

Implementation of Quality Principles for Public Services Providing

Abstract

Increasing the quality of production belongs to management goals of every company, be it quality of products or services. Higher quality of production is reflected in e.g. obtaining competitive advantage on the market or as effective area administration, returning customer or a citizen satisfied with public administration services etc. Management therefore strives for higher quality and resulting financial as well as non-financial profitability. The request for quality improvement is a part of defined standards, complex methods and tools for quality management. Public administration needs to be perceived from two angles, on one hand it is public administration as a whole, on the other hand it consists of particular organizations and their services. If we view public administration as a whole, the requirement for quality improvement and quality methods implementation is declared by strategic documents or presented within the "National Conference of Quality in Public Administration". From the viewpoint of public administration as a set of partial (smaller) organizations, the requirement for quality is often declared but not supported by system approach. This paper deals with implementation of quality principles in providing public services by partial organizations of public administration.

Keywords: public administration; public services; quality management; quality principles

JEL Classification: H00, H70, R5

1 Introduction

The need to increase quality is necessary in private as well as in the public sector. The reasons for the organization management to be interested in quality of their production include: pressure from competitors, reflecting technical development to products or services, pressure of well-informed customer, danger or health hazard resulting from product complexity, risk of sanctions, need for economical production etc. This list is oriented mostly on private organizations, however, the quality improvement methods can be used also in the public sector [21]. Such managerial approaches include e.g. quality management concept TQM (Total Quality Management) [2] [14], Excellence Model EFQM (European Foundation for Quality Management) [3] [5], CAF framework (Common Assessment Framework – Improving an organization through self-assessment) for improving organization by self-assessment within public administration [4] [12], ISO norms 900X of quality management system.

Quality approaches for public administration are delimited in strategic documents which include "Strategy of the National Strategy Policy for 2011 – 2015" [13], document "Efficient Public Administration and Friendly Public Services for 2007-2015" which is followed by document "Strategic Framework of the Development of Public Administration in the Czech Republic for 2014 -2020" [10] [18]. The documents declare the need towards improving the public administration and quality of its services. Verification is recommended by methods such as CAF, ISO, benchmarking, Balanced Scorecard [16]. In accordance to these recommendations concrete projects are realized. The pilot CAF project was realized at selected regional administration authorities which carried out repeated yearly self-assessment within defined criteria. The CAF framework is usually implemented at individual organizations of public administration where experience and outputs are presented e.g. within conferences "National Conference of Quality in Public Administration". The above listed documents put emphasis on the necessity of process approach to organization management. In accordance with this requirement project PMA I "Process Modeling of Public Administration Agenda" has been realized since 2009 and will be followed from app 2016 by a project for support of standard setting for public administration agenda performance. It can be summarized that the public administration as the whole, respectively the Ministry of Interior, declares the long-term need of

managing quality in public administration and methodically leads concrete projects. At the same time, this might not demonstrate at particular/partial public administration organization as using CAF models is voluntary and realized process modeling of agendas only initiates the necessary starting environment for quality management implementation. Partial organizations of public administration need to approach systematically to measuring and increasing quality, at the same time in such a way which does not bring additional burden.

2 Material and Methods

Requirement of quality management in public administration has long declared. This is the approach of public administration as a whole and lays the groundwork for quality management. However, the public administration as whole is composed of many partial / smaller sub-organizations. The question is which way small organizations can implement quality management and at the same time in such a way that does not burden them. Quality methods generally are based on common pillars as those are – customer orientation, fact-based decision, process approach, management leadership, employees as knowledge owners, mutually beneficial partnership. Apart from these, the concrete methods accent different particular viewpoints or approaches to quality management (waste elimination, effort for perfect production, focus on continuous improvement etc.). Some of the quality methods were originally intended for profit organizations, nevertheless, they can be applied also in the public sector. Such examples are Six Sigma, Kaizen, Lean Production [7] [19]. The Six Sigma method is focused on increasing quality with emphasis on defect elimination [20]. The method strives for production perfection, i.e. avoid mistakes. A mistake is perceived as any state when the customer is dissatisfied [17]. The Kaizen method represents continuous improvement approach; it is a flow of partial improvements on all levels of an organization [9]. The central principle of Kaizen is a quick analysis of the small, manageable components of a problem and rapid implementation of a solution with ongoing, real-time reassessment [6]. Lean Production approach is focused on waste elimination, respectively decreasing the extent of such activities which do not add value to the production and product [1]. The listed quality methods represent complex approaches to quality management within an organization. If an organization applies a selected a quality method, it means significant requirements for method implementation, activity organization, employee training, changes in work instructions, as well as finance requirements. Thus, method application is all-in-all desirable, however, it is a demanding project. Solution for organizations is to implement partial principles of these methods. The proposed solution has been proven in real-organization.

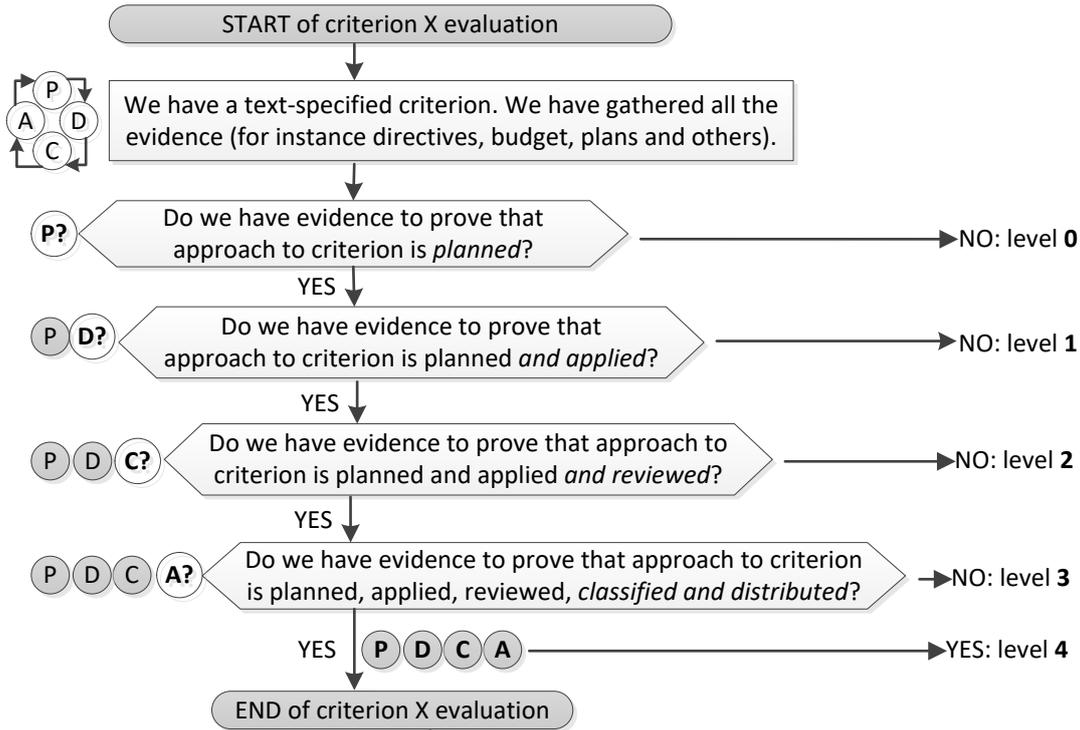
2.1 Voice of Customer Principle

This principle is related with the fact that customer's voice is the priority for quality management, be it external or internal customer. The norm CSN EN ISO 9000 defines the term "satisfied customer" as customer perception related to the level of fulfillment of his/her requirements. In order to measure customer satisfaction the organization needs to define who the customer is and define customer requirements and definition of customer satisfaction [11].

2.2 Principle of Cycle

This principle states the fact that improvement, respectively any activity, should be carried out by a sequence of consequent phases. These phases include – initial problem definition, obtaining available information, problem analysis based on obtained information, solution options proposal, selection of suitable option, solution implementation, results verification and standardization of the process. Models working on this principle include PDCA (Plan, Do, Check, Act) and DMAIC (Define, Measure, Analyze, Improve, Control) [11]. Methods CAF and Kaizen propose PDCA cycle usage, Six Sigma works with DMAIC. The CAF method uses the PDCA model for evaluating the level of a particular criterion (see Figure 1).

Figure 1. Using the PDCA model within CAF framework (Source: Authors, based on [12])



2.3 Evaluation Principle

The principle is linked to the requirement of decision making based on facts, using data from sources as information systems, social networks etc. [15]. The CAF framework and Six Sigma method propose repeated evaluation of the monitored process status. The organization first measures the default process status using a recommended method and expresses this by the measured value. After that changes leading to improvement are designed and implemented. It is verified by a new measurement and expressed by reached value whether an improvement has really taken place. The CAF and Six Sigma methods approach evaluation differently. CAF evaluates selected criteria in line with the PDCA cycle. Criteria for evaluation are set based on the CAF method and for every criterion evaluation standards are recommended. E.g. criterion "Continuous identification, designing and managing key processes" has evaluation standards "continuous identification and documenting of key processes", "assigning sources based on their contribution to strategic organization goals fulfillment" and others. The commission collects proofs about the results and based on those the criterion will be evaluated. The criterion will be given a score based on the stage of the PDCA cycle where the criterion is positioned (Figure 1).

The method Six Sigma uses mathematical apparatus of Gauss; his normal distribution curve describes how probability is distributed. Sigma is determined as standard deviation. Base of it are limits which are determined based on customer's requests – upper and lower specification limits. The area inside limits represents suitable outputs and area outside limits represents defective outputs. Processing and evaluation of indicators is performed. They are calculated discrepancies rate (MN), defects per opportunities (DPO).

$$MN = \frac{\text{number_of_defects}}{\text{total_number_of_executions}} \quad (1)$$

$$DPO = \frac{\text{number_of_defects}}{\text{total_number_of_defect_opportunities}} \quad (2)$$

The Six Sigma method is originally meant for production organizations. Nevertheless, rate of defects / variances can be measured for any product or activity. Variance in non-production

organization can be defined as, e.g. – mistakes in process of filling in a form, number of incorrect switchovers of telephone calls, number of cases of outstanding contracts in time and so on.

The methods of evaluation in methods CAF and Six Sigma differ in the level of objectivity. CAF evaluates the criterion based on collected proofs and achieved phase of PDCA, however, the assigned score is subjective to a certain extent. Six Sigma objectively evaluates the monitored criteria, which requires long-term data collection for the criteria which is very demanding from the time and organization perspective.

2.4 Visualization Principle

This principle is related to the need of enterprise reality analysis by help of models. Two groups of models are frequent; process maps and root cause analysis models. The first group of the models, process maps, serves to analyze process status and is created using various graphical tools. The examples are – SIPOC tool for description of process characteristics (Supplier, Input, Process, Output, Customer), diagram VPM (Value Stream Mapping) for identification which activities add/do not add value for production. Method Six Sigma recommends SIPOC diagram, Lean Production uses VPM diagram. The other listed group of models serves to analyze customer expectations (Voice of Customer) and to analyze the root cause of problems. Examples include – Tree Critical to Quality, Diagram Cause and Effect. The data which was identified by Voice of Customers determination is basis for construction of the Critical to Quality tree. Causes and indicators Critical to Quality (CTQ) are analyzed with help of the Cause and Effect Diagram, definition of causes and effects has to capture the root cause. Causes need to be weighted (e.g. by assigning points); such causes are searched for which will influence the whole problem the most. Quality methods Six Sigma, Lean and Kaizen use CTQ, Cause and Effect diagram and others.

As mentioned the proposed solution has been tested in real-organization. The Labour Office of the Czech Republic is structured into regional branches. These regional branches carry out their agenda through contact centers – these are Local Offices of the Labour Office of the Czech Republic. One Local Office was selected for several reasons. It represents a partial organization of public administration, authors are familiar with that environment, management of the organization was interested in the implementation of quality approaches. Implementation of quality principles covered the period 6 months, it were used real data and documents, workers of the organization participated in the processing of models as well as in the evaluation.

3 Results and Discussion

Quality management in public administration can be characterized from two perspectives:

- public administration as a whole: strategic documents declare the need to manage quality in public administration; concrete "central" projects are realized.
- partial/individual public administration organizations: "central effort" might not be visible as the realized agenda process modeling only initiates default environment for quality management implementation; existing quality methods (CAF, Six Sigma, Kaizen, Lean etc.) are extensive and their usage is demanding (organization, labour, time etc.).

Individual organizations of public administration need to approach measuring and increasing quality systematically and at the same time in such a way that does not burden them. The solution is to use fractional principles of quality methods.

This text proposes a concept of quality management in smaller organizations of public administration with focus on following areas:

- Phase A: Customer characteristic and satisfaction measurement.
- Phase B: Process (activity) mapping in organization.
- Phase C: Document management.
- Phase D: Self-assessment.
- Phase E: Broadening of the quality management concept.

3.1 Phase A: Customer Characteristic and Satisfaction Measurement

The proposed concept for customer satisfaction defines four steps as – A1) Characterize customer, A2) Define the requirement area and for each area define the criteria of customer satisfaction, A3) Based on satisfaction criteria create a questionnaire for questionnaire survey, A4) Evaluate the survey and implement actions for improvement.

Let us work with a real example from the Labour Office where this process was verified.

Ad A1) External customers of the Local office of Labour Office were defined as: employers of all categories and physical persons divided into job applicants, job seekers, impaired persons with the right for work rehabilitation and other physical persons who request information

Ad A2) Defining the criteria of satisfaction for the employers was coordinated by the manager of job market department, for the physical persons by the manager of job mediation and consulting. Following text focuses on "employers" group of customers. After consultations a table with description of requirements and satisfaction criteria was made (see Table 1).

Table 1. Criteria of customer satisfaction of the Local Office of the Labour Office (Source: Authors)

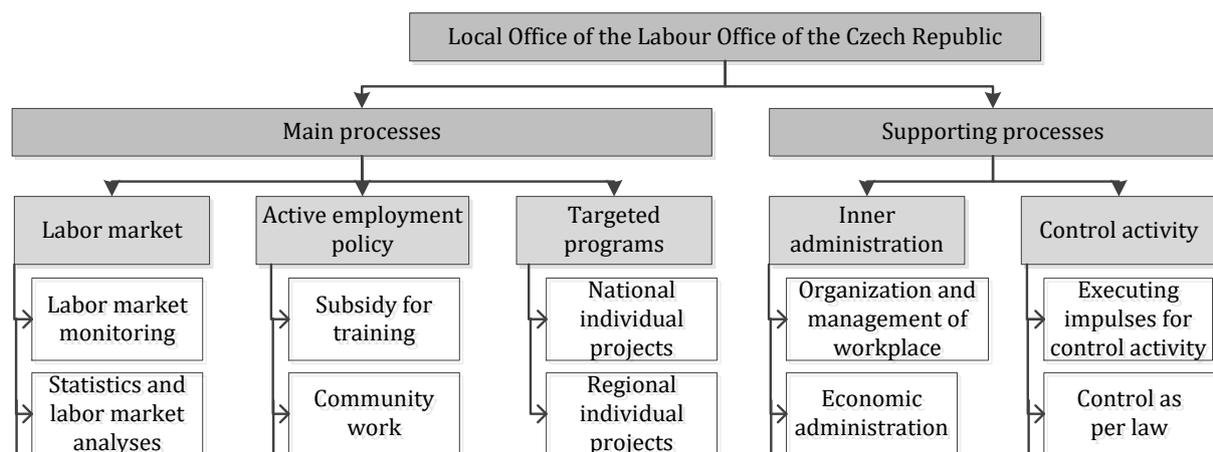
Area	Criteria of satisfaction - characteristics
Requirements on process	I: Relevant reaction of the Labour Office employees
	II: Receiving full and correct information
	III: Help in solving human resources problems
Requirements on output	IV: Quality of events organized by Labour Office (seminaries, labour markets)
	V: Simple way to post a requirement for an available job
	VI: Quality of pre-selection of applicants by Labour Office
	VII: Selected people generally fulfill requirements
Requirements on documents	VIII: Advantageous conditions to obtain a subsidy for employee wage
	IX: Simple and clear rules for request administration

Ad A3) Further a questionnaire was prepared where each satisfaction criterion was surveyed. The method of data collection was through a survey during face-to-face visit carried out by the employees of the Labour Office within improving cooperation with employers.

Ad A4) Results of the survey should be presented to the employees of the organization. Top management should implement measures especially to improve the worst rated criteria.

3.2 Phase B: Process (Activity) Mapping in an Organization

Figure 2. Basic process map of Local Office of the selected Labour Office, partial map (Source: Authors)



Basic process identification enables an organization to realize which processes are the main and which supporting. At the same time a process map might express inner process characteristics such as – inputs, outputs, activities within process, owner, customer, goal, etc. For illustration, let us continue in the model example. See the basic overview map of processes for Contact Point of the Labour Office (see Figure 2). The process model serves as initial mapping of status quo as well as background for further more detailed process mapping.

3.3 Phase C: Document Management

Document management means that all results of organization's activities will be kept at defined places so that employees with relevant rights can access them and within minimum time find proofs about realization of already completed tasks [11]. Lifecycle of a document can be divided into three phases [8] – input (acceptance or obtaining of the document), processing (saving, modifications, using of the document), and output (publishing, archiving; and in the end shredding). Within a document life cycle following roles can be distinguished – a role “originator” represents the person who creates the document; a role “approver” represents the person who controls, approves and is responsible for update, a role “user, responsible person” is the person who uses the document and at the same time is responsible that it will be accessible for all employees who need it and use it for their work; is also responsible for document handling and subsequent archiving, if needed also shredding.

The proposed concept for document management defines following steps – C1) Carry out a survey of documents used within an organization, C2) Communicate results of above to organization management, C3) Finalize list of documents, standardize documents.

Ad C1) For illustration let us continue in the case study. The output of the document survey was presented using a table (partial example – see Table 2). In total 26 documents were identified within the organization, out of which 20 official, 2 unofficial and 4 new.

Table 2. Survey of documents used at the Local Office of Labour Office, partial output (Source: Authors)

Document	Type	Originator	Approver	User, Responsible person
Organization structure	Official document	Branch director	Regional Director	Branch Director Office Leader
Announcement on mass redundancies	Unofficial document	Job Market Analyst	Job Market Department Manager	Originator
Form for provided services evaluation	New document	Assistant	Department Manager	Originator

Ad C2) At the workplace manager meeting the list was revised and the final list of official documents was approved.

Ad C3) All managing employees were instructed to ensure document standardization used in their departments.

3.4 Phase D: Self-assessment

It is important that an organization carries out repeated self-assessment in which the achieved level is quantified in a form of objective statement.

The proposed concept for self-assessment defines these steps – D1) carry out simplified self-assessment based on CAF model selected criteria, D2) Based on the results from self-assessment propose and carry out improvements.

Ad D1) The proposed concept recommends following questions for evaluation – “Is the strategy of organization defined? Is organization structure defined? Is there an employee evaluation system in place? Are goals and tasks defined based on SMART principles? Is concept of human resources management in place? Is control system of finance management set up? Is handing over knowledge among employees set up? What are the results of customer satisfaction surveys? How do employees perceive the organization? Is it an attractive workplace? What is the quantity and quality of produced goods/services?” It is important that individual criteria are evaluated based on the collected proofs based on the PDCA cycle. For illustration we will continue with the case study. For every question a "Criterion Card" was created (see Figure 3).

Figure 3. Example of a filled-in "Criterion card" of the Local Office of the Labour Office (Source: Authors)

Criterion 6	Is control system of finance management set up?		
Current status description	Internal control system is derived from the internal acts and legislation. The correctness of the setup is evaluated but changes are small or none.		
Proofs	Legislation, internal managing acts		
PDCA phase	Phase C (check)	Score	3

The self-assessment was carried out by managers of selected departments. The outputs of the self-assessment are obtained values for all evaluated criteria. The organization gives itself feedback on what needs to be improved.

Ad D2) Based on the self-assessment areas for improvement were defined as follows – better work with employees, focus on processes leading to outputs and providing service as such. Further topics for improvement were specified as follows - set up a concept of human resources management, secure know-how transfer among employees, measure work environment attractiveness from the employee viewpoint, complete organization strategy covering all areas, set goals and tasks in line with the SMART principle, monitor and measure quality of provided services.

The report was approved by the manager of the Local Office and became the base for plan setting. The plan includes 6 partial tasks, each of which has a target and responsible person, e.g.:

- Task 1: set the conception of human resources management.
- Goal: set up a simple concept of HR management – employee education, monitoring personal needs of the organization, employee motivation.
- Responsibility: supervisor of director's office.

Regular self-assessment was scheduled at the management meeting with frequency every year to months after customer satisfaction survey evaluation.

3.5 Phase E: Broadening the Concept of Quality Management

The basic proposed concept for quality management in a partial organization of public administration includes four areas which are – customer satisfaction survey, process mapping, document management and self-assessment.

Listed areas need to be tested regularly, e.g. once per year. This system approach will provide the organization an objective background for quality management. The monitored areas should be gradually broadened by using further tools such as:

- Customer satisfaction survey: use diagram CTQ and diagram Cause and Effect for satisfaction criteria identification,
- Process mapping and analysis: create more detailed process maps expressing process characteristics,
- Self-assessment: when using the CAF model for self-assessment increase the number of evaluate questions by further topics; or transfer to a more objective approach to evaluation based on the Six Sigma method.

4 Conclusion

Increasing quality of provided services is constantly declared within the public administration of the Czech Republic in both ways, by being anchored in strategic documents as well as by realizing concrete projects. However, this effort might not be visible at individual (partial, small) organizations of public administration as the realized agenda process modeling only creates the initial environment for quilt management. Partial organizations need to approach measuring and quality management systematically and at the same time in such a method which does not burden them. There are quality methods (such as CAF, Six Sigma, Kaizen, Lean) which are vast and their use is demanding. The solution is to use only selected principles of the quality method. This paper provides a concept of quality management which focuses on following areas - customer satisfaction measuring, process mapping, document management and self-assessment. Each area uses a certain principle from the quality methods and the proposed approach is verified by being implemented in a selected organization. At the end tools are proposed for further broadening of the concept. The proposed concept represents a system approach to quality management in partial organizations of public administration; it provides objective outputs as a background for improvements and is in harmony with the declared trend of quality management in public administration as a whole.

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