

EARLY INCREMENTALISM IN HIGHER SCHOOL MANAGEMENT

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Abstract

The current paper is of applied scientific character. It (the paper) proposes an alternative for the ideas of famous strategic management schools, which ideas are put into higher school practice. Merits of classical and contemporary conceptions are evaluated. The same is done with the possibilities of application of up-to-date instruments (such as Balanced Scorecard) to the higher school practice. Furthermore, heavy responsibility before great number of parties concerned for the higher school long-term development is emphasized. This responsibility is considered as an objective basis of the conservatism manifestation in management. The authors express their skepticism that contemporary thoughts of the strategic positioning and of strategies' origin and development are a sufficiently wise alternative of this conservatism.

The paper endorses idea about continuous adaptation of the higher school to the changes of its surroundings in conformity with the early incrementalism thoughts. The implementation of this idea associates with the possibility that higher school will apply methods for measurement and evaluation of threats to it and further to direct its development towards threats overcoming. Parties concerned in their capacity of licensing institutions are viewed as origin of threats. Methods for measurement and evaluation of threats finds expression in working out the aggressiveness functions of licensing institutions, which functions are converted subsequently into functions of threats to the higher school. Because of the methods implementation a licensing board is drawn up. The licensing board is used as an instrument for measurement end evaluation of threats to the higher school. Scientific tools by which the current methods is elaborated are: utility function by von Neumann – Morgenstern, method of focus groups, investigation method by questionnaires, pair-wise comparison method, calculus by confidential intervals and regression analysis.

Key words: higher school management, early incrementalism, licensing board, measurement and evaluation of threats

Higher schools from the post-communistic countries face a great number of challenges. The problem of their management as independent players on the market of educational services comes to the fore though. This problem turns the theoretical and practical matters of strategies, of structures and of adaptive abilities of higher schools into questions of high current interest (Катъкало).

1. Methodological aspects of the problem

It is assumed that during transitional years the higher schools management in Bulgaria, like higher schools from the other post-communistic countries, passes through two stages of its development (UNWE, 2005a, p. 3-4). First stage is the stage of survival. Actions of nonsystematic restructuring are put into practice during this stage. As a rule, the archetype of organization-reactor underlies the management reactions at this stage (Miles and Snow, 1978, p. 28). This organization has not any viable strategy and takes chaotic measures by necessity only under

stress of circumstances. Second stage is the stage of development. Higher schools start forming and applying independent strategies in conformity with which they do reengineering of their processes and structures during this stage. In essence, these strategies are overtaking strategies aimed at gaining and strengthening the important competitive advantages of higher schools in the European and world educational sphere in shortest historical time.

The elaboration and application of overtaking strategies by higher schools in Southeastern Europe are attended with multiple problems. One of the most important problems is that during the last few years the European educational sphere reforms itself at accelerated rates. Furthermore, in the common declaration of educational ministers of June 19 1999 in Bologna is pointed out that higher education has to be adapted without interruption to the changing requirements, social needs and achievements of science (EC, 1999). This places management of the post-communistic higher schools in a very complicated and delicate situation. They are forced to look for ways to conquer competitive advantages at accelerated rates in a manner that they are not accustomed to do and in surroundings changing continuously, quickly, unexpectedly and radically.

Higher schools are in a real danger in that complicated situation that they rashly make incorrect strategic moves by trying to find ways of gaining market positions. They are carried away by the opportunities that find at that moment to become “friar’s lanterns” (Starbuck , 1965, p. 465), which to stifle when these opportunities are either lost or founded to imaginary. In addition, another danger that has long-term consequences arises. The danger is that some higher schools could perceive quite literally the requirement for flexibility of their management and as a result could take decisive steps toward their transformation from “organizations - palaces” into “organizations - tents” (Starbuck W. et. al., 1975, p. 219).

The problem evolves from the fact that the “organizations - tents”, which are created for continuous seeking after the opportunities, are deliberately built over “rolling (unstable) flatness”. By seeking after balance between the opposing forces, the “organizations - tents” change their processes and trends of development without interruption, unplanned, and often illogically. This is in contradiction with the relatively conservative character of educational institutions. Higher schools not only bear responsibly for satisfying public’s needs, but above all things for its (public’s) future needs, especially for the both satisfaction and creation of these future needs. In an inward respect, the flexibility of higher schools is limited by the longish for the modern world “production cycle” of 4-5 years. In this sense, it is an avoidable that destiny of the modern higher schools is to be “organizations - palaces” with clear and relatively long-term procedures and processes, consisting of “consummate and exquisite” components. The point is that a timely and adequate redesign has to done by which they to be adapted to the surroundings changes without disturbing their stability and relatively conservative character through leaps in the dark.

Proceeding from the both special character of the higher schools as educational institutions and actual situation in post-communistic countries, authors of the current paper take the view that changes of higher schools in these countries have to be gradually made. In this sense, the authors are skeptical about recommendations of the both classical and contemporary schools of strategic management that provoke taking the strategic leaps. The authors rather adopt viewpoint of the “early incrementalism” as an adequate prevailing basis of the higher school management (Lindblom, 1959). According to the school of early incrementalism change has to be made by little steps forming an iterative process. That seems quite conservative and disagreeing with the situation, in which radical changes are expected by higher schools in post-communistic countries. However, it seems thus at first sight only. Gradual steps do not mean slow steps. Fast consecution of little steps (each of which does not result in far-reaching effects) could ensure a speed of change, which would arrive at a compromise between striving for the opportunities utilization, threats of disturbing stability and trust of the society.

Threats to the higher schools in post-communistic countries go deeper because of insufficient proficiency of the higher school management in use of the strategic management instruments. In most cases, at least in Bulgaria, SWOT-analysis and methods of strategic positioning are not enough well grounded used. Even there where the encouraging attempts are made to elaborate Balanced Scorecard (UNWE, 2005b), the application is not steady. As if, the highest utility was demonstrated by benchmarking. It is predominantly an intuitive though. For that reason transfers of good European and world practices are very often chaotic and in all directions. It is ignored the fact that their generation is a result of complex and long-term prerequisites. However, another problem there exists now that is of principle character. It has two aspects. The first aspect is that during the chase of utilizing new opportunities, which appeared because of the increasing autonomy of higher schools, and under new social situation, the threats are very often underestimated. Useful state regulations, aimed at preserving stability of the educational system, are taken negatively and are attacked.

The second aspect of the problem consists in the insufficient in management theory and practice elaboration of the instruments for measurement and evaluation of threats. The productive idea of SWOT-analysis has not found enough practical application. The analysis is still empty of matter enough and gives few useful recommendations how opportunities and threats to be evaluated (Kox, 2003, p. 202-203). In the last years, the evaluation and spreading of the Balanced Scorecards made a key contribution to this problem overcoming as regards the methods for realization and evaluation of the opportunities taking way. However, despite significant achievements of the risk management theory and practice, there still no exists an approved management instrument of the same kind as regards the threats. An effort is made to formulate a possible approach to create an instrument of the same kind in the current paper.

The application of adequate instrument for the threats measurement and evaluation could considerably increase possibilities for a balanced development of the higher schools in case the early incrementalism ideology is adopted. The evaluation of results of each little step in reference to the opportunities taking in terms of the existing and provoked threats would premise stability as well as speed and trend of development that are acceptable to the society. The approach, suggested by authors of the current paper, to elaborate a management instrument for the threats measurement and evaluation, called licensing board, is based on the principle that threats' sources have their roots in the behavior of parties concerned in some way. In the case of higher schools, these parties concerned could be employers, students, lecturers, parents, regulating bodies and so on. In a way, bearers of interest to higher school could be viewed as licensing institutions (Neely, 1998, p. 120). In this case, by a license the formalized or non-formalized attitudes of consent to work with the higher school under given conditions are made out. The threat of given licensing institution is viewed as a product of critical values of the higher school operating parameters that indicate the infringement of the relative license.

The methods for measurement and evaluation of threats envisages three measurement scales: first scale - for the higher school's operating indicators that characterize its behavior; second scale – for the licensing institutions' aggressiveness against that behavior; third scale – for the intensity of threats to the higher school. Two types of functions make the transition between the scales: the aggressiveness function of the party concerned and the other one – function of threat to the higher school. In quantitative respect, the intensities of threats for each licensing institution are evaluated by the surfaces limited from the threats values, which are caused by the value of the higher school licensing indicators. These surfaces are depicted on the so-called licensing board by licensing institutions for each higher school as a whole.

2. Methodical aspects of the problem

The authors of the current paper perceive the methods for measurement and evaluation of threats to the higher school as **a succession of stages, combined in a cycle**.

The following **instruments** are used for working out the current methods for measurement and evaluation of threats to the higher school:

- method of focus groups;
- investigation method by questionnaires;
- pair-wise comparison method;
- calculus by confidential intervals;
- regression analysis and
- von Neumann – Morgenstern utility theory.

Both *method of focus groups and investigation method by questionnaires* are used for evaluating threats of the higher school to the licensing institutions by licensing indicators agreed as well as for binding these threats to the aggressive actions that would be undertaken by the licensing institutions. Focus groups are established in the licensing institutions. Focus groups consist of the top management of licensing institutions. Investigations are carried out with the focus groups by questionnaires, which are especially elaborated for that purpose. The focus groups' members point out licensing indicators that are viewed as threats to the licensing organizations. Moreover, they evaluate quantities of licensing indicators that are defined as critical values. Then the focus groups' members mark these critical values in the questionnaires. Furthermore, the focus groups' members describe the aggressive actions, which institutions would undertake in case of the critical values of licensing indicators, and compare these aggressive actions. The investigation method is used for the evaluating threats of the licensing institutions to the higher school as well. In that case, an investigation in the higher school is carried out with its decision-making person/body.

Pair-wise comparison method (see ДЭВИД, 1978) finds application to the following two activities: ranging the aggressive actions of licensing institutions by degree of their aggressiveness as a criterion and determining the intervals between actions when aggressive actions are projected on co-ordinate axis of aggression. The application of pair-wise comparison method consists in the following actions:

- selection in any particular licensing institution by the focus group's members of less aggressive action from each pair of actions;
- generating separately for each licensing institution evaluations for the aggressive actions of the focus group as a whole;
- ranging the evaluations of each aggressive action by degree of aggressiveness;
- normalization of these evaluations into the mathematical interval $[0,1]$;
- evaluating by licensing institutions the relative distances (intervals) between the focus group's evaluations of the aggressive actions.

Relative distances between the evaluations of aggressive actions are computed by *confidential intervals calculus* (Kaufmann y Aluja, 1987, 21-42). In essence, applied to the current context in combination with theory of confidential intervals, the pair-wise comparison method creates evaluations of the focus groups about the critical values of the licensing indicators.

Two types of functions are based on the *von Neumann – Morgenstern utility theory*: functions of aggressiveness of the licensing institutions and functions of threats to the higher school. The attitudes to risk of both the focus groups from licensing institutions and the decision-making person/body from the higher school are evaluated by this theory as well. In quantitative respect functions of aggressiveness and functions of threats are determined by mean of *regression analysis*.

The application of instruments to the suggested methods could not be realized without answering the following **limiting conditions**:

- Subjective certainty is available, because members of the focus groups and decision-making person/body in the higher school are completely sure of their judgments and preferences (Ramirez, 1998).
- Circular triads in the preferences of focus groups are missing, i.e. the both the preferences of the focus groups' members and their combinations are not conflicting (Дэвид, 1978, p. 8).
- Requirements for the application of von Neumann – Morgenstern utility theory are answered (see Binger, B. and E. Hoffman, 1988, p. 497-501), (see von Neumann and Morgenstern, 1947).
- Functions of aggressiveness and functions of threat are monotonous and continuous.

The suggested methods in the current paper realizes in **two stages**.

Aggressiveness functions of the licensing institutions are defined during the *first stage* of the methods. These functions are scalar one-dimensional functions of von Neumann – Morgenstern disutility or worthlessness, defined by licensing indicators under conditions of certainty or uncertainty respectively. Functions of aggressiveness describe the disutility/worthlessness of each licensing indicator change according to the licensing institutions. Moreover, the aggressiveness functions inform about the aggressive actions that licensing institutions would undertake against higher school when particular (critical) values of the licensing indicators are reached. Functions of aggressiveness (formula 1) are defined by analogy with the von Neumann – Morgenstern utility/value functions (Кини и Райфа, 1981, с. 78-208).

$$ag_i^{li}(y_i) = 1 - v_i^{li}(y_i) = \underline{v}_i^{li}(y_i) \quad (1)$$

where:

$ag_i^{li}(y_i)$ is the aggressiveness of the licensing institution li by licensing indicator Y_i ;

$v_i^{li}(y_i)$ - the von Neumann – Morgenstern utility/value of indicator Y_i change according to the licensing institution li ;

$\underline{v}_i^{li}(y_i)$ - the von Neumann – Morgenstern disutility/worthlessness of Y_i change according to the licensing institution li .

The first stage of the methods runs by five **procedures**:

- **Procedure I.1 “Preparation”** – The procedure includes the following sub-procedures:
 - focus groups establishment in the licensing institutions;
 - questionnaires working out;
 - licensing indicators definition.
- **Procedure I.2 “Defining the co-ordinate area of the aggressiveness functions”** – The procedure includes the following sub-procedures:
 - focus groups acquainting with the methods for defining their functions of aggressiveness;
 - setting up the area of aggressiveness values;
 - verifying orientation of the focus groups' members in the co-ordinate area.

The second sub-procedure its part (setting up the area of aggressiveness values) consist of the following activities:

- * choice of the both quadrant and direction of the co-ordinate axes;
- * scaling the both axes –axis of the aggressive actions and axis of the licensing indicators value;

- * defining the main direction of the focus groups members' functions of aggressiveness - increasing or decreasing;
 - * scaling the focus groups' functions of aggressiveness.
- **Procedure I.3 “Defining the qualitative features of the aggressiveness functions”** – The procedure includes two sub-procedures:
 - character definition of the focus groups aggressiveness functions (increasing or decreasing);
 - functions type definition according to the criterion “monotony”.
 - **Procedure I.4 “Defining the quantitative features of the aggressiveness functions”** – The procedure includes three sub-procedures:
 - defining the empirical aggressiveness functions of focus groups;
 - drawing the empirical functions of aggressiveness;
 - verifying the character and the monotony of the empirical functions.
 The first sub-procedure its part (defining empirical aggressiveness functions of the focus groups) consist of the following activities:
 - * investigating the focus groups' members into the licensing indicators values, which they associate with any particular aggressiveness evaluation;
 - * setting up and drawing the empirical distributions of their answers;
 - * defining the distributions types and centers;
 - * defining the characteristic points of the empirical aggressiveness functions.
 - **Procedure I.5 “Choosing analytical functions of aggressiveness”** – The procedure includes the following sub-procedures:
 - choice of the appropriate parametric families of functions to the empirical functions of aggressiveness of focus groups;
 - calculating particular parameters of the analytical functions;
 - analytical functions formulation;
 - defining attitudes of the focus groups to the risk.

Threat functions of the licensing institutions to the higher school are defined during the **second stage** of the methods. These functions, like functions of aggressiveness, are scalar one-dimensional functions of von Neumann – Morgenstern disutility or worthlessness, defined by licensing indicators under conditions of certainty or uncertainty respectively. Threat functions (formula 2) describe the disutility/worthlessness according to the higher school of the licensing institutions aggression under the licensing indicators change. Functions of threat are defined in the investigation with the decision-making person/body of the higher school.

$$th_i^{li}(ag_i^{li}(y_i)) = 1 - v_i^{li}(ag_i^{li}) = \underline{v_i^{li}(ag_i^{li})} \quad (2)$$

where:

$th_i^{li}(ag_i^{li}(y_i))$ is the threat of the licensing institution's li aggression by indicator Y_i to the higher school;

$v_i^{li}(ag_i^{li})$ - the von Neumann – Morgenstern utility/value of the institution li aggression by Y_i to the higher school;

$\underline{v_i^{li}(ag_i^{li})}$ - the von Neumann – Morgenstern disutility/worthlessness of the institution li aggression by Y_i to the higher school.

Second stage of the methods runs by five **procedures**:

- **Procedure II.1 “Preparation”** – The procedure includes two sub-procedures:
 - acquainting the decision-making person/body of the higher school with the methods for defining his (her)/its functions of threat;
 - setting up the area of threat values.The second sub-procedure its part (setting up the area of the threat values) consist of the following activities:
 - * choice of the both quadrant and direction of the co-ordinate axes;
 - * defining the main direction of the decision-making person/body’s functions of threat.
- **Procedure II.2 “Defining the features of threat functions”** – The procedure includes two sub-procedures:
 - definition of the both qualitative and quantitative features of the decision-making person/body’s threat functions, including their characteristic points;
 - drawing up the empirical functions of threat to the higher school.
- **Procedure II.3 “Choosing analytical functions of threat”** – The procedure realizes by analogy with the homonymous procedure in the first stage.
- **Procedure II.4 “Concordance verification”** – The procedure refers to determination of (lack of) correspondence between the qualitative features and quantitative features of the both empirical and analytical functions of threat.
- **Procedure II.5 “Licensing boards creation”** – Licensing boards are generated for each licensing institution of the higher school. On the other hand, each licensing board covers all the licensing indicators, defined for the given licensing institution. Value on the concrete licensing axis (corresponding to the homonymous licensing indicator) expresses the evaluation of current threat to the higher school by the homonymous licensing indicator for given licensing institution. In essence, values on the licensing axes are determined by functions of threat from the procedure II.3.

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