

STRATEGIC MANAGEMENT OF HOUSING AND COMMUNAL SERVICES SYSTEM (HCS)

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Abstract. *The article considers the main approaches to the implementation of tools of strategic management in the sphere of housing and communal services. The main methods of management of housing and communal services, level of optimization of the strategic management system utilities.*

Keywords: *Strategic management, housing and utilities, management utilities, expert systems, optimization level, strategic system of management utilities.*

The modern strategic management in the sphere of housing-communal services (HCS) faces a serious problem of transition from the developed strategy to its realization. The core point of the mentioned contradiction is that the developed strategy is obligatory corrected on the basis of estimation its realization efficiency. From this point it is reasonable to change the strategy to provide the synergy effect.

As it has been noted by a well-known Japanese professional in the sphere of strategic management H. Itami «The goal of synergism is to use a «free-rider» effect when the resources accumulated in one part of the company are simultaneously used without any extra expenses by its other parts» [1, c.178].

An important factor of the strategy efficient realization is its utilities provision. With the time passing amount and structure of the accumulated utilities change that demands introducing corrections in the management strategy of HCS (Fig. 1).

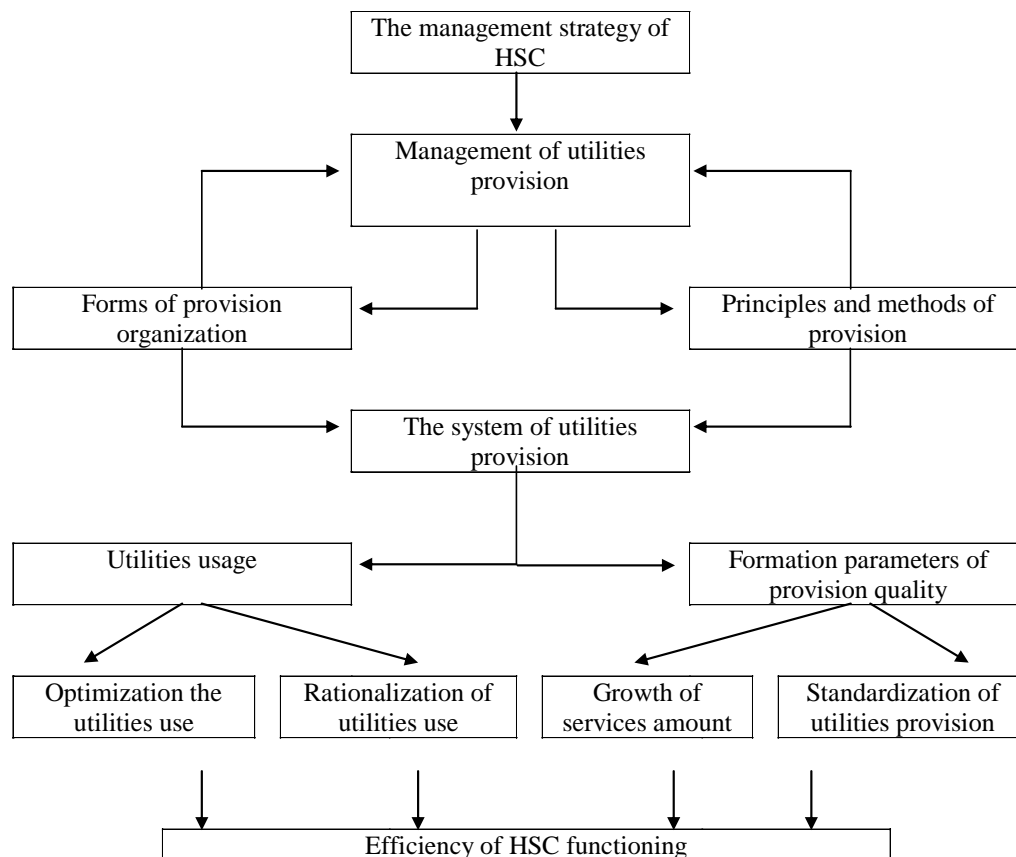


Fig. 1. The utilities integration model in the strategic management of HCS

The strategy management in the HCS sphere must reflect the essence of dynamic nature of both the environment so as its own utilities. The key of successful steady development of HCS is a harmony combination of the current and future strategies. The current strategy is supposed to create utilities for future strategy realization. The future strategy task is efficient use of the accumulated utilities.

The future set of utilities is a linking chain of the current and future strategies. The dynamic resource correspondence can be treated as synergy of these two strategies (Fig. 2).

So, we can make a conclusion that the synergy effect considered from the point of view of the current and future management strategy interaction is the basic efficient correction of the development strategy of HCS.

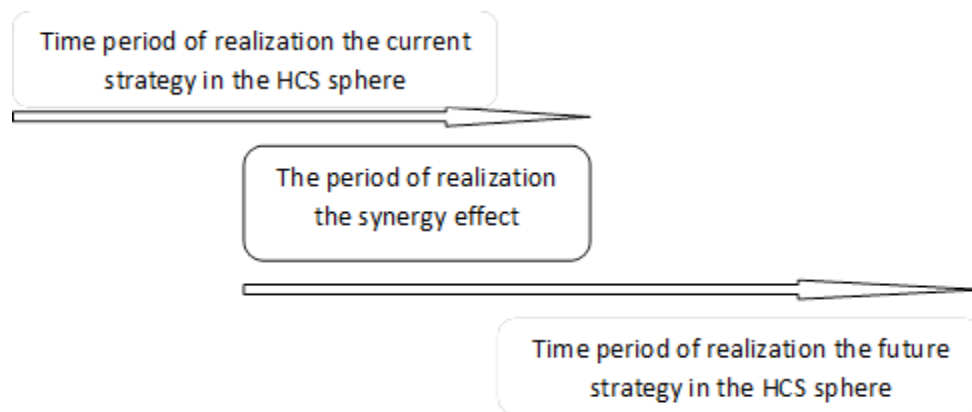


Fig. 2. Interconnection of the current and future strategies on the basis of synergy

In his research, d.e.s. Lapygin Y.N. analyzing the systems suggests using two types of primary system elements: aggregates-operators and aggregates-structures [10, c. 86-87].

All aggregates possess one and the same characteristic – emergent characteristic. Emergency is a systems' peculiarity that is the system characteristic is not a combination of characteristics of the parts it consists of and is not derived from them.

The aggregate consisting of qualitatively different languages to describe the system and possessing the characteristic that the number of these languages is minimal but is necessary for the task set is called a configuration (the system consisting of subsystems represented with different languages of description) [10, c. 104].

The strategic management in the applied aspect is seen as one of the ways of management activity of any process including the management process of HCS as a social-economic system and includes the following main elements:

- The situational analysis that is the assessment of the condition of HCS sphere;
- Goal-setting that is defining the way of HCS development;
- Strategic planning that is composing the plan, achieving the set goals;
- Organizing that is providing implementation of the plans made in the sphere of management decisions realization of the HCS sphere;
- Controlling that is checking the results achieved and taking operational measures to eliminate the detected deviations from the strategic management plans in the HCS sphere.

The described elements achieve their qualitative specificity by using the management methods.

Nowadays in the scientific professional literature they reveal and widely use three groups of the main management methods: administrative (organizational or organizational-administrative), economic and social-psychological. The comparative characteristic of these methods is given in table1.

The methods of the strategic management of HCS are formed as a combination of methods of compulsion, motivation and persuasion. However, they have mostly «inducing» character. So, for example, interpreting them to the studied process they are:

1. Economic.
2. They are revealed in motives realization to realize the process of the effective functioning of the HCS sphere in the region.

3. The management goal is obtaining qualitative characteristics of the developed services of housing and communal infrastructure.

4. The management structure is adaptive to situations and etc.

A special importance in the strategic management of HCS is given to optimization methods which is not surprising as it is one of the main tasks of strategic management that is forming the optimal economic (mostly goods) streams and resources in the HCS sphere.

Table 1. The comparative characteristic of management methods [3, c.76]

The management methods indications	Methods		
	compulsion	motivation	persuasion
1	2	3	4
1. The generally accepted name of the methods group that approximately correlates to the new group	Administrative	Economic	Social-psychological
2. The substance of methods	Directive, discipline	Motives optimization	Psychology, social study
3. The management goal	Implementation of laws, directives, plans	Achieving competitiveness of the produced objects	Achieving mutual understanding
4. The management structure	Tough	Adaptive to situations	Adaptive to the individual
5. The form of ownership where the methods are mostly used	State	Corporative, private, state, etc.	Private
6. The subject of influence	Collective body, individual	The individual	The individual
7. The form of influence	With the help of normative-methodical documents	Motivation	Management of social-psychological processes
8. The main requirement to the subject while using the methods	Diligence, orderliness	Professional competence in the sphere	The individual's psychological stability

The fullest development has received the following optimization methods:

- 1) differential calculus;
- 2) Lagrange multiplier method;
- 3) analysis of the full expense cost to organize HCS;
- 4) linear programming method;
- 5) method of solving the transport task that is directly used at the resource provision organization and etc.

The described methods are widely used not in the traditional or mechanic approach to planning and goods streams management but to the general system approach to plan goods streams (aggregate of services and resources) in the HCS sphere.

After accumulating the definite experience and knowledge in the sphere of planning and managing HCS one can use the expert systems as a variety of information technologies in the strategic management.

The possibilities to use the expert systems in the strategic management of HCS are given in table 2.

The expert systems are an economic and practical way to detect, specify and distribute the excellence practice of managerial decisions. These systems provide an integral scheme to form questions and answers used by the experts to solve the analytical operational problems. The expert systems allow distributing the knowledge of one professional to many employees that increases coordination, accuracy and efficiency of operations throughout the whole net. These systems create possibilities for the effective management.

The software of the expert systems of the strategic management of HCS creates and accumulates "knowledge database" in the form of heuristic rules, general principles of decision

making, control parameters and schemes of managerial decisions in the same way as the computer programs accumulate digital information in the database. The expert systems software is easier to upgrade, modify and extend than the usual computer programs.

Table 2. Possibilities to use the expert systems in strategic management of HCS

	Decisions level		
	Operational	Tactic	Strategic
Analysis	Forming the forecast assessments and methods of operational management	Assessment of impact on the services and distributed resources amount	Forecast of influencing the realization of social-economic programs
Planning	Timetable	Organizing the distribution of resources and services giving	The strategy of HCS functioning and developing
Operational work	Management	Assisting in applications completing and decision making	The results control of improving the management decisions
Professional training	Briefing the human resource managers	Training the production staff	The audition of functioning the organizational structure of HCS
Control	The system of management and control by the «results»	The system of «cross-examination» control	The system of «total» control of management decisions

Using the expert systems we consider in the plane of the problem types to solve and levels of their solution. As for the problems types they are classified into 5 groups: 1) analysis; 2) planning; 3) operational work; 4) professional training; 5) control. Correspondingly, every problem mentioned has its own solution specificity at the following levels: operational, tactic and strategic.

Forming the managerial decisions in the sphere of HCS it is necessary in complex and fully to assess as the structural system condition so as its target and functional realization. Using the sub-optimization theory developed by John P. van Gigch [3, c.67] one can evaluate the optimization level of the strategic management of HCS system on the basis of the following statements:

1. The sub-optimal system condition consisting of subsystems is less efficient than the optimal condition of such a system:

$$[SSi]^* < [SSi]**, \quad (1)$$

where SSi^* – the sub-optimal condition of the subsystem SS ;
 SSi^{**} – the optimal system condition in general.

2. The optimization of every subsystem from the sets of all subsystems leads to the sub-optimal condition composed of all these subsystems:

$$\bigcup_{i=1}^n [SSi^{**}] \rightarrow [SSi]^*. \quad (2)$$

3. The optimal condition of every subsystem in the system is less efficient than the optimal system condition in general:

$$\bigcup_{i=1}^n [SSi^{**}] < [SSi]**. \quad (3)$$

4. Optimization of the whole system condition leads to sub-optimal conditions of the sets composing the full subsystem of subsystems:

$$S_{T^{**}} \rightarrow \bigcup_{i=1}^n \{[SS_i]^*\}. \quad (4)$$

5. Optimization of every subsystem of the full system does not lead to the same good condition of the whole system as in case of subsystems optimization:

$$\bigcup_{i=1}^n \{[SS_i]^{**}\} < \bigcup_{i=1}^n \{[SS_i]^*\}. \quad (5)$$

Thus, the main criterion of efficiency of the strategic management of HCS should be considered a precedence of summary optimization of the whole system over the sum of sub-optimal conditions of the subsystems in its structure.

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