

ISCKMC 2020**International Scientific Congress «KNOWLEDGE, MAN AND CIVILIZATION»****CHANGE MANAGEMENT MODEL FOR ECONOMIC SYSTEMS**

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Abstract

The paper considers the key foundations of the parameters of the change management model within the economic systems of a municipality. Within the framework of this aspect, the methodological basis of the change management process is produced in the context of the relationship of the foundations with economic systems, the substantiation of characteristic features of the model as the algorithmization tools of this process. The aim of this paper is regulated by building a model to manage economic changes within a state and a municipality. The purpose of the study is to consider the components of the change management process, identify the impact of changes on economic systems, formulate the characteristics of the change management model in economic systems. The research tools include the theoretical analogy method, the element grouping method, the object classification method, the data modeling method, the identification method, the entropy method, and the interference method. Based on the proposed characteristics of the model, it can be concluded that this tool allows testing the change management model and creating a platform that will determine the final result of the economic system development. The highlighted study framework allowed focusing on key components of the change management process. In this way, the proposed change management tool builds and suggests processes within the given issue, while allowing modification of non-transparent elements of the model.

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1. Introduction

The transformation of the process environment leads to changes in various economic systems. Defragmentation of economic systems implies the need for tools that are able to adapt to existing changes. The selection of existing tools, methods and models for managing changes in economic systems suggests their uniformity, which lies in their structural elements.

2. Problem Statement

Let us consider this thesis in more detail.

First, the existing change management tools aim to identify the problem, but reject the decision algorithm as part of this drawback. By nature, the existing tools only analyze the issues in the context of the variability of a particular element of the management system. The absence of a parametric base of research does not allow assessing the result of the change and thereby suggests measures to improve the development of the economic system.

Second, the degree of change varies the significance of the outcome of change management in economic systems. Thus, for example, the discussion about the neutrality of changes, originally disclosed in the works of Jabri and Pounder (2001), led to the fact that the aspect of change management was based on the principle of adaptation. In accordance with it, economic systems adapt to existing changes and transform processes within themselves. The principle of adaptation is neutral, whereby the resulting changes cannot be defined as positive or negative. On the other hand, after studying change management in socio-political systems Hurmuz (2018) substantiated the assumption that any change is negative and positive, which is reflected in the end result. This view is the most rational. The identified subjective author's assessment is related to the fact that if the changes were neutral, the consequences of the transformation of economic systems would also be mediated.

Third, the study of change management in economic systems is limited to the local-organizational level. The study in the field of change management is aimed at adapting organizations to environmental conditions. Predominantly, these studies are based on the analysis of the organizational environment (Shirinov, 2018), models of change effectiveness in organizations (Clarke & Bellis-Jones, 1996), typology of organizational changes (Orlova & Van, 2019), tactics for implementing changes in the organizational environment (Gerasimov, 2019). In terms of change management, higher level economic systems are considered superficially, narrowly. Basically, the identified issues are mentioned only in the context of the typology of economic systems in the study of the issue of change management.

The above theses made it possible to conclude that the topic of change management in economic systems is quite relevant and requires the implication of new tools for its development. The model of change management in economic systems is a tool that will determine this problem from a different scientific perspective. Thus, the area of change management in economic systems will be considered through the prism of gradual actions of reactions to changes and the final result.

3. Research Questions

The subject of the study includes a set of theoretical and methodological problems of forming a model for managing changes in the economic systems of a municipality that arise through functioning and development of their development prospects.

4. Purpose of the Study

The purpose of this paper is regulated by building a model to manage economic changes. To achieve this purpose, the following is required:

- to consider the components of the change management process;
- identify the impact of changes on economic systems;
- formulate the characteristics of the change management model in economic systems.

5. Research Methods

The research tools included the theoretical analogy method, the element grouping method, the object classification method, the data modelling method, the identification method, the entropy method, and the interference method.

6. Findings

Change management is a fairly heterogeneous process defined by a number of composite elements. The most complete understanding of the change management components is given in Figure 01.

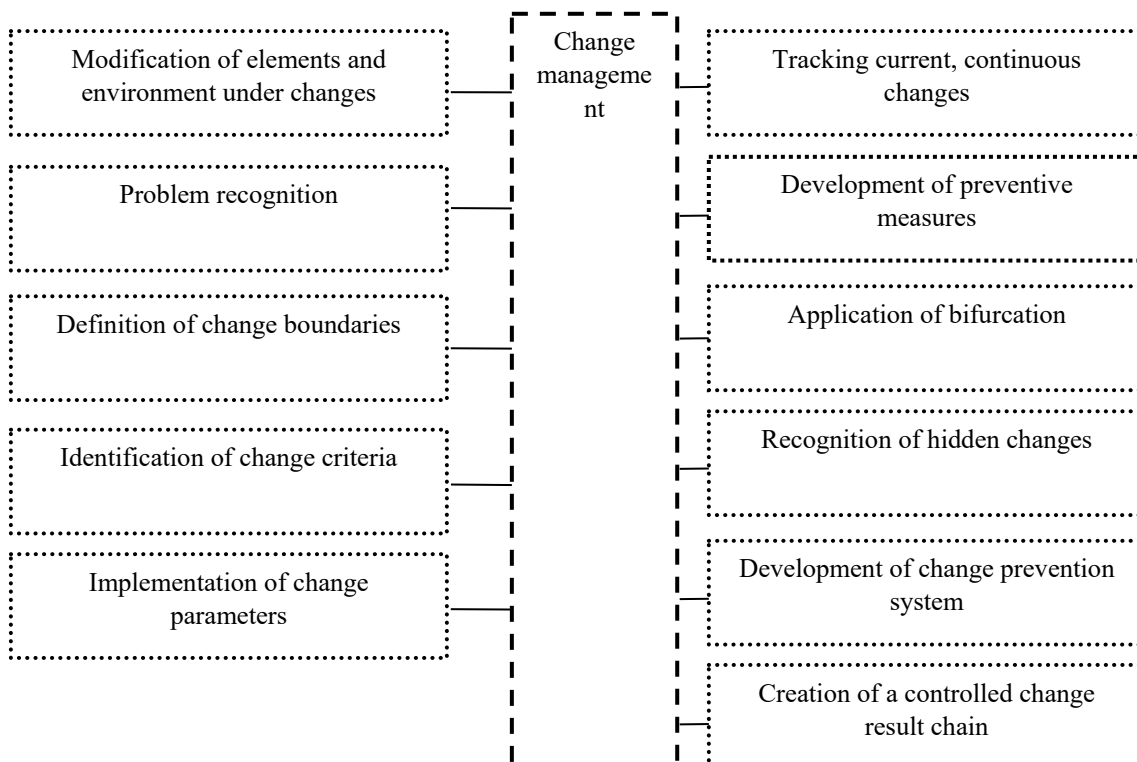


Figure 1. Components of the change management process

The change management process is designed to track current, continuous changes. This element of the process allows concluding that short-term forecasting of changes is a priority. Naturally, the constant transformation of the external environment does not allow implementing the concepts associated with managing changes in the system in the long term. Besides, the change management principle is aimed at transforming the system in the desired state due to current processes (Davydova, 2018).

The change management process uses the bifurcation tool. Bifurcation helps the system gain new qualities with minimal changes (Hurmuz, 2018). The change management processes with bifurcation are based on a small transformation of system parameters that allow harmonizing the discontinuous appearance of uncertainty components. It can be noted that bifurcation through quantitative change management impresses the preservation of the qualitative parameters of the system. This aspect involves activities to harmonize the system.

The change management process predetermines the recognition of hidden changes. In most cases, changes are hidden, declared. This type of change is qualified as implicit. The management of hidden changes is aimed at their recognition in the development trends of the studied system. Within the framework of this direction, the analysis of information flows is carried out, which allows determining the directions of current and predicted development of the system. After differentiation of these directions, barrier components and threats to the variability of the external environment are formed. There is certain similarity of this toolkit with SWOT analysis. However, a key factor in managing hidden changes is the need to point out the structure and implications of this issue.

The change management process is caused by the development of the change prevention system. This change control is not part of prevention. The change prevention system operates in the context of the prognostic direction taking into account rapid adaptation and flexibility compared to the transforming environment. The change prevention system is aimed at identifying possible parameters of modification of internal and external elements based on point quantitative indicators. Change prevention is a process that allows developing a plan to implicate the system under existing conditions (Aladwani, 2001). At the same time, the change prevention system is a rather important tool for modeling and planning the resource component.

The change management process made it necessary to create the controlled change result chain. Control and organization of change management are the initial conditions for this process. The result of a change management process is a final component that can be both positive or negative. Studying one change, it is impossible to state the fact of system transformation towards any direction. Within the framework of this circumstance, a controlled change result chain must be built. The change result chain is an algorithm that allows determining the key directions of change, their frequency, duration of influence, proposals for accounting and control over them (Tyler, 2005). The change result chain is necessary to create a place to accumulate and study this issue. Accordingly, this element is a conceptual framework.

The change management process modifies the elements and environment for changes. This aspect of the process is considered in a different perspective. On the one hand, the identification of changes does not facilitate the selection of adaptation tools for the development of new principles for the system. The elements are modified for changes. This feature is manifested at the initial stages of system formation, when the basics of its functioning and development are not formed. On the other hand, the system is not

transformed, but its environment is modified. In this aspect, the elements of the system are conditioned. The environment of the system, namely processes and actions, adjusts to incoming changes.

The change management process makes it necessary to identify problems. The analysis and management of the system is based on the elaboration of problematic issues of its functioning and development. A similar goal is inherent in the change management process. The changes predetermine the problem as such (Skobelev, 2019). The problem is a question that requires study. The change management within a system inherently produces these issues. The lack of problems indicates no change in the context of the system as a whole and its structural elements. Based on this, it can be stated that the change management process in the system is aimed at determining the problem for its subsequent solution using an adaptation mechanism to environmental conditions.

The control process defines the boundaries of changes. The relevance of the change management process cannot vary quite widely. This feature is qualified by the study of a system with restrictions, including those related to the boundary of changes. Change boundary settings do not always represent the shape of the system.

The change management process focuses on highlighting change criteria. Change criteria can be described as boundaries, assessment indicators and system adaptation indicators. In some studies, criteria for change are understood as parameters (Jabri & Pounder, 2001). However, in our opinion, the criteria and parameters of change are not correlation definitions. The criteria of change represent the distinctive features of change, which are determined on the basis of the formulated classification. Change parameters are the magnitude of the aggregate set that requires consideration and evaluation within the studied phenomenon. According to this, the criteria can only define the characteristics of the change management process, and the parameters give a quantitative and qualitative assessment of the result.

The components of the change management process are quite different and diverse. As already mentioned above, these processes affect the development of the system as a collection of elements. Let us establish the impact of changes on economic systems. As part of highlighting the impact of changes on economic systems, let us form the specific environment of economic systems and highlight some characteristics of changes in relation to it.

An economic system is a set of process components within a single object of management caused by economic activities and economic relations between agents of the environment. The most common specific classification of economic systems is presented in a scientific article by Shatalov and Kuzmenko (2018), who classify this issue through a traditional economic system, a market economic system, a planned economic system, a hybrid economic system.

This typological basis for the classification of economic systems is formed on the basis of the principle of division into spheres of economic reproduction. Despite the conditionality and equivalence with the types of economies, this typology has the right to exist. However, the most interesting classification of economic systems is the specific division of this issue on the basis of process representation (Ivanov, 2014), territorial object of management (Gurieva, 2018), scientific approach to the studied issues (Ivanova, 2015). Economic systems based on process representation are separated by functional differentiation of actions of the management entity. Production economic systems are aimed at creating a unique type of goods, products, services through economic diversity. Distribution economic

systems regulate the division of material goods based on the streaming processes between the agents of the environment. Exchange economic systems produce a mutual strengthening of the economic component on the issues of the reimbursable transfer of limited benefits from one subject of management to another. Redistributive economic systems capitalize and cause a process action to change economic relations within the object of management.

Economic systems divided according to the principle of the object of management are differentiated as international, countrywide, regional, municipal and local. The scientific approach to the study of economic systems is associated with economic schools that influence the formation of these relations. For example, there are three economic systems developed in the context of scientific schools:

- agency economic system (neoclassical scientific school) – consideration of economic processes through the relationship between the agents of the environment (households, firms and the state);
- institutional economic system (institutional scientific school) – establishment of rules and norms of economic relations through the formation of institutions;
- post-industrial economic system (relations of ideas of Neo-Classicism and Neo-Keynesianism) – consideration of technological structure through modeling, institutional structure and macroeconomic dynamics.

The distinguished classification makes it possible to conclude that economic systems have sufficiently differentiated features of functioning. But at the same time, there is a general algorithm for the impact of changes on economic systems, which allows reducing the dependence on existing features. This algorithm includes the aspect of generating change (determining the most possible directions and forms of medium transformation), risk analysis (identification of deficiencies, problems and other components of uncertainty in the system's activities), development of a mechanism (formation of measures to reduce the risk component and effective proposals to study the existing problems), declaration of standards (setting norms and rules to adapt to changes), overcoming constraints (effective implementation of proposals aimed at transforming the system under the influence of changes with positive dynamics of the result). Besides, it should be noted that the existing algorithm is accumulated from the scientific proposals of Russian and foreign authors. The absence of a change management site prevents this tool from being applied to economic systems. In accordance with this conclusion, let us formulate the characteristics of the change management sandbox in economic systems (Figure 02).

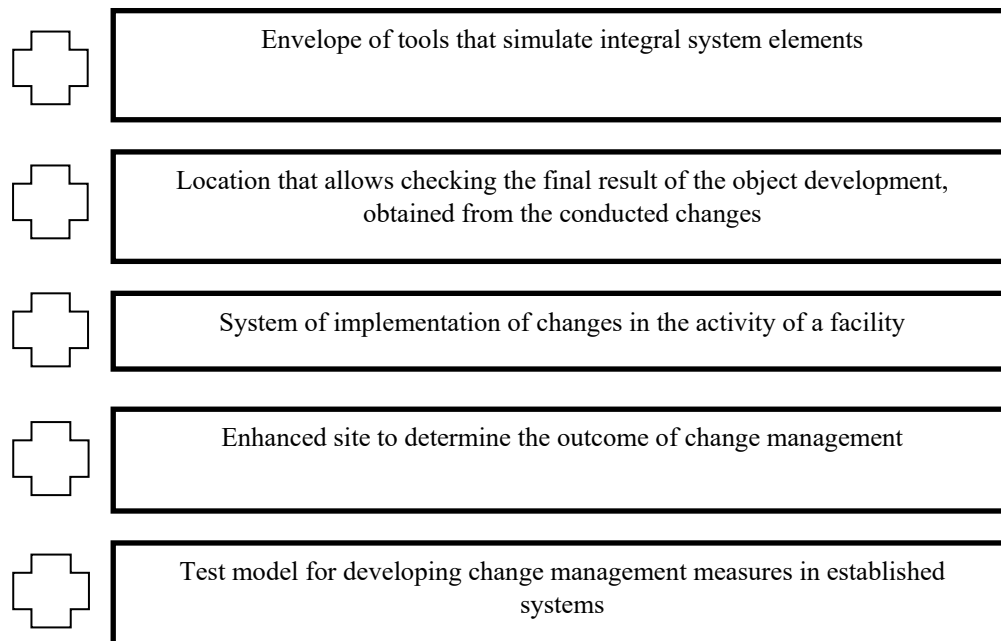


Figure 2. Characteristics of the change management model in economic systems

In fact, this model is a change management tool.

First, the change management model is an envelope of tools that model elements of an integral system. In other words, the model is an external form of implementing the change management process. The external change management form displays the components and postulates that are characteristic of the change management process in economic systems.

Secondly, the change management sandbox is a place that allows checking the final result of the object development obtained from the changes received. As mentioned above, the absence of a site where change management processes can be accumulated does not provide for full study as part of this issue.

Thirdly, the change management sandbox is a system for implementing changes in the operation of the facility. This system is aimed at improving aspects of the operation of the facility. The model defines the boundaries and improvement directions of the object. At the same time, the above tool allows manipulating changes within the system and introducing only positive ones into the activity of the object.

Fourth, the change management sandbox is an advanced platform that allows determining the outcome of the change management process. This feature suggests that as part of the use of the change management sandbox, the final indicator is a key indicator for the study. Thus, the development of the economic system can be concluded only by the outcome of the change management process.

Fifth, the discussed change management algorithm is a test model for developing change management measures in established systems. This characteristic indicates that this tool allows testing the change management model in economic systems before it is implemented.

7. Conclusion

Based on the model characteristics, it can be concluded that this tool allows testing the change management model and creating a platform that will determine the final result of the economic system development. The highlighted study framework allowed focusing on key components of the change management process. The methodological approximation of the study proposed by the author determined the change impact on economic systems. This correlation established the algorithm-driven basis of interaction between the change management process and the economic systems. The proposed characteristics of the change management model in economic systems are produced through an envelope of tools that model the elements of an integral system; place that allows checking the final result of the object development caused by the coming changes; system of change implementation in the activity of the facility; improved site to determine the outcome of the change management process; test model for the development of change management activities in established systems.

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