
- scheme for assigning a unique inventory number to the asset;  
- specifics of accounting for individual property objects (library fund, software);  
- list of the most valuable property by its types;  
- order of off-balance property accounting;  
- features of accounting for intangible assets and non-produced assets;  
- nuances of accounting for inventories (recording, valuation, write-off);  
- methodology for separate accounting of costs when forming the cost of the services rendered by the institution by their types, indicating the list of direct and overhead costs;  
- other accounting aspects. |
| Accounting for financial assets | - procedure for recording cash on the personal accounts of the institution;  
- "cash" algorithms: cash register management, accounting of monetary documents;  
- description of the procedure for cash disbursement on condition of accountability;  
- other "cash" nuances. |
| Accounting for liabilities | - payment of taxes;  
- social security;  
- raising funds for the obligation fulfillment;  
- transfer of assets and liabilities between activities |
| Accounting for financial liabilities | - methodology for the separate accounting of income by type of activity;  
- list of expenses of the current financial year and their accounting system. |
| Provisions for future expenses | - date of the provision formation;  
- formula for calculating the monthly percentage of deductions;  
- maximum size of the provision;  
- inventory procedures for the provision;  
- scheme for cancellation and additional charge of the provision. |
The following rules for forming the accounting policy template of a state (municipal) institution can be formulated: 1) the accounting policy is approved by an order or a decree of the person responsible for the accounting organization and state; 2) the accounting policy is applied consistently from year to year; 3) the accounting policy can be changed if the legislation of the Russian Federation or regulations and standards of agencies that regulate accounting are changed, new methods of accounting are developed by the organization or a significant change in the conditions of its operations; 4) changes in accounting policy should be introduced from the beginning of the fiscal year for the purpose of ensuring comparability of accounting data; 5) the institution announces changes in its accounting policies for the next reporting year in an explanatory note to the annual financial statements.

Any state (municipal) institution is a conductor of the state social policy. Efficiency and effectiveness of the state budget policy is predetermined by social priorities, as well as the rational allocation and use of available resources. The composition and content of information on various types of resources (labor, material, financial) in public administration systems depend on the sectoral focus of the activities of the state (budgetary) institutions.

Against the background of the expanding independence and responsibility of the heads of the state (municipal) institutions, the role and importance of the management accounting system as an information base for assessing the efficiency and effectiveness of the institution and its structural units (responsibility centers), developing and justifying strategic and tactical management decisions are strengthened.

Determining the composition of the accounting and analytical register forms, their formats and a set of indicators in the context of the selected processes of activity is required to increase the information content of the accounting in the state (municipal) institutions for each type of activity. Besides, forms of accounting registers should be developed, containing information on financing each process of the institution's activities; on the expenditure of funds taking the main processes of activity into account; on the state of settlements with insurance companies (for medical institutions). Formation of information in the accounting registers in the context of the main processes of the state (municipal) institution in the form of a system of interrelated elements will allow to control the performance of each direction and identify reserves for further development.

In the conditions of uncertainty, the efficient and effective functioning of the state (municipal) institutions requires the provision of high-quality services, ensuring the performance by increasing the level of managing all the processes and forming the necessary resource potential. To implement these tasks, the head of the state (municipal) institution should have complete and reliable information supporting the process of making long-term and short-term managerial decisions. The management of the state (municipal) institution and its supervisory bodies lack information about
the factors that influence the financial condition of the state (municipal) institution. At the same time, evaluation of the results of the activity of the state (municipal) institution should be carried out both in general and in the context of the main processes on analytical indicators.

Functioning of the responsibility centers of the state (municipal) institution suggests the use of information that is separately accumulated in the account and describes the activity of a specific subdivision. The process-based approach to the formation of accounting and analytical information on the activities of the state (municipal) institutions is because a service provision process can be represented as a set of separate processes with different labor intensities. For example, three main processes can be distinguished for the state (municipal) institution providing medical services: medical, preventive and diagnostic. Each process corresponds to subprocesses.

The process of information generation in the state (municipal) institution generally consists of the following stages: 1) planning relevant indicators in accordance with the level of indicators of higher organizations; 2) accounting for the actual data in the relevant accounting registers; 3) monthly analysis of the indicators of the structural unit (responsibility center) that performs the relevant process and recording information into the accounting registers. The results of this analysis provide an opportunity to obtain information on the performance of structural units (responsibility centers) and will improve the quality of services provided.

Each level of the state (municipal) institution administration corresponds to its own forms of internal reporting.

The obtained accounting information contains indicators of the number of services provided, their quality, analysis of the funding level for each source of funds, efficiency of their receipt and allocation. This will allow to determine the influence of an activity type on the results of the general activity of the state (municipal) institution, as well as to evaluate the efficiency of each separate process. Since there are no established forms of internal reporting for state (municipal) institutions, managers and higher authorities develop them independently in an arbitrary form. Analytical registers can be developed based on the method of accounting and calculation of the processes in the state (municipal) institution. The process of collecting analytical information represents a fixation of the indicators obtained in the accounting process for systematization, grouping and accumulation of information, which later must be analyzed and tracked.

Researchers propose using a risk map for state (municipal) institutions to develop the control accounting function. The risk map in the accounting system allows to consider each fact of economic life in conjunction with the risks of significant misstatement of accounting statements and internal control procedures used to reduce the risk level. The risk map is drafted based on the assumption that the state (municipal) institution will continue to carry out its activities in the foreseeable future and fulfill its
obligations, including with regard to the state order. The risk map includes the following elements: correspondence of accounts; the fact of economic life based on correspondence of accounts; average indicator for this correspondence of accounts for the last three years; risk associated with this fact of economic life; impact of risk on accounting; control procedures and evaluation of their efficiency.

The risk map in the state (municipal) institution should be drafted in the context of each risk. The following stages of its drafting can be distinguished: classification of facts of economic life (typical and atypical); identification of risks inherent in the facts of economic life; development of control procedures; checking the efficiency of control procedures.

Classification of the facts of economic life of a state (municipal) institution can be used to identify processes in its activities. At the same time, the following processes can be distinguished: accounting system, financial asset management, non-financial asset management, procurement management, cost management, inventory management, tax risk management, personnel management, financing management, etc. All the facts of economic life can be divided into these processes.

Possible risk events, their causes and consequences are further identified, the probability of occurrence and magnitude of losses because of the occurrence of a risk event are estimated, and control procedures are developed. For example, if a risk of unauthorized payment or acquisition of tangible assets is detected, the control procedure is that the invoice payment is possible after approval of payment by the persons in charge, the payment order is formed in the accounting system and the acquisition of material values for cash is excluded.

In any economic entity, the control function of accounting is developed and improved based on testing using a questionnaire that allows to fairly objectively assess the accounting system and control environment, and to identify individual risks and the possibility of their detection.

The risks in the internal control system of the state (municipal) institution are identified on the basis of the following information: list of strategic objectives of the state (municipal) institution; tasks assigned to structural units (responsibility centers) and aimed at achieving goals; functions and requirements to the result of the functions assigned to the responsibility centers (structural units) of the institution for the solution of the assigned tasks; situations, events, causes and consequences of events that occurred in the past when the activity was carried out by the responsibility center and which influenced the successful achievement of the institution’s goals; potential situations that have not yet happened but may arise under some circumstances and influence the successful achievement of tasks by the responsibility centers (structural units) of the state (municipal) institution and, as a result, the goals achievement.
The sequence of actions for identifying risks in a state (municipal) institution includes:

1) analysis of tasks and functions performed by structural units (responsibility centers) of the state (municipal) institution during operating activities;
2) definition of events leading to unsatisfactory results of the structural unit (responsibility center) operation, i.e. risky events;
3) definition of the causes of the occurrence of a risky event, i.e. risk factors, as well as their classification;
4) definition of the consequences of the risk events realization.

Risks may exist that cannot be identified during analyzing the functions and tasks performed by the structural units (responsibility centers) of the institution, because these risks arise at the border of functional areas or in a functional area for which the responsibility center is not defined.

Main requirements for defining the goals and tasks assigned to the structural units (responsibility centers) of the state (municipal) institution are: 1) task formulation must contain clear, unambiguously interpreted concepts; 2) task must contain a quantitative evaluation of the required result – for example, through targeted performance indicators, performance targets can be defined by laws and regulations, state task completion, compliance with deadlines for submitting agreements on the provision of subsidies, plan of financial and economic activities of the institution, etc. and internal administrative documents of the institutions (rules and resource consumption standards, etc.); 3) task formulation must indicate the period to be performed within.

The next step in risk identification in the state (municipal) institution is to identify risk events. Risk events are recognized as events of a probabilistic nature, which may occur in the process of carrying out activities by the responsibility center (structural unit) and directly lead to the emergence of negative situations and hence to the impossibility of achieving the tasks assigned to the responsibility center (structural unit) and its efficient performance. Any other events that do not meet the above conditions cannot be considered in the process of the risk identification. The institution's officer responsible for risk identification and assessment identifies risk events that may arise during the activities of the state (municipal) institution and introduces information on possible risk events to the agenda for responding to risks. Risk events can be caused by various factors influencing the activity of the institution, i.e., risk factors. The external and internal environment of the state (municipal) institution is a source of risk factors.

Examples of external sources of risk factors are: legislation, activities of government agencies, specifics of institution activities, overall economic situation, social environment, cultural specifics, resource providers, etc.

Examples of internal sources of risk factors are: quality of the resource base (materials, equipment, technology, information, technology, management process, etc.), qualification of employees, etc.
The head of the responsibility center (structural unit) responsible for risk identification analyzes the identified risk events to define the causes of their occurrence. This information is required to further develop methods for responding to identified risks. One risk event may have one or several reasons that may be generated by various components of the external or internal environment of the activity of the state (municipal) institution.

At the stage of the risk research, a comprehensive analysis of the identified risks is carried out, they are ranked, the opinion for the development of measures for responding to risks is prepared, and the effect of their implementation is determined. Based on the optimal ratio of the event effect and costs of its implementation, a list of activities is compiled that must be implemented to reduce the magnitude of identified risks. This information is necessary, inter alia, for the implementation of the risk monitoring stage. Besides, the size of the costs of the state (municipal) institution for the implementation of necessary measures to responding to risks is agreed at this stage.

The risk management stage at the state (municipal) institution involves the following tasks: 1) planning of measures for responding to risks (procedures and terms are defined during planning, as well as employees responsible for implementation of measures for responding to risks); 2) risk monitoring (requires regular monitoring of the status of identified risks. The mandatory conditions for risk monitoring are: availability of the list and target values of the risk describing the state of each of the identified risks, organization of regular recording of the current risk values); 3) control and analysis of the results of risk management (control over implementation of measures for responding to risks, analysis of their efficiency, analysis of the reasons for deviation from the target risk values).

The head of the state (municipal) institution forms and approves a plan of measures for responding to all the institution’s risks, where the responsible heads of the functional areas, the procedure and the timing of the implementation of certain measures are defined. The template of the plan of measures for responding to the risks of the state (municipal) institution includes: risk event, likelihood of its occurrence, magnitude of losses from the risk event, risk reduction measure, person in charge for implementation, cost of implementation, implementation period, and the residual risk. Heads of responsibility centers (structural units) of the state (municipal) institution arrange implementation of the measures for responding to risks, and arrange accounting and trace the values of risk indicators identified within the responsibility center.

Control and analysis of the results of risk management activities are carried out regularly at the end of the month and at the end of the reporting year. Following the results of the month, the heads of the responsibility centers (structural units) of the state (municipal) institution analyze the results of implementation of measures for responding to risks and assess residual risks. The results of the analysis are reflected in the report on the implementation of measures for responding to risks,
where the target and actual indicators of the implementation of measures for responding to risks of the state (municipal) institution are compared.

The heads of the functional areas at all levels of the state (municipal) institution administration control implementation of measures for responding to risks and analyze the results of risk assessment by the end of the month.

The internal control department of the state (municipal) institution conducts inspections based on the results of the implementation of measures for responding to risks and draws a conclusion on the correctness of the residual risk assessment. Procedure, terms, methodology of conducting inspections are determined by internal documents of the internal control department of the state (municipal) institution.

The consolidated report on the implementation of measures for responding to risks, as well as the results of the analysis of the reasons for the deviation of the target risk values from the actual ones from the standpoint of the implemented risks are handed over to the head of the state (municipal) institution.

4. Discussion

Systematization of accounting problems in the state (municipal) institutions of the Russian Federation allowed to develop the main ways of their solution. At the same time, the proposed ways of solving the existing problems of developing the accounting functions will continue through discussion of the results of the conducted study at the research-to-practice conferences, publication of scientific articles, monographs, etc. It seems interesting to develop the information functions of accounting towards the operational management accounting, application of the ABC costing method for the distribution of indirect costs among certain types of services (works) to determine their reasonable cost, etc.

5. Conclusion

The results of this research have allowed to develop the main areas of improving the information and control functions of accounting in the state (municipal) institutions, which will allow to significantly improve their efficiency and performance.

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