

Methodological support of organizational changes during the implementation of business-activity monitoring

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Any organization including an industrial plant is a living organism that is constantly changing in one of two directions - growth or aging. The concept of a life-cycle of business which is distinguished by researchers, based on detailed and reasoned qualitative descriptions and quantitative evaluation of the characteristics of the stages of life-cycle of business (system), but it does not pay attention to the aspect of organizational changes.

Meanwhile, we believe that organizational component is subjected to mandatory test during the diagnostics of a life-cycle stage. This is a prerequisite condition for creative organizational changes and focused movement of an organization to the stage of the life-cycle with intense characteristics.

To survive in the modern competitive world companies are forced to look for new management actions and organizational solutions which will help to successful development in the present and have the prospect in the future.

In the last case, the most important condition of adaptability of an economic entity becomes the analysis which helps to understand at what stage of the life-cycle the activities are carried out, to evaluate the potential of its separate

components, to identify the main components of the production process and organizational management system which needs the introduction of changes, as well as to define and implement these transformations.

The cyclic methodology of organizational changes allows to determine the main types of components in control system and to transform them effectively in accordance with the stage of the life-cycle. It includes four successive phases, such as diagnostics, identification, realization and monitoring phase.

The Phase of diagnostics includes diagnosing blocks estimating an object and subject of management potential, stages of the life-cycle of the organization and its external environment; it allows to examine the current state of the organization.

The first blocks of the diagnostics phase assess the potential of an economic player - a set of resources and business opportunities which determine the prospects for its development under various environmental conditions. The results of diagnostics of the main components in the organization make the basis for their adaptation to the requirements of the environment and to the current stage in the life-cycle of the economic player.

The diagnostics of the environment makes it possible to assess whether the environment contributes to the development of an organization or hampers it at a particular stage of the economic player life-cycle.

The identification phase is designed to identify critical points in the development of an organization and to identify the specific values of components in the control system which hamper or v.v support the functioning of the economic unity. As part of this phase the choice of direction for organizational development is made, it is based on the regularities in life-cycle of the organization and on the market, to which the economic player belongs. The choice of the type for the organization management system is based on the analysis of its components. As for the strategy - it can be directed to the growth, stabilization or reduction. The organizational culture is characterized by such types as adhocracy, market, clan or

bureaucracy. Autonomy, expansion, balance or contraction are the possible types of organizational structure.

The phase of realization is designed to make direct organizational changes: diagnostics of possible resistance from a side of personnel, implementation of organizational changes and monitor of the success after taken reforms.

The monitoring phase determines the need to return to the diagnostics phase for the implementation of adaptive features in the organization. With a slight change in the environment where the economic player operates, the phase of monitoring must be continued, in case of critical situations – the economic player must return to the phase of diagnostics.

The purpose of the last is the earliest detection of various failures and errors within the organization that helps to recognize the coming crisis, quickly react to it and more likely to get away from it or reduce the level of risk, and even to avoid catastrophic consequences.

The detailed description of this technique is presented in works [1, 2].

The developed organizational provision allows to respond promptly to environmental changes during the strategic uncertainties, during the strong influence on the market situation from the side of society and political forces. It is applicable during the restructurings, mergers, acquisitions, changes of ownership, shortage of resources, slowing of growth and the introduction of new technologies to the production or management.

This methodology is also applicable when there is a necessity of taking transformations in response to the introduction of new management technology, which has specific characteristics and requirements to the organizational environment.

The purpose of this article is to show the possibility of adaptation of the described methodology to the introduction of organizational changes related to the implementation of new management technologies on the example of business monitoring systems at enterprises.

First of all, the modification of the strategy applied to the above mentioned situation affects the diagnostics phase of the study. To support organizational changes during the introduction of technological innovations the first phase of the basic strategy should be extended by the unit called "Diagnostics of the new technology." This unit is designed to identify the specific characteristics of the new system and its requirements to the organizational environment (Fig. 1).

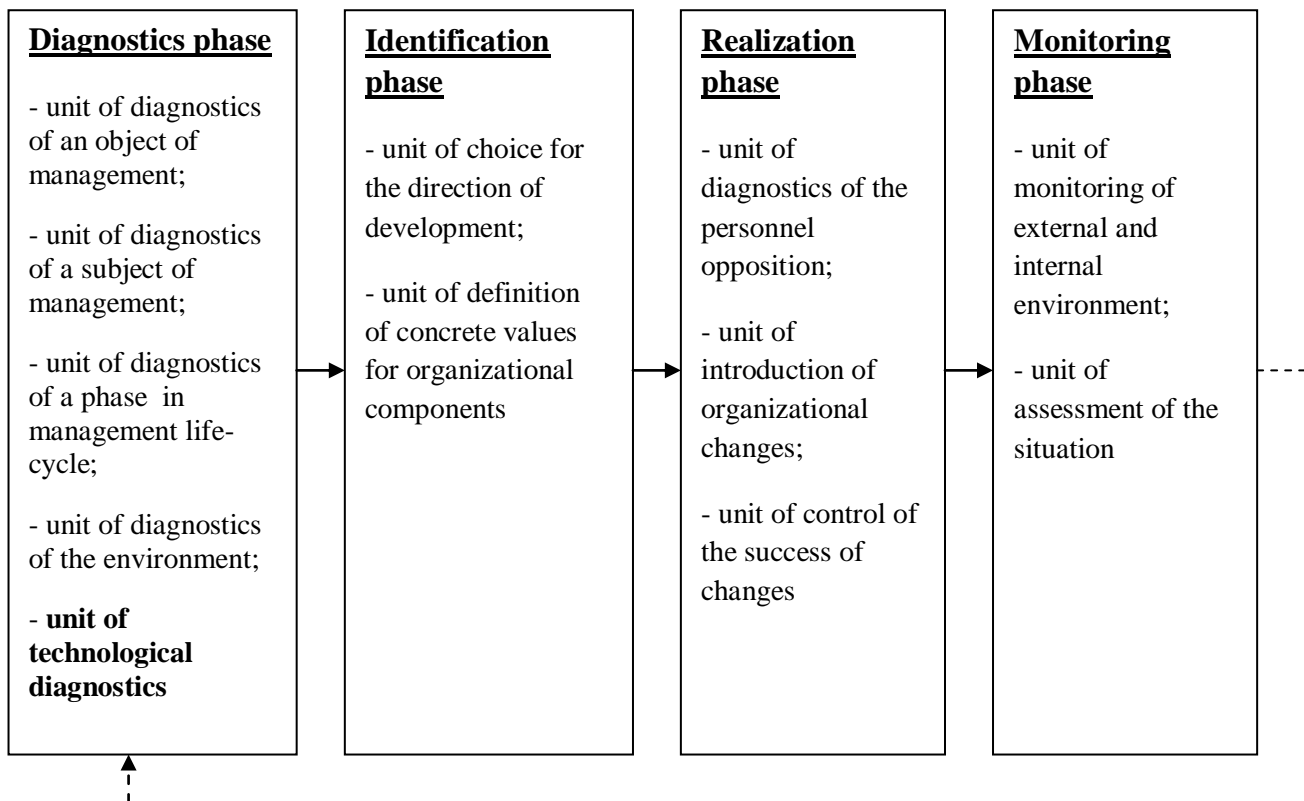


Fig.1. The methodology of development of a system of organizational management with the use of conception of the life-cycles

The basic prerequisites for the transition to real-time control system based on monitoring – development of information, software and hardware-based means. A key difference between the system of business activity monitoring from the majority of currently applied automated technologies is a view of business processes as dynamic series of events, the sequence of discrete transactions which take place in real time with the use of management procedures (2012:6). The new

technology of automated management is seemed to be quite perspective for enterprises, that has already realized limits of controlling.

The technology of monitoring includes several groups of procedures. The first one involves the reflection of events instrumentally performed by any information system in the organization and from various data sources (corporate databases, system of contractors, Web-services, Internet and so on) on a personalized portal used by a manager.

The second group of procedures allows a manager to connect in real time the analysis of the event characteristics with involvement of internal and external sources, reporting and historical data. Particular importance is given to the presentation of information on personalized user's portals in a form which is more convenient for management decisions (including the suggested options of actions and graphic components: charts, graphs and reports).

The purpose of the third step is to determine parameters of the transaction, show them in databases and evaluate the quality of taken decisions automatically according to the existing system of criteria. To diagnose the presence of new technology features which induce a change in organizational culture, we will consider one of her design schemes: Analyzer of an event "The purchase contract" [3] (Table).

Table: Scheme of event monitoring «The purchase contract»

MONITORING OF AN EVENT “THE CONCLUSION OF A PURCHASE CONTRACT”		
Characteristics of an event	Analytical procedures	Recommendations from a system for decision-making
Contractor	The counterparty rating (integrated assessment of the supplier's reliability), taking into consideration <i>the supply diversification regulations</i>	The conclusion of a treaty with this contractor is recommended or a list of suppliers in descending order of ratings & risk of delivery is offered. The decision is estimated according to the parameters.
Product Delivery term Amount	The assessment of the expected level of stock on a day of delivery of the product in comparison with the stock norms according to the data of <i>inventory turnover</i> and procurement	The amount and delivery dates, corresponding to regulations of stock management, are recommended. The decision is estimated according to the parameters.
Price	The assessment of delivery price: taking into consideration the influencing factors according to the data of <i>monitoring of environment</i>	The price range is recommended. The decision is estimated according to the parameters.
Terms of payment	The assessment of correspondence of the term of payment to <i>target criteria</i> and expected fund balance for the selected date (<i>flow of funds business process</i>)	The payment date in time within the target duration of payments to creditors is recommended. The decision is estimated according to the parameters.

The contextual analysis of management procedures and interactions in the new technology shows that the manager gets a possibility to perform each transaction (event) in a business process by carrying out analysis of its characteristics in real-time and take decisions on his own, subject to the references from conjugate fields of management which are included into the horizontal cooperation system. In this case, he uses analytical "tips" and different variants of solutions which are formed by the monitoring system based on current, historical and predictable data which are relevant to the taken transaction and connected to it events. The possibility of assessment of the taken decision is provided by the system using specially designed for this purpose criteria. The analysis of the scheme showed as an example (the monitoring of a certain transaction in the

purchase business process) in extrapolation of the taken technology in general helps to state the main features of the business activity monitoring, inducing organizational changes.

First of all, the increase of the degree of self-government on a basic level of management in the organization - in the centers of procurement, in places where expenses can appear, in sales centers and others, with the redistribution of responsibilities in favor of the mentioned link in the control system. It is provided by the analytical, technical, software and informational tools of monitoring.

Secondly, it forms horizontal informational links between the basic elements in the organizational structure.

Thus, decisions based on the parameters of the purchase contract require the use in real time of analytical data for the management of reserves, cash flow, market prices and other things (in italics in the table).

Thirdly, the creation of conditions for the automated control of the quality of management decisions taken by the manager who uses all characteristics of transactions.

The marked features of the new control technology require the determination of the development directions for the organization and carrying out changes in the types of organizational structure and culture, as well as related to them methods of communication with staff. Methodological support for the mentioned innovations is provided by the tools of identification and realization phases in basic strategy.

The implementation of measures to form new types of organizational components, in our opinion, should be conducted simultaneously with the introduction of the technology for business activity monitoring. Thus, exclusively "power" way of interaction, corresponding to the widely-spread at enterprises bureaucratic culture will not allow to fully realize the benefits of the new technology, presupposing the increase of level of self-government at a basic level of management. During the implementation of business activity monitoring system

the process of separation of substantial parts of control functions, which before belonged to the higher level of management representatives into the automated procedure, also reduces the possibility of bureaucratic mode of interaction.

The combination of bureaucratic approach with its "rational persuasion" (with reforms based on facts and figures) and "compromise" (with an offer of compensations and partial control over the implementation of changes into the management to employees) will cause the interest and support of innovations from a side of workers.

The mentioned features are typical for innovative culture in which the main points of development must be the units of management where the new strategy of business monitoring is implemented.

In accordance with the purpose of the present study, according to the authors, it is preferable to use the criteria of the last type, linking the type of culture with the distribution of power, authority and responsibility in the organization.

Special features of the new control system, inducing changes in management culture, presuppose:

- significant redistribution of responsibility and increase at the level of self-government on the basic level of hierarchical control system at a production company;
- forming of close "horizontal" information relations between the elements belonging at the same level of organizational structure of management;
- change of the type of regulation and activities control at one or several levels of the structure.

The mentioned features contradict the bureaucratic type of organizational culture prevailing at most enterprises today, and these features are the basis for the diagnosis of the need for organizational changes.

For the selection of a right type of organizational structure in terms of introduction of the new management technology experts are offered the characteristics of structures that need to be ranked by the following criteria:

- degree of importance;
- possibility of diversification without significant loss of control over the activity;
- flexibility in relation to the external and internal environment, the difficulty and efficiency of decision-making;
- possibility of revealing the initiative and independence; the content of control and motivation;
- other characteristics

While determining the level of centralization of the organizational structures and the choice of a particular type of structure it is necessary to take into account the objective conditions that influence the choice of the type of structure and its degree of centralization.

The process of change, speaking about employees of the organization, according to the authors, should be based on certain principles, the most important of which are: openness, engagement, purposefulness, provision with resources and awareness.

Openness requires notification of all employees about the coming changes beforehand. Introduction of new ideas to staff will help them to understand the necessity and logic of coming events, to reduce excessive nervousness, fear of uncertainty, it is necessary to underline the care of employees from a side of administration and thus, to give constructive direction for future reforms, it will help to minimize rumors and intrigues.

The principle of *engagement* is associated with awareness of the need of changes and head's willingness to mobilize all available resources for achievement of set goals, and from a side of employees – appreciation of new ideas. It is important to create a comfortable atmosphere within the organization and

atmosphere of involvement into the process of change, to support reasoned suggestions for the configuration of the monitoring procedures, including the control and user's interface.

Purposefulness means well-formalized goals and develops among employees confidence in their work and in benefits of the new technology, as well as the concordance of individual interests of employees with the overall objectives of the organization.

The principle of *provision with resources* is understood as the mobilization of all financial, human and information resources. Awareness is a process of providing the employees with the information about intermediate and final results of the implementation of monitoring system – it increases the confidence in success of future reforms.

During the process of reformation it is necessary to use all variety of forms of notification and personnel training programs, both individual and group. The process of transition to a new management technology in prepared organizational environment will be successful, if the head of the company is supported in his reforms by the entire staff of the company.

The holistic methodological support of all organizational changes as a single project, presented in this article, will increase the probability of completion of the work on scheduled terms and will allow to achieve the desired result.

The implementation of these four phases of the proposed strategy with presented additions in methodological support will not only allow to take into account the cyclical functioning of the business entity, but also to implement the technology of management based on business monitoring. The attention to questions of adaptation to new technologies will solve the problem of breaking the links between the basic structural elements of the organization: strategy, personnel, organizational structure, culture, technical and technological basis of the business entity and environment.

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