

PROCESS MANAGEMENT OF ECONOMIC SYSTEMS

© 2008 A.A. Safonov*

Keywords: process, process management, process approach, system approach, “cutting” processes, process model.

This article deals with current approaches to the process management of economic systems by the example of commercial organizations and companies. It draws a comparison between approaches highlighting each of them; touches upon the problems of developing formal process model for the organization. At the end of the article author makes a conclusion of the practical use of above mentioned approaches.

The modern market and market relations cause objective necessity for the increase of managerial effectiveness of the company as a guarantee of its stable functioning in a market space. Applying principles of the process organization of a management system provides the company with various opportunities allowing it to realise the purposes and problems. Besides, intrafirm communications and interaction of structural divisions of a firm are optimised as the management system based on activity processes and results of their formalisation, is a powerful uniting basis.

Now the area of knowledge of process management of economic systems is characterised in Russia by what even professional consultants for management have no standard understanding of the process approach to management of the organisation. Consequently, the customer of services of consultants - top management of the companies - is compelled to understand independently with variety of approaches and methods. At the same time in the market some companies implement the technique of construction of the balanced indicators of management (BSC), others create “process model of the enterprise” with using ARIS, the third offer for short term and the fixed compensation to optimise all existing processes, the fourth urge to undertake at once introduction of total quality management (TQM). The number of consulting companies equals to the number of interpretations of the process approach. Occurrence of standards ISO of a series 9000:2000 though has given a serious impulse for the development of techniques of process management, but it has not solved the problem of various interpretations of process and the process approach.

It is possible to allocate at least two quite accurately expressed understandings of the process approach to business operation. The first is based on system consideration of the organisation activity as sets of processes, system engineering of management by processes with use of principles ISO of a series 9000:2000. The second understanding of the process approach is based on allocation of “through” processes in the organisation, their description and subsequent reorganisation.

The first understanding of the process approach is based on following four substantive provisions:

1. Definition of process and system approaches with reference to the organisation;
2. Definition of process (business process) of the organisation;
3. Analysing the steps necessary for introduction of the process approach in the organization
4. Definition of a network (system) of the interconnected processes of the organisation.

It is necessary to make conceptual definition of process.

The process is a steady, purposeful set of the interconnected kinds of activity which on certain technology will transform inputs to the outputs which are of value for the consumer. This definition is based on definition of standard ISO 9000:2000^{1, 2}.

The network of processes of the enterprise is defined as follows: it is a set of the interconnected and co-operating processes of the enterprise including all kinds of activities carried out at the enterprise. While implying the given definition it is not important how many processes are allocated at the enterprise, the main

* Anton A. Safonov, post-graduate student of Povolzhskiy State University of Service, Economy and Management of National Economy.

thing is that all activities are considered in the form of processes.

Use for management of activity and resources of the organisation of a principle of system of the interconnected processes can be called as "the process approach". Such definition of the process approach in ISO 9001:2000, obviously, is a little limited, as it does not actually comprise technology of management of process. Therefore it is necessary to outnumber the steps which provide introduction of system of process management:

1. To reveal the processes necessary for system of quality management, and their application in the organisation;
2. To define sequence of these processes and their interrelation;
3. To define criteria and the methods necessary for the estimation of productivity of these processes and their managing;
4. To provide presence of resources and the information, these processes necessary for realisation and their monitoring;
5. To carry out regular analysis of these processes;
6. To realise the actions necessary to achieve planned results and constant improvement of these processes.

"Reality" of processes is reached by a binding of a network (system) of processes to functional divisions of the enterprise and local processes within the limits of functional divisions of the organisation.

It should be mentioned that the attempt to oppose "the functional" and "process" organisations is incorrect. The matter is that in hierarchically constructed organisation there are the same processes as in any organisation. Besides, if the enterprise operates successfully on the market, it means that its processes are sufficiently productive and effective. The problem is whether the existing management system will provide steady, profitable functioning of the enterprise in certain prospect. If it doesn't, changes in a management system are necessary. The process approach in this case is a basic means in a set of the major tools which the head can use while planning management system reorganisation. The binding of processes to functional divisions gives the chance to define unequivocally:

1. Borders of processes (on the inputs/ outputs, carried out functions of divisions);

2. Interaction of processes within the limits of a network (system) of processes of the enterprise;

3. Those responsible for productivity and efficiency of each process.

Process has inputs and outputs. For process realisation resources (the personnel, the equipment, an infrastructure, environment and so forth) are used. Management of process is carried out by its owner - all resources necessary for performance of process are at his or her disposal. Thus, in considered understanding of the process approach to management presence of the owner of the process possessing resources is a crucial condition.

The second understanding of process management as it has been already noted, is based on an allocation technique in the organisation of "through" processes.

Adherents of "through" processes ideology define process as a purposeful sequence of operations (works, procedures) leading to the final result. According to the definition the process description represents the list of sequence of the works which are carried out serially in various divisions of the enterprise (often from different functional directions), the executives entering and outgoing documents, etc. Specified understanding of process gives the chance to use techniques of the description of class Work Flow the most widespread of which are IDEF3 and ARIS eEPC. On the basis of "through" understanding of process schools of reorganisation of operation of business are developed. The greatest distribution was received with the approach when:

1. Descriptions of processes (model) "are created as is", "as is" (reflect an existing situation);
2. The analysis of models "is carried out as is";
3. Models "are developed as should be", "to be" (models of perspective processes);
4. Reorganisation of real activity on the basis of models "is spent as should be". In this case it is obvious that the question of construction of a management system basically doesn't arise as the single project of operational chains improvement in the organisation is carried out.

Supporters of a technique of "through" processes prove the position with the following arguments:

- ◆ it is necessary to eliminate “ruptures” on interfunctional joints;

- ◆ someone in the organisation should provide the efficiency control during the whole process including customer relation;

- ◆ the functional structure interferes with a normal course of business process;

- ◆ all modern enterprises switch from the functional structure to the process one;

- ◆ lacks of functional structure of Taylor can be eliminated only with the introduction of the process approach;

- ◆ the process model of the organisation is a basis for reorganisation, etc.

Usually the chain of similar reasonings ends up with the allocation of several “through” processes, then either attempts of reorganisation of separately taken processes are carried out, or there are attempts to construct “process model” for the organisations; this activity is caused by the necessity for “the complex description, analysis and reorganisation of business processes models”.

Some experts develop the given approach further, introducing the concept of “the owner of process” and “the owner of a resource”. According to T. Conti³, the owner of process should be appointed from top managers, i.e. chief executive assistants. It is necessary to regulate the owner and heads of functional divisions (owners of resources) interaction. Such regulation actually means a change of a managing the enterprise when a transition to matrix or design structure is carried out. In most cases a problem of changing the management system does not arise, but processes owners are appointed. The management claims result - an increase of processes efficiency, but processes owners cannot provide processes improvement without having real resources and administrative powers at their disposal. Therefore use of “through” processes without considerable change of principles of operation of business normally does not bring desirable results.

Main principles of functionally focused organisation construction are considered to be formulated by Taylor⁴:

1. Division of functions of planning and the control and function of performance (manufacture) between managers and workers;

2. Division of process into operations;

3. Standardization and simplification of operations, narrow specialisation of workers;

4. The price-work form of wages.

Such approach provided an increase in industrial enterprises productivity at the beginning of the last century. Estimating modern Russian enterprises from this point of view we can say that in many respects they work according to Taylor’s principles. For the enterprise with modern level of technologies such approach is bad as it is very difficult to provide high quality of production. The problem may be solved with the introduction of various monitoring systems. The idea of the total control is accompanied by growth of expenses, but does not provide high (on a global scale) quality level. The following measures are necessary: process quality management (for example, according to ISO series 9000:2000), application of statistical methods of the processes analysis, personnel involving (the Japanese mugs of quality), etc. The question is: why with such management system many enterprises are still operating on the market. The answer is that efficiency and quality of processes of the enterprises-competitors in one branch are approximately identical. But we can imagine the consequences of such enterprise’s attempt to enter the market where there are more effective companies. So, we designate the following question: whether efficiency and quality of processes are caused by functional structure of the organisation? The supporters of “through” processes answer this question positively. In their opinion the description of “through” processes can improve the situation. However according to Taylor’s point of view:

1. Division of function of planning/control and performance between managers and workers at the description of “through” processes does not change;

2. Division of process into operations remains in “through” processes;

3. Standardization of operations and specialisation in functional divisions in “through” processes remains.

Thus allocation and the description of “through” processes as it is does not change Taylor’s principles for operating in the functional organisation. The description of these processes practically gives nothing to the organisations until management principles are changed. In my opinion, there is no direct dependence between functional structure and efficiency/quality of processes. The description of

Comparison of two approaches to process management

Subject of comparison	The first understanding of the process approach	The second understanding of the process approach
Definition of process	Process is steady, purposeful set of the interconnected activities which with a certain technology transforms inputs to outputs which are of value for the consumer	Process is a purposeful sequence of operations (works, procedures), leading to the final result - to a process output
Determination of activity of the enterprise	All activity is considered as a network of processes. The system approach. A binding to the real organizational structure of the enterprise	Partial consideration of activity in the form of chains of step-by-step executing operations. Absence of any system. Subjectivity
Presence of a methodology of process management	It is presented. Corresponds to ISO 9001:2000 requirements	It is not present. There are various subjective interpretations
The owner of process	It is presented. Possesses all resources necessary for providing of productivity and efficiency of process, occupies concrete position in organizational structure	It is presented. Do not possess resources, do not occupy certain position in organizational structure, but has duties
Interaction between structural divisions	On 100 % it is defined and regulated within the framework of a network of processes	The partial description within the framework of "through" processes
Subject of comparison	The first understanding of the process approach	The second understanding of the process approach
Management system of the enterprise	Changes. Developing on the basis of methods of management of processes within the framework of a network of processes of the enterprise. Heads of divisions become owners of processes	Practically does not change. Activity of linear heads is burdened with a duty of consideration of process owners requirements
Documentation of the management system	Complete documenting of activity. The documentation on 90-100 % corresponds to real activity and is practically used	Developing of the additional documentation with low degree of practical use
Necessity of change of organizational structure at complex introduction	Is absent. The organizational structure as a whole remains before occurrence of the objective data necessary for a substantiation of changes	Should be completely changed for achievement of real result (transition to matrix or project structure)
Processes' quality management	It is provided. Certification on ISO 9001:2000 is possible	It is not provided. Certification on ISO 9001:2000 is impossible

“through” process by itself does not change principles of management used in the organisation. It is possible to run the organisation on the basis of “through” processes, but it demands very serious changes of a management system. Toyota company needed 8-10 years for the realisation of transition to matrix principles of management.

“Through” processes in itself does not solve this problem in the organisations and cannot serve as a means providing significant efficiency and quality. Supporters of the given idea talk about the necessity of creation of “process model of the organisation”. This model should include a complete description of activity of the organisation by means of “through” processes. The first problem here is that labour input in the creation of process model of the organisation, attempt of allocation and work with “key” through processes will very quickly lead to the necessity of analysis

of all other activities, and the head will be compelled to create “process model” the enterprises in general. Another problem is that the volume of the received information is almost impossible to analyse in any reasonable terms. It is difficult to analyse the process model, including 5-10 thousand objects (functions, documents, executors) and to prove the measures on the improvement of processes on the basis of this model.

The necessity for creation a “process model” is often explained with the preparation for automation of company managing. In reality introduction of complex system of automation (MRP, ERP) leads to the introduction of registration system. However the detailed, authentic and operative account does not guarantee changes and management system improving. What is now called management automation is just a means of increase of productivity of account and reporting control. Such automation

does not influence principles of the organisation of the company management.

The comparison of two approaches to the introduction of process management applied in the organisation which is run according to functional-hierarchical principle is illustrated in the table below.

In practice it is necessary to carry out the analysis of application one of these approaches with provision for a real level of the enterprise development: cultures of management, real doc-

umenting activity, an interaction condition between divisions, corporate culture, etc.

¹ MS ISO 9000:2000. Quality management systems. Main provisions and the dictionary. M., 2001.

² MS ISO 9001:2000. Quality management systems. Requirements. M., 2001.

³ *Conti T.* Materials of the seminar "TQM - the process approach - a new view" // October, 17-18th, 2002, Moscow.

⁴ *Taylor F.* Principles of scientific management. M., 1991.