

## Methodological Aspects of Monitoring the Implementation in Public Sector Organizations which Indicative Management Systems

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### Abstract

In the present paper the monitoring implementation was considered in systemic and process approaches where monitoring is integrated into controlling and planning functions respectively. Shortcomings of this integration were identified. The process approach was currently used in the public administration, but the monitoring quality could not be described as high. It was proved that the integration with organizing function was necessary for the indicative management. This statement was based on monitoring place in the overall indicative management system and its methodological basis including the concept of monitoring, object and subject of research, its goals and functions. The research identified target, structural and functional focus of monitoring in relation to the public sector organizations indicative management.

**Keywords:** Indicative management; Public sector organizations; Monitoring; Public administration.



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### 1. Introduction

Peculiarities of public sector organizations (that provide public goods and services) management are stipulated by the necessity of mutual agreement of organizational targets and efficiency, national-level targets and strategies, and Russian state and society development priorities. Moreover, the public sector organizations are built-into the economic sphere of society (Bryakina, 2013) and services, which are rendered by these organizations, have multiple quality and quantity characteristics, thereby the risks of using market and state regulations are increased leading to social asymmetries, increased inefficient costs, and reduced economic entities' motivation (Ekkerson, 2007). Management control systems focus on the implementation of the strategies and the attainment of the goals of the organization; they attempt to assure that the organization designs effective programs and implements them efficiently. Organizations can use three forms of control: output (results) controls, action (behavioral) controls, and clan (personnel/cultural) controls. Output controls involve evaluating and rewarding individuals (and sometimes groups of individuals) for generating good results, or punishing them for poor results. Action controls try to ascertain that employees perform (or do not perform) specific actions known to be beneficial (or harmful) to the organization.

Finally, clan controls help to ensure that employees will control their own behaviors or that the employees will control each other's behaviors. Amongst others, clan controls clarify expectations; they help ensure that each employee understands what the organization wants. It should be noted that these forms of control are not necessarily discrete, and elements of all three forms may be found in any one organization. Previous literature (Helfert, 2001) suggests that output controls are most useful when objectives are unambiguous, outputs are measurable, activities are repetitive and the effects of management interventions are known. If these conditions are not met, reliance on other forms of control is necessary in order to efficiently and effectively achieve the goals of the organization. In that case, the performance measures may still be useful for "exploratory purposes"; however, excessive reliance on performance measures for incentive purposes may result in dysfunctional effects. From a control point of view, the most difficult case in public sector organizations is when objectives are (excessively) ambiguous. To some extent, objectives are ambiguous in most public sector organizations; yet when ambiguity of objectives is excessive, it is likely that the incidence of political control also increases (i.e. the organization is more likely to depend on power structures, negotiation processes, particular interests and conflicting values. There may be clear political benefits (Morozova, 2011) (and therefore incentives) to formulate ambiguous objectives: ambiguous, unclear objectives provide politicians the opportunity to react to changes in the political environment. Ambiguous goals may also

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prevent budget cuts in “pet projects”: if the organization does not invest in efficiency and transparency, it is not clear to other politicians whether money can be saved. Finally, ambiguous goals decrease the extent to which politicians can be held accountable for problems and disasters: a multitude of goals provides the opportunity to compensate underperformance in one area (for example, exceeding cost budgets) by referring to over performance in another area.

## 2. Research Objective

A flexible index system, operational goals, established autonomy boundaries and preconditions for resource support, monitoring the current functioning and forecasting the organizations' development, in sectoral, regional and national contexts simultaneously are necessary to facilitate the proper public sector organizations' management (Helfert, 2001).

## 3. Methodology

The research was based on principles of dialectical logic, systematic and institutional approach to analyzing the economic phenomena and processes as well as the analysis and generalization of indicative management theoretical and empirical findings throughout the world. The substantiated, and widely used scientific approaches, such as selection, distribution, comparison, generalization, problem and hypothetical knowledge, forecasting, graphical description, were used to get a new scientific knowledge.

## 4. Results and Discussion

Attempts to strike a balance between interests of the state and social and commercial goals of individual public sector organizations have been made in Russia using an indicative approach over the past 15 years. They have an institutional support complemented by new legislation and regulations, and embrace a set of planning and policy decisions of authorities and public administrations at different levels. In this regard “May” Decrees of the President of the Russian Federation issued in 2012 are important. These Decrees contain more than 200 instructions to the Government of the Russian Federation for the period 2012-2018, and enshrine the key performance parameters and indices for different industries. These parameters and indices became imperatives at micro, meso and macro levels of national economy. Values of indices, which were achievable only through coordinated transformations of related sectors, were assigned by taking into consideration an initiating reconciliation (similar to balance method of planning in the former USSR). The main performers are constituent entities of the Russian Federation that develop and approve road maps for appropriate actions in economic and social fields. This logic is similar to classic indicative planning in Western Europe, Asia and the USA at the early XX century (Morozova, 2011). However, modern indicative management theory and practice is in an early stage of the development and comprehension, poorly institutionalized, and does not have methodological tools refined to operational level, require systematization, generalizations and practical guidelines. One of the major challenges facing the management system is to organize monitoring implementation and adjustment of indices.

It is important to consider major issues of monitoring in indicative management practice. The main strategic goals and objectives of the state policy including goals and objectives of social policy are enshrined in 44 national programs. These programs are categorized under five blocks: “New Quality of Life”, “Innovative Development and Modernization of the Economy”, “Ensuring National Security”, “Balanced Regional Development” and “Efficient State”. Limitation and sufficiency of quantity of indices, possibility of covering the largest possible number of processes and phenomena are basic requirements for an index system. The compositional analysis of indices showed that national programs comprise more than 2000 indices; however, not all of them planned values and there were not actual values of some indices for the time of reporting. Achieved values of indices substantially exceed the planned values, and some values of indices did not have any dynamic changes over time. Moreover, the adjustment in national programs' indices are often made irrespective of funding and without taking into consideration monitoring data, objective and reliable assessment of results, i.e. the monitoring role is neglected.

It should be noted that the cross-effect influence of one national program's substantive activities on other national programs (and vice versa) is poorly estimated. The applied monitoring methods do not provide any information support for the social partnership management of indicative management entities, for achieving their individual goals and interests, or coordinating (if necessary) inter-sectoral and inter-departmental interaction that is necessary to achieve the unique result. Therefore, monitoring processes' inferior methodological provision on the broad outlines of indicative management has negative impact on overall effectiveness of management.

The term “Monitoring” began to be actively used in the management since the second half of the XX century. One of its first definitions was proposed by the Russian economist, (Mohammadi *et al.*, 2018): “...monitoring is a set of techniques for reform-related socio-economic processes tracking, analysing, assessing, and forecasting, and also information collecting, processing, and making recommendations for development of reform...”. This definition is relevant as it reflects the substantive part of monitoring in management: tracking, analysing, and forecasting of various processes states. The review of papers by Osipova (2014) shows that monitoring organizing, its interaction with management functions, and monitoring goals (objectives) are still debatable (Ramírez and Rodríguez, 2017).

Monitoring procedures match subjects' target characteristics with actual ones, examine their conformity with concrete benchmarks to provide informational support for managerial decision-making processes. Consequently, monitoring provides a set of actions (recording the necessary characteristics of state and dynamics of management entities, based on observation; analysis, diagnostics, assessment, and forecasting to identify trends, opportunities or threats) to deliver timely, appropriate, sufficient and reliable information to management entities. Monitoring is a connecting link between goals' conceptual representations and the specific objectives.

In scientific literature monitoring is considered in terms of process approach or in terms of systemic approach that affects its perception in management system and key tasks.

Process approach considers management as a continuous series of consistent, interrelated managerial functions. Monitoring of social and economic systems is often considered as a part of controlling of management entities' key parameters (indices), i.e. monitoring is put at the end of a cycle. Observation, data collection (processing) and data analysis are identified as elements of monitoring.

Monitoring provides continuous observation of the management entity, records the entity's given characteristics, prepares evaluation templates, and on a near-real-time basis identifies effects of various external and internal environment factors. Individual phenomena (processes), which are selected by management entities, could be observed, assessed, and forecasted through monitoring.

Main goal of monitoring in the process approach is to compare the management entity's actual state with specified indices (their planned values), and existing deviations with critical level, for preventive measures timely implementation and maintaining entity's stable functioning. Monitoring is more integrated with controlling function and its priority objectives:

- 1) Examination of the actual state and dynamics of management entity, including its structural elements and activities;
- 2) Supervision and evaluation of socio-economic processes

The process approach is currently used in the public administration, and the quality of monitoring cannot be described as high. It is indicated by unsuccessful attempts of national programs' monitoring implementation. An accurate tracking of large number of indices is extremely difficult, not least because of the Federal Service for State Statistics of Russia (Rosstat) and sector statistics data does not cover this number of parameters. The Accounts Chamber of the Russian Federation in order to improve the monitoring quality favors a sharp reduction in the indices number, leaving only: indices for which the official statistics exists, indices that characterize precisely the relevant industry activities; indices that reflect changes in organizations, rather than indices used only for further calculations of indices.

Systemic approach, as [Risina \(2007\)](#) noted, considers an organization as an interrelated set of elements, thereby significantly expanding the content of monitoring. Monitoring objectives are supplemented by planning, regulating and forecasting, and together with accounting, controlling and analysis formed a set of management functions.

According to [Sirotkina \(2008\)](#) the main goal of systemic approach monitoring is the entity's development operational management since monitoring involves planning function of management and is highly integrated with it. Key monitoring objectives are: 1) identification of the factors that determine social and economic systems' negative trends, problem and growth areas; 2) development of management entities' forecasts and scenarios considering anticipated impacts and risks; 3) justification for activities aimed at safeguarding against potential threats, overcoming the negative and encouragement of promising trends of management entities development.

Considered options of monitoring integration with controlling or planning functions are not consistent with public sector organizations' indicative management approach as final index values are mainly controlled, while it is mainly based on agreed strategic goals of stakeholders in indicative management system planning. Stakeholders take current performance of public sector organizations as conditions for promising activities, which do not always correspond with prior development course.

Understanding the nature of monitoring provides a basis for situating monitoring in a management system. In this case, it appears that monitoring causes a closed management cycle. In this cycle, monitoring is not just a part of activities (function) with the aim to achieve goals, but it takes an independent significance in nested structure of management functions (Tab.1). It is a kind of function on function. Indicative management has its own specificity in issue of actor's organizational freedom to choose the means and methods for achieving specified values of target indices. It provides continuous observation of interim operating results, and sufficient time for rapid adjustments in case of critical variances forecasting.

**Table-1.** Comparison of Public Sector Organizations' Management Functions Content in Different Conceptual Management Approaches

| Management Functions | Neoclassical Theory of Management                                                                                                                                                                                                                               | Indicative Management                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Planning             | <ul style="list-style-type: none"> <li>–Organization focused on its own goals;</li> <li>– intuitive goal setting based on market trend predictions;</li> <li>–Earmark resources for competition;</li> <li>– Permanent search for new funding sources</li> </ul> | <ul style="list-style-type: none"> <li>– Organization's activity focused on public sector goals;</li> <li>– Goal-setting of current operating activities based on consensus forecast of external environment development;</li> <li>– Minimization of competition resources cost;</li> <li>– Guaranteed access to public funding sources in compliance with specific terms and conditions;</li> <li>–Goal-achieving measures development, and</li> </ul> |

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | regulatory methods for goal-achieving suggestion                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Organizing  | <ul style="list-style-type: none"> <li>– Organizational structure designed for current expenditures minimization;</li> <li>– Allocation of tasks, responsibilities, resources, and distribution of authority mainly between insiders, and provision of their joint operations</li> <li>– Closed organization departments coordination of actions creation;</li> <li>– Focus on maintenance of entrenched operating principles;</li> <li>– Predominance of interpersonal relations in business processes creation and implementation</li> </ul> | Organizing<br>– Organizational structure design for most effective implementation of values of target indices;<br>– Tasks allocation on individual management entity’s current performance basis                                                                                                                                                                                                                                                                                                                           |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Motivating<br>– Focus on achieving synergetic effect from interaction with stakeholders                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Monitoring<br>– Database creation for the purposes of controlling and forecasting development, operational managerial decision-making provision                                                                                                                                                                                                                                                                                                                                                                            |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Coordination<br>– Building interaction with organization departments by automated control system;<br>– Minimization of interpersonal relations by uniform (objective) performance indices specifying                                                                                                                                                                                                                                                                                                                       |
| Motivating  | <ul style="list-style-type: none"> <li>– Focus on internal environment of organization, including personnel’s efforts intensification and encouraging personnel’s efficient working for meeting the organization goals</li> </ul>                                                                                                                                                                                                                                                                                                              | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Controlling | <ul style="list-style-type: none"> <li>– Established standard-based ex post assessment of achieved and target results;</li> <li>– Unilateral realignment of goals in cases of significant discrepancies from initial plan.</li> </ul>                                                                                                                                                                                                                                                                                                          | Regulating<br>– Current assessment of activity and its operative adjustment based on ongoing monitoring results<br>– Application of regulatory methods in case of discrepancies<br>– Agreed goals realignment in case of significant discrepancies from indices' target values of the majority of management entities, or in case of gaining a temporary grant support from stakeholders<br>– Individual entity’s development program preparation, and regulatory intervention implementation at micro level when required |

Flexibility and dynamism of indicative management make it possible to move from the "control" basis of monitoring which is focused on retrospective information use, to the "organizational" one, and according to [Sirotkina \(2010\)](#) ensures the timely operational managerial decision-making in the case of indices' discrepancy from specified values risk. Therefore, it is possible to define trends, which predict their future values, and predetermine the system’s state for certain indices to enter the system into more stable state rather than using the “lagging characteristics” ([Sorokina, 2011](#)).

Collecting a sufficient amount of indices leads to reduction of general managerial uncertainty. In this case, the uncertainty of individual system operating parameters is retained, but the overall uncertainty of public sector organizations operating decreases.

Therefore, the position of monitoring changes from objective passive position to subjective active one in the indicative management. In the traditional management (e.g. systemic and process approaches) monitoring does not involve management entity’s intervention as it is specially arranged systematic supervision of entity aimed at its estimation. In the indicative management, monitoring is considered as the data support of managerial decision making including optimizing conditions that determine the entity’s operation and development. For purposes of public sector organizations, monitoring has an active nature as the database creation is supposed for management purposes. It is also confirmed by existing positive and negative trends in public sector organizations activity. It is insufficient just to spot and to classify a trend. In monitoring, it is possible to develop a picture of public sector organizations actual state and dynamics using the aggregate information. This data is essential to make managerial decisions that enable to limit or fully neutralize negative influences and reinforce the positive ones ([Villalobos Antúnez, 2008](#)). Monitoring the integration with organizing function results in operating efficiency improvement via the implementation time of preventive measures reduction. Several groups of typical causes of significant discrepancies from indices' target values can be distinguished for public sector organizations at both organization



and department levels. The development of protocol templates for management activities in case of adverse factors is important. For these purposes factors and reasons should be formalized and accepted by public sector organizations management. Frequently public sector organizations' management conceals internal problems or does not take notice of them, despite the fact that these problems are obvious, objective, and can be eliminated with due regard. When values of indices change or entity's activity deviates from strategic goals, the indices prevent public sector organization's declination from the target developmental trajectory by imputed management agents that are able to offer recommendations or make decisions independently within predetermined competence automatically. According to Wasson (2005) they also respond on changes in routine actions. In this case, monitoring can act partly as controlling. Management entity can identify the best option from existing templates and change local states of public sector organizations to achieve an overall balance using different value sets of indices.

The proposed approach considers public sector organizations' monitoring as an element of organizing a function nested structure, and present its goal and structural-functional orientation:

- Monitoring is focused on public sector organizations' current state continuous diagnostics and possible trends identification, database preparation for the purposes of managerial decision making ensuring the operating efficiency, reliability of applied reporting, the compliance with applicable legislation, and other requirements specified by monitoring entity;

- Monitoring goals are implemented at public sector organization's level, separate directions of its activity (e.g. purchasing, public services rendering, staff training, etc.) or organization departments.

The following researchers obtained consistent results with the present research: (Verbeeten, 2008) (C. and Backoff, 1992). Papers have been conducted on indicative management principles for manufacturing enterprise, the content of monitoring groups and content of monitoring implementation principles in public sector organizations indicative management system.

Monitoring is a continuing regulated activity of public sector management entities for collecting and analyzing standardized information on their state, current performance and long-term results evaluation in terms of target indices for supporting management decision on their adjustment.

Monitoring aims to provide a complex assessment of specified results attainability through quantitative (or qualitative) characteristics of corresponding indices, and information preparation for managerial decision making (Kaplan and Norton, 1999) (Lewin and Morey, 1981).

Internal social and economic processes of public sector organizations are considered as objects of monitoring.

Subject of monitoring consists of performance parameters of public sector organizations brought into determined indices and their target values.

The principles above require the mandatory implementation of following basic procedures: isolation and examination of public sector organization, building an information parametric model of the public sector organization, its identification, planning and forecasting changes of public sector organization state, information presentation in user-friendly way.

An appropriate set of monitoring functions and sub-functions covering all cycles is proposed in accordance with described views on the essence of monitoring in indicative management system (Provan and Milward, 1999).

## 5. Conclusion

1. In conclusion, it should be noted that traditional performance assessment system (statistical approach) is used for non-profit and public sector organizations. This system is based on retrospective measurement of resources consumption, cost of services rendered, profitability indices or other specialized indices of sector statistics.

2. This practice is effective in a short-term time frame, and it is limited by static structure of counterparties' condition, and excludes the possibility of information asymmetry and manifestation of reflection. External environment influence on management entities is characterized by a high level of complexity, dynamism and uncertainty, reduces the effectiveness of taken decisions, which should be optimal, and leads to a more complicated new management decision making process.

3. This problem can be overcome through quality, timely diagnosis and effectiveness evaluation of internal and external processes which can be attained by proposed public sector organizations' monitoring methodology by authors. Monitoring is not a substitute for an entire management system, but it provides a basis for conclusions and informed decision-making. In an indicative management practice, monitoring establishes standards that are operationalized according to indices, determines the evaluation activities criteria, collects, accumulates, systemizes and analyses data on public sector organizations, and causes observed changes and determinants.

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