

## The Evaluation of the Effectiveness of Strategic Enterprise Management (Regional Dimension)

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**Abstract:** The purpose of this article is to develop a method of evaluation of the effectiveness of strategic enterprise management. The main results include the transition from the common qualitative (linguistic) characteristics in the evaluation of this type of management to quantitative, to lighten the immediate evaluation process and the high complexity of the analysis of results. In addition, the developed method allows to increase the efficiency of enterprise strategic management by analysis of the results and the development of special events designed to improve the value of this indicator. The developed system of indicators has been tested in several local enterprises from the Volgograd region in the Russian Federation and has shown its effectiveness.

**Key words:** Evaluation · Efficiency · Strategic management · Quantitative indicators · Quality indicators · “tree” of the indicators · “branch of the tree of the indicators”

### INTRODUCTION

Operation of enterprises of different activities in today's market involves finding and developing their own tactics and strategies. For confident development the company should have such ratio between costs and results of production which would allow it to be profitable in the long term, to seek new forms of capital investment, markets for their goods, works or services (GWS), modify and improve its products to meet with the requirements of the market, to find more effective ways to communicate with existing and potential customers, to implement reasonable trade policy, to apply fundamentally new methods of management, etc. [1]. It should be noted that the term "strategic management" is defined as such management which contributes to the achievement of the strategic objectives of the company, rather than the more common synonym for the term, defining it in terms of urgency and symbolizing the long-term goals of the organization.

At the moment there was an uncertain situation about the criterias for evaluation of the effectiveness of strategic enterprise management as a whole [2]. This kind of uncertainty in the study of this issue determined the selection of research topics, to substantiate its relevance, determined the goals, objectives and methods of the study.

The purpose of this study - to develop a method for evaluation of the effectiveness of strategic enterprise management.

The object of the study are some enterprises a single region of the Russian Federation in the sphere of production of goods, works and services.

The subject of the study are organizational and managerial relations arising in the process of strategic enterprise management as a whole.

The scientific novelty of this article is a development comprehensive method of evaluating the effectiveness of strategic enterprise management.

The enterprise in a modern market economy is a part of a socio-economic system, the functioning of which is due to the interaction of controversial factors external and internal environment, which, in turn, requires from enterprise management adequate methods for monitoring their condition, evaluation and accounting in decision-making, ensuring its homeostasis, competitiveness and efficiency of functioning.

In the process of enterprise management totality of human, information, material, financial and other resources through their optimization should provide the balance of the external and internal environment of the firm [3]. In this case, the parameters of the environment, include the volume and intensity of demand, consumer preferences, competitive threats, the level of technological

development, government regulation, potential risks which are the starting point for the analysis in the system of strategic decisions that determine the requirements for the internal resources of the organization, its objectives, organizational structure, communication system, etc.

A strategic approach to evaluating the effectiveness of enterprise management allows to determine a quantitative characterization of the qualitative components of resources, using qualimetric methods of analysis of the organization, based on various expert evaluation methods [4-5]. In the face of considerable uncertainties of the dynamic environment any traditional formal methods (factor analysis, a method of deviations, standard, etc.) do not allow to make management decisions that ensure the effective functioning of the enterprise in the future [6]. Thus, the necessary condition to identify and improve the use of resources of the enterprise is the introduction of an effective management system, which can adapt to changing external and internal environment, embracing in organic connection entrepreneurial and managerial-organizational activities of the economic entity in the market behavior.

The process of enterprise management is the management of an aggregate of internal factors of the enterprise in the first place, its human resources, socio-economic and organizational factors, as well as their level of use and internalization, which, in turn, in total, allow to optimize the cost and quality of the goods, works or services, that's why process of management is not possible without the presence of some closed stable or

developing system, within which functions of management are realized. Moreover, in contrast to the extensive development, characterized by the quantitative growth of the means of production and material resources on the same technical basis, for intensive direction inherent qualitative changes in the factors of production and transformation of expanded reproduction to new technical foundation [7].

Efficiency of enterprise management is based on the following principles:

- The need to determine the ratio of the number of goals achieved to their total number.
- The need to determine the ratio of "results of operations" to "cost" (or "exits" to "inputs" in terms of systems theory);
- The need for compliance to etalon, which is known including named "Benchmarking".
- The need to ensure a certain level of satisfaction with the process of its participants.

Method of the evaluation of effectiveness of strategic management should include a synthetic set of hierarchically grouped qualitative and quantitative indicators.

## MATERIALS AND METHODS

The proposed method of evaluation of effectiveness of strategic enterprise management (EESM) is carried out in several stages.

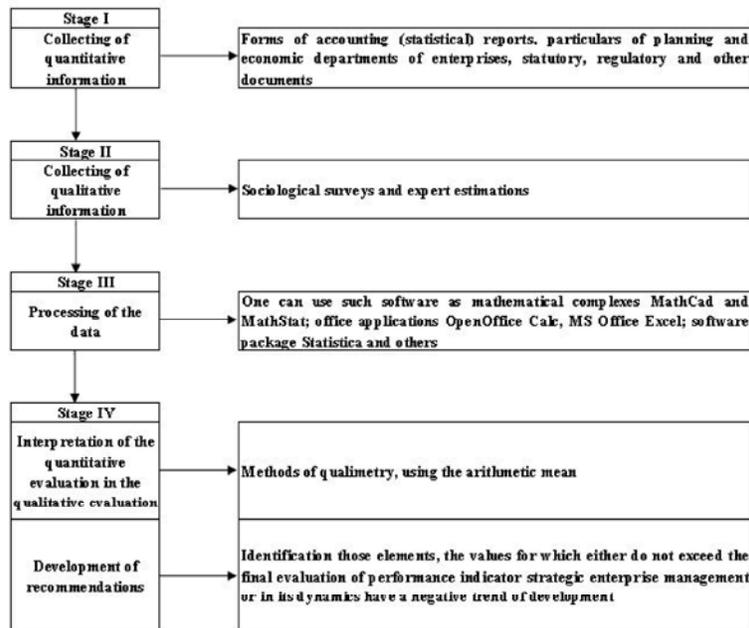


Fig. 1: Method of evaluating the effectiveness of strategic enterprise management

Table 1: Qualitative characteristic of evaluation features of the structure of quality of a strategic enterprise resources by Harrington

Gradation of evaluation of feature	Qualitative characteristic of evaluation features
1,0	Maximum level
1,00-0,80	Excellent and reasonable level that exceeds the optimal commercial level
0,80-0,63	Good and acceptable level which is providing the optimal commercial level
0,63-0,40	Not good, but still acceptable level (to ensure the competitiveness of the enterprise should be raised)
0,40-0,30	Bordering on the unacceptable level
0,30-0,10	Unacceptable level (prevents ensure the competitiveness of the enterprise)
0,00	Totally unacceptable level

The first stage of evaluation is collecting quantitative information about the object of analysis. Information obtained mainly from various forms of accounting (statistical) reports, particulars of planning and economic departments of enterprises, statutory, regulatory and other documents which are determined by quantitative data. Typically a complete package of information - this is a public financial statement.

The second stage is characterized by the collection of qualitative information about the object of evaluation. This kind of information mainly contains surveys and expert evaluations of employees of enterprises, opinions and experience in the industry which allow one to draw conclusions about their high level of expertise and knowledge as whole. It can be the managers and / or their deputies, heads of relevant economic services and departments, chief accountants and in special cases masters of specific production areas. Directly collection process of necessary information for evaluation, produced in the form of interviews / questionnaires according to specified conditions and within the quantitative interpretation of linguistic assessments by the scale of Harrington the method which one can see in Table 1 [8].

In the third step, estimating requires processing the received data and subsequent entry into the PC. To process the information we can use such software as mathematical complexes MathCad and MathStat; office applications OpenOffice Calc, MS Office Excel; software package Statistica and others.

At the final stage, after the receipt of the corresponding values of the complex evaluation of the effectiveness of enterprise management through the above three stages, occurs the interpretation from quantity to quality evaluation and developing of recommendations for each object of analysis. The calculations of complex indicators in qualimetry require using various kinds of mediums: harmonic mean,

geometric mean, mean square, arithmetic mean. The most widespread comprehensive evaluation of quality is based on the arithmetic mean and geometric mean. The main feature of the geometric mean - goes to zero if the evaluation of one of the properties is equal to zero. However, in our opinion, the use of the geometric mean in the calculation of the complex index evaluation of the effectiveness of enterprise management is irrational, because at zero value of any component of analyzed indicator, composite index vanishes.

High importance in the development of the evaluation system is to determine the weighting of individual components of the integral index EESM. In most cases, the indicator components are not equal to their weights. However, in our opinion, all the elements of the developed complex EESM should be considered identical in weight, because from the standpoint of qualimetry properties of one level in the hierarchy in the evaluation of the test objects are equal and, therefore, the weight can not be included in the final formula.

It should be noted that when evaluating the effectiveness of enterprise in dynamics within the time range one should be guided by the generally accepted rule of this kind of questionnaire to avoid large fluctuations in the evaluation of complex indicators between the periods of these evaluations.

The initial level of performance evaluation of strategic management of the enterprise consists of a series of hierarchically ordered sub-indicators, which, in turn, are divided on the indicators of a lower order.

Schematically, the structure of the performance indicator of strategic enterprise management is presented in Figure 2.

In turn, considered indicators are divided into several levels of a lower order, which forms a hierarchical structure of components of complex evaluation of strategic enterprise management. It includes:

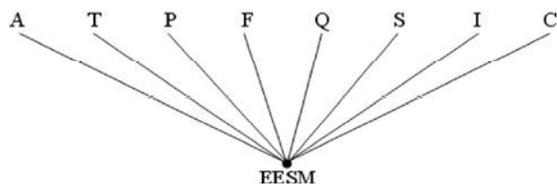


Fig. 2: Evaluation indicator of the effectiveness of strategic enterprise's management

The first set of indicators of EESM is:

- A - Indicator management of commodity assortment;
- T - Indicator management of transaction costs;
- P - Indicator management of pricing;
- F - Indicator of the foreign economic activity;
- Q - Indicator of quality management;
- S - Indicator of personnel management;
- I - Indicator of investment management;
- C - Indicator of cost management.

A - Indicator management of commodity assortment is divided into: Indicator of consumer satisfaction; indicator of duration of development and time to market; indicator of marketing [9].

T - Indicator management of transaction costs consist of: indicator of legal support of transactions; indicator of generated order of market relations and indicator aspiration of potential partners for cooperation [10].

P - Indicator management of pricing includes: indicator of compliance pricing policy to type of market; indicator of matching pricing of product life cycle (PLC); compliance indicator of pricing policy to the general objectives of an organizational system and acceptance indicator of pricing for consumers [11].

F - Indicator of the foreign economic activity comprises: monitoring indicator rate of national economy; indicator of international marketing and indicator of opportunities of growth of foreign economic activity [12].

Q - Indicator of quality management is divided into: indicator of quality management system and indicator of opportunities to improve the quality system [13].

S - Indicator of Personnel Management comprises the following: the indicator of compliance personnel structure to the needs of an organizational system and indicator of formation of stable personnel interest in results of operation of an organizational system [14].

I - Indicator of cost management consists of index investing their own activities and indicator of foreign investment of the organizational system [15].

C - Indicator of cost management includes: orientation indicator of an organizational system for the rationing of costs and indicator of strategic cost analysis [16].

Subsequently, these indicators are also divided on the rates are even lower order, according to the hierarchical structure of the method of evaluation of effectiveness of strategic enterprise management, which have mainly quantitative characteristics.

**The main part:** Approbation of the proposed method for evaluation of the effectiveness of strategic enterprise management was carried out by three companies engaged in the production of various products of one of the regions of the Russian Federation - Volgograd region. In accordance with the method of analysis and evaluation of the effectiveness of strategic enterprise management we have identified the strengths and weaknesses in the economy and also made recommendations on the choice of destinations using reserves to improve the quality of strategic management.

To determine the value of the indicator evaluating the effectiveness of enterprise management all the obtained components were summarized in Table 2.

Analysis of the indicators included in the indicator of the effectiveness of strategic enterprise management, it is possible to conclude that in spite of the fluctuations of each of its components, in general, the level of strategic management at the Enterprise #1 can be described as "Excellent and reasonable level that exceeds the optimal commercial level".

Analysis of indicator effectiveness of strategic management at the Enterprise #2, shows that in its dynamics also were the variations in the period time, but, in general, the evaluation of the effectiveness of strategic management in the enterprise can be defined as "Good and acceptable level which is providing the optimal commercial level".

The indicators which included in the evaluation of the effectiveness of strategic management at the Enterprise #3, characterize the level of control over it as "Not good, but still acceptable level (to ensure the competitiveness of the enterprise should be raised)". Dynamics of components of EESM also undergone fluctuations in the considered time period.

This kind of dynamic of indicators can be caused by a variety of circumstances, both internal and external, which may include, inter alia, regional factors or random sample of regional enterprises in another business entities - in this case, results of the evaluating and conclusions about the effectiveness of the management on them with the necessary recommendations will be different. One can assume that for other enterprises from another regions (for example, regions with depressed nature of the economy or the economy, characterized by

Table 2: Evaluating the effectiveness of the strategic management of enterprises

Year	Quarter	The changes of the effectiveness indicator of strategic enterprise management (EESM)		
		Enterprise #1	Enterprise #2	Enterprise #3
2006	I	0,8820	0,6463	0,6038
	II	0,8770	0,6388	0,5975
	III	0,8807	0,6563	0,5900
	IV	0,8985	0,6513	0,5775
2007	I	0,8834	0,6663	0,5750
	II	0,8812	0,6688	0,5763
	III	0,8703	0,6675	0,5725
	IV	0,8720	0,6763	0,5738
2008	I	0,8494	0,6750	0,5075
	II	0,8479	0,6800	0,5050
	III	0,8448	0,6750	0,5013
	IV	0,8517	0,6713	0,5125
2009	I	0,8242	0,6638	0,5163
	II	0,8195	0,6538	0,5250
	III	0,8238	0,6475	0,5100
	IV	0,8226	0,6488	0,5213
2010	I	0,8274	0,6463	0,5150
	II	0,8210	0,6525	0,5250
	III	0,8261	0,6513	0,5300
	IV	0,8314	0,6525	0,5288
2011	I	0,8302	0,6520	0,5285
	II	0,8304	0,6518	0,5283
	III	0,8300	0,6514	0,5282
	IV	0,8301	0,6516	0,5280
2012	I	0,8306	0,6523	0,5196
	II	0,8308	0,6521	0,5208
	III	0,8310	0,6580	0,5227
	IV	0,8329	0,6576	0,5246

sustained recession) the results of evaluating the effectiveness of strategic management will also be different, that, in turn, depending on the specificity of a particular case, it will require the development of recommendations of other kind, requiring from the enterprise's management to take adequate decisions of the current situation.

It is also necessary to note the impact of the global financial crisis on the effectiveness of strategic management at all considered companies which, in varying degrees, had a negative impact on the performance of each group indicators included in the evaluation.

For all enterprises on which was tested of the evaluation method developed recommendations for improvement in the effectiveness of strategic management with a number of special events organizational, industrial and economic character:

- Conduct the decomposition of the resulting evaluation up to the last element of each "tree branch" of indicator of strategic enterprise management;
- Identify those elements, the values for which either do not exceed the final evaluation of performance indicator strategic enterprise management or in its dynamics have a negative trend of development;
- Carry out research the causes of unsatisfactory values of these indicators in order to stabilize it and prevent their possible deterioration in the future;
- Draw up a program of activities to improve the value of the indicator based on the analysis of the causes and identify "bottlenecks" in the structure of the process, with the degree of effectiveness of management which meets the selected item;
- Organize a strict control over their progress and monitoring of the process environment to identify its possible negative effects, special measures for the leveling of this kind of negative effects and enhance the flexibility of the reaction of the enterprise as a whole and individual elements in particular.
- Systematically (after a certain period of time) reassess the effectiveness of the strategic enterprise management or a single component of it and, if the evaluation has not reached the intended value, repeat the steps mentioned, with a preliminary correction of the measures on the basis of their effectiveness.

Implementing these measures will contribute to the achievement indicator of the evaluation of the efficiency of the strategic management of the enterprise higher level.

Thus, in the course of the study, we obtained the following new results:

- Clarified on the basis of systematization and analysis of experience the conceptions of enterprise as a complex micro-level system of organic type, which has the internal dynamics and the ability to adapt to the conditions of market economy;
- Given reason that the process of enterprise management represents a management of a set of internal factors of the enterprise in the first place, its human resources, external socio-economic and organizational factors, as well as their level of use and internalization, which together allows to optimize the price and quality of the goods, works or services;
- Proven that for increasing of effectiveness of strategic enterprise management is necessary to organize the diagnostic system which includes the monitoring, evaluation and correction of the enterprise resource, which, along with the traditional methods of design and management decisions should be used including method of qualimetry;
- Developed a method of evaluating the effectiveness of enterprise management, which includes a synthetic set of hierarchically grouped qualitative and quantitative indicators;
- Offered specific recommendations on the analysis and evaluation of effectiveness of strategic enterprise management, allow to identify the strengths and weaknesses of economy, to clarify the level of use of reserves of improvement the quality of strategic management, which, in turn, will allow greatly enhance the effectiveness of enterprise management as a whole, to reduce costs control unit and, in some cases, attract a strategic investor.

### **CONCLUSIONS**

Theoretical and practical significance of the study's findings, methodological and practical proposals is that they are aimed at solving problems related to the mobilization of internal resources to overcome the crisis, improve the efficiency and competitiveness of enterprises, primarily working in the consumer market of goods, works and services. Use of the results of the research as possible in enterprises, focused on quality growth, in general and at several enterprises one region of the

Russian Federation - Volgograd region, in particular. Methodological and practical recommendations can be used in selecting strategic directions of development of enterprises engaged in different activities and contribute to reduce organization's costs and improve the quality of the produced goods, works and services. The results of research also can be used for determining the recommendations for constructing of a permanent (operational) system of evaluation of effectiveness of strategic enterprise management, as well as finding solutions to the problems encountered in the implementation of such systems in all kinds of organizations.

Thus, the aim of developing a method of evaluating the strategic management effectiveness of the enterprise set in the study has been achieved and the relevant scientific results have been obtained.

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