Performance Measurement Model Formation in Municipalities

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Abstract

In a rapidly moving society the pressure on the public sector is growing to provide results that are important to local community. Therefore, performance measurement is becoming a vital tool for local government modernisation. The purpose of this paper is to develop the model of performance measurement system in municipalities that enables to disclose the peculiarities when measuring the performance and to ensure the utility and internal resources based on continual improvement in municipalities. The literature analysis revealed that municipalities are extremely complex and that various regulators and peculiarities should be incorporated into the formation of performance measurement model in municipalities. The formed performance measurement model suggests measuring the performance through external and internal environment, where the three main types of accountability are included. Developed performance measurement model is being implemented by applying six main stages. The findings of created performance measurement model highlighted the necessity to test empirically the applicability of created performance measurement model for municipalities.

The type of the article: Theoretical article.

Keywords: performance measurement, public sector performance measurement, public organization, municipality, public economics.

JEL Classification: H11, H83, D73, P47.

1. Introduction

Increasing attention to the issues of performance measurement by number of researchers and practitioner's led to performance measurement as a separate object of management development. In today's organizations, the prevailing opinion that seeking effectively manage the organization, firstly it is necessary to assess its performance. What is more, in knowledge-based society is not enough to analyse the performance only through the internal side of organizations. Especially in municipalities, the various external environmental regulators must be taken into account, where activities must include not only national aspirations: to develop the rule of law, eradicate corruption, ensure fairness, financial transparency and democratization, but also the global priorities should be included: to reach the integrated smart growth, sustainable energy, and the plans of integrative growth efficiency with clear objectives involving citizens into development and implementation of these plans (Europe Commission, 2010).

In literature, many authors emphasize that the performance measurement is an essential foundation that municipalities can have. This proposition is based on that performance measurement can be helpful on achieving local and national priorities (Kondrasuk, 2011). Even performance measurement is stressed with numerous benefits that accrue to those organizations that apply such methods, many authors recognize the emerging problem, that some municipalities find performance measuring system difficult to implement (IDeA, Audit Commission, 2006). Although performance measurement is widely spread and is applicable in private enterprises, Folz (2004) notices that the published literature review provides little guidance in measuring the components of municipalities performance measurement systems and how these components interact. Complexity when measuring the performance in municipalities depends on numbers of
regulators, which are directly linked to the activities of these institutions and peculiarities that constructs fundamental operating principles. Disclosure of these characteristics and evaluations would allow to easier select methods, measures and the correctness of performance measurement application in municipalities.

The research question could be formulated as:

How do various regulators and peculiarities arising in municipalities’ influence the performance measurement model formation adapted to these institutions?

The aim of this study is to develop the model of performance measurement system in municipalities that enables to disclose the peculiarities when measuring the performance and to ensure the utility and internal resources based on continual improvement in municipalities.

Lithuanian municipalities do not pay enough attention to operating performance in the scientific literature, in both theoretical and practical aspects, though this problem is widely studied by western scientists. In several countries performance measurement is linked with a forced creation of a system whose benefits and applicability few knew. In this way the attitude towards performance measurement, is linked with the obligatory functions, but not with the tool, that is able to bring a significant benefit to the municipalities. So in such state municipalities, which have a huge variety of different objectives an overall model of measuring the performance would be significant step towards the efficient performance development and satisfied society.

The theoretical article can be divided into analytical and methodological parts. The scientific literature analysis, logical analysis methods that involves the generalization of theoretical propositions is applied in the analytical part to analyze the performance measurement concept. In the methodological part modelling method is used. This method is based on normative assumptions according to experiences of various business organizations and peculiarities arising in municipalities when creating the performance measurement model in municipalities. The main result of this study is developed performance measurement model for municipalities, where new insights of institutional peculiarities and various regulators of these institutions are taken into account.

2. Theoretical background

Conceptualization of performance measurement

Performance measurement and its place in the general organization management system are interpreted in different ways, so this concept is relatively broad. Most of them are derived from many fields of science: the science of education, medicine, politics, mathematics, computer science, management and administration, and others. In a whole, the authors argue that the concept of the measurement depends on many factors: the measurement objective (useful information, accountability, performance improvement), the measured object (public policy, program, activities of the organization), public administration (social policy, education, energy, culture), the theoretical and practical perspective on the measurement of the type (ex ante, ex-post, mid-term, summative, formative) measurement of the concept or model (goal-oriented measurement, responsive measurement of a theory of action based on the assessment), assessment in a broad sense of the context (political, economic, organization, and so on. environment, a culture of measurement). For these reasons, the measurement is very flexible, but also it is a vague term. Due to the lack of a common performance measurement concept, Table 1 summarizes the other author’s formulated concepts of performance measurement.

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<th>No.</th>
<th>Concept</th>
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<td>1.</td>
<td>Performance measurement - operational processes and (or) the evaluation of results on the basis of activities (programs) theory.</td>
<td>Chen (1997)</td>
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<td>2.</td>
<td>Performance measurement - public management activities, which aims - to generate a practical use for information on the assessed value of the object.</td>
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3. **Performance measurement** – the application of the research methods by estimating the object and its actual environment (context) and assessing process-involving stakeholders. 
   **Author**: Alkin (2004)

4. **Performance measurement** - this is the investigative procedures of the systematic application of social-based public programs seeking to evaluate the concept, implementation and efficiency of performance. 
   **Author**: Rossi, Lipsey, Freeman (2004)

5. **Performance measurement** – in the context of public administration context, the assessment of inputs, processes and results in the decision making process. 
   **Author**: Stufflebeam (2007)

6. **Performance measurement** - is a useful, constantly renewing the organization's management subsystem, including the most important force components of the measurement process - measuring, monitoring and planning system with the necessary parameters (inputs, processes, outputs) and related with the external environment through feedback. 
   **Author**: Gimzauskiene (2007)

7. **Performance measurement** – a systematic and periodical process that assesses the individual employee efficiency and productivity by certain predefined criteria and goals. 
   **Author**: Pollanen (2005)

**Source**: adapted by the authors

Based on the outlined definitions of performance measurement drawn by various authors, it can be said that scientists perceive a performance measurement as an application of scientific methods in order to obtain information on the specific activities that are relevant to specific stakeholders. Therefore, a holistic description of the performance measurement could be: performance measurement is value of objective reality by systematically implementing activities.

Before creating the performance measurement model in municipalities, it is important to draw attention how public organizations describe the performance measurement on their activities. Organization of Economic Cooperation and Development (OECD) (2004) defines performance measurement as a systematic and objective assessment of an on-going or completed project, programme or policy, its design, implementation and results. Aims of the measurement are understood in two ways: first, as an attempt to determine the appropriateness of objectives and implementation and the second, to develop efficiency, effectiveness, impact and sustainability. Measurement also is referred to the process of determining the worth or significance of a performance, policy or program and the information received is being provided for the decision-making processes. The declared concept of performance measurement by United Nations (2012) also emphasizes the systematic measurement: measurement is a process where public management, a project, program, strategy, policy, scope, themes, sectors, institutions are involved and that should be systematic and impartial. It is also emphasized that the main purpose is to investigate why and to what extent anticipated and unanticipated results are achieved by measuring the results chain, processes, contextual factors operating in the broad sense of appropriateness, impact, effectiveness and efficiency. While European Commission (2012) defines performance measurement as a process by which is seeking to assess whether the results of the work carried out do not confront with the set objectives. The main aims of measurement are to improve the management, especially in the light of past lessons of public actions and to enhance accountability capabilities, ensuring greater transparency. The European Commission emphasizes that both the concept and purpose of performance measurement are dependent on the specific initiatives of public management practice, whether it is accountability, quality improvement and policy priorities in the quest or objective allocation, distribution, and contextual factors identified as significant.

The overview of the performance measurement concepts drawn by different authors revealed that the managerial point of view is dominating. This is because the measurement is mainly understood as a process that provides decision makers information on the performance from various aspects. What is more, in the contained concepts of performance measurement clearly noticeable the measurement perspectives of performance objectives and results, the different applications of
scientific methods and theories based measurement factors. This demonstrates that these components are important means of measurement level.

Necessity of measuring the performance for municipalities

In literature, there are many different options of how performance measurement can have a positive impact on municipal activities. U.S. Ministry of Internal Affairs (2010) argues that the main reason for the performance measurement carried out in the municipalities is the quality improvement - initially at the level of the individual employee and, ultimately, throughout the organization. Kondrasuk (2011) adds, that performance measurement systems provide elected officials with objective information they can share with constituents when they discuss the rationale for decisions or votes they have made. Whilst, Mooney (2009) notices that a good data from performance measurement systems may help elected officials reach agreement on priorities faster, and with a higher comfort level make the right decisions. Finally performance measurement principles and practices give municipalities the ability to provide easily understood and timely information to the public so citizens are able to assess the results their municipality is producing and fulfil their role as collective owners of municipalities (National Performance Management Advisory Commission, 2010). In all, it is important that municipalities do not lose sight of the fundamental objectives when measuring the performance. Bracegirdle (2003) suggests grouping the objectives in three main categories:

1) To provide accountability. This means either public accountability as between government and citizens, or internal accountability as between department heads and council members.

2) To improve performance. This is about improving the policies, programs, plans and processes used in the provision of services, or the quality, quantity and cost of the services.

3) To help determine expenditures. This means taking a results-based budgeting approach, which connects resource allocation to specific, measurable results that reflect, agreed priorities. Such division can facilitate municipalities to set the direction in which it is appropriate to observing the activities carried out by the assessment of the performance.

It is obvious, that in the measurement process of knowledge-based economy is not enough just to collect and measure the data on the activities of the organization and analysis of information obtained from the proper decisions. The specific characteristics of municipalities should be taken into consideration to promote the efficiency and effectiveness of the performance measurement system, which is a good basis for the performance measurement model formation in municipalities.

Various regulators impact on municipalities’ performance. Performance of municipalities largely depends on unique institutional, law governed and regulated operating characteristics. Among the great diversity of performance regulating aspects in municipalities, main regulators, determining the identity of performance in municipalities, can be distinguished. Lithuanian laws provide a detailed identification of functions and liabilities of municipalities that provide local government entities with a plenty of responsibilities to implement the mandatory provisions of the laws. Therefore, the law, and municipal regulatory authorities is the first operational controller for the performance of municipalities. The environment of performance measurement also includes the institutions and stakeholders that may also have a direct or indirect impact on the municipalities and functions of each its institution. So municipality’s dependence on the central and / or regional authorities has a significant impact on its performance. According to the degree of decentralization, local autonomy makes the decisions, carry out the administrative functions and operate on the financial resources of the legislation of discretionary limits by themselves. Municipalities also perform a number of functions delegated by the state where the implementation of the funding comes from the state and / or regional budgets, and for which the municipality is accountable to the central or regional authorities. Budget and appropriations are also attributable to the activities of municipalities regulating entities, since on the size and allocation of appropriations depends the
quality of performance carried on various projects and activities. Also accountability between the subdivisions of municipality or accountability between the municipality and responsible governing bodies, also determines the performance of municipalities. This factor appears that all local entities and third institutions to be strictly regulated, and a clear system of reporting and settlement of the work done is prepared. Accountability involvement into the performance measurement system would clearly structure the division of such roles. Another important aspect of the regulation is the local community where the municipality operates. Only a positive assessment of the local community about the performance of municipalities can ensure proper and efficient local public services. Meanwhile, the control authorities can be attributed to the activities of municipalities indirectly regulating side.

The exclusivity of performance measurement influencing peculiarities in municipalities. The municipalities in their composition and form of government are significantly different from the private organizations. Many factors appear which determine the implementation complexity of performance measurement in the municipalities.

First of all, one of the most important features that distinguish municipalities from other organizations is a variety of objectives. While private sector organizations diversify their own products, however selected range of activities in these organizations is not as wide as in municipalities, whose activities cover a broad range of functions, from the care of homeless animals and street cleaning to health care and education. The next fact, which appears as a complex in municipalities is competition. Most often, this aspect occurs when several municipalities compete between each other to compare the performance by matching the information to decide about their own strengths and weaknesses. However, the Palmer (1993) and Thiel, Leeuw (2002) state that one of most important reason is the standardized criteria lists, with which all the indicators are evaluated, have the advantage of making the performances more comparable.

The organizational structure of municipalities also determines the complexity of performance measurement systems in municipalities. Without a deeper look at the local institutional differences across countries, it is possible to distinguish that the municipality is an organization made up by authorities (local councils), executive (mayors, commission, board) and hierarchically organized body of employees - administration. Municipalities are different from organizations such as, for example, departments, ministries and other budgetary institutions, which do not have special interest groups representing the institution. On the other hand, the municipality is different from social organizations and political parties, in which executive power-implementing employees housing is undeveloped. What is more, municipal organizational structure is characterized by the fact that local governments establish and manage a variety of enterprises and institutions providing public services. These companies and institutions are not autonomous, municipalities provide them with financial and other resources for their activities and such institutions have to pay to municipalities.

Radnor and McGuire (2004) point public interest as a distinguishing feature of municipalities. Municipalities unlike all the public sector organizations are created to defence the collective interest, must serve the public interest. So, under this exclusivity of municipalities, the performance indicators should be regarded as significant, but not essential when measuring the performance of municipalities. The key elements are customer needs identification, customer satisfaction surveys and quality of service standards (Folz, 2004). In all, people are the critical factor in making performance measurement work. Staff needs to be engaged and involved. IDeA (2005) based on a MORI survey of employee attitudes in local government, states that staff in higher-performing municipalities have higher levels of commitment and motivation. They have a greater ownership of municipality performance priorities because they feel more involved.

Earlier mentioned municipal elements reflect the complexity of their performance exclusivity and uniqueness. The performance measurement system is inconceivable without these features as the main performance measurement elements in municipalities, which determine its exclusivity. Conceptual components, reflecting the complexity of the elements of composition and the links between them are illustrated in Figure 1.
Figure 1. Municipality’s performance measurement exclusivity influencing elements

After the key regulators and complex elements of municipalities are set, overall performance measurement can be divided into three main blocks. The first block includes the requirements arising from the external environment. These elements may vary depending on the municipality or department, and on-going evaluation scale. The second block includes the segregation of municipality’s performance influencers. The third block represents the everyday performance and this measurement unit includes separate activities, which include goals, input, process and output elements of the measurement. The assignment of measurement targets to the elements of goals, input, process and output is used to reflect the cause-effect relations, in other words, to evaluate what impact is made to each other. Meanwhile, the performance measurement includes six phases that make up the total of the performance of the municipality. However, it is therefore important to evaluate the results and relate to the overall municipal strategy for assessing whether they have achieved their objectives.

Data transformation into information process is related to the accountability connections in municipality. Based on the literature, a series of possible different municipalities reporting communication divisions are suggested. However it is proposed to focus on three types of
accountability: bureaucratic and managerial, political and social in performance measurement process. Bovens (2006) states, that bureaucratic and managerial accountability characterizes when subordinates have to follow directions and focus on the priorities of the leaders at the top of the bureaucratic hierarchy. Such accountability means that civil servants are directly accountable to their organizations' leaders for their carrying out the instructions and accepted goals and for the conduct of its subordinates. Political accountability is when civil servants are accountable to elected officials for their wishes, which are set out the state’s policy. This policy is collectively defined by laws and separate executive orders (Strom 2000). Social accountability includes the accountability of public officials to citizens. It is therefore important to understand and weigh the fact to whom should be given priority, highlighting the priorities, needs assessment and other interests. All accountability categories, in particular the social accountability, incorporation of measurement into the overall municipal performance measurement process can help achieve greater public transparency.

Development of the performance measurement model formation

Modeling method was selected to formulate the methodological decisions, on which the whole performance measurement system will be based. The theoretical solutions of the model formation and the whole structure of the model is formulated according to the main principles and complex elements of municipalities that were described on the theoretical part of the paper (see Figure 2).

Figure 2. Performance measurement model formation

Municipal performance measurement system interconnection elements are stated in Figure 2. The performance measurement system includes both external and internal environment measurement. The external environment consists of various influencers, leading to performance
measurement complexity in municipalities, that have been discussed previously. The strategy of municipalities is the foundation for the measurement of performance, which affects all municipal activities in further measurement stages. According to the main municipality's priorities that will be measured, the key performance purposes of the measurement are set. On the basis of the set goals, the performance indicators are determined. Through the input elements and processes, the affect is made to the output - the results of municipal described elements. Output elements affect the financial and non-financial performance of municipality. When the environmental influencers are evaluated and when the performance measurement in the internal environment of municipality is made, an overall performance measurement information is received. In order to make the performance evaluation system function efficiently, the separate practical steps and measures to achieve them of the system is provided.

**Performance measurement determination of scope.** The aim of the determination of performance measurement scope is to formulate the limits of performance measurement in municipalities under which it would be clear what is expected, what will be assessed and to what extent the performance will be measured. To determine the volume of performance measurement it is offered to state what is the main objective of measurement. Also the object of performance measurement should be defined - whether the municipality will be measured as a whole, including all structural units, or the systematic of municipality will be measured, involving one or more subdivisions. Another aspect is the involvement of the peculiarities that have a direct impact on the measurement activities, and which should be also included in the performance measurement. Next the level of performance measurement that will be conducted is decided, identifying aggregated areas of performance measurement. Also, it is important to predict whether the performance measurement will be included with national, local or organizational (daily management) objectives of the measurement, and thus which spheres of indicators will be measured. Accordingly, the interest parties are foreseen to which the information obtained will be relevant in order to focus in advance on the target audience and shape the performance measurement purpose.

**Investigation of environment.** It is extremely important to analyse the structure of the municipality, set the activities and to investigate the effects of performance regulating entities. The most important are regulation of laws that define the main activities and areas of expertise, different interest groups, accountability relationships, identifying the accountable to municipality institutions, and even those, which municipality are considered to be accountable, as well as documents on the basis reflected in such links. Organizational culture assessment and budgeting rating also affects the performance of the regulatory framework prediction. All these features are reflected in municipalities existing local strategic planning and strategic operational papers where both long and short performance guidelines of this institution are defined in detail.

**The analysis of strategic operational documents and priorities.** Based on the previously established performance measurement purposes, a thorough analysis of municipality’s or the department's strategic operational document is performed to identify key priorities and strategic plans for the future. Also it is seeking to identify who is responsible for the setting of these targets. In addition, it is important to identify priorities in order of importance, as it will be the basis to define the objectives and indicators.

**Selection of objectives and indicators.** At this stage, the key is to define the main objectives to be achieved through the performance of municipalities. The main objectives are formulated in line with the priorities identified in the previous stage. The breakdown of the goals will make it easier to select key performance indicators according to the set goals. In order to obtain reliable data from performance measurement, it should be pre-provisioned how the set goals associate with accountability. Therefore, it is appropriate to mark the set goals in accordance with the municipalities accountability specific types: bureaucratic / management, political and social.

Selection of indicators is one of the most complicated stages because of the performance measurement indicators selection the proper municipal activities will be evaluated. In order to implement an effective performance measurement system should be developed in the
corresponding indicators. Performance indicators should provide information on whether the objectives have been met and whether the mission is fulfilled. Given that municipal activities is very broad, it is appropriate to follow a specific breakdown. A key consideration in measuring the level of strategic priorities in municipalities, there is the fact that local authorities should carry out the coordination of social and economic development of local initiatives. It should also include performance indicators to help measure progress by the local government developed strategy reports. Measuring the service programs carried out by the municipalities, such as development and planning, roads, transportation and housing, should continue to be the main instrument for the provision of services in municipalities. At this level, indicators should be such as to reveal the service efficiency and effectiveness. At the level of personnel the performance measurement indicators should be designed in order to provide evaluation of staff feedback on the appropriateness of the work. In this case, the expectations of employees and managers revealing indicators could be adapted.

**Data collection.** Data collection and conversion into the relevant information can be identified as the capturing of the facts according to the defined parameters for each indicator. It is important to determine how the information is collected, since the only reliable and complete information may provide an effective performance measurement data. It is therefore proposed for the collection of performance measurement data to use a dual method of data collection – interview method combined with the analysis of the performance documents. Such a multi-methods of data collection will make sure that the performance measurement information is reliable and correct. Also in this way the control function will be ensured, since it will be possible to determine whether the provided information contain the actual activities.

**The measurement result applicability determination.** The main mission of performance measurement model in municipalities is not only to prepare the performance measurement systems, but also to help municipalities to implement the changes related to the preparation of performance measurement system and the use of performance measurement information, to ensure the conditions necessary for the effective performance measurement system functioning, also to minimize the complexity underlying aspects of performance assessment. Also it is important the identification of factors that determined the municipality’s or its subdivision’s performance measurement results. According to the separated complexity elements of the municipalities, internal and external factors that may influence local activities can be distinguished. The assessment of the impact of these factors can help to improve the future performance. It is therefore proposed to identify such factors that would enable to identify positive and negative factors influencing the activities of the municipality.

It should be noted that before implementing the created performance measurement model for municipalities it is important to evaluate the various risks of the model adaption. Firstly, the risk of improperly selected performance indicators can appear. Also, the manipulations on performance indicators can be applied. What is more, the limitations are possible on the assigned financial resources. In municipalities the decisions mostly are made by the politicians, so the results received from the performance measuring do not mean that they will be used properly or may be not used at all. Lastly, most municipalities find innovations difficult to adopt.

**3. Discussion**

Performance measurement can be defined as an application of scientific methods in order to obtain information on the specific activities that are relevant to specific stakeholders. Also it is regarded as a systematic and objective assessment of an on-going or completed project, programme or policy, its design, implementation and results, where also strategy, policy, scope, themes, sectors, various institutions are involved. In addition, when measuring the performance it is important to access the results of the work carried out do not confront with the set objectives.

Properly designed performance measurement system, which coincides with the organization's culture, can be an important organizational efficiency, development assistant. The most essential
objectives are to provide accountability, to improve performance and to help determine expenditures. However, municipalities, as an institutional unit, are extremely complex, so the peculiarities of such organizations must be declared.

By forming the model of performance measurement in municipalities is inevitable to evaluate the peculiarities and various regulators impact on municipalities’ performance. The main performance regulators of municipalities are laws, regulatory authorities, institutions and stakeholders, budget and appropriations as well as various types of accountability connections. While the peculiarities that apply in municipalities are a variety of objectives, that requires to prepare a number of different performance indicators; organizational structure; competition, that results in criteria lists standardization, with which all the indicators could be compared. In addition, public interest is one of the key factors that influence the performance measurement system, where the indicators such as customer needs identification should be incorporated. What is more, as the participants of a system should be included both the entire municipal staff (elected officials, local councils, executives, municipal administration bodies) and the local community. In addition, it is also important to focus on three types of accountability: bureaucratic and managerial, political and social in performance measurement process.

According to the prepared performance measurement model in municipalities, the performance should be measured encompassing external and internal environment. What is more, when measuring the performance, the 6 main stages should be followed in order to obtain the relevant information of performance: performance measurement determination of scope, investigation of environment, the analysis of strategic operational documents and priorities, selection of objectives and indicators, data collection and the measurement result applicability determination.

The theoretical framework of performance measurement and its implementation stages should be tested empirically. The empirical validation could be realized combining quantitative and qualitative methods. The factors that shape the complexity elements and various performance regulators as well as accountability relations between different stakeholder groups and relations between different performance components should be evaluated by using the qualitative methods. Meanwhile, the aspects of measurement and a set of indicators should be validated by using quantitative methods.

References


