Process Analysis as an Optimalization Support in Public Administration

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Abstract: This article includes the process mapping and describes rules of its implementation. It is way of reengineering of processes in the public administration. All the time re-engineering of processes is "white-hot" conception for management. The problem of its implementation consists in fact that management is usually not willing to work within the organization in main processes. As far as there is no proper diagnosis of the main processes in the organization, we are not able to manage a successful reengineering. The procedural mapping offers tools and verification methodology to identification of current processes and it is possible to use it like instruction of reengineering function of public activities as well. Mapping of processes is a critical link, which could possibly take advantage of better understanding and meaningful improvement which suit to public administration. It means that the quality of services and its capacity will increase. Except the problem mentioned above, there are also described other possibilities of exploration process analysis in public administration such as the preparation for implementation of workflow or the auditing of authorities.

Key-Words: Process analysis, process model, workflow, Business Process Re-engineering, auditing, public administration

1 Introduction

With growing competition in the commercial sphere, the stress is put on increasing of product qualities and services. A citizen purchasing products and services consider - except quality – one specific attribute, which is the price. Price is going to be a parameter, which is often the key in decision about purchasing a particular product or services. A citizen is persuaded by the individual commercial sectors that gets the best product or service at the lowest possible price.

In the commercial sphere we talk about productivity of particular companies and spending on individual processes, creating a final product or service for citizen. A citizen is cognizant of the “roundabout of commercial sphere” that is why he requires same quality of care in public administration subjects as he is used to in the commercial sector. How to provide the quality with limited resources? It’s the main task of management staff in the public administration. The government and various ministries are bringing out laws, public notices and implementing regulations. It is also the task of bodies of public administration to create processes that will fulfilled all these 'standards' and ensure adequate services to the citizen, or it will prepare a basis for decision-making by individual ministries (i.e. acquiring information is also a final service). The final value of these services consists of corresponding processes, not only of organization division or function.

2 Principles of process management and its application in subjects performing public administration

Principles of process management are generally applicable to any commercial or non-commercial subject. These common principles must be applied properly only in condition of public administration bodies. So:

- essential processes are identified and described according to unified assessment methodology,
- processes have its owner who is competent, has adequate responsibility and is equipped with satisfactory competence,
- processes have determinated efficiency detector, the key criterion of quality and efficiency suit is considered to meet the expectations of the "external customers" (citizens, the competent authorities and establishment),
- line proceedings; efficiency is measured according to the realized processes implemented on the basis of evaluation efficiency processes are provided activities, which focus on lasting escalation efficiency, or principle project changes are initiated (re-engineering).
- proper information technologies are used to support increasing processes efficiency and its standardization in repeated implementation

2.1 Description of processes and creation of procedural model

Already realized processes descriptions are based on The Re-engineering Methodology of public administration that was developed by the Department of Home Affairs order and it was tested in pilot project in selected regional authorities of public administration.

Procedural model is according to this methodology multileveled. The first level includes a division into pilot processes (to ensure planned development of the subject), main processes (defined by the purpose for which the entity was created – this includes the achievement of public administration) and promotive processes (providing the work of the subject and support of the chief processes - these processes include for example: information and economic processes...).

In the following levels there are defined single processes with the outputs, owners, sources and with scalable capacity parameters.

Following 4 pictures show some of the outputs that are tender available
1. Efficiency type of resources in terms of time - column graph
2. Balanced efficiency of sources in terms of time - pie graph
3. Global map of activities of process or sub-process
4. Detailed view of the activity.

Figure 1. - Efficiency type source from views time - column graph

Figure 2. - Balancing efficiency source from views time - pie graph
2.2 Support processes by information technology

Within the identification of the process and its description, the basic material for work of informatics is originating. The work of the informatics is based on process description, frequency of transaction and on the number of workers who participate in the process and are - together with the owners of processes – able to effectively propose a way of support and standardization of the processes by information technologies and to choose an optimal promotive system.

2.1.1 Capacity planning using a procedural model of public administration subject

Procedural access proceedings of public administration management of subjects provides benefits in capacity planning of activities. Based on the described processes, measuring of the frequency of each process and identification of capacity needs of different types of workers in the process, it is possible to plan system performance, and thus optimize the composition of individual organizational units. Within the capacity of planning and than during the simulation of the process it is possible to evaluate the individual scenarios of the process. The condition for these simulations is to collect objective data about the performance capacity and description of the process of customer behavior (e.g. official days for citizen, receipt of correspondence in a filing room, processing statistics to a particular date and for a given period etc.). Then, there are described processes of public administration performance in delegated action in the second-level of procedural model and data collection for capacity planning, so that a basis for comparison (benchmarking) of efficiency of regional authorities could be created from point of view of procedural approach.

2.1.2 Procedural and data analysis

The aim of the analysis was to map the activities and its data interfaces from the point of view of
- design of procedural analysis in necessary extent and sufficient scope for determination of next procedure,
- specification of communication within functions of workplace and communicating partners,
- information support of chosen organization divisions of the regional authority,
- analysis of communication channels,
- proposal of variants of data communication optimization.

The practical aim is to gain a view of activities, carried out by particular workplace, and the data transferred during these activities. Thus the data obtained this way will be used in defining the requirements for solving the described processes and activities of information system.

3 Process analysis and workflow

Implementation workflow often used to be in the area of public administration very problematic. There is a danger that without a „composition” of processes by implementation this system will remain in current, often very complicated, condition.

3.1 Basic concepts from workflow

Process

The concept of the process is a basic concept of this article and the whole theory of workflow, as well. Over the years many definition of this term have appeared. The definitions differ from each other depending on time they have arisen, but also on the point of view of the author who created them. From the perspective of the public administration the process could be seen as a process which participates in the management of public administration as specified by the valid legislation.
Activity
Activity means a part of the process that forms one logical step within the process.
It is necessary to distinguish two standard types of activities:
- activity manual that is not automated,
- activity automatic that is managed by workflow system.

Automatic activity may require human and technical support during the practice of the process. If a human support is demanded, we refer to this situation as a situation when the activity is allocated to the participant of the process.

3.2 Workflow of processes in public administration
Workflow in public administration could be comprehended as the automatization of all processes, which occur in the organization.
Workflow of administrative procedures is the automatization of public administrative procedures or, in some cases, automatization of their partial parts, in which participate the authorities of state administration and local self-government, whereas the documents, information and requests are transferred between participants according to predefined rules.

3.3 Workflow management system
Workflow management system means the system which defines, creates and manages workflow practice using software resources running on one or more workflow machines. The software is able to interpret the definition of single processes, to communicate with users and, where's it necessary, to start ICT tools and applications, too.
Workflow management system consists of components that preserve and interpret the process definition, manage practice suit of processes, support communication with users and applications. The administrator tools and tools for production of definitions of processes are usually parts of the system. The real process is a description of the process in a form, which makes possible its automatic manipulation, such as simulation or proceedings practice via workflow system.
Definition of the process contains description of single sub-activities, the process is composed of, and the description of the relation between them. Furthermore, the definition contains of criteria for diagnosis of initiation and finalization of the process, the information about participants in the process, associated applications and data.
Wide processes, or their parts, may consist of separately defined sub-processes. In such case, the process definition must also include the link to the definition of single sub-processes.

3.4 Workflow referential model
Most of workflow systems include several components, communication between which is based on given rules - interface. Individual systems differ from each other not only by number of components, from which are set up, but also how these components communicate with each other. Nevertheless, there have been the features which all workflow systems have in common.
Single components of any workflow management system can be divided into a few parts that must provide each such system, regardless of its size and information technology, on which it is based. In every complete workflow system, we find beside the kernel of the system, which performs its own workflow, components that provide the creation of the process definition, administration of system and communication with users and applications. It is good that the part of the system is component which ensures communication with the other workflow systems.
The single components communicate with each other via own interface. By standardization of these interfaces is possible to achieve not only increasing cooperation among single workflow systems, but generally to better transparency of these systems.
The basic architecture of workflow management systems is represented by workflow referential model.

4. Auditing - responsibilities of the leading authority of public administration
The head of the public administration authority is in terms of his responsibility obliged to establish and maintain the inner control system that
- creates conditions for economical, efficient and effective performance of public administration,
- is competent to identify, evaluate and in time minimize operational, financial, legal and other risks arising in connection with performance of authorized scheme and goals of public administration authority,
- includes procedures for timely reporting to the appropriate level of management about the occurrence of serious deficiencies and about accepted and stuffed measures to its reparation.
To accomplish duties of the head of public administration authority, the head must define the duties of organizational components of the state that are not accounting entity according to special law, organizational components, territorial self-governing units, departments, managers and the others employees so, he will ensure proper function of the control system and internal auditing. There you can use especially tools of process analysis.

- to determine the range of adequate powers and responsibilities of leadership and other employees at dispose of public resources, including total and accurate definition of duties in relation to their tasks,
- to ensure separation of powers and responsibilities for preparation, connivance, realization and monitoring of operations, especially in relation to optional proceedings, closing contract, rise accounts payable, payments for fall due and debt collection,
- to ensure that all about operations and verifications was recorded and relevant documentation was managed,
- to take all necessary measures to protect public resources, 
- to reserve the economical, efficient and effective exploitation of public resources in accordance with the principles of reliable proceedings,
- to pursue and support performance of critical tasks of public administration authorities to achieve the confirmed designs and goals.

All leadership of public administration authorities are within the terms of their specified functions, powers and responsibilities required to ensure a reserve behaviour of the inner control system. Simultaneously, they are obliged to serve to the leading public administration authority by giving timely and reliable information on the results achieved during the filling of appointed tasks, about rise of significant diversification, about serious shortcomings in operation of public administration authority and about received and soft-centred procuration to its reparation.

5 Conclusion

This article describes experiences with using the process analysis in public administration. Modeling of processes is taken as the basis for incoming reengineering processes in public administration. The process analysis could be also use in the implementation of workflow and auditing.

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