

# **Local units' size as determinant factor for performance and quality measurement in Croatia**

*Romea Manojlović*

**\* DRAFT PAPER \***

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Performance measurement is a highly advocated managerial instrument used with the purpose to collect information on various performance dimensions which can be used for decision making purposes and for the improvement of future performance. This paper devotes special attention to one performance dimension, namely the quality. The problem with the quality in the public sector is that it is hard to define and to measure. In order to enable its measurement, this paper defines quality measurement as the measurement of citizens' satisfaction with the services provided by public organization, the speed in which the services have been delivered, the attitude of public servants toward citizens and the use of some quality improvement instruments. The paper investigates whether local unit size, defined as the number of civil servants employed in local unit organizational bodies and their budget, has any effect on the overall performance and especially quality measurement. The results are used to formulate suggestions about the need for territorial restructuring of Croatian local units and for the improvement of performance and quality measurement. In order to formulate the conclusions, the results from the empirical research conducted in Croatian local self-government in 2014 are being presented.

*Key words:* performance measurement, performance dimensions, quality measurement, organizational size, local self-government, Croatia

## **1. Introduction**

Performance measurement is a highly advocated managerial instrument used by a great number of public sector organizations. The basic purpose of this instrument is to receive information on a variety of performance dimension which can be used for decision making purposes. Performance is a multidimensional concept, meaning that it cannot be simply defined as efficiency of effectiveness. In order to embrace as many performance dimensions as possible and examine the

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· Romea Manojlović, PhD, senior assistant at the Chair of Administrative Science, Faculty of Law, University of Zagreb, e-mail: romea.manojlovic@pravo.hr

extent in which they are measured, in this paper performance, in a larger sense, is defined as the realisation of the expected outputs and outcomes but with the rational use of the available resources (efficiency and cost-effectiveness) and with the assurance of the overall quality of the conducted actions. This definition enable to extract five dimensions (outputs, outcomes, efficiency, cost-effectiveness and quality) which can be measured by public organizations. All dimensions will be discussed but special attention will be devoted to quality and its measurement.

The basic goal of the paper is to examine whether size has any influence on performance measurement, namely whether organizational size, operationalized as the number of persons employed and total budget, stimulates the measurement of greater number of performance dimensions and especially whether it stimulates the more intensive quality measurement. The literature review shows that researches conducted so far have proven size to be a determinant for performance measurement. However, no evidence of such researches have been found in Eastern European countries and in Croatia, so this paper tries to fill the gap. Hence the basic hypothesis that is being examined in this paper is that organizational size is positively correlated with performance and in particular with quality measurement.

The system of local self-government in Croatia presents many flows, one of them is the fragmented organization of local units which means that local units are rather small, both by their population as well as their economic capacity and the talk about the need for their restructuring is underway. This paper tries to contribute to this debate. Namely, if organizational size is a determining factor that stimulates performance and quality measurement, and, logically, bigger local units have greater number of persons employed as well a bigger budget, than this is one more reason to suggest territorial reconstruction and the creation of smaller number of bigger local units.

Methodologically, the paper relies on the use of questionnaires as a research method. The questionnaires have been sent to 123 local organizations and the results have been statistical analysed.

The second part of the paper is intended to give a basic notion on what performance measurement is, give a definition of performance that is applicable to this paper and to explain how quality can be measured in general and how it will be measured in this paper. The third part of the paper is devoted to hypothesis formulation and literature review, while in the fourth part

the results of the conducted empirical research are being presented and discussed. The last part of the paper presents the theoretical conclusions and some practical suggestions.

## 2. Defining performance measurement

Performance measurement can be defined in a number of ways (s. De Lancer Julnes, 2008: 1450, Bouckaert and Halligan, 2008: 26, Neely, 2008 in Moulin, 2002: 188, De Bruijn, 2007: 10, Van Dooren et al., 2010: 25, Hatry, 2006: 3, Ketelaar et al., 2007: 8, Ammons, 2008: 1455, Klovieni and Valanciene, 2013: 384-386) but basically it represents a number of activities which are used in order to obtain information on a variety of performance dimensions.<sup>1</sup>

Performance measurement is not a new concept in public administration; its roots can be found already in the doctrine of cameralism which was dominant on the European continent in the 18<sup>th</sup> and 19<sup>th</sup> century<sup>2</sup> and it was continuously present in public administration in the last two centuries.<sup>3</sup> However, its influence has become prominent since the beginning of the 1980s and the emerging of the doctrine of New Public Management (NPM) which had as one of its basic provisions the orientation toward outcomes and their measurement.<sup>4</sup> Although NPM has generated a great number of defects (s. Koprić, 2006: 355) and now it is possible to speak of the end of the pure NPM,<sup>5</sup> new administrative doctrines, especially those Neo-Weberian State, have performance measurement as one of their important components (s. Bouckaert and Pollitt, 2011:

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<sup>1</sup> This definition is in line with the definition given by Van Dooren et al. (2010: 25) who state that performance measurement is the bundle of deliberate activities of quantifying performance.

<sup>2</sup> The basic goal of cameralism was the improvement of the management of the state in order to achieve the general wellbeing (Puljiz, 1999: 299). More on cameralism s. Koprić and Marčetić, 2003: 215-216, Pusić, 2002: 46-47.

<sup>3</sup> Van Dooren has identified 14 movements, starting from the 17th century that had an impact on performance measurement (Van Dooren, 2006: 47-79). Data on historical development of performance measurement can be found also in Talbot, 2010: 143-167 and Heinrich, 2007: 25-28.

<sup>4</sup> A clear example of this new orientation is Great Britain. Some say that it is possible to mark the exact date of the beginning of the Thatcher managerial revolution, namely the 17<sup>th</sup> May 1982 when the famous Financial Management Initiative (FMI) was launched (Carter et al., 1995: 5). FMI required that all government policies, but also all individual units within the government, have clear objects of what they need to achieve, the resources needed to be allocated for particular activity and programme and a set of performance indicators needed to be developed in order to enable to assess the success in achieving the objectives (Carter et al., 1995: 5). After the initiation of FMI, performance indicators started to bloom and there were more than 2000 indicators in 1988 (Carter, 1991: 86). In the USA, this orientation is most clearly explained by the famous book *“Reinventing government”* in which the authors state that only *“What Gets Measured Gets Done”* (Osborne and Gaebler, 1992: 146-147)

<sup>5</sup> As Drechsler and Kattel put it: *“Towards the Neo-Weberian State? Perhaps, but Certainly Adieu, NPM”* (Drechsler and Kattel, 2008: 95-101).

118-119, NISPAcee, 2008/09). Also, new international documents that stimulate better governance have performance management as one of their elements.<sup>6</sup>

So, it is possible to say that performance measurement has found its place in the public administrations of the majority of countries, in all the levels of government as well as in international organization (Van Thiel and Leeuw, 2003: 267). Basically, performance measurement is here to stay (de Lancer Julnes, 2009: 8).

Performance measurement needs to be distinguished from performance management. Namely, performance management comprises not only the pure measurement of performance dimensions but also the use of the received performance information in order to increase the overall performance of the organization.<sup>7</sup> Measurement is one component of the performance management process, it stimulates information usage, but measurement in itself is not sufficient to secure that the received information will be actually used (De Lancer Julnes and Holzer, 2001: 700-701, Ammons and Rivenbarck, 2008, Yang and Hsieh, 2007: 867, 869, Sanger, 2008: 72).

Therefore, the basic purpose of performance measurement is to receive information which can be used for future performance improvement.<sup>8</sup> Performance measurement and performance management can create a lot of benefits. First of all, the purposeful use of performance information can rationalize the decision-making process and stimulate the so called “*evidence based management*” (s. Pfeffer and Sutton, 2006) in which decisions are not taken basing on subjective feelings but basing on concrete data. Also, the publication of performance data can increase the responsibility of public organization and government in its totality towards citizens: if citizens know the level of performance they can expect then they can control whether it has been achieved and whether they are satisfied with it. The publication and use of performance information can therefore improve the communication between public administration and citizens, but also the communication inside the organization itself (s. Melkers, 2006). Performance measurement can stimulate the innovation processes inside organization, the

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<sup>6</sup> For example, the Strategy on Innovation and Good Governance at Local Level by the Council of Europe states 12 principles of good local governance and the existence of performance management system is one of the prerequisite for assuring efficiency and effectiveness (CoE, 2007).

<sup>7</sup> Not every use of performance information accounts as performance management. Moynihan distinguishes between four types of uses of performance information: purposeful, passive, political, perverse (Moynihan, 2009: 593) but it is possible to say that only purposeful and continuous use of performance information accounts as directly oriented toward the enhancement of the overall organizational performance.

<sup>8</sup> Although it is necessary to say that performance information can be used also in other ways, s. Benh, 2003, Van Dooren et al., 2010: 100-101, de Lancer Julnes, 2011.

benchmarking between organizations (Van Dooren et al., 2010: 152-154) and the creation of new organizational culture oriented toward performance improvement.

Of course, it is important to be aware that performance measurement can bring to a number of unintended consequences, such as orientation exclusively towards objects that are being measured and neglecting other activities in the organization, fabrication of performance information, spending time and resources on various measurements without ever using the received data and forgetting why the measurement is being conducted in the first place, etc.<sup>9</sup>

## **2.1. Performance dimensions**

When studying performance measurement the thing which needs to be resolved is what is meant under the term performance. Siegel and Summermatter have conducted an extensive research on how performance is defined using papers published in 15 leading journals and they have concluded that there is no final definition (Siegel and Summermatter, 2008).

In order to define performance, for the purpose of this paper the definition given by Van Dooren et al., (2010: 17-25) will be used as a starting point. Namely, they have defined performance in two ways: as the result of a production process and as the realisation of public values.

According to the production model of performance (s. Van Dooren et al., 2010: 18) it is possible to define outputs as the concrete results produced by the organization on which the organization has complete control. Outcomes can be defined as the effects produced by the organization. They are not the sole product of the concrete organization but they are also influenced by the environment. Outputs are never an end in themselves in the public sector: the public sector has to be oriented towards long-term outcomes (Bouckaert and Halligan, 2008: 16). Efficiency is the ratio of inputs towards outputs, meaning how much resources has been used in order to produce the outputs, while cost-effectiveness is the ratio of inputs towards outcomes.

Using these terms, it is possible to define *performance as the realisation of the expected outputs and outcomes but with the rational use of the available inputs (efficiency and cost-effectiveness)*.

This definitions enables to extract four performance dimension: outputs, outcomes, efficiency and cost-effectiveness, whose measurement by Croatian local units will be further examined.

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<sup>9</sup> For negative consequence of performance measurement s. Bouckaert and Balk, 1991, Van Dooren et al., 2010: 158-166, Randor, 2010.

However, although the main dimensions of performance are outputs and outcomes and their production, in the public sector the notion of quality has a special place. It is not enough to produce the expected outputs and outcomes: it is necessary for them to be of appropriate quality. Also, the procedure which has brought to the production of outputs and outcomes has to respect certain rules and has to be of certain quality itself. This creates the necessity to insert the fifth performance dimension, namely the quality and to define *performance in a larger sense as the realisation of the expected outputs and outcomes but with the rational use of the available resources (efficiency and cost-effectiveness) and with assurance of the overall quality of the conducted actions.*

In this paper, when talking about performance measurement the narrower definition of performance will be used, while quality measurement will be treated separately.

### **2.1.2. Defining quality and its measurement**

While outputs, outcomes, efficiency and cost-effectiveness as performance dimensions are rather easy to define, the notion of quality is a complicated one. In order to emphasize its importance, some authors consider quality to be an intermediary outcome (Hatry, 2006: 19), but it is necessary to admit that performance is a difficult concept to define and operationalize (Džinić, 2012: 1005-1011). Namely, it is obvious that quality cannot be measured mathematically as the four aforementioned performance dimensions and it is difficult to quantify what constitutes good quality. However, it is also clear that this dimension cannot be neglected (s. Carter et al., 1995: 40-41).

The evolution of the concept of quality has passed through three phases. In the first phase the quality is understood as the respect of norms and procedures. In the second phase, which can be placed at the beginning of the 1960s, the quality was understood as effectiveness, meaning that the product/service serve its purpose and the purpose of the consumers. Finally, in the last development phase, the quality is understood in the sense of customers' satisfaction (Beltrami, 1992: 770, in Löffler, 2004: 6).

Even if the present view of quality as customer' satisfaction is accepted, it still remains rather vague how to measure this sort of performance dimension. In this paper, two approaches on how to measure quality will be explained. The first one is to accept that quality has many shade and

that it can be measured in different ways (Tampieri, 2006: 62), which means that different indicators of service quality can be chosen, for example: correctness, timeliness, accessibility, friendliness, simplicity, understandability, etc. (Setnikar Cankar, 2006: 52). The second one is the use of various quality improvement instruments. Quality improvement instruments can be defined as comprehensive tools intended to measure organizational quality in its totality. Some of these instruments are created for private sector organizations' and then translated into the public sector, while some have been created exclusively for public sector organizations (s. Talbot, 2010: 169-184). J. Džinić has classified quality 12 improvement instruments, starting from the most simple one (citizen's charters) to the most complicated one (EFQM Excellence Model) (Džinić, 2014: 33-101).<sup>10</sup>

### ***2.1.2.1. Defining quality measurement in this paper***

In order to assess the degree of quality measurement present in certain organization, in this paper the combination of the first and the second approach to quality measurement will be adopted.

Four indicators of quality measurement will be taken in consideration. First, it will be examined whether organization measure the *timeliness (speed)* of their service delivery. Second, it will be examined whether the organizations measure the *number of complains made against civil servants' conduct*. It is possible to suppose that complains are made because of the neglect of the appropriate rules or lack of correctness and friendliness on the behalf of the servants. Third, it will be examined whether organizational control *the citizens' satisfaction* with their services. Fourth, it will be examined if the organization *uses one of the four complex quality improvement instruments* (according to classification made by J. Džinić, s. footnote 10), namely ISO standards,<sup>11</sup> Balanced Scorecards (BSC),<sup>12</sup> Common Assessment Framework (CAF)<sup>13</sup> and participation to quality awards.<sup>14</sup>

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<sup>10</sup> The instruments are the following: citizens charters', customers satisfaction investigation, audits, swot analysis, pest analysis, ISO standards, Business process reengineering, Balanced Scorecard, Plan-Do-Check-Act circle, Common Assessment Framework, quality awards, EFQM Excellence Model (Džinić, 2014: 33-101).

<sup>11</sup> ISO standards are international documents defined by the International Organization for Standardization which prescribes the requirements, specificities, characteristics and instructions on how to assure that certain products or services have the appropriate degree of quality and are fit for use. There are almost 20.000 ISO standards but their subcategory ISO 9000 is devoted to the quality management and public organizations often use the ISO 9001 standards since they can receive a special certificate which assures they implement the proper quality management system (<http://www.iso.org/iso/home/standards.htm>).

It is possible to say that one organization measures more intensively quality when more indicators of quality measurement (timeliness, number of complains, citizen satisfaction and the use of complex quality improvement instruments) are present.

### **3. Size as determinant for performance and quality measurement**

#### **3.1. Literature review and research hypothesis formulation**

There is a variety of literature dealing with performance measurement. In this paper the literature review was conducted in order to find journal papers in which empirical researches on factors influencing performance measurement have been conducted. Papers dealing exclusively with the use of performance information (performance management), as well as descriptive papers have been excluded. Seven papers (Berman and Wang, 2000, Wang and Berman, 2001 and De Lancer Julnes and Holzer, 2001, Folz, Abdelrazek, Chung, 2009, Van Dooren, 2005, Yang and Hseih, 2007, Salazar, de Arkos Martinez, 2013) will be taken in further examination. These papers are chosen because they allow to extract a number of variables that stimulate performance measurement (Table 1).

Although the methodology implemented in these papers is different and also the time period and the studied organizations are different, with necessary precautions their finding can be comparable. Deeper examination of these papers enables the conclusion that organizational variables such as the leadership support, the human resources present in the organization, financial support, political support or organizational size can have influence on the degree of performance measurement, meaning that their presence increases the degree of measurement

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<sup>12</sup> BSC is a concept developed by R. Kaplan and D. Norton in their 1996 book «*The Balanced Scorecard – Translating Strategy into Action*». BSC presupposes the measurement of four organizational perspectives: financial, users, internal business process and organizational capacity since their measurement can increase the overall quality of the organization (s. Kaplan and Norton, 1996). Kaplan and Norton state also that in the public sector these four perspective, originally developed for the private sector, can be reduced to the measurement of only three perspectives: costs incurred, value created and legitimating support (Kaplan and Norton, 2001: 136-137).

<sup>13</sup> CAF is a quality improvement instrument developed especially for public sector organization. It is a self-evaluation questionnaire field by all the organizational members which enables the organization to see its weak points and benchmark the experience with other organizations using the same instrument (s. Džinić, 2014: 40-45).

<sup>14</sup> Quality awards are given to organization which distinguish themselves in respect to the quality of their services. Awarding the outstanding organizations can stimulate benchmarking and the diffusion of best practices. There are a number of quality awards developed for public sector organization, such as European Public Sector Award (EPSA). In Croatia there is the INPULS award given by the Croatian Association of Towns (s. Džinić, 2012, Džinić, 2014: 56-58).



existing in the organization. Five of these papers (Berman and Wang, 2000, Wang and Berman, 2001, Folz et al., 2009, Van Dooren, 2005 and Salazar and de Arkos Martinez, 2013) have concluded that size is an important factor that stimulates performance measurement (Table 1).<sup>15</sup>

Table 1: Papers analysing factors that stimulate performance measurement

| Paper                             | County  | Some factors that stimulate performance measurement   | Size is important (bigger organizations measure more) |
|-----------------------------------|---------|---|---|
| Berman, Wang (2000)               | USA     | Technical Infrastructure<br>Stakeholder Support   | Yes, but not directly examined                        |
| Wang and Berman (2001)            | USA     | External support<br>Central management involvement<br>Mission-oriented government<br>Professional competency<br>Resources   | Yes, but not directly examined                        |
| De Lancer Julnes, Holzer (2001)   | USA     | Internal requirements<br>Resources<br>Goal orientation<br>Information<br>Internal interest group  | Factor not examined                                   |
| Van Dooren (2005)                 | Belgium | Measurability<br>Size   | Yes   |
| Yang, Hseih (2007)                | Taiwan  | Stakeholder participation<br>Organizational support<br>Political support<br>Technical training  | Factor not examined                                   |
| Folz, Abdelrazek, Chung (2009)    | USA     | Type of government<br>Chief executives believe performance measures can help improve management decisions and support budget recommendations and decisions        | Yes, not directly examined                            |
| Salazar, de Arkos Martinez (2013) | Mexico  | Educational level on the municipal president<br>Resources<br>Size (budget, number of inhabitants, literacy rate)<br>Political unification with the state governor | Yes   |

This last finding is the starting point of the research conducted in this paper. Namely, if size has proven to be important in USA, Belgium and Mexico it is possible to think it will influence performance measurement also in Croatia. A further literature review was conducted to find similar papers discussing this topic in the ex-socialist countries since it is logical to suppose that

<sup>15</sup> It is important to emphasize that Van Dooren, 2005, operationalized size as the number of persons employed in the organization while other authors operationalized it as the number of inhabitants of local units.

results found in these countries are more likely to fit the Croatian circumstances. Although there have been researches on performance measurement in these countries in this literature review no paper dealing empirical with the relationship between performance measurement and organizational size was found. This is in line with the finding by K. Nomm and T. Randma Liiv who state that “*the studies on the introduction of particular performance based management tools in the Central and Eastern European countries have been rather descriptive and have ended up with contradictory conclusions*” (Nomm and Randma-Liiv, 2012: 860).<sup>16</sup>

This paper tries to fulfill this lack of empirical researches on performance and its measurement on the territory of Eastern European countries and to assess whether size is a determinant for performance measurement.

Starting from the findings of the previous researches it is possible to presuppose that organizational size is positive correlated with the measurement of a greater number of performance dimensions (outputs, outcomes, efficiency, cost-effectiveness). Since this paper is primarily oriented towards one specific dimension, quality, it is possible to say that organizational size will be positively correlated with quality measurement, meaning that bigger organizations will measure in a greater degree their timeliness, the complains on civil servants conduct, citizens’ satisfaction and will use more quality improvement instruments.

So the main research hypothesis of this paper is the following:

*H: Organizational size is positively correlated with performance measurement.*

When only the quality dimension is taken in consideration it is possible to formulate one sub hypothesis:

*Ha: Organizational size is positively correlated with quality measurement.*

### **3.2. Operationalizing organizational size**

Although it may seem easy to define organizational size, it is important to be aware that there are a number of different operationalization. Kimberly (1976: 587-588) states that organizational size can be defined as the physical capacity of an organization, as the personnel available to organization, as organizational input or output or as the resources available to organization. Each

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<sup>16</sup> The same is confirmed by Boyne who states that researches on government performance rely on the evidence from Anglo-Saxon and Scandinavian countries (Boyne, 2010 in Hammerschmid et al., 2013: 3).

of this operationalization's has its advantages and disadvantages, but in this paper two operationalization will be chosen. Namely, organizational size will be defined as the *number of personnel employed by the organization* and its *total budget*. This two operationalization are chosen because the number of personnel employed has proven to be the best indicator of organizational size (Child, 1973b: 170 in Kimberly, 1976: 582) and budget is an essential component of public sector organizations which determines their range of activities.

This sort of size operationalization enable further conclusion. In the context of local self-government it is legitimate to say that local units (organizations) with a bigger number of inhabitants have a greater number of civil servants employed in their administration and a bigger budget.<sup>17</sup> That means, if it proves that organizational size is an important factor that stimulate performance and quality measurement, that will be an argument for the creation of territorially and populationally bigger local units.

### **3.3. Local units' size in Croatia**

Croatia has a fragmented system of local self-government compound of 20 counties as second level local units, the City of Zagreb as the capital city with a dual status of first and second level local unit, 428 municipalities as first level local units created for rural areas and 128 towns as first level local units created for urban areas. Both the first as well as the second level local units are small. The average number of inhabitants in counties is 174.887 (Koprić, 2013: 11-12), municipalities have an average of 2.957<sup>18</sup> inhabitants and towns of 17.689 (Koprić, 2013: 7). The number of persons employed in local administrative bodies in municipalities is 4.018 and 6.385 in towns, plus 2.741 in the City of Zagreb (Franić, 2012: 2). This means that local units have an average of 9 servants in municipalities and 70 in towns (50 if the City of Zagreb is excluded) which means that Croatian local units are small. The average number of persons employed in county administration is 103, 8 (based on Franić, 2012: 2).

As for their financial capacity, it is small, too. Namely, Croatia is a highly centralized country and the share of local government in general government spending amounts to only 19,1%, or

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<sup>17</sup> One of the arguments for the creation of bigger local units is that they will have more inhabitants (tax payers) and by the consequence more resources (Ivanišević, 2006: 215, Koprić et al., 2014: 268).

<sup>18</sup> [http://www.dzs.hr/Hrv/censuses/census2011/results/htm/H02\\_04/H02\\_04.html](http://www.dzs.hr/Hrv/censuses/census2011/results/htm/H02_04/H02_04.html)

7% of GDP (Jurlina Alibegović, 2012: 34-35) which enable the conclusion that local budget are small. The majority of local government spending is done by the City of Zagreb and towns, while counties and municipalities amount to just 1% of the expenses in GDP (Ministry of Finance in Jambrač, 2013: 115)

The present organization of Croatian system of local self-government is often criticized by academic community which advocates for the reduction of the number of counties and local units, together with strong decentralization (s. Koprić, 2010: 133-135, Đulabić, 2013:195-198). This paper will try to participate in this debate and to assess whether local self-government territorial restructuring would stimulate greater performance (and quality) measurement.

## **4. Empirical research**

### **4.1. Methodology**

In order to test the set hypothesis the empirical research in Croatian local units has been conducted. A questionnaire has been sent to all counties (20), all towns and municipalities with population superior to 10.000 inhabitants (74) and regional and local development agencies (29).<sup>19</sup> The questionnaires were send between April and June 2014, in three rounds (first and third round as online questionnaire and the second round by regular post) to the heads of the organizations (county governor, town/municipality major or agency director) asking them to fill the questionnaire or to delegate it to the person who is in charge for performance measurement system in their organization.

The sent questionnaire contained ten pages, but here only questions relating to measurement of specific performance dimensions and organizational size will be discussed. In order to assess whether local units measure outputs, outcomes, efficiency and cost-effectiveness the respondent were ask to indicate the extent in which their organizations measures these performance

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<sup>19</sup> These agencies have been inserted into the research since every county has to have its regional development agency (according to the Law on Regional Development) and some towns have created their local development agencies. This agencies are small both personally as well as budgetary so they have been inserted in order to be sure to have a fair representation of small organizations (since the local units with fewer than 10.000 inhabitants were excluded from the research). Also, this research is part of a bigger research which has taking in examination three types of Croatian central state bodies, so three types of local bodies were chosen also on the local level (s. Manojlović, 2014).

dimension.<sup>20</sup> They were also asked to indicate a typical output/outcome/efficiency/cost-effectiveness indicator and the typical document in which indicators can be found.

In order to assess the degree in which the organization measures quality, seven questions were asked. The respondents were asked to indicate the extent in which their organizations measure the timeliness and citizen satisfaction.<sup>21</sup> In order to assess whether they measure the number of complaints submitted, the use of ISO standards, BSC, CAF or participation in quality awards they were asked to indicate if these instruments are present in their organization.<sup>22</sup>

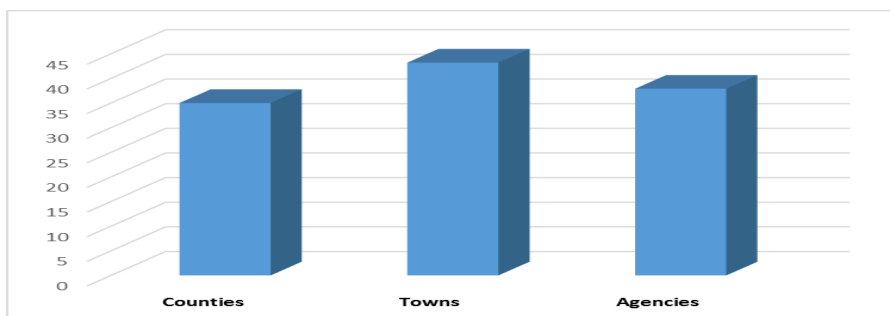
The respondents were asked to indicate the total budget of their organization for 2013 and the number total number of persons employed both permanently and on the short-term contracts. These answers are used as an indication of organizational size.

The received data are analysed with methods of data inspection and descriptive statistics (mainly cross-tabulation and correlations) using SPSS<sup>23</sup> and Excel.

## 4.2. Results

The total turnout to the questionnaire was 40% and the distribution was even between the three groups of organization which allows the data analysis. The turnout was smallest for the counties (N=7 (35%)), than agencies (N=11 (37,9%)) and the biggest for towns (N=32 (43,2%)).

Figure 1: Turnout distribution



<sup>20</sup> The coding was done in the following way: 0= never/ 1= sporadically (just for some activities)/ 2= to a greater extent (for the majority for activities)/ 3= systematically (for all the activities)

<sup>21</sup> In this case the ordinal variables were used and the coding was done in the following way: 0= never/ 1= sporadically (just for some activities)/ 2= to a greater extent (for the majority for activities)/ 3= systematically (for all the activities).

<sup>22</sup> The coding was "1=yes" or "0=no".

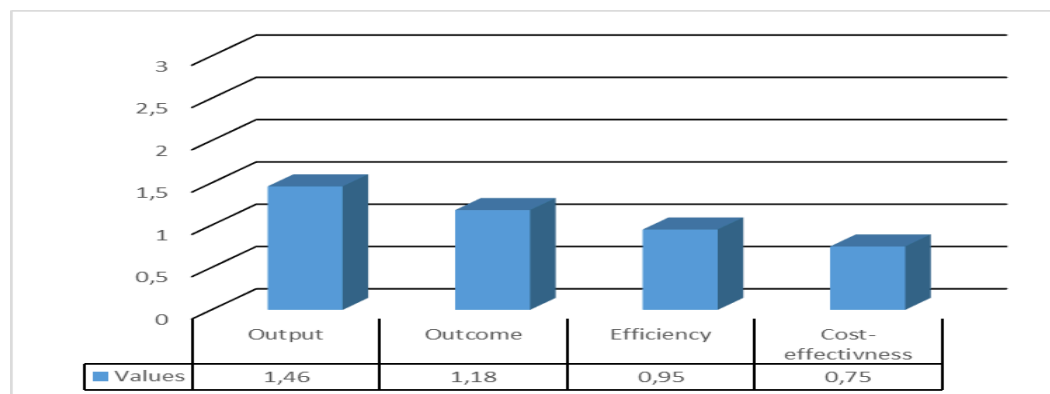
<sup>23</sup> Statistical Package for the Social Sciences 20.0.

When controlling the measurement of the first four performance dimension it is possible to see that performance measurement is not highly implemented in Croatian local units. Only outputs are measured to a greater extent or systematically by almost 50% of the organizations who responded to the questionnaire while other performance dimensions are measured in a considerably lower extent (Table 2). If local and regional agencies are excluded and only units of local and regional self-government are taken in consideration the situation is even worse since the number of organizations which measure results in a greater extent or systematically declines from 48,97% to only 42,10%.

Table 2: Performance dimensions measurement

| Performance dimension | Outputs  | Outcome  | Efficiency | Cost-effectiveness |
|-----------------------|----------|----------|------------|--------------------|
| Mean                  | 1,46     | 1,18     | 0,95       | 0,75               |
| Median                | 1        | 1        | 1          | 0                  |
| St. deviation         | 1,022702 | 1,024306 | 0,965091   | 0,933117           |
| Number of answers     |          |          |            |                    |
| Never                 | 10       | 14       | 18         | 24                 |
| Sporadically          | 15       | 18       | 16         | 10                 |
| To a greater extent   | 15       | 9        | 8          | 9                  |
| Systematically        | 9        | 7        | 4          | 2                  |
| %                     |          |          |            |                    |
| Never                 | 20,42    | 29,17    | 39,24      | 53,34              |
| Sporadically          | 30,61    | 37,5     | 34,78      | 22,22              |
| To a greater extent   | 30,61    | 18,75    | 17,39      | 20,0               |
| Systematically        | 18,36    | 14,58    | 8,69       | 4,44               |

Figure 2: Performance dimensions measurement



As said, quality measurement is examined taking into consideration seven elements: the measurement of the speed of service delivery, the measurement of citizens' satisfaction, the

measurement of number of complains made against the behaviour of servants and the use of four quality improvement instruments. The Table 2 clearly shows that only two elements are measured in a greater extent in more than 50% of organizations: citizens' satisfaction and the number of complains, while the other elements are neglected and CAF is not even know in Croatian local self-government.

Table 3: Quality measurement

| Quality dimension                 | Timeliness (speed) | Citizens' satisfaction |       |
|-----------------------------------|--------------------|------------------------|-------|
| Mean                              | 0,91               | 1,36                   |       |
| Median                            | 1                  | 1                      |       |
| St. deviation                     | 0,941554           | 0,993602               |       |
| Number of answers                 |                    |                        |       |
| Never                             | 20                 | 7                      |       |
| Sporadically                      | 15                 | 15                     |       |
| To a greater extent               | 10                 | 16                     |       |
| Systematically                    | 3                  | 11                     |       |
| %                                 |                    |                        |       |
| Never                             | 41,67              | 14,3                   |       |
| Sporadically                      | 31,25              | 30,61                  |       |
| To a greater extent               | 20,83              | 32,65                  |       |
| Systematically                    | 6,25               | 22,44                  |       |
|                                   | Answer             | Number                 | %     |
| Complains                         | No                 | 21                     | 44,68 |
|                                   | Yes                | 26                     | 55,32 |
| ISO standards                     | No                 | 32                     | 80    |
|                                   | Yes                | 8                      | 20    |
| Balanced scorecard (BSC)          | No                 | 46                     | 95,83 |
|                                   | Yes                | 2                      | 4,17  |
| Quality improvement awards        | No                 | 36                     | 80    |
|                                   | Yes                | 9                      | 20    |
| Common Assessment Framework (CAF) | No                 | 46                     | 100   |
|                                   | Yes                | 0                      | 0     |

If the coding explained in footnotes 21 and 22 is taken into consideration it is possible to establish numerically the extent in which quality measurement is present in certain organization.<sup>24</sup> If the organization measures all quality elements it can obtain the score of 11 points. However, the average score in Croatia local units is 3,12 points, which means that less than 1/3 of quality measurement potential is being used. Namely, 60% of all the organizations

<sup>24</sup> The organization obtains three points in case it measures the speed for all the services, 2 points if it is measured in a greater extent, 1 if it is measured sporadically and 0 if this component of quality is not measured at all. The same is applied for satisfaction measurement. The organization receive one point in case it measures the number of complains and one point for each quality improvement instruments.

have the lowest score for quality measurement, meaning that they usually measure the number of complains made against the conduct and sporadically the speed or citizens' satisfaction (Table 4).

Table 4: Quality measurement extent

| Quality measurement extents | 0-3      | 4-6      | 7-9     | 10-11 |
|-----------------------------|----------|----------|---------|-------|
| Number of organizations     | 30 (60%) | 15 (30%) | 5 (10%) | 0     |

As for the size, the result have shown great differences between Croatian local units, since the average number of persons employed ranges from 5 to more than 2000 and the average budget ranges from 900.000 kuna to more than 6 milliard kuna. However, it is important to notice that the average number of persons employed in these organizations is 119 and when the biggest organization is excluded it falls to only 65. The comprehensive research which has included also central state organizations has shown that the number of 50 persons employed is an average for the organization which do not measure performance at all, and the organizations which have an average degree of performance measurement have approximately 150 employees (Manojlović, 2014: 335). This means that the majority of Croatian local units are small and their potential for quality measurement is limited from the start.

In order to test the set hypothesis the statistical correlation tests have been conducted. The tests have shown that a correlation between organizational size and the measurement of four performance dimensions is mostly positive, however this correlation is not statistically significant.

Table 5: Correlation between size and performance dimensions

| Size / Performance dimensions    | Output | Outcome | Efficiency | Cost-effectiveness |
|----------------------------------|--------|---------|------------|--------------------|
| Total number of persons employed | ,032   | -,001   | ,074       | ,106               |
| Budget                           | ,048   | -,014   | ,109       | ,058               |

Legend: \* correlation significant with  $p < 0.05$  (2-tailed); \*\* correlation significant with  $p < 0.01$  (2-tailed) (Spearman correlation coefficient test)

When the correlation test is done solely for quality measurement similar results can be found. However, in this case the results show that a correlation between organizational size and the use of two quality improvement instruments, BSC and ISO standards is positive and this correlation



is statistically significant which proves that size is a determinant for the use of some quality improvement instruments.

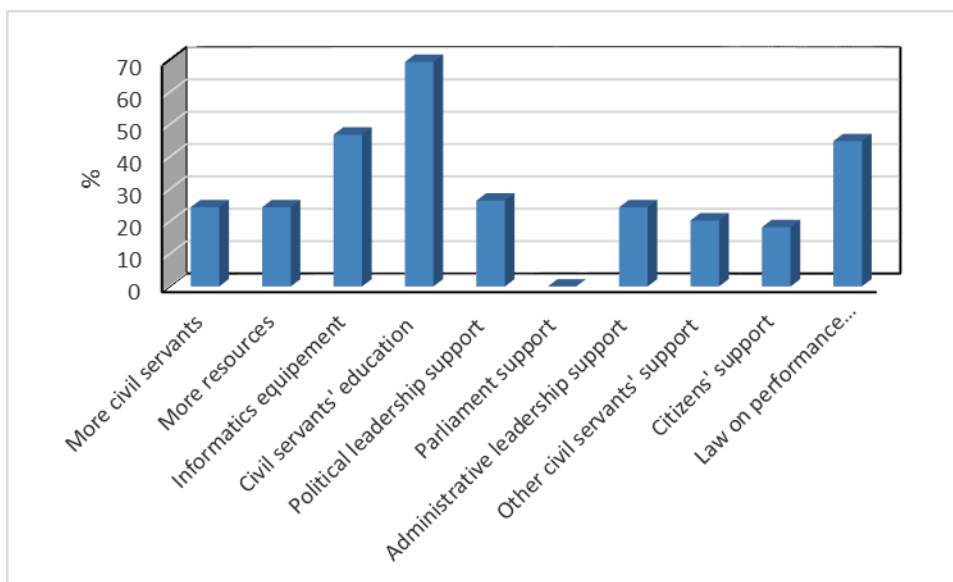
Table 6: Correlation between size and quality measurement

| Quality indicator / Size     | Total number of persons employed | Budget        |
|------------------------------|----------------------------------|---------------|
| Speed <sup>°</sup>           | ,177                             | ,173          |
| Satisfaction <sup>°</sup>    | -,005                            | -,025         |
| Complains <sup>°°</sup>      | ,228                             | ,074          |
| ISO <sup>°°</sup>            | <b>,357*</b>                     | <b>,308*</b>  |
| BSC <sup>°°</sup>            | <b>,652**</b>                    | <b>,536**</b> |
| Quality awards <sup>°°</sup> | -,057                            | -,086         |
| CAF <sup>°°</sup>            | ,                                | ,             |

Legend: \* correlation significant with  $p < 0.05$  (2-tailed); \*\* correlation significant with  $p < 0.01$  (2-tailed)  
<sup>°</sup> Spearman correlation coefficient test, <sup>°°</sup> pointbiserial coefficient correlation test

This data show that the stated hypothesis cannot be considered completely confirmed since the correlations are for the most part positive but the majority of them is not statistically significant. However, these are indications that size stimulates more intensive performance measurement. In order to further examine this findings it is possible to look at the data the respondent have given on the question about the incentives for performance measurement. The results show that respondents think the main incentives for extensive performance measurement are civil servants' education and better informatics equipment.

Figure 3: Incentives for performance measurement



### 4.3. Discussion

At the first sight the results could suggest that in Croatian circumstances organizational size, and by the consequence local unit size, is not a contributing factor for quality and in particular for other performance dimensions measurement, which is not in accordance with previous researches. However, four considerations need to be taken in consideration.

*First*, Croatia is completely new at performance measurement. The introduction of managerial instruments which could stimulate performance measurement, such as strategic planning, have been implemented at the central state level only since the 2010. On the local level, since 2010 all the counties have the obligation to enact their county development strategy. Although this strategies have been enacted, the problem is that there is no monitoring of their execution (EIZ, 2012: 55), meaning there is no performance measurement. As for the municipalities and towns, there is no legal obligation to implement a comprehensive performance measurement system. Looking at the quality measurement alone, there is no general law requiring the introduction of these instruments in local units at any level.

The results obtained in this research might indicate to the fact that at the beginning stages of performance and quality measurement implementation the size is not one of the basic determinants, but other factors, such as political and administrative leadership support, might have stronger influence on the implementation level. Only in the later phases, when performance and quality measurement is widely accepted and implemented, size can acquire greater significance.

*Second*, the fact that size has not proven to be statistically significantly positively correlated with the measurement of great number of performance dimensions would not be problematic if the overall level of performance measurement in Croatia would be adequately high. However, as said, it is really low. Apart from outputs measurement other performance dimensions are neglected. As for the quality measurement, 60% of organization have the lowest score on quality measurement. If this is connected to the data that the average number of persons employed by organizations that have participated in this research is only 65 (119 if the biggest organization is included) and the organizations that have an average level of performance measurement usually have approximately 150 persons employed, it means that Croatian local units are small from the

very beginning and they do not have the initial capacity to stimulate performance and quality measurement. Consequently, the fact that size has not presented itself as a general determinant for performance and quality measurement is mostly connected to the fact that the majority of Croatian local units are too small to adopt this instrument. This can be used as a proof that local units' size is important – local units need to have a certain size in order to have the capacity (both personal as well as financial) to start implementing this instrument. Since Croatian local units do not fulfil this basic precondition, it is an indication that territorial reforms which would bring to their amalgamation would probably allow them to experiment with new managerial instruments, in this case with quality and overall performance measurement.

*Third*, there is another indication that size is important. Namely, when looking at the incentives for performance measurement expressed by the respondents, better education and informatics equipment are the two most important ones. It is logical to suppose that budgetary bigger organization will be able to devote part of their budget to civil servants' training and equipment acquisition which, by the consequence, means that size is important. It also proves that respondents feel the present lack of budgetary size in their local units.

*Fourth*, there is a clear evidence that size is a determinant factor for the use of ISO standards and BSC. When controlling the actual number of organizations using these instruments only 2 are using BSC and 8 are using ISO standards which would suggest that these instruments are really used only by financially and personally big organizations. This is one more proof that the increase in size of local units could stimulate the use of these instruments which are becoming a necessary standard for assuring the overall quality and citizens' satisfaction.

Looking in its totality, it is necessary to conclude that organizational size has influence on performance and quality measurement in Croatian local units, although this influence is not visible at the first sight. However, the most problematic aspect of the overall performance measurement system in Croatia is its very low implementation and the lack of capacity to further stimulate the measurement process.

## **5. Conclusion**

Overall, the presented results and their examination allow some theoretical conclusions and practical suggestions for the reform of Croatian system of local self-government.

In its *theoretical aspect* this paper contributes to the overall knowledge on performance and quality measurement in ex-socialist countries, clearly showing that Croatia is lacking behind in the use of this managerial instrument. The results show that size is not a basic determinant for performance measurement, but it still has a role in stimulating performance and especially quality measurement. Furthermore, size is a determinant for the use of two quality improvement instruments, BSC and ISO standards.

Moreover, the results contribute to the overall theoretical knowledge by explaining that in the initial phases of performance measurement implementation the size is not a most important factor but attention should be concentrated also on other factors which play a more crucial role in this starting phase.

In addition, the data shown that local units need to have a starting financial and personal capacity in order to be able to initiate performance and quality measurement.

As for the *practical suggestions for local units in Croatia*, the paper has shown that the overall level of performance and quality measurement is low and needs to expand. The majority of local units are small which disables them to further develop this instrument. The quality improvement instruments are used only by few local units. This is a clear sign that there is a necessity to reform the Croatian system of local self-government and to create a smaller number of financially and populationally bigger units.

Apart from this, attentions should be devoted to civil servants' education in implementation of performance and quality measurement which is a basic prerequisite for any successful implementation. As there is no general law or general requirement for performance and quality measurement in local units, there is the lack of general guidance for how performance and quality measurement should be done. These guidance are necessary, they can be developed by the responsible ministry or better yet by the unions of local units and their existence would certainly stimulate this measurement process and made it more accessible and comprehensive. Furthermore, the data have shown that local units lack the necessary technical equipment for performance measurement, so software specially design for quality and overall performance measurement should be acquired. Also, since the level of implementation of quality improvements instruments is decisively too low, local units should be informed about their existence and benefits that their usage can provoke.

The intention of this paper is to give an inside into the performance and specifically quality measurement process in Croatia. However, the paper presents some limitation. First of all, the conclusions are based on the turnout to the questionnaire of only 40%. Nevertheless, the distribution of the overall turnout is representative and it can be considered to give a representative sample. A further limitation is the fact that only 74 local units with population bigger than 10.000 have been inserted into the research, while 482 local units with population lower than 10.000 inhabitants have been excluded from the research. However, in order to have a fair representation of small organization, regional and local agencies have been included.

This paper opens the space for further researches. In the first place it would be necessary to examine whether organizational size has influence on the use of performance information. Namely, performance as well quality measurement is justified only if the information obtained through the measurement process are actually implemented for performance improvement. If this is not done than the entire measurement process becomes just another expensive administrative barrier. So, the basic question for further research should be whether these information, however limited they momentarily are, are actually used. The proof of their usage and the benefit created by this usage could be the strongest stimuli for further measurement.

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