

MODELING OF THE INTEGRATED INTERACTION IN PREDICTING DEVELOPMENT OF ECONOMY OF REGION

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Abstract

The basis for the real sector of the regional economy, the corporate structure is currently are not merely property complexes that produce products or services, and complex systems, often holding type, consisting of economic actors. However, the performance of many corporate structures in the regions, including in the Mari El Republic, such as OAO RAO "UES of Russia", OAO "Akashevskaya", OAO "Mari machine-Builder", etc. suggests a lack of effectiveness of their functioning. One of the significant reasons mentioned, is, on the one hand the operational and tactical level of goal-setting interaction in them, on the other simplified the nature of this interaction, based mainly on sopodchinennosti system of vertical construction, the designated production tasks.

The study of interaction practices in corporate structures suggests that the assessment of interaction is mostly episodic in nature and is largely based on the monitoring of the results of economic activity of economic subjects. This assessment of the results of their activities by the parent company, as a rule, is based on data of accounting and financial reporting. Can also be used various forms of internal reports, including selected performance indicators, e.g. sales, the quantity of released product, size of inventory, and others.

The existing paradigm of the functioning of corporate structures in the region prove conclusively that their leadership has the necessary tools that would allow to fill the decision-making process adequate and sufficient information. Such tools can be a system of key performance indicators and balanced scorecard, which received wide distribution in management practices in Western companies.

The task of the system of key performance indicators and balanced scorecard is translating the company strategy into a comprehensive set of performance indicators determining key parameters of the system measurement and control.

One of the most important elements of the analysis of the current strategy of the corporate structure, there must be a study of the economic actors within it, to ensure that they share similar elements, i.e. the strategic alignment of the system elements and subsystems of IKS.

Lack of strategic mapping casts doubt on the benefits of integration, since it is possible that the independent functioning economic subjects achieved the best results.

The corporate structure of the region consisting of economic entities different levels of autonomy and

specialization, appear to be composed of the managing and managed subsystems linked by communication channels to form together a single unit. As managed subsystems can be considered as a separate economic entities and the management subsystem are the parent or parent company in case of vertical integration, or other economic entities in the corporate structure at horizontal integration, in General, represents a system of interaction of economic subjects of the corporate structure.

Keywords: interaction practices, performance indicators, system measurement, economic subjects

1. INTRODUCTION

Existing conditions for the functioning of the economy characterized by the shift of the epicenter of the economic reforms in Russia at the regional level. The model of the regional economy, primarily caused by a decrease after the economic crisis of 2008, growth rates of production and consumption, globalization and integration of all processes in the economy, Russia's accession to the WTO is essentially characterized by the growing role of big business in the structure of the market economy and its results.

Remaining basis of the real sector of the regional economy, the corporate structure is currently are not merely property complexes that produce products or services, and complex systems, often holding type, consisting of economic actors.

The current model of corporate structures are characterized by the multidimensionality of their economic interdependencies and interactions are based on a complex combination of partnerships, cooperation and competition at various levels, in conditions of dynamic and aggressive environmental factors.

In this case, the determining factor in the solution of this problem is precisely the long-term nature of the interaction, and hence the strategic level of management indicated that due primarily to the "remoteness" of achieving goals and objectives in the strategic development of corporate entities, as well as by factors such as high resource dependence and the duration of their formation, a high dynamic environment, the need to adjust and possibly change strategies and respectively the strategic, tactical and operational objectives, etc.

Therefore, in these circumstances, the more urgent becomes the development of corporate structures in the region, based on the agreed integrated mechanism for their effective collaboration, and wearing long-term.

Moreover, despite the fact that over the last 15-20 years of organizational-economic mechanism of functioning of integrated corporate structures have been formed, the complication of the external and internal environment of the region, multidimensionality of relationships and connections in the corporate structures put necessary to resolve the question of the revision of the control mechanism and assessment of interaction in the corporate structure in the long run its activities.

In scientific literature the problem of the functioning of corporate structures in the region in their works considered the domestic and foreign scientists:

- the decision of problems of regional Economics have devoted their work S. A. Andreev, I. V. Arzhenovskiy, A. O. Blinov, V. S., Bilchik, A. G. Granberg, V. A. Dolatowski, L. I. Erokhin, V. V. Kotilko, G. M. Kulpina, V. I. Makarov, and A. A. Smirnov, V. V. Yanov;

- problems of integration of business entities was reflected in the works of foreign economists: R. Bork, R. Blair, D. Kaserman, John.Vickers, R. Vinter, H. Marvel, And J. Smith.Spangler, R. Coase, K. Arrow, D. North, O. Williamson, A. Alcin, H., Demsetz, M. Porter, John.Freeman, D. Stanworth, A. Chandler, D. Atkins, Th.Schumpeter, P. Drucker, as well as Russian: Lev A. Khasis, E. M. Buchwald, A. Vilensky, V. A. Rube, G. B. Kleyner, A. S. pleschinskiy, V. N. Egorova, etc.

However, the analysis of the content of scientific papers that reveal the particular aspects of the functioning of corporate structures, allows to conclude that, despite the large number of studies related to the creation, functioning and development of corporate structures, governance arrangements and assessing their integration and interaction at the strategic level studied and is not sufficiently developed, and that led to the choice of topic, formulation of the goals and objectives of the thesis.

The aim of this work is the substantiation of theoretical provisions and development of methodological tools for the formation of a control system integration interaction in the corporate structures of the region at the strategic level of functioning.

Research global trends over the last hundred years, conducted by both foreign and domestic scientists and summarized in sufficient detail to allow the conclusion that the ratio of material production and production services to corporate structures over the twentieth century has not practically changed. There was only a slight reduction of material production from 34.5% to 32.3%, with relatively little from 65.5% to 67.7% of the increase in the service sector. The share of industrial production increased from 14.8% to 21.8% and was comparable with the share of trade in world GDP and is second only to the other services (table 1).

Table 1. The sectoral structure of the gross domestic product of material production and services in the world economy, %

Years	Material production				Production service				
	Just	Agriculture	Industry	Construction	Just	Transport and communication	Trade	Financial services	Other services
1900	34,5	16,0	14,8	3,7	65,5	7,6	21,9	2,7	33,4
1950	32,0	10,1	17,9	3,9	68,0	7,2	21,2	3,4	38,5
2000	32,3	5,3	21,8	5,1	67,7	4,8	21,7	3,2	39,3

As shown in table 1, the material production and corporate structures over the past century increased their influence and began to play an important role in the structure of the world's gross domestic product. This situation persists in the early twenty-first century, as evidenced by the data in the leading countries of the world, in the so-called "group of eight".

The basis of strategic management and corporate structures of the region is the definition of "strategy", which translated from Greek means the art of deployment of troops in combat. There is no known universally accepted and commonly used definition of "strategy" although its review dedicated a significant amount of work and quite informative explaining.

In particular, M. H. Meskon, M. Albert, F. Hedouri say that the strategy is a detailed, comprehensive plan designed to ensure the existence of the organization's mission and goals.

According to I. Ansoff, strategy is a set of rules for decision-making, which the organization is guided in its activities. In turn, D. Husby notes that strategy is "the General direction of action, who is the head of the organization intends to adopt to achieve the objectives of the company."

Others, such as A. A. Thompson and A. J. Strickland in the definition of "strategy" are the planned, programmatic focus and argue that "strategy – a plan of management of the company aimed at strengthening its positions, satisfaction of consumers and achievement of goals" 2. Select the definition of strategy given by G. Mintzberg, B. and J. Allrandom.Lampela which determines that the strategy is "the combination of the five definitions, five "p": strategy plan, a change of direction; strategy – the principle of behavior, following certain behaviors; strategy – position, location of specific goods in specific markets; strategy – perspective, the primary mode of action of the organization; strategy – receive special manoeuvre designed to deceive, to intimidate, to outsmart the competition."

Accordingly, the most important task of corporate management is to develop long-term strategies, and effective methods of competition and doing business and the implementation of all measures necessary for the consistent and quality implementation of the programme of action. In accordance with the foregoing, the process of development and implementation of strategies of corporate structure may consist of five interrelated managerial tasks:

1. The formation of a strategic vision for the future corporate structure of the region (determining the long-term development, the formulation of the future image and targets of the corporate structure);
2. The goals of the corporate structure of the region (translated strategic vision into practice);
3. Strategy development corporate structure of the region;
4. Implementation of the strategy of the corporate structure of the region;
5. Evaluation of results and adjustment of the strategic vision, global objectives, strategy, corporate structure

and implementation with the light of experience, changing conditions, new ideas and opportunities.

The overall strategy of the entire corporate structure of the region and its economic actors, describes attaining the desired position and improve the activities as separate economic entities, as well as the entire corporate structure of the region, including through enhancing the effectiveness of the interaction.

In the diversified corporate structure of the strategy developed four organizational levels. First level – corporate strategy, second business strategy for each economic entity corporate structure, and the third functional strategy for each function within each activity, the fourth level – the operational strategy (a more narrow strategy for the main structural units within the functional units: factories, local and regional sales departments, divisions).

In relation to the corporate structure of the region it is possible to allocate overall corporate strategy, business strategy, economic actors, for example, for primary production, other activities (auxiliary, service industries, etc.), functional strategies for individual departments and operations strategy.

The advantages of the corporate strategy is realized fully only when all its parts are integrated. The alignment of goals and strategies in all areas of the organizational structure saves the company from the uncontrolled processes of goal setting, when managers of different levels to set goals and develop strategies independently of each other.

The basis for successful business strategies of economic agents of the corporate structure of the region is the sustainable competitive advantage, expressed in the superiority over competitors on the number of customers and the ability to counteract the influence of competitive forces.

2. OPINIONS AND DISCUSSION

D. I. Schendel and C. J. Hatten considered strategic management as "the process of identifying and (establishing) an organization relationship with its environment, consisting in the implementation of selected goals and trying to achieve the desired state of the relationship with the environment through the distribution of resources efficiently and effectively operate the organization and its units." J.M. Higgins, "strategic management is a management process to implement the mission of the organization by managing the organization's interface with its environment", J. Agric.. Pearce and R. B. Robinson define strategic management "as a set of decisions and actions to formulate and execute strategies designed to achieve the organization's goals".

It should be noted that there are a number of restrictions on the use of strategic management, as it, like other types of management is not universal for every situation and any task. In this regard, we must note that, first, the strategic management of corporate structures in the region may not give an accurate and detailed picture of the future, but rather a set of qualitative requirements to ensure the condition must be a corporate structure in the future, what position it should occupy in the market, in business and region, which have the organizational culture in which the business of the group to enter, etc.

Secondly, strategic management cannot be reduced to a set of certain rules, procedures and schemes. Strategic management is more of a philosophy or ideology of business and management, allowing to define it as a creative process. However, there are a number of recommendations, rules and logic of the problem analysis and strategy selection, and implementation of strategic planning and practical implementation of the strategy of the corporate structure of the region.

Thirdly, it requires a huge effort and large investment of time and resources in order to ensure that the organization began to implement the process of strategic management. Requires the introduction and implementation of strategic planning in corporate structures in the region, which is fundamentally different from the development of long-term plans, binding in any conditions.

Fourth, sharply increase the negative consequences of errors of strategic foresight. Particularly significant for the corporate bodies of the region are the consequences of an incorrect prediction, carrying out non-alternative way of operation or implementing a strategy, not be a fundamental adjustment.

Fifth, in the implementation of strategic management is often the main focus is on strategic planning. However, this is not sufficient, because the strategic plan does not make it mandatory to successful implementation.

According to some authors, there is no universal structure, and the search process should continue. In this case, even commented on the fact that perfect, a perfect organizational structure does not and can not be, determined by the so-called concept of "defrosting system" or organization without the organizational

management structure. Followers of this concept believe that the "organized organizations" have passed and that today's economy is entering the stage where special importance is self-organization. However, it is possible to agree with V. G. Antonov that, without denying the importance of self-organization, we believe that the task of finding efficient organizational management structures remains important. In this regard, the interest is the study of the evolution of organizational structures typical of organizations of the twentieth century. Professor B. Z. Milner identifies three phases of evolution of the organizational structure:

1. The classical industrial phase (1900-1950). which is represented by a hierarchical structure, in particular linear and functional structures.
2. Neoclassical industrial phase (1950-1980)., presents a matrix structure.
3. Information phase (since 1980), which is represented by the "internal market", including Autonomous unions, internal entrepreneurship, networks and virtual structures.

Initially all the companies was dominated by the mechanistic organizational structure of management. In the second half of the twentieth century, widespread adaptive, soft, organic (*organicheskii*) governance structure. In addition, analysis of various sources shows that most researchers distinguish the so-called "new" organization. Summarizing opinions of various experts to present the diversity management organizational structures used previously and currently, as the author of the typology presented in figure 1.

Linear-functional organizational structure is linear and aims to eliminate its shortcomings. Linear-functional structure includes specialized units that do not have the rights of decision-making and management of any subordinate units and just help the concerned Manager in the implementation of certain functions, especially functions of planning, coordination and control, typically used only small and part of medium-sized companies.

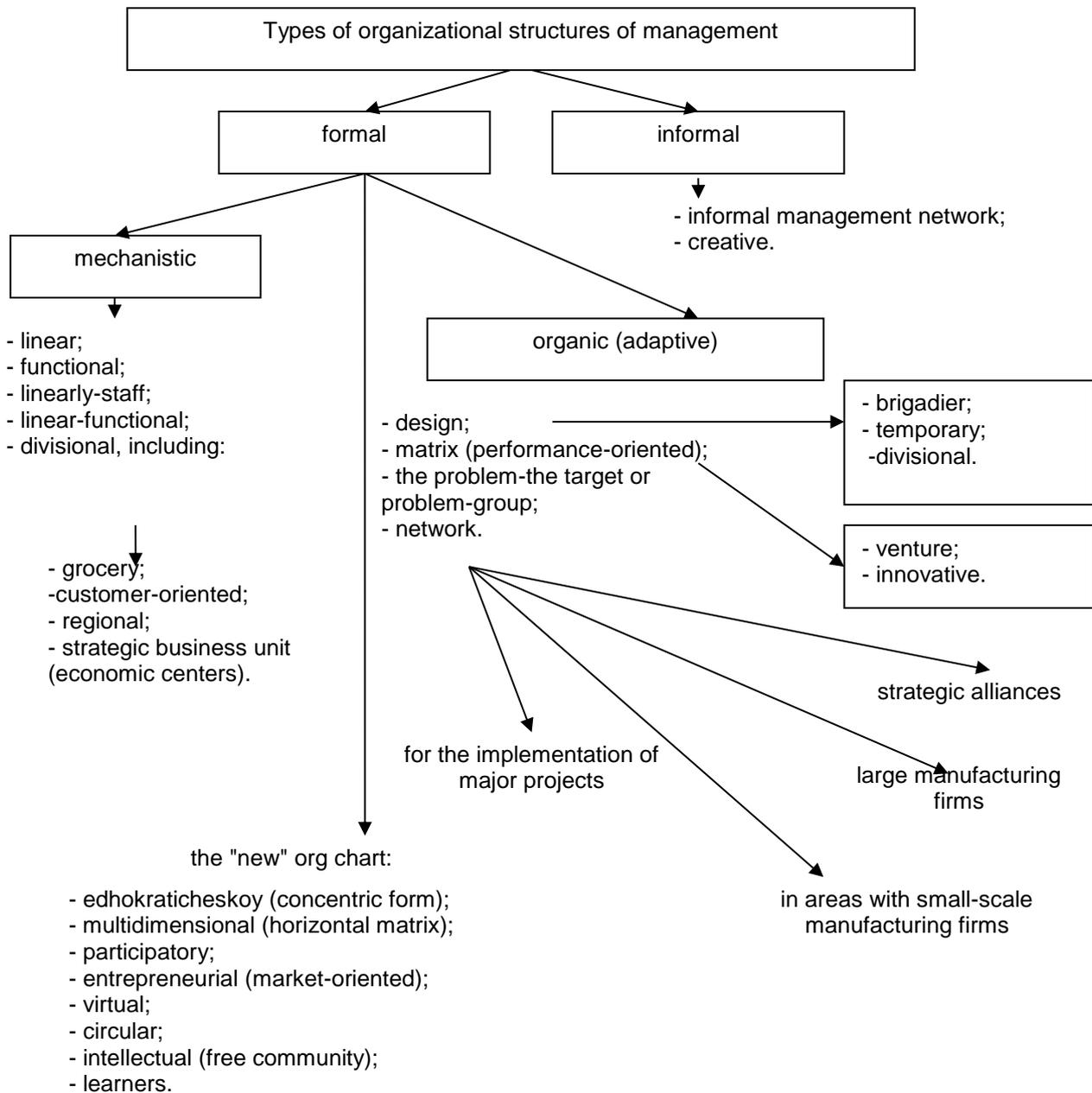


Fig. 1 Types of organizational structures of management integrated corporate structures (developed by the author)

Divisional structure emerged as a reaction to the shortcomings of linear-functional structures. The need of reorganization was caused by the sharp increase in the size of companies, complexity of technological processes, the diversification and internationalization of their activities. Divisional structure characterized by full responsibility of managers for the results of the activities of their units. Typically, the structuring of the company's branches (divisions) is performed by one of three principles: the product with the features of products or services, depending on orientation to specific customer and regional - depending on the service area.

As the most developed form of divisional management structures can be called the organizational structure on the basis of strategic business units (strategic business centers). They are used in companies in the event that they have a large number of separate offices close to the profile.

The issue of flexibility in organizational structure is trying to solve, creating new variants of composite structures through the introduction of the backbone (for example, linear-functional) structure of the new elements that he brought to life a new organizational structure of management, such as temporary (created

at the time) authorities, committees, management of the project (product, object), matrix structure, etc. options for organizational structure of the Department name of program-target structures.

The predominant method of assessment of the efficiency of enterprises has become derivative of a function Cobby Douglas. It is possible to associate the output product (output), perceived as the effect of the activities of the enterprise, its resources and factors of production. To find the highest efficiency of production is necessary to determine the marginal productivity of participating factors, which determines the optimal amount of resources used.

Another growth model of Robert Solow seeks to answer the question - what factors of balanced economic growth, in particular, what is the rate of economic growth can afford the economy under a given parameters of the economic system, to maximize the income per capita and amount of consumption. Feature of this model is the ability to show sustainable economic growth.

Dutch economist and Nobel laureate Jan Tinbergen improved the Cobb-Douglas production function, introducing into it the pace of technological progress, despite the objective difficulty of determining its contribution to economic growth, especially in the short and medium periods of time. Later Nobel laureate K. Arrow et complicated model of Jan Tinbergen, using the elasticity of substitution as a factor influencing the behavior of a function of efficiency. Model K. Arrow is the basis function with constant elasticity of substitution other single factor linking the growth of efficiency of production resources (factors of production) and methods for their replacement.

A synthesis of different approaches allowed us to formulate one of the main problems of modern theories of economic growth – as far as economic growth is truly exogenous or endogenous, whether it is caused by external or internal factors. In result, a number of alternative theories that can be grouped under the generic name model of endogenous economic growth.

In particular the "new growth theory" by P. Romer put in a basis of technological development, and the model F. P. Howitt Aiguillon and reconciles endogenous growth with features of technical progress, in particular with the nature of innovation. However, all these models have common limitations among which: the playing conditions for economic growth in the long-run dynamic terms, the economy is only sustainable in a dynamic state and the interchangeability of human and physical capital under certain conditions.

G. Mankiw, D. Romer, and D. Weil modified the basic model Cobb-Douglas and R. Solow adding the factor of human capital as a separate factor of economic growth with endogenous.

Model Yuzawa-Lucas, as well as the model of accumulated capital (the"AK model") reflect the authors ' attention to the dependence of the rate of long-term economic growth from endogenous factors, foremost the accumulation of human and physical capital.

In General, the review of existing approaches to the concept of efficiency and models of economic growth allow us to assert that in the conditions of modern production the long-term economic growth can be endogenous.

The importance of the category "efficiency" in the economy necessitates a comprehensive evaluation. The main elements that form the notion of "efficiency", are the effect (result) and costs (resources). The basic models of economic growth and efficiency determination are presented in table 2.

Table 2. Main models of economic growth (effectiveness) in economic systems

Author (model)	The essence of the approach to evaluating efficiency/effectiveness
Pareto (optimization approach)	The ultimate result of the activity, does not cause losses in others.
Cobb-Douglas (factor approach)	The output is considered as the effect of the interaction with the resources and factors of production.
J. Tinbergen	Production efficiency is a nonlinear production function, defined primarily by technical progress.
K. Arrow	Performance indicator is associated with the factors of production and ways of their replacement.
R. Solow	Part of the total income created due to the factor of technological progress equal to the difference between the total gains total income and gains by the use of capital and labor.

P. Romer	The growth of knowledge is endogenous in nature, linked with the improvement of opportunities for profit growth of education.
G. Mankiw, D. Romer, D. Weil	Used the factor of human capital as a separate factor of economic growth with endogenous.
F. Aiguillon and P. Howitt	The model links the endogenous growth features of technical progress, in particular with the nature of innovation.
V. V. Novozhilov (investment income)	Efficiency is a measure of the implementation of the qualitative and quantitative objectives assigned (compare) with the cost of their implementation taking into account the economic costs of renewable resources and economic losses. S-EK>0 →max, where S is the savings from one or another variant of capital investments; – the value of the capital investments; E – regulatory capital efficiency.
Model Yuzawa-Lucas	The dependence of the rate of long-term economic growth from endogenous factors, foremost the accumulation of human and physical capital.
K. Kurosawa (structural approach)	Efficiency is seen as a system of "goal – cost – effectiveness – comparability – trend".
K. Kurosawa (structural approach)	The ratio of actually achieved results to the theoretically possible. E = value is actually created/is theoretically possible value.

The complexity of defining and measuring efficiency taking into account the comprehensiveness of the economic system led to what became to distinguish between the "effectiveness" of specific distinctive categories, including:

- economic efficiency as the increment of productivity and usefulness at the level of the economy as a whole;
- economic efficiency of the specific process or engineering solution (established more than 100 techniques for specific cases of calculation of economic efficiency for different industry conditions);
- social efficiency as a measure of a solution to a social problem;
- budget efficiency as the measure of filling of the budget of a level;
- organizational and management effectiveness as the change (increase) the level of control and organizational mobility;
- regional efficiency as a contribution to the development of the region;
- eco-efficiency as a contribution to improving the sustainability and stability of the natural environment;
- branch efficiency as a contribution to improving the performance of the company, when basing on the sectoral base of comparison;
- investment efficiency as the increment of return on investment in fixed capital in comparison with some baseline level has already been achieved or possible alternative;
- technological efficiency – how the efficiency obtained by increasing the useful operation, reliability, safety, ergonomics, aesthetics, etc.

To assess the impact of various factors, it is advisable to use expert methods and methods of quality control – translation of qualitative assessments into quantitative indicators. On the basis of this study using expert methods have been identified the main factors of the impact of integration in the corporate structures of the region, including (figure 2):

1. The level of provision of resources including financial, human, informational, material, intellectual. For this group of factors influence external factors: macroeconomic, political, and domestic investment, personnel, financial.
2. The consistency of the strategies and policies of interaction is influenced by socio-demographic,

financial, investment, and human factors.

3. The type of organizational structure is conditioned by the institutional, managerial and marketing factors.

4. The branch membership is influenced by technological and institutional factors of environment and production, investment, personnel and internal factors.

5. The state of fixed assets is largely due to the macroeconomic, technological, market, environmental, investment and financial factors.

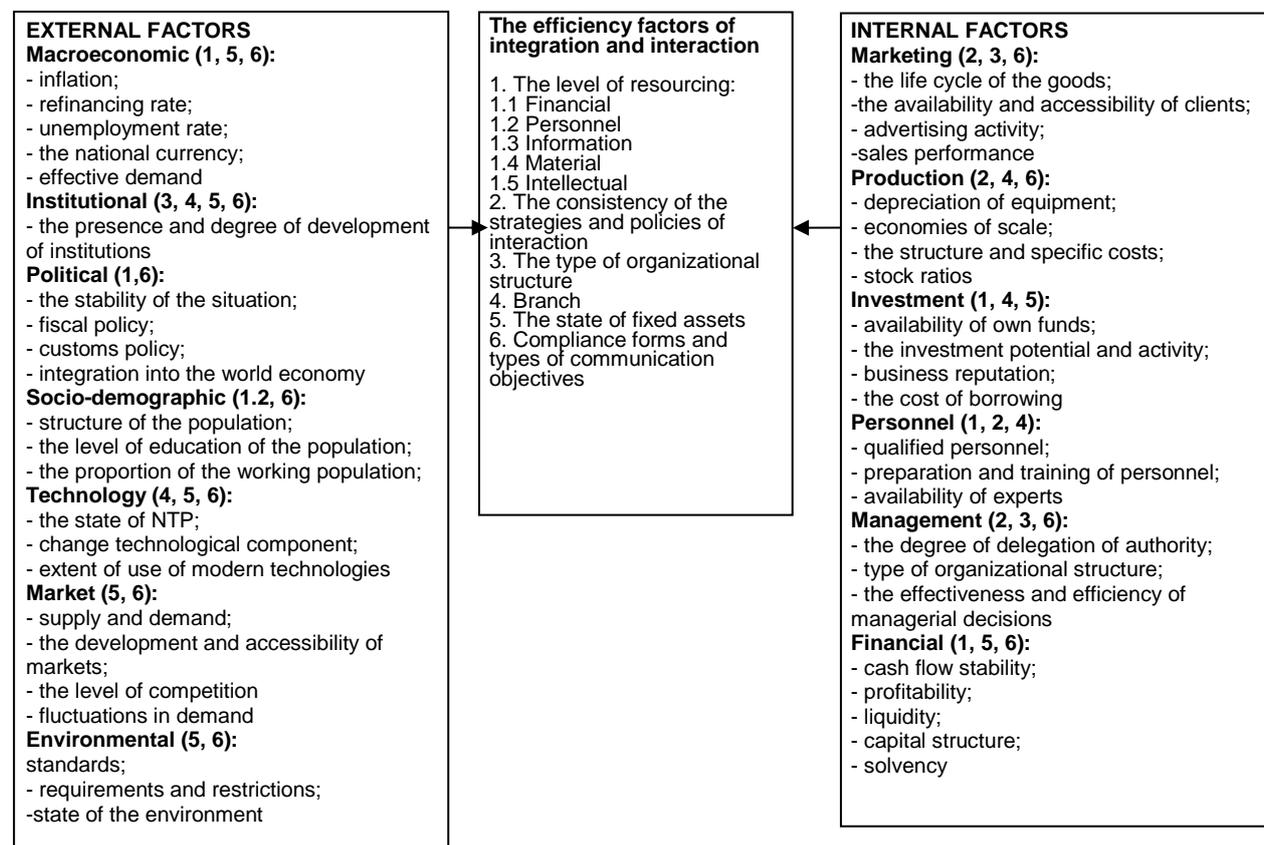


Fig. 2. Efficiency Factors of integration in the corporate structures of the region (author's version)

Compliance forms and types of communication objectives depend on external factors – macroeconomic, political, socio-demographic, market, institutional and environmental, as well as internal marketing, production, managerial and financial.

The direction of the development of integration cooperation should take into account and reflect the overall strategy, the corporate structure and its economic actors, strategies which must be aligned with the overall strategy. This approach will ensure the choice of the optimal vector of development of IKS and increase the effectiveness of the entire corporate structure. For a differentiated definition and implementation of strategy corporate structure the matrix of strategic alternatives by the ratio of "efficiency/degree of integration and interaction", presented in figure 3.

The performance of integration is determined by the author's proposed methodology, the degree of integration and interaction takes into account the number of interactions that allows to apply differentiated strategy of selective growth, reinvestirovanie, aggressive growth, low activity, and transitional.

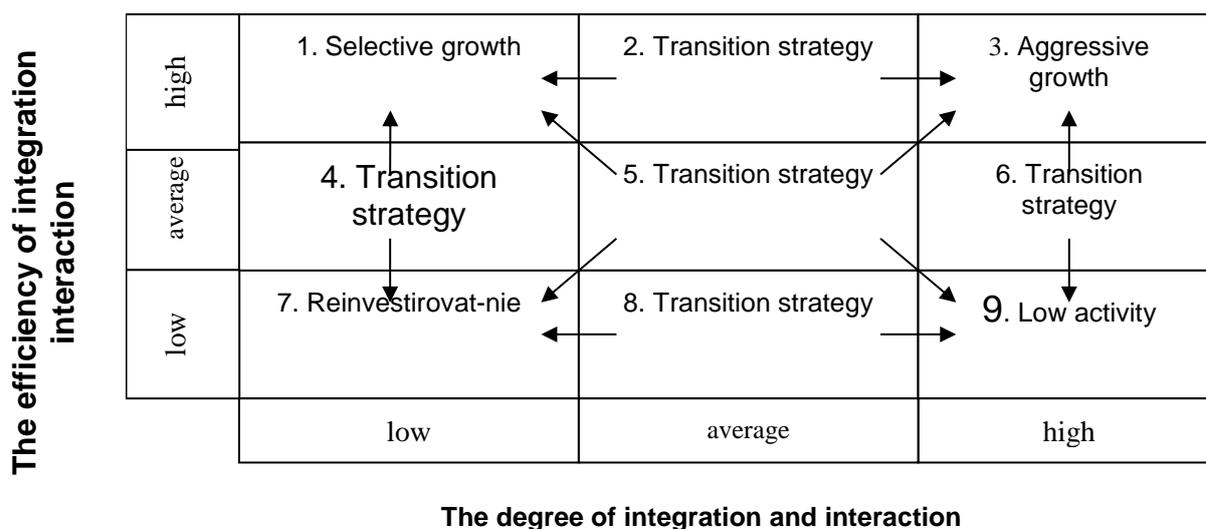


Fig. 3. Matrix of strategic alternatives for the performance/degree of integration in corporate structures

Characterize the quadrants of the matrix "the performance/degree of integration" in corporate structures:

1. Selective growth. This strategy is recommended for high efficiency and low degree of integration and interaction and it involves the development of different types of interaction.
2. The transitional strategy should involve two options: either by reducing the degree of integration and interaction the transition to a strategy of selective growth with the preservation of effective types of communication or a strategy of aggressive growth in the number of interactions while maintaining a high efficiency of integration interaction.
3. Aggressive growth. This strategy is characterized by high productivity and the degree of integration, consequently it is recommended that the maintenance or consolidation of positions available.
4. Transition strategy in the improvement of the efficiency of integration interaction will allow a strategy of selective growth, and in adverse conditions there is a danger of transition in quadrant 7, to strategy reinvestirovanie.
5. The transition strategy has the greatest transition options how to strategies with high impact of integration (1 and 3), and to the strategies with low performance (7 and 9).
6. The transition strategy characterised by a high degree of integration and interaction, and allows for increasing performance go to the strategy of aggressive growth in adverse conditions - the strategy of low activity.
7. Strategy reinvestirovanie. Is characterized by a low degree of efficiency and integration and is the least attractive, generally leading to the complete termination of integration due to the elimination of the economic entity or changing its status in relation to the parent company, i.e. the acquisition of "independence".
8. The transition strategy. Is characterized by low efficiency of integration, which allows you to go either to reinvestirovanie to minimize the integration of interaction or to the strategy of low activity.
9. The low activity. This strategy is the place to be with a high degree of integration and low efficiency. Is a necessary strategy in the existing environment.

Presenting integration as a system, it is necessary to adapt it to the specificities of the corporate structure of the region, its economic actors and the conditions of the external environment. The term "system" is of Greek origin and means a whole composed of separate parts. The current definition allows to identify the common elements that are inherent in the concept of "system", and consider it as a purposeful set of interrelated elements of any nature and the relationships between them. Mandatory existence of goals determines the total for all elements of the focused Association rules that determines the purposefulness of the system as a whole.

As previously stated integration should be carried out at different levels. At the strategic level is the management model, presented in figure 4.

The system model of strategic management of integration interaction in the corporate structures of the region in the first phase involves conducting analysis of the external environment, including direct analysis of macro, meso and micro, strategic marketing analysis and analysis of potential competitors, potential of the region. Further, on the basis of the integration approach is the development of the management strategy of integration interaction, including definition of objectives, planning and forecasting, and goal setting.

Then follows the implementation strategy of the management integration cooperation, including the development of mechanisms of realization of strategy of integration and the formation of organizational structure. Followed by monitoring and evaluation strategic management an integration interface, along which the formation of budgets, targets, strategic planning, auditing, collaboration and adjustment of the strategic objectives of integration and interaction. The implementation of all stages of management is accompanied by organizational, technical, informational and mathematical software.

The criterion of functioning of system integration cooperation of the corporate structure of the region, according to the author, is to enhance the quality of the degree of optimality, validity of strategic management decisions, and in this regard, the growth of performance management aimed at fulfillment of the strategic objectives of integration and interaction.

Based on the model of strategic management developed the operational governance model of integration interaction in the corporate structures of the regions represented in figure 6 and includes informational, mathematical, technical, functional, and regulatory support, as well as the use of results of development of system of operational management of an integration interface in the corporate structures of the regions represented by the operational decision management integration with the interaction, coordination and organization of operational management.

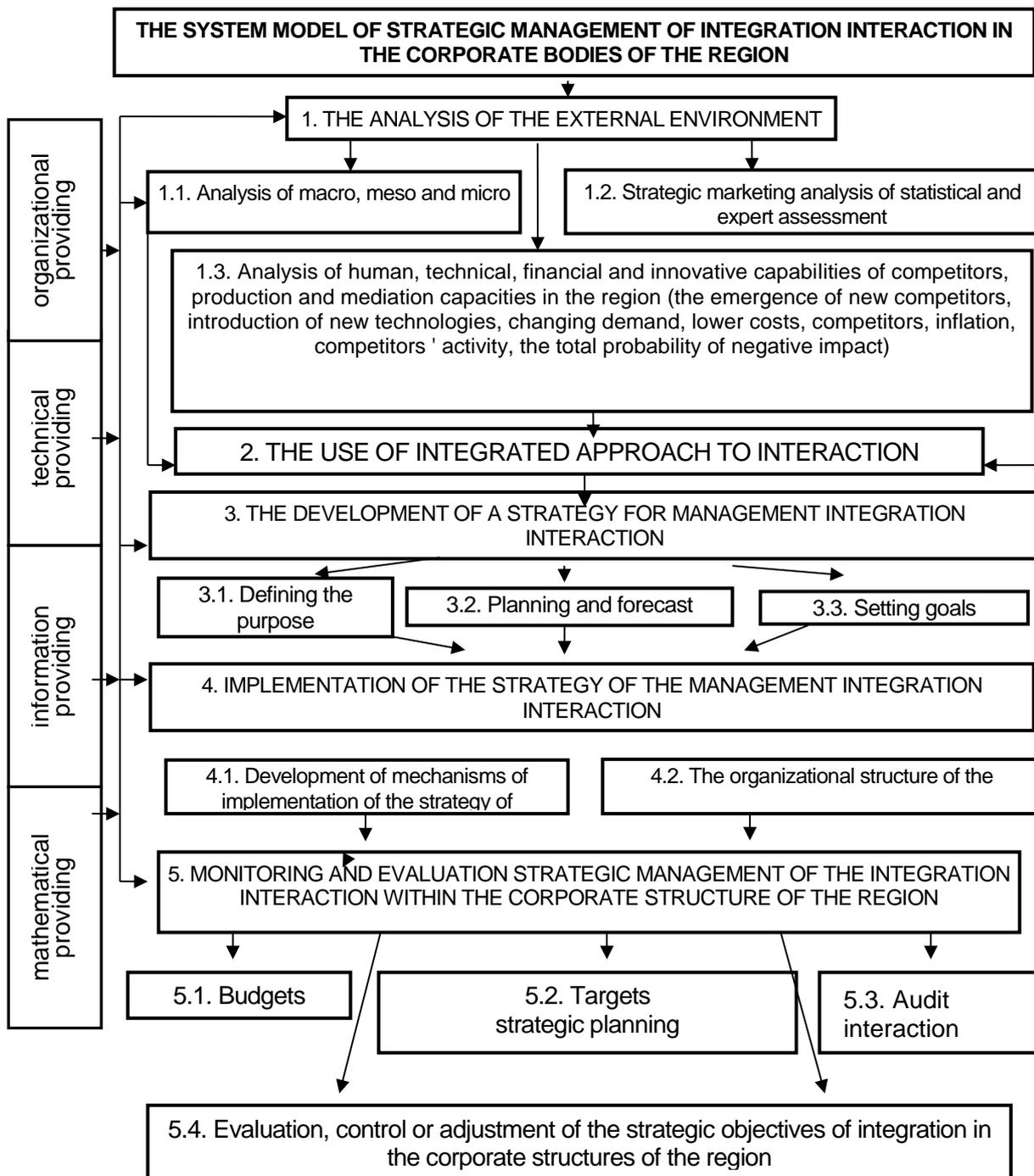


Fig. 4 .Model of strategic management of integration interaction in the corporate bodies of the region

In the system of strategic management of the integration interaction within the corporate structure of the region the object of system integration and interaction are the object of management: economic actors, processes and stages of interaction. Economic analysis allows to close the control loop by the enterprise, performing the role of feedback between the two systems and providing training for decision-making, followed by an audit engagement.

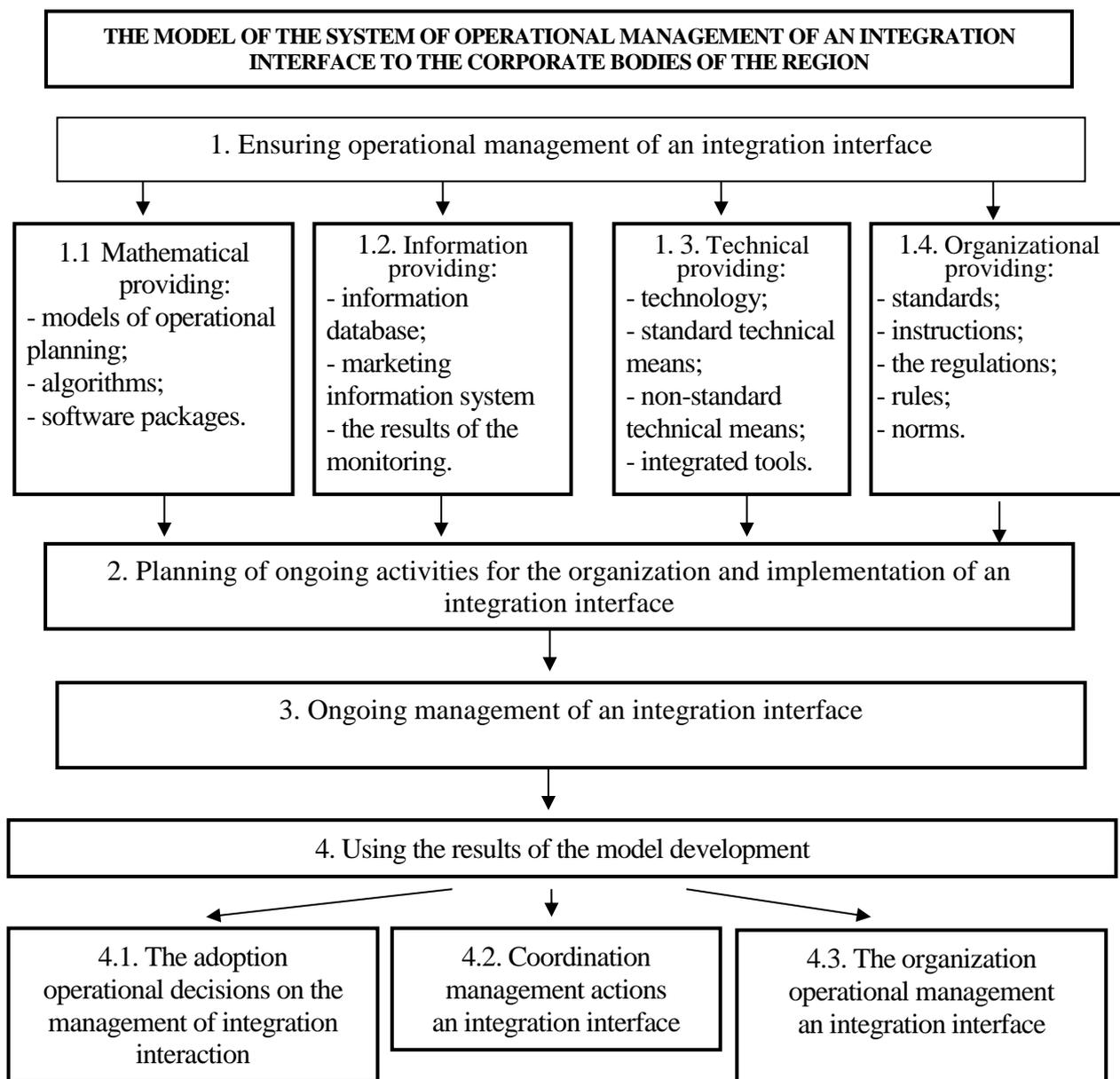


Fig. 5 Model of operational management of an integration interface to the corporate bodies of the region

Previously shown features of the process of selecting targets interactions taking into account different types of interactions and ways of achieving them as the basis for all managerial decisions, functions, organization, motivation, control, audit, focused on the development of effective integrated mechanism of interaction.

All this makes it possible to implement the methodology of factor analysis of the external and internal environment, setting goals, developing programs to streamline the integration of interaction and organization of its implementation with the usage of economical and statistical modeling techniques. Developed and proposed a model (figure 5) integration cooperation of economic entities in corporate structures of the region allows you not only to assess the performance of the considered interaction, but also to determine the complex of measures aimed at improving its effectiveness.

3. CONCLUSION

The result of this study the following conclusions are made:

1. Developed categorical apparatus of strategic management of integration interaction in the corporate bodies of the region including: the definitions of "strategic management system integration interaction in the corporate structures of the region, integration in the corporate structures of the region", and the classification

of economic entities in corporate structures in the region.

It is proposed to understand under the integrated corporate structure of a region is a set of economic entities United for a common goal in the implementation of joint activities restricted to a given territory, through interaction on the basis of various relations. Under the system of strategic management of integration interaction in the corporate structures of the region understood as a set of techniques, methods, and methods aimed at achieving the strategic objectives of the corporate structure of the region and its economic actors through the implementation of strategies based on various types of interactions. In the work proposed to understand the interaction of integration in the corporate structures of the region of mutual communication, reflecting the processes impact on each other and their mutual conditionality, aimed at disclosure of institutional capacity, taking into account possible threats, full and effective use of all the possibilities for achieving the goal of meeting industrial and other needs of the region and corporate structure, as well as the needs of society as a whole. The concept of integration in the corporate structures of the region allows identifying the essential feature of these relations between entities.

Expanded the classification of economic entities in corporate structures in the region following classification: specialization - specialized, diversified, combined); across levels of governance - centralized, decentralized, informal organizations management, mixed model; the effectiveness of the interaction - high-impact interactive; interactive srepresentative; nizkorentabelnoj interactive; according to the degree of integration (number of interactions) is one kind of interaction; several distinct types of interaction; integration interaction. The above allows to more accurately identify and systematize economic entities, identify the most appropriate and priority to integration, including different types of interactions that positions each of them in corporate structures in the region. Thus, the preconditions are created of combining different methods and techniques of management interaction integration in corporate structures.

2. Presents the system model of factors affecting integration in the corporate structures of the region in the long term. We identify and classify factors influencing the performance of integration in the corporate structures of the region at the strategic stage of operation, the interrelation of studied factors and their significance.

The factors that determine the effectiveness of integration cooperation of the corporate bodies of the region, it is proposed to include the level of provision of financial, human, informational, material and intellectual resources; the coherence of policies and policy interactions; the type of organizational structure of economic entities; industry affiliation; the state of fixed assets; according to forms and types of interaction tasks. This may be used in the development and implementation of integration in corporate structures and allows to predict the nature and sources of exposure, as well as possible the nature of the changes and consequences.

3. The developed model of integration cooperation of economic entities in corporate structures in the region, representing a system of basic interconnected elements (actors, objects, principles, conditions, methods, tools, etc.), as well as their interactions, influenced by and harmonized the interests of economic actors, corporate structure, region and society, taking into account different types of interactions based on the integration approach.

This model takes into account environmental factors (in particular macroeconomic, socio-demographic, political, institutional, technological, ecological), the environment and the actual situation in the economy (economic environment) and internal environment factors. Interaction between economic entities of the corporate structure of the region is based on the integration approach, taking into account the different types of communication (administrative, technological, organizational, investment, marketing, economic, human, financial) and combining the types of interaction so that to achieve maximum results due to the phenomenon of synergy.

Proposed organizational and economic mechanism of integration in the corporate structures of the region. The mechanism is a multilevel hierarchical system of basic interconnected and vzaimousilivat elements and model groups (subjects, objects, principles, methods and tools, etc.), as well as their interactions, taking into account the different types of communication based on the integration of, during and under which harmonizes economic relations (interests) of the state, the owners (members and shareholders), creditors and staff, including senior management representatives of the Corporation and society.

The methodology of development and implementation of a strategic management system integration engagement in corporate structures is to define the main stages and tasks including: analysis of the external environment analysis internal environment corporate structure, development of management strategy integration interaction implementation management integration, interoperability, monitoring and evaluation of

the strategic management of an integration interface.

4. The proposed method of performance assessment of integration in the corporate structures of the region, based on the balanced scorecard, taking into account different types of interaction that allows not only to analyze performance indicators, but also to provide on the basis of the results and conclusions developing recommendations for improving the effectiveness of integration designed to improve precision management decisions.

The direction of the development of integration cooperation should take into account and reflect the strategy of the entire corporate structure and its economic actors, strategies which must be aligned with the overall strategy. The proposed approach allows for the choice of the optimal vector of development and improves the performance of the entire corporate structure. For the differentiated determination and application of corporate strategy structures the matrix of strategic alternatives for the performance/degree of integration and interaction, allowing integrated corporate structures in the region are differentiated to apply the strategy - selective growth, reinvestirovanie, aggressive growth, low activity, and transitional, which would increase effectiveness through integration and interaction with various types of interaction.

The main provisions and the results of the thesis have practical application and applied for the development and implementation of a strategic management system integration engagement in corporate structures in the region and can be the basis for further research and increase of efficiency of integration in the corporate structures of the region.

We thank the Russian science Foundation for supporting our research, which were supported by a grant of the RSF-16-18-10017 "The program complex for forecasting of economic development of the region".

REFERENCES LIST

- Askhatova L.I., Bulnina I.S., Rudaleva I.A., Kabasheva I.A. (2015). Coaching as an innovative form of staff development in organisations. *Mediterranean Journal of Social Sciences*. T. 6. № 1 S3. C. 266-269.
- Bulnina I.S., Askhatova L.I., Kabasheva I.A., Rudaleva I.A. (2015). Industrial introduction of high technologies to engineering industry plants of republic of tatarstan. *Mediterranean Journal of Social Sciences*. T. 6. № 1 S3. C. 456-459.
- Smirnov A. A. (2004). State regulation of economic relations in the sphere of use of natural resources. Doc. Diss. – Kazan, 428 p.
- Smirnov A.A., Shvetsov M.N. (2015). The balance of the consolidated budget of the Mari El Republic. *Mediterranean Journal of Social Sciences*. T. 6. № 3. C.327-332.
- Smirnov A.A. (2015). Effective Management of Enterprises and Organization of Agro-Industria Complex. *Mediterranean Journal of Social Sciences*. Vol. 6, No. 3, S. 193-197.
- Smirnov A.A. (2015). The Balance of the Consolidated of the Mari El Republic. *Mediterranean Journal of Social Sciences*. Vol. 6, No. 3, S. 327-333.
- Smirnov A.A., Stukova I.V. (2015). Conceptual Bases of Development of the Integration Environment of Agrarian and Industrial Complex. *Mediterranean Journal of Social Sciences*. Vol. 6, No. 3, S. 253-258.
- Smirnov A.A., Stukova I.V. (2015). Determinants of Integration Approach in the Agrarian Sphere Development in Contexts of Transformation. *Review of European Studues*. Vol 7, No 8, P. 1-8.
- Smirnov A.A., Stukova I.V. (2014). Formation and evaluation of enterprise development strategies of AIC. *Scientific Review*. No.7-1. P. 332-336.
- Stafievskaya M.V. (2014). Methodology of formation of accounting and analytical support for risk management in the conditions of crisis management. *Business. Education. Right. Bulletin of the Volgograd Institute of Business*. No. 3 (36). P. 115-120.
- Stafievskaya M.V., Larionova T.P. (2015). Farm reserves to reduce accounting risks. *Business. Education. Right. Bulletin of the Volgograd Institute of Business*. Number 1, (30). Pp 208-210.
- Stukova I. V. (2015). On the integration of the agricultural and industrial sectors of the economy // *international journal of applied and fundamental research*. No. 2. P. 62-64.