

R. Snishchenko

Ph.D., associate professor of finance and credit

Kremenchug Mykhailo Ostrohradsky National University

ESTIMATION OF EFFICIENCY OF STRATEGIC MANAGEMENT

Statement of the problem . Today in Ukraine there is no consensus on the objectives and content of strategic management in terms of risk management and financial security. A wide variety of areas, ownership, business organization, business structures supported by rapid change and uncertainty of the market situation. This process employs long-term planning and management is the need for the establishment and improvement of the knowledge base, using special techniques and mathematical support management decision making.

Analysis of recent research and publications. Mechanisms of interaction between subject and object management, the relationship between the individual links of its internal structure, the degree accounting impact of the environment on the development of Enterprise thoroughly examined by both Ukrainian and foreign scientists and specialists. Among them are: Y. Sharov, A. I. Shevtsova, G. Osovska, N. V. Afanasyev, M. D. Vinogradsky, O. B. Morhulets, L. I. Fedulova, Z. E. Shershneva, M. Zyemba, B. C. Hayes, S. K. Villvrayt and others.

However, despite the established foundation of research in this area, some issues of strategic management, in our view, remain insufficiently studied. In particular, this applies to a number of theoretical issues of forecasting and controlling financial security methodologies and techniques for long-term risk management entities, and so on.

Problem. Purpose - to propose a methodology for evaluating the effectiveness of strategic management for key criteria. Object of research – criterial impact on strategic management. The main material of research. The basis of strategic management is a concept of management. The most successful, in our view, the definition gives S. E. Shershneva [10] – a system of ideas, principles, concepts that determine the purpose of the functioning of mechanisms of interaction between

subject and object management, the relationship between the individual links its internal structure, as well as the necessary degree account for the influence of the environment on the development of the enterprise. Priority areas of strategic management define the goals of the enterprise at some stage of the life cycle (Fig. 1) : the formation, growth, maturity, senescence.

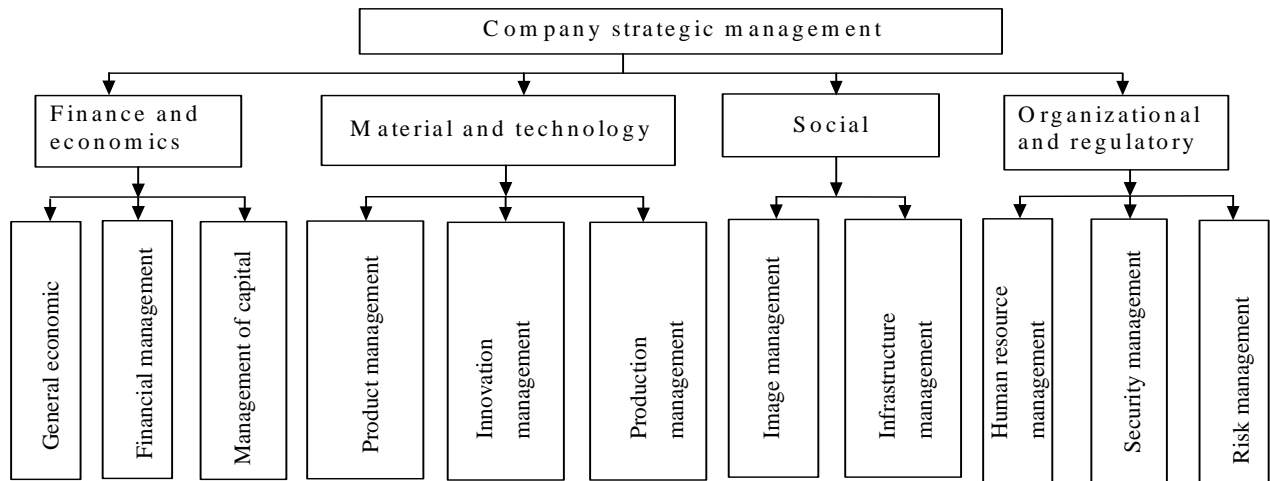


Fig. 1. Areas of Strategic Management

Source: compiled by the author based on [2-5 and others].

The principal features of the problem of rational choice the strategic management are:

- problem of choice multicriteriality;
- not only quantitative but also qualitative description of risk indicators and indicators of financial security, which are specified as requirements;
- in fuzzy formulation of the problem a great influence on the choice of method of solving expert information that defines the preference of a particular index.

Unification and standardization of business projects provides a methodology for developing complex management systems to analyze the subject area and select the appropriate mathematical description of the design, development and support of its view of possible organizational assets, business implementation. Only complete unification of methods for creating business projects and their software gives reason to talk about really building management systems where formalization of information interactions and assess their effectiveness at the level of financial and organizational support.

Standardization of making strategic financial management is to perform the functions of planning, management , control and distribution of financial resources on a single methodological and methodical basis to improve their effectiveness.

To date introduction of new business practices in the activities of entities has become widespread. There is a need to develop a single mechanism and criteria for evaluating the effectiveness of financial management Strategy. The analysis of scientific sources [1-10 et al.] Showed that the economic evaluation of the effectiveness of the planning and economic management of the type bahatokriteriynyh complex tasks that can not be solved by a single indicator. It is a comprehensive assessment that takes into account the results of the implementation to ensure effectiveness and efficiency of financial management. Table 1 shows the main criteria for evaluating the effectiveness of financial management Strategy .

Each evaluation criterion correspond to the values of one or more parameters. Determination of numerical values of parameters can be carried out by methods of measurement , modeling, through calculations or expert reports [1-10 et al.]. The decision on the efficiency of financial management Strategy of economic activity shall be based on the analysis and analyzes of relevant indicators.

Table 1

Criteria for evaluating the effectiveness of strategic financial management

	Component	Evaluation criterion
Software	Methodological	Completeness, versatility
	Methodological	Versatility, kodyfikovanist, objectivity, focus
	Organizational	Completeness, universality, objectivity, focus
	Software and technical	Versatility, kodification, security, reliability, manufacturability
Strategic management	Securing	Timeliness, orientation, performance
	Management	Timeliness
	Planning	Completeness
	Organization	Orientation
	Control	Orientation, completeness, timeliness
	Forecast	Completeness, effectiveness

Source: author's elaboration

To determine the optimal composition of indicators to measure the effectiveness of financial management Strategy proposes to use the method of modeling using ER-diagrams by the method described in [4] for a few steps. In the first stage problem for evaluating the effectiveness of financial management Strategy

represented as infolohichnoyi model (Figure 2).

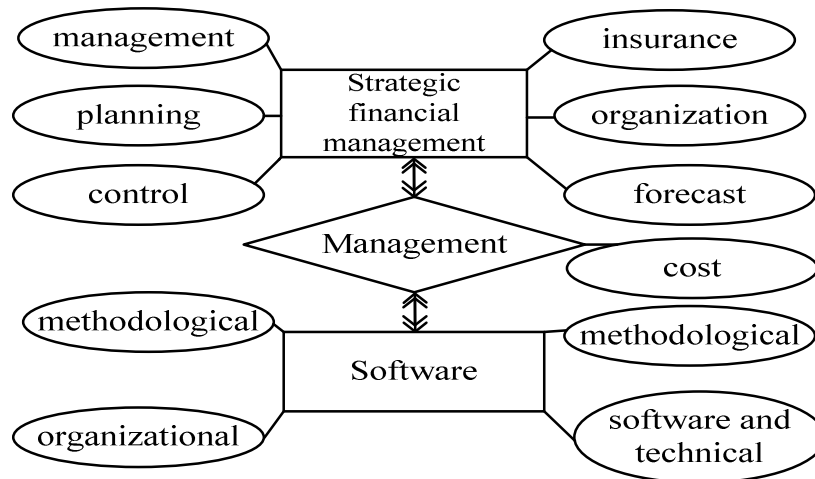


Fig. 2. ER-diagram tasks Strategy Financial Management

Source: author's elaboration

In the second stage a general model of the problem infolohichna strategy financial management dekompozuyetsya on local models, where each attribute of the general model is represented as a single entity type with attributes-values. Will remove non-essential attributes and association attributes synonyms (Fig. 3).

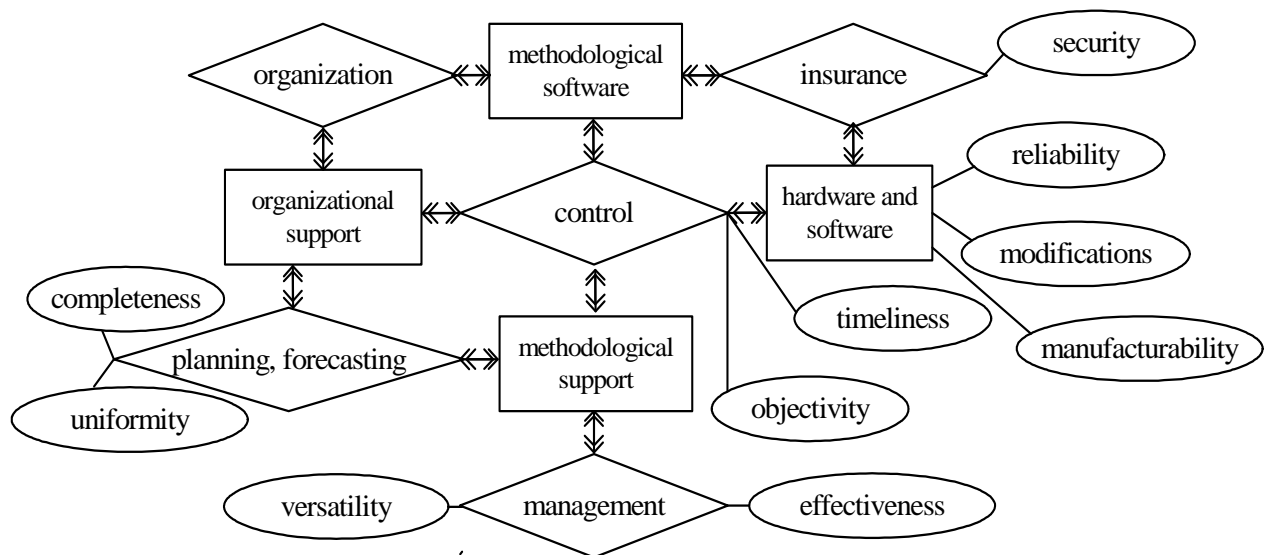


Fig. 3. Decomposition of the overall model of the problem infolohichnoyi Strategy Financial Management

Source: author's elaboration

The third stage is datalohichne object-relational modeling of Strategy Financial Management: finally determined group of criteria for evaluating the effectiveness of

strategic management in the activities of an economic entity (Tab. 2). Each criterion can correspond to one or more performance indicators.

Table 2

The final list of criteria

Criterion for evaluation		
completeness F_p	reliability F_n	versatility F_u
objectivity F_o	manufacturability F_t	modification F_m
timeliness F_c	effectiveness F_r	security F_z
cost F_v		orientation F_s

Source: author's elaboration

It is proposed to use the method of fuzzy logic to further determine the effectiveness of strategic management. Define weights «assessment criteria» (Tab. 3).

Table 3

Weights «evaluation criteria»

Completeness	0,1	Manufacturability	0,5
Versatility	0,3	Timeliness	0,9
Modification	0,2	Orientation	0,6
Immunity	0,7	Objectivity	0,7
Reliability	0,9	Effectiveness	0,8

Source: author's elaboration

Fuzzy sets «software» is the sum of Singleton and will look like:

$$Z = 0,2/2 + 0,4/4 + 0,7/3 + 0,5/5 \quad (6)$$

Similarly, fuzzy set «management» will look like:

$$M = 0,7/3 + 0,9/1 + 0,1/1 + 0,6/1 + 0,5/3 + 0,5/2 \quad (7)$$

Define fuzzy sets «warehouse» to which the indicator as a strategic management and is the intersection of fuzzy sets «software» and «management» (Figure 4):

We have:

$$C = Z \cap M = \mu_a(x) \wedge \mu_b(x) = \min(\mu_a(x); \mu_b(x)) = 0,2/2 + 0,5/3$$

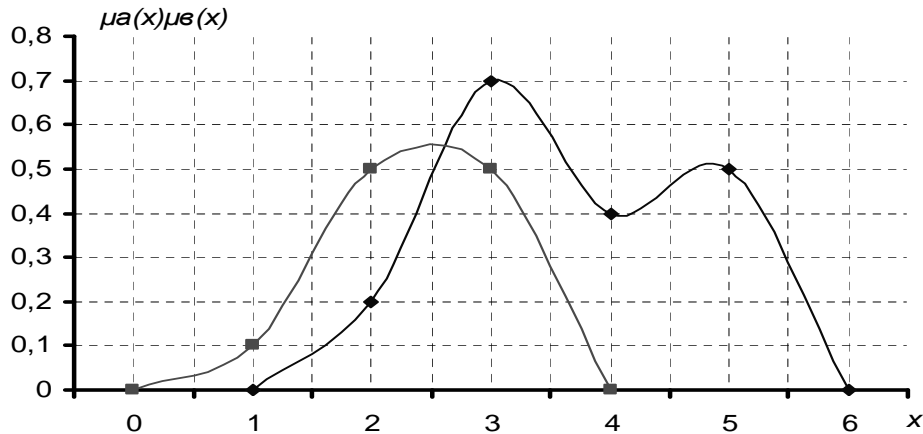


Fig. 4. The intersection of fuzzy sets «software» and «management»

Source: author's elaboration

Findings from this study. Consequently, a large variety of areas, ownership, business organization, business structures supported by rapid change and uncertainty of the market situation, employs the process of long-term planning and management is the need for the establishment and improvement of the knowledge base, using special techniques and mathematical support management decision making. assessment strategy management bahatokriteriynyh belonging to the tasks needed to develop ways and means of solving. The peculiarity of the proposed approach is the ability to solve the problem of evaluating the effectiveness of strategy management based on its quality and quantity. Strategic management entity of satisfactory quality is achieved with minimum limits of achieving balance in its maintenance and management. Providing one of the most important components of economic systems, which depends on the successful implementation of the objectives and functions of the system. The only integrated performance indicator strategy financial management can be used to assess the overall cost-effectiveness of the entity during the complex financial and economic analysis as an additional factor; or for management decisions on the development and updating of financial resources.

References

1. Domarev V. (2001) *Bezopasnost informatsionnih tehnologiy. Metodologiya sozdaniya system zashchiti* [Safety of informations technologies. Methodology of creation of the systems of defence], LTD TID «DS», Kiev, Ukraine.

2. Daft R. (2012) *Menedgment* [Management], SPb Piter, Peterburg, Russia.
3. Kotler F. (2011) *Marketing Menedgment* [Marketing Management] SPb Piter, Peterburg, Russia.
4. Lapigin U. (2011) *Strategicheskij menedgment* [Strategic management] Infra-M, Moscow, Russia.
5. Malenkov U. (2012) *Strategicheskij menedgment* [Strategic management] Prospekt, Moscow, Russia.
6. Ponomarenko L.A. (2002) *Elektronna komertsiya: pidruchnik* [Electronic commerce: textbook], Kievskiy natsionalniy torgovo-ekonomichniy universitet, Kiev, Ukraine.
7. Porter M. (2009) *Konkurentnaya strategiya* [Competition strategy] Alpina Biznes-buk, Moscow, Russia.
8. Uskov A.A., Kruglov V.V. *Intelektualnie sistemi upravleniya na osnove metodov nechetkoy logiki (2003)* [Intellectual control systems on the basis of methods of fuzzy logic.], Smolensk, Moscow, Russia.
9. Harchenko K. (2009) *Munizipalnoe strategicheskoe planirovanie: ot teorii k tehnologii* [Municipal strategic planning: from a theory to technology] Obl. tipografiya, Belgorod, Russia.
10. Shershnyova Z. E. (2004) *Stratgichne upravlinnya* [Strategic management: Textbook], KNEU, Kiev, Ukraine.

Snishchenko R. ESTIMATION OF EFFICIENCY OF STRATEGIC MANAGEMENT

Purpose - to offer the method of estimation of efficiency of strategic management on basic criteria.

Methodology of the study. Methodological basis of research was made by scientific positions of financial management. For achievement of the put purpose the following scientific receptions and research methods are used in work: analysis (for treatment of results of researches which were conducted before); system-structural method (for determination of structural directions of strategic management); method

of the use of semantic network with the use of conceptual models as ER-diagrams (for achievement of necessary decomposition of elements at presentation of problem sphere of strategic financial management, avoidances of surplus at collection and presentation of information), methods of fuzzy logic (for subsequent determination of efficiency of strategic management).

Findings. Expedience of the use of the offered method of estimation of efficiency of strategic financial management is grounded, the necessity of minimum balanced of providing and management of subject of ménages is certain for achievement of strategic management with the satisfactory index of quality. It is proved that providing is one of major constituents of the economic systems, which successful realization of their aims and functions depends on.

Originality. Offered method of estimation of efficiency of strategic financial management, unlike existing gives possibility of association of great number of his high-quality and quantitative indexes in the single integrated index.

Practical value. The got results are basis of subsequent development of scientific grounds of the use of methods of fuzzy logic and semantic networks for research of objects and management processes. Basic provisions and conclusions of the study can be used in the educational process of higher education institutions of financial and economic direction.

Keywords: management, fuzzy sets, indexes, criteria.