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## IMPROVEMENT OF ENTERPRISE ACTIVITIES BASED ON PROCESS MANAGEMENT

**Abstract.** Process management has been increasingly popular for several years now, yet most frequently it is limited to fragmentary actions, at times even to declarative activity. Few organizations have brought their management systems in conformity with the idea of process management; more frequently some particular actions within the range of process approach may be observed.

Specialization allows efficient realizations of tasks; however, it separates individual organizational unities and amounts to an incentive for internal competition, in the result of which employees are antagonizingly focused on their positions and not on the organization's business. Among numerous imperfections, or even pathologies caused by hierarchization within the organization, it is noteworthy to point at weak communication, isolation of structures, blurred responsibility for the final result. Development of coordinating, supervising and monitoring systems, which are essentially not related to generating added value is also typical in this regard. These systems, however, are crucial for neutralizing negative outcome of the organization's functioning within the system. (Rutka, 1996); (Borkowski, Siekański, 2004); (Deming, 2000). Therefore, Hammer and Champy proposed an alternative concept of managing organizations, Business Process Reengineering, which initiated the discussion about the effectiveness and efficiency of management. (M. Hammer, J. Champy 1993); (Womack, Jones, 2008); (Ohno, 2008).

Process management is used in the organization and aims at realizing given objectives. It may be meeting the key standard of ISO 9001 at the initial stage of implementing the QMS. However, the motivation is frequently more ambitious as it is related to achieving proper results.

The processes ought to be mapped, modeled and optimized with the use of a renowned international notation – most frequently BPMF. Finally, we should achieve a comprehensive map in accordance with proper process architecture. The architecture should be based on 4–5 levels with the use of flow charts in the form of VACD (Value Added Chain Diagram) and EPC (Event-driven Process Change). The analyzed research problem is related to conscious use of process management conception for realization of a wide range of improvement actions in management.

The leading management conception heavily relies on the functional orientation, in the range of which the predefined tasks are realized by executors on the

basis of superior's orders. Participants of an organization perceive the structures through the realized functions, e. g. supply, production, designing. For the organizational objectives defined in this manner specific structural solutions are created (sections, departments, cells, positions). (Grajewski, 2004); (Kunasz 2010).

Process management is still more popular in research than in practice. There are few examples of complex usage of mapping, modeling and process improvement methodologies; more frequent are partial examples of usage.

Despite the increasing popularity of the issues related to process management, or as may be named as a fashion in this regard, taylorian organization is based on division of labor and specialization in the frames of functional areas (Rummler, Brache, 2000), (Grajewski, 2004) (Gregorczyk, Ogonek, 2007); (Kunasz, 2011); (Gabryelczyk, 2000). Numerous titles devoted to process approach were not able to find appropriate manner of expression, which is hardly possible to link uniquely with tradition, conservatism or historic organizational solutions. It is noteworthy to emphasize the risk which is recognized by managers during the implementation of process management conception, at least in its comprehensive, model form.

Process management is a conception, which, despite the significant depreciation of its original form (BPR), in some of its aspects plays a highly important role within numerous management conceptions, however, frequently only to some limited extent. The aim of the present paper is to present the key results of research concerning process optimization of IT services realized for the Polish National Police.

**Key words:** process, process management, process mapping, efficiency, quality management

### 1. The essence of process management.

It is difficult to explicitly answer the question of the essence of process management. It depends on the criteria which will be defined as fundamental in relation to this discussion. In the classical understanding a process is “a group of logically interconnected actions, which transform inputs into outputs, which process given resources and lead to meeting an objective”; other definitions treat the understanding of a process similarly, yet empha-

sizing some nuances. It is noteworthy to heed the key features of a process:

- it has a deliberate character and is linked to creating value added in the understanding of an organization;
- it is a system of sequences and not a set of actions which, despite the fact that they perhaps may be considered as crucial and necessary, they do not create a logical chain of events;
- it transforms inputs into outputs, i.e. in relation to each process we will be able to define the expected outcome of realizing the process as well as identify the basis for its realization.

Authors note numerous aspects of process management. In the frames of the present conception it is necessary to conduct mapping, modeling and optimization of processes. The key issue appears to be the process measurement which will allow organizational effectiveness and efficiency to be seen from the angle of realized processes (Grajewski 2007); (Bartkowiak, Koltwrman, Wójcik G., Wójcik K. 2001).

**2. Key contentious issues in realization of process management.** Literature analysis sees the conception of process management in a relatively coherent manner. Authors occasionally differ in:

- functional and process orientation in management;
- division of roles as opposed to positions and functions of employees;
- standardization;
- notations used in process description;
- methods and details of mapping;
- process architecture;
- implementation of process management;
- functionality and understanding of process management, it seemingly being the key issue.

These issues among many others are essential for understanding the essence of process management and its functionality when applied in an organization (Pacholski, Cempel, Pawlikowski 2009).

**3. Process quality management in light of the ISO 9000 series norms.** Process approach is one of the fundamental rules of quality management in accordance with ISO 9001 requirements. In chapter four of the abovementioned standard

requirements related to process management are presented. Thus, organizations are obliged to explore the theory and practices of process approach as well as to select solutions in accordance with the norms' requirements in this regard.

Practice proves that frequently taken actions in this area, however accepted by certification bodies, are merely a semblance of solutions defined in the theory of Business Process Management (Kunasz, 2011, p. 113–120).

Interest and popularity attached to process management becomes comprehensible in light of new requirements of the international norm. Unfortunately, practice frequently confirms that the interest often appears to be of limited range. The quality management conception focused on merely meeting the requirements of the standard defined in relevant parts of the norm should become outdated. At present the superior conception in reference to the system should be processes oriented towards creating value added for customers, i.e. towards the synergy of knowledge in various fields and of work done simultaneously in the whole enterprise and its surroundings (partners, clients, competition).

The fact that orientation towards processes is the basis for international quality management standards in practice means that it is not feasible to implement an effective quality management system in an organization without the analysis of the given organization as a system of all processes as well as without improvement in joining actions of different functional areas.

**4. Process management methodology.** Independently of the moment of the decision about implementing the process management conception it is highly significant to accept a particular methodology both in relation to the process management conception itself and to its implementation (project management). Effectiveness in this regard will determine the effectiveness of the organization and the mechanism of continuous improvement. In the professional literature we may come across numerous descriptions of methodologies of the process management system implementation. Hence, it is possible to refer to the classical cycle of the organizational design, realized through stages (Grajewski, 2007):

- establishing and dividing the general objective of the organization;

- designing the division of labor and the organizational hierarchy (merging actions and tasks into organizational posts instead of cells and sections);
- designing the system of information interconnections between organizational objects;
- spatial designing of organizational elements in order to optimize the usage of space at work;
- formalizing the organization.

Project approach is inevitably dissimilar to the classical scheme, because of its different perception of an organization. In the professional literature we may come across numerous attempts to systematize the stages of the organizational design and process management implementation. For instance, differences in the process management approach refer to designing processes (prognostic or diagnostic), or the range of implementing the changes (evolutional and fundamental) (Kraśniak, 2004); (Kaferl, 2005); (Kunasz, 2010).

The popular methodology of process management implementation is related to four stages (identification, defining objectives, process design and process management) (Błoński, Kondracki, 2004); (Kafel, 2005):

- Identification of processes which take place in the organization is based on observing the style of work through defining: events which cause the process to begin, actions taken by individual members of the organization along with justification of a given action, decisive moments, resources, events which close the process.
- Defining the process objectives – the identified processes are analyzed in order to define their suitability in reference to their objectives; if it turns out that the process is not focused on the client, the objectives should be verified.
- Process design – at this stage it is checked if the course of processes allows attaining predefined objectives in the optimal way. If the need to introduce changes is identified, the necessary modifications take place.
- Process management embraces: management of objectives, effectiveness, and resources; management at the meeting of departments, knowledge management – these actions do not refer to the whole organization, but to each action in the process.

## **5. Process identification and classification.**

Process identification (process mapping), i.e. the selection of key processes in an enterprise, is the first stage of process quality management. In the results of this stage the so-called contextual model is created. As at further stages it is obligatory to depict the correlation between processes, they frequently belong to two or more groups. (Bartkowiak, Koltwrman, Wójcik G., Wójcik K. 2001); (Grajewski 2007). The most popular; however, is the model which assumes two groups of processes, the processes being selected by the role they play in an organization and by their mutual correlation. Hence:

- Basic processes are the processes which result in a product or service directly related to the enterprise's activity. Generally, these processes create value added in the so-called value added chain. The following processes may be included in this group: market research, product design, product delivery, sales, marketing, customer service.
- Support processes are the processes designed to ensure an effective functioning of an enterprise and to enable the realization of basic processes. Support processes do not create value added for the customer in a direct manner. Among these processes the following may be included: strategic planning, human resources management, finances-accountancy, computer and logistic services.

Frequently the divisions differ as they are connected to the functionality of process mapping. For instance, emergency processes, cost and business centers. Process map in each case should combine both the knowledge in process mapping and the specificity of the organization itself.

Key processes identification constitutes the basis for developing process architecture of the management system. Process architecture may be seen as an arranged image of the structure of processes on account of the scale of the enterprise's activity. In relation to computer tools process architecture may include:

- cross-sectoral processes (megaprocesses);
- sectoral processes (main processes);
- basic processes (individual actions).

Creating the process architecture, thus, consists in gradual division of given key business

processes into smaller and more basic elements. In reference to the responsibility for the processes the so-called process owners are in the leading roles. Process owners coordinate the operational flow of actions in the frames of processes as well as manage the processes, i.e. set the goals and measures, analyze and improve processes (take and verify support and preventive actions).

#### 6. Standardization in process management.

The expected result of process identification is general and detailed process maps (diagrams) which create the so-called process architecture. Creating maps which depict the flow and mutual correlation between processes is another significant element of implementing process management. Hence, it is worth considering the use of a renowned notation to illustrate processes, for example BPMN (Business Process Mapping Notation). This notation allows comparison of graphic presentations of processes which gains significance in the case of benchmark comparisons, both internal and external. The processes graphically depicted in such a manner allow verifying how undertaken actions are oriented towards internal and external customers and how they contribute to creating value added for the organization.

The described processes embrace a given sequence of actions which are directly interconnected (realization of one action allows moving to another). Thus, the following elements should be considered significant in relation to process description:

- functions separately realized;
- responsibility for realizing individual functions (e.g. position);
- input and output documents.

The documentation prepared in the frames of the quality management system should be process-oriented, which is in favor of a better reception of tasks assigned to employees. For instance, it is easier for a employee to refer to the process “Winning and servicing a client” rather than an element of the norm named “A review of requirements related to the product”. The quality management system documentation joins the real actions of the organization and solutions undertaken as a response to the norm’s requirements. The basis for the documentation preparation is processes, as opposed to the standard’s requirements. This conception is supported by the liberization of requirements

related to systematic documentation. Hence, each organization decides individually about the need to prepare relevant operational procedures.

Modern quality management systems require adequate documentation in relation to understanding and using the process management theory. Thus, new documents are created, for example, process cards or process book which are simply in the leading role in the area of identification of methods and criteria of process realization.

The process card may be the leading document, for the fact that if created for every process it may contain both the data characteristic of a given process and the data related to its planning, monitoring and development. An exemplary structure of a process card, based on the assumption that every process will aim at three types of objectives, may include:

- *basic* defined according to the definition of a process, understood as an intentional action (e.g. for the process Cards Management: assuring competent personnel for realization of professional tasks in the organization);
- *monitoring* defined as indicators whose values should be read as possible early warning signals (e.g. for the process Cards Management: production workers absence higher than 2 %);
- *improving* defined as objectives, whose attaining will be seen as the proper direction of process modeling and development ( e.g. for the process Cards Management: decreasing the rotation of executive managers within the first year of recruitment to 0).

ISO 9001 norm has certain requirements for the quality management system documentation, in particular, in reference to the need to create documented procedures (ISO 9001). Furthermore, the intention of the requirements is the individualization of the systematic documentation in the aspects of personnel competence, process complexity and the organization’s specificity. Finally, the procedure is defined as the established way of proceeding with the action or process. In light of the abovementioned considerations, a procedure may have various forms.

**7. Process parameterization.** Effectiveness measurement is a significant feature of both process

approach and quality management systems in conformity with ISO 9001. Therefore, there is a need to parameterize processes (Grajewski, 2007, s. 79–87). In practice it is linked to the need to define:

- main quality features;
- result and leading measures;
- target values of measures.

Parameterization should be conducted for individual processes in the frames of the process map. Hence, objectives, measures, and target values are defined in the quality management practice, at least for the so-called megaprocesses. At the next stage objectives, measures, and target values for the basic processes are defined (sectors of lower level). Finally, these parameters are established for the lowest sectors – the operational level. As the result of these actions every employee is aware of objectives and tasks defined in the frames of a given process (Huang, Dismukes, Mousalam, Razzak, 2003); (Muchiri, Pintelon, 2008).

**Conclusion.** Although in both the literature on the subject and the practice numerous descriptions of process management may be found, there is no explicit opinion indicating that meeting the minimal requirements will allow application of process management in an organization. The thesis that a certified quality management system is an unequivocal piece of evidence for process management in the given organization appears not to be valid in practice. It may be even stated that there is no direct link between certified management systems and process management.

Professional process management is still a rare practice, yet it is difficult to find the reason for it. Most probably this situation is caused by the fact that process management is seen as a risky conception in comparison with the traditional hierarchical organization which creates a sense of stability and security.

Process improvement is realized through analysis of data related to the process, creating objectives and undertaking corrective actions. The result of process improvement may be not only quality improvement but also reduction of costs related to the process. We may assume that the product is as good as the process is.

In order to conduct a complex evaluation of process measurement The Balanced Scorecard may be used. It allows to observe relations between individual areas of an organization's functioning:

finance, clients, processes and resources, and, in particular, to define the influence of the processes on the first two of the already mentioned areas. Hoshin Kanri method may be equally useful and is related to building the management strategy.

Similarly, assuring the effective data acquisition and analysis is possible only in case of assuring computer support of process management. According to some authors, it is the essential condition of professional process management.

Business process models previously developed in the course of the project along with the measurement system are the basis for taking optimizing actions. In the frames of process improvement generally two methods may be used:

- process facilitation;
- process reengineering.

Process facilitation leads to the modification of the present state, as the result of which the effectiveness and efficiency of the process are increased. Facilitation is applied in order to rationalize the process in the range of a small area of activity or to introduce changes in the selected elements of the process.

Process reengineering leads to the radical change in the process realization which results in change of effectiveness. Hence, reengineering has a broader character and is frequently related to designing the course of the process from the beginning on the basis of the research assumptions and client's requirements. In conformity with the leading definition (M. Hammer, J. Champy 1993) reengineering is the fundamental rethinking and redesigning of processes in the enterprise, which leads to the crucial improvement – according to critical modern measures – of results, e.g. cost, service, speed.

Quality process management defines a new approach towards the quality management system. This approach is equivalent to the full conception of Total Quality Management. Constant process improvement, including the executive personnel and all employees at all levels of the enterprise's process orientation, leads to continuous improvement of quality of provided services and products. Eventually, it enables the correlation between the attention to quality along with customer satisfaction and the pragmatic approach to running an enterprise.

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