

Factors Affecting Efficiency of Performance Management System in Public Service Institutions

Zuzana Fabianova

¹ University of Zilina, Faculty of management Science and Informatics,
Univerzitna 1, Zilina 010 26, Slovakia
fabianova.zuzka@gmail.com

Abstract: The performance management system has its specificities in public service institutions, which arise especially from the nature of the institution's work and from various interactions with interested parties. This paper focuses on the analysis of some factors that affect the efficiency of performance management systems in public service institutions to a various degree. Results are based on a survey that verified hypotheses related to three factors affecting the efficiency of the performance management system in public service institutions – suitability of using standard models of performance management, role of social responsibility in the performance management and interconnection of organizational and individual performance objectives in public service institutions

Keywords: Performance Management System, Public Service, Efficiency.

1. Introduction

The performance is a notion that is in the strict sense of the word related to outputs and sources spent in order to achieve them. The broader sense of the notion performance is aimed in addition to outputs also to results and their impacts on interested parties [1]. This approach should apply to both private sector organizations and public service institutions.

A traditional approach towards the performance measurement in the public administration is based on the assessment by means of achieved outputs – what has been achieved, how many tasks have been solved [2]. Less attention is paid to achieving the quantitatively set targets and very sporadically the targets of the performance are agreed with citizens, potentially in relation with citizens. At the same time there are continuous problems to monitor, together with the achieved targets, also another indicator connected with the performance which is, in the quality management called efficiency [3].

In the efficiency is evaluated a portion of consumed sources against planned sources for achieving an expected output. This approach towards measurement of the organizational performance is called the end to end performance measurement [4]. For its simplicity it is not complicated to create and keep the system of the performance management, however in the organization it does not allow to identify the fields where there is the biggest improvement potential (bottleneck, stint of the quantity of sources, error rate).

2. Assumed factors affecting the efficiency of the system

Works of authors pay in the analysis of requirements for the performance management system attention to areas of creating the environment (including the performance culture) in the institution [5], taking into account the need of centralization and the rate of standardization of implementation processes in the institution related to it, as well as requirements for learning from historical data and best practices obtained from the best in the area of operation [6].

On the other hand, authors dealing specifically with the issue of public service emphasize the need to take into account project nature of work, requirements for interconnection of

organizational and individual performance [7] as well as the role of public service institutions in promoting social responsibility [8]. The performance management system is efficient if it provides necessary information for the manager to collect the data and evaluate performance, interpreting the outputs of performance measurement, improving the system of performance measurement and setting the new objectives of performance measurement [9].

Said inputs led to structuring of hypotheses presented in Fig. 1.

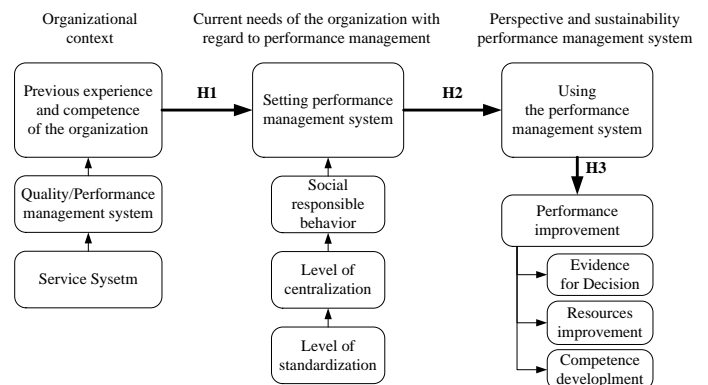


Figure 1: Hypothesis construction scheme

Hypotheses:

Hypothesis H1 focused on the assumption that satisfaction of employees in organizations with experience and knowledge from standard system approach to the quality/performance management represented for instance by models of quality management (ISO 9001, EFQM, CAF) will be higher than in public institutions where experience with standard quality/performance management systems (such as with the CAF model) are not yet demonstrable. Confirmation of the hypothesis would direct the performance management system towards standard approaches; non-confirmation/refusal of the hypothesis would direct the performance management system towards approaches specific for a particular organization.

Hypothesis H2 examined the assumption that the performance management system with specific functions supporting also soft elements is more successful than system supported solely with hard elements. "Soft" elements include in the management system the perception of importance of a correct approach, credibility, previous results in the area of ethics and social

responsibility, as well as success rate in risk management (man-oriented approach). "Hard" elements are focused solely on actual performance, speed of innovation implementation, available technical sources and their utilization, measurable indicators (process-oriented approach).

Hypothesis H3 examined the need for transparent interconnection of objectives of both the organizational and individual performance and the impact of such interconnection on the general level of performance of the whole organization. The known assumption that measurement and evaluation of the performance itself affects results of activity will be confirmed or rejected at the level of relation between the individual and the public service institution.

3. Survey among public service institutions employees

3.1 Results and reliability analysis

The questionnaire was tested as to the reliability of its construct by mean of its results. Analysis of selected parts of the survey was performed in the statistical software SPSS IMB. The first aim of the analysis was to verify the reliability of the survey as a whole as well as for groups of attributes individually and also to obtain inputs for confirmation or rejection of hypotheses linked to the objective of the dissertation thesis.

Reliability was verified with the proven Cronbach's alpha [10], which is one of the most frequently used indexes for examination of reliability of a measuring tool (questionnaire). It is based on the structure of the questionnaire and obtained results:

$$\alpha = (k/(k-1)) * [1 - \sum (s_i^2) / s_{sum}^2] \quad (1)$$

where

k – number of items (questions, quality criteria)

s_i^2 – variance for k items

s_{sum}^2 – variance for the sum of items

Procedure is described in more detail in the annex to this dissertation thesis named Project of empirical research. Calculated values are given in the table 1.

Table 1 Values of Cronbach's alpha (analysis of reliability).

Scope of reliability analysis	Examined number of items	Cronbach's alpha
All items/variables	22	0,915
Variables for the hypothesis H1	6	0,827
Variables for the hypothesis H2	10	0,841
Variables for the hypothesis H3	6	0,768

Analyses of the group of attributes imply that the reliability of data obtained from the main survey is sufficient (although the value of the Cronbach's alpha 0.768 of the analysis of reliability of variables for the hypothesis H3 is lower than the recommended value 0.8, the internal consistency of the scale is considered suitable also if the value of the coefficient is higher than 0.7). Such consistency of variables was deemed sufficient for the needs of examination of the hypothesis validity with regard to considerable latency and abstraction of the whole measured construct

3.2 Testing of hypotheses

Testing of the H1 hypothesis included examining the dependencies between statistical variables characterising previous experience of the institution - existence of the quality

management system (non-conformity prevention systems) and performance management system and dynamic variables expressing the reflection of using a systematic approach in employees' satisfaction results, what is one of the required effects of management systems.

The hypothesis H2 was operationalized by means of the static part represented by results determined about the degree of computerisation and equipment of the workplace; and dynamic part expressing the perception of importance of factors affecting the performance, such as ethics, anti-corruption behaviour and good relationships at the workplace.

The hypothesis H3 examined the dependency between total performance results and satisfaction of managers and the knowledge of tasks and duties by employees, knowledge of links between own activity and achievement of goals of the institution, connection of the remuneration system with the performance of the employee.

Said variables in positions of static and dynamic parts of H1 to H3 hypotheses were tested with the Kruskal-Wallis test, which is an extension of the Mann-Whitney U test in case more than two variables are used. The test indicated whether at least one variable (in this case perceived as dynamic) randomly dominates a static variable.

According to results of testing:

- H1 was accepted, meaning that standardised systems for the support of performance management lead to better efficiency of performance management also in public service institutions;

Table 2 Kruskal-Wallis test Results according to H2.

Test Statistics ^{a,b}				
	SatisfactionParticipation	SatisfactionInformation	SatisfactionTraining	SatisfactionRewarding
Chi-Square	245,804	327,960	242,363	183,556
df	3	3	3	3
Asymp. Sig.	,000	,000	,000	,000

a. Kruskal Wallis Test

b. Grouping Variable: ExperienceQualitySystem

- H2 was not confirmed, meaning that it is not assumed that incorporation of elements including also the culture and social responsibility into the performance management system of an institution automatically leads to a better performance of the institution;

Table 3 Kruskal-Wallis test Results according to H2.

Test Statistics ^{a,b}					
	ImportanceWorkEnvironment	ImportanceRelationship	ImportanceInformation	ImportanceAnticorruption	ImportanceCorrectnessInstitution
Chi-Square	267,129	324,412	170,554	60,163	2,065
df	4	4	4	4	4
Asymp. Sig.	,000	,000	,000	,000	,724

a. Kruskal Wallis Test

b. Grouping Variable: SourcesTechnology

- H3 was accepted, meaning that transparent division of performance targets of an institution down to the level of an individual positively affects results of institution's performance.

Table 4 Kruskal-Wallis test Results according to H3.

Test Statistics ^{a,b}				
	AlignmentPer formanceRear ding	AlignmentStr ategyTask	FreeProcedur e	ClearTaskDef inition
Chi-Square	251,421	371,024	509,724	330,542
df	4	4	4	4
Asymp. Sig.	,000	,000	,000	,000

a. Kruskal Wallis Test

b. Grouping Variable: OverallPerformance

4. Conclusion

Effective performance management system should with priority focus on utilisation or adaptation of standard tools and models of performance management; should take into account and thoroughly deal with the interconnection and division of strategic performance targets of an institution to individual levels of institution's management down to individual employees.

In the last decade a lot of possibilities for the performance improvement of organizations and individuals in the public administration have been opened. However, utilizing the scientific approaches requires not only the knowledge of managers of the public administration in the field of possibilities of solving these problems, but also accomplishing many particular steps, among which, in the Slovak Republic, we can include the requirements for:

- advocacy of the process approach in the organizations of the public administrations,
- implementation of the system of activity (task) classification in the organizations of the public administration,
- tying up the performance measurement and assessment of an organization with the performance measurement and assessment of employees,
- determination of mutually tied up aims in the organizations of the public administrations (Balanced Scorecard),
- utilizing the system approach for an exchange of experience from the measurement of individual and organizational performance (benchmarking)

Managing a systematic approach to the performance management can be followed by further escalation of efforts that should lead to a status when there is a cohesive set of strategies in a public service institution; interfaces between processes are solved by determination of process owners; objective interdependencies are mapped and better understood and decision-making is based on facts.

References

- [1] Ketelaar, A. (2007). *Improving Public Sector Performance in Reforming Democratizers*. (DAIdeas, Ed.) Democracy Briefs(3), 1-4.
- [2] Hartley, J., & Downe, J. (2007). The shining lights? Public service awards as an approach to service improvement. *Public Administration*, s. 329-353.
- [3] Tillema, S. (2011). Public sector benchmarking and performance improvement: what is the link and can it be improved? *Public Money & Management*, 31(1), 69-75.
- [4] Bovaird, T. L. (2008). Evaluating the quality of public governance: Indicators, models and methodologies. *International Review of Administrative Sciences*, 69(3), 313–328.
- [5] Calogero, M. (2010). The introduction of new public management principles in the Italian public sector. *Transylvanian Review of Administrative Sciences*, 30E, 30-54.
- [6] Demke, C., & Hammerschmied, G. M. (2008). *Measuring Individual and Organizational Performance in the Public Services of EU Member States*. EIPA Publication Service.
- [7] Krause, D. R., Handfield, R. B., & Tyler, B. B. (March 2007). The relationships between supplier development, commitment, social capital accumulation and performance improvement. *Journals of Operations Management*, 25(2), 528-545.
- [8] Ehn, P., Pissarius, M., Bass, T., Burnett, M., Heichlinger, A., Rode, A., & Kuperus, H. (2009). Taking the Pulse of European Public Administrations. *European Institute of Public Administration*.
- [9] Bryson, J. M., Crosby, B. C., & Bloomberg, L. (2014). Public value governance: Moving beyond traditional public administration and the new public management. *Public Administration Review*, 74(4), 445–456.
- [10] Ritter, N. (2010). *Understanding a Widely Misunderstood Statistic: Cronbach's α* . Texax A&M Univesity.

Author Profile

Zuzana Fabianova is external PhD student at the Faculty of management Science and Informatics, University of Zilina, Slovakia. Her work experience consist form several years in public services institution as well as present experiences in an organization in private sector. She is concerned with the approach to improving organizational and individual performance in public administration organizations.