SWOT-analysis as a strategic management tool of the quality training of the future educational institution head

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Abstract. The article presents the results of the empirical analysis of the system of training future heads of educational institutions under the master's educational program, which showed that quality management of future leaders depends on setting standards, updating educational programs, highly qualified staff, quality organization of the educational process and effective management. The study empirically confirms and theoretically proves that it is very important for a higher education institution to really see the levers that it can manage - internal resources, as well as to understand the factors that are outside the sphere of influence – external threats.

Keywords: future heads (managers) of higher education institutions, strategic management, SWOT-analysis, SWOT-matrix, professional training.

INTRODUCTION

In today's conditions, national higher education institutions are in a state of permanent transformation, due to the European vector of the country and the need to adapt the education system to EU trends and requirements. Accordingly, higher education institutions develop strategies that would allow them not only to survive in fierce competition in the national market of educational services, but also to represent the state in the world arena of these services, have a stable positive image, become attractive to potential applicants for higher education. That is why the search for an effective modern model of higher education institution requires the modernization of pedagogical management, the system of training future professionals, the application of current educational innovations.

For the successful functioning of the institution of higher education, improving the quality of educational services and the competitiveness of its graduates, building resilience to force majeure circumstances (for example, the worldwide COVID-19 pandemic), it is very important to predict in time the threats that may arise in the future and new relevant opportunities that must be actively developed. To this end, it is necessary to determine the priority areas of the quality training system and develop a strategy for the development of higher education institutions, adapt to changes in the external environment, maximize the use of internal resources, use modern technologies of pedagogical management, modernize existing strategies, and, therefore, carry out high-quality strategic management of the future specialists training system. In the context of this study, we focus on the training of future heads of educational institutions (Boyko, 2018).

Future heads of educational institutions can receive professional training in Ukraine in the conditions of master's degree in educational programs "Educational, pedagogical sciences" (specialty 011 "Educational, pedagogical sciences", specialization “Management of educational institutions”) and "Management of educational institution" (specialty 073 "Management”).

Modern system of quality management in higher education should ensure the monitoring of its priority indicators and the development of strategies to improve all components of the system of training future managers. Systematic monitoring of the quality of education is necessary for effective management, informed decision-making, comparison and adequate assessment of the state of professional training. This task is successfully implemented through SWOT-analysis, which involves identifying strengths and weaknesses, potential opportunities and potential threats, establishing relationships between them, which can be further used to form quality management strategies for the future head of the educational institution.

LITERATURE REVIEW

As the analysis of scientific literature shows, the problem of using SWOT in the education system has gained active distribution only in recent years. Thus, researchers consider it appropriate to use SWOT as a tool for analyzing the higher education system (O.Totska, 2012), planning strategies for secondary

Peculiarities of SWOT-analysis application in the process of making managerial decisions were considered by: S. Ganzuyk (2013); O. Gumenyuk (2017); O. Konovalova (2010); O. Lebid (2019) and others.

In the context of vocational education SWOT-analyses were conducted by such Ukrainian scientists as: M. Boyko (2018), T. Bykova (2018), M. Ivashchenko (2018), K. Kruty (2012), N. Kulalaeva (2018), N. Marakhovska (2015) and others.

In K. Krutyi's (2012) research the original approach to definition of the factors influencing self-educational activity of the teacher who works in preschool educational institution has been suggested. For the first time, a step-by-step analysis of external and internal opportunities and threats for the institution and a particular teacher has been done, in particular, by combining the methods of SWOT and PEST analysis. Positive factors that should influence the motivation of the teacher's self-educational activity have been outlined.

In her research, M. Boyko (2018) has revealed the features, stages of SWOT-analysis technology and substantiated its effectiveness in the process of quality management of future teacher training. The results of the research conducted on the educational-professional program of the second (master's) level of higher education in the specialty 014 – Secondary education in the process of teaching the course “Management in Education” at Ternopil Volodymyr Hnatyuk National Pedagogical University have been presented.

N. Marakhovska (2015) has outlined the peculiarities of using SWOT analysis in the professional training of future psychologists.

In the study, M. Ivashchenko and T. Bykova (2018) have analyzed the main trends in the introduction of blended learning in the educational process of universities using the method of SWOT-analysis.

N. Kulalaeva (2018) has carried out a SWOT analysis of the introduction of elements of the dual form of education in the professional training of future skilled workers and their selection for its proper theoretical and methodological support.


The results of the analysis of modern publications have shown that the use of SWOT-analysis in the professional training of future heads of educational institutions has not yet been the subject of special research. Therefore, in pedagogical management the technology of determining the factors of internal and external environments for future managers professional training in the conditions of higher education institution is insufficiently developed.

The aim of the article is to conduct a SWOT-analysis and develop a matrix on the example of Mukachevo State University to outline a strategy for the development of professional training of future heads of educational institutions.

METHODS

At the beginning of the study we formulated a hypothesis in the following formulation: for a higher education institution it is very important to really see the levers that it can control - internal resources, as well as to understand factors outside the sphere of influence – external threats. A simple understanding of these points improves the quality of the training system for future heads of educational institutions, forms competitiveness in the market of educational services.

To test the working hypothesis, determine the significance of private indicators and obtain current and forecasted indicators, we used the matrix method of expert evaluation SWOT analysis, the results of which allowed outlining strategies for the development of professional training for future heads of educational institutions at Mukachevo State University. The study was conducted during 2019-2020.

In constructing the logic and structure of the study, highlighting the priority areas of professional training, their systematization – methods of structural-logical and strategic analysis, abstraction and analogy, conceptual, systemic and dialectical approaches have been used. The method of comparative analysis and synthesis has been used to identify strengths and weaknesses, opportunities and threats in the field of strategic quality management of professional training; observation and generalization - to identify partial indicators of generalized criteria evaluation.
Difficulties in conducting research are primarily related to the confidential nature of information, processing, analysis, comparison and organization of a large number of opinions, their subjectivity, as well as the search for qualified experts (external stakeholders) of the educational program.

RESULTS

General characteristics of SWOT-analysis

The acronym of the four English words (strengths, weaknesses, opportunities and threats) SWOT was first voiced publicly by American professor Kenneth Andrews at Harvard at the conference on business policy (1963), which was presented visually in the form of a matrix. In 1965, four professors at Harvard University – Leraned, Christensen, Andrews, Guth – proposed the technology of using the SWOT model to develop a strategy for the behavior of the organization (Learned et al., 1965). SWOT-analysis was initially focused on collecting and structuring information about the current situation and trends, later - began to be used in a broader sense - to design strategies and management decisions. Thus, with the advent of the SWOT model, analysts have received a tool for their intellectual work.

The majority of researchers define SWOT-analysis as a method of expert evaluation to identify the strengths and weaknesses of the external and internal environment of organizations in order to analyze them, use the results in the process of strategic planning and management decisions. Note that before the introduction of this method to determine the prospects of the organization, only its strengths and weaknesses were taken into account. For example, they compared the advantages and disadvantages, and with their ratio they made a conclusion about further development. Kenneth Andrews expanded the formula with two components - factors of influence from the outside and from the inside, turning the analysis of strengths and weaknesses into one of the popular models of business valuation. Due to the fact that SWOT-analysis in general does not contain economic categories, it began to be applied to any organizations, processes, individuals, to build strategies in various fields of activity (Vihansky, 1998).

S. Hanziuk considers SWOT-analysis as a qualitative method of modern foresight methodology (Ganzyuk, 2013), presenting the interpretation of the foresight as a process of systematic determination of new strategic directions of scientific and technological achievements, in the long run will be able to significantly influence the process of nationwide selection of priorities, during which consensus is reached between the various actors of the national innovation system and links are established between its elements (Martin, 1995).

M. Boyko considers SWOT-analysis as a technology of pedagogical management, which is based on the approach of simultaneous study of the external and internal environment of the educational institution. It can be used to establish the relationship between strengths and weaknesses, external threats and opportunities inherent in an educational institution (Boyko, 2018).

SWOT-analysis is a specific tool of strategic management, which does not contain comprehensive information for management decisions, but allows to streamline the process of its analysis using own opinions and assessments. SWOT-analysis allows to form a general list of strategies of higher education institution, taking into account its features - adaptation to the environment or impact on it (Ryabova, 2014). Widespread use and development of SWOT-analysis is explained by the fact that strategic management is associated with large amounts of information to be collected, processed, analyzed, compared, used, and therefore - there is a need to find, develop and apply methods of such work (Gumenyuk, 2017).

The purpose of the SWOT-analysis is to obtain reliable data on the possibilities of quality training of future heads of educational institutions and the threat of the environment in the process of promoting Mukachevo State University in the educational services market. In order to achieve this goal, the SWOT analysis faces the following tasks:

- identifying the strengths of the educational institution in the training of future heads and comparing them with market opportunities; identification of weaknesses of professional training and development of effective ways to overcome them;
- identification of potential opportunities to improve the quality of training of future heads of educational institutions; identification of threats and development of measures to neutralize or minimize their impact (Boyko, 2018);
- formulation of strategies to improve the quality of future managers training.

Carrying out a SWOT-analysis

In the context of this study, we conducted a SWOT-analysis of the system of training future heads of educational institutions under the educational program "Educational, Pedagogical Sciences" (specialization "Management of educational institutions") of the second (master's) level of higher...
education, which is implemented at Mukachevo State University. Its developers are: V.I. Kobal, T.I. Bondar, M.V. Shvardak. The standard of higher education in the specialty 011 – “Educational, pedagogical sciences” is currently not developed by the Ministry of Education and Science of Ukraine.

Experts of the National Agency for Quality Assurance in Higher Education in the process of accreditation of the educational program (external quality assurance procedure), external (employers, graduates, entrants) and internal stakeholders (employees, graduates of Mukachevo State University) were involved in the expert analysis of factors influencing the quality of training future heads of educational institutions. Based on the results of the accreditation examination mentioned in the above-mentioned educational program (EP), the experts monitored the quality of education and provided recommendations for its improvement.

The study of stakeholders' proposals to improve the quality of higher education at the university was also carried out through online questionnaires (Gogle Forms), offline and online round tables, webinars, meetups, forums and through a “trust box”. Reporting on the results of the survey of applicants for higher education to ensure the quality of educational activities and the quality of education was conducted at the Rectorate and the Academic Council of Mukachevo State University.

The obtained results of external and internal monitoring, which were conducted in 2019-2020, became the basis for the reliable SWOT-analysis.

We implemented the SWOT-analysis technology in several stages:

(I) Identification of strengths and weaknesses of the system of training future heads of educational institutions according to the master’s educational program (analysis of the internal environment).

(II) Identification of opportunities and threats (environmental analysis). This is a kind of “reconnaissance” - an assessment of the educational services market. This stage allows to assess the situation outside the higher education institution and understand what opportunities Mukachevo State University has, as well as what threats should be expected.

(III) Comparison of strengths and weaknesses of the Higher Education Institution with the opportunities and threats of the educational services market, strategy design (Boyko, 2018). Note that at this stage, opportunities and threats may change: an unused opportunity may become a threat if a competitor takes advantage of it, and a timely threat can become an opportunity for an institution if competitors fail to eliminate it. (Makhinya, 2015).

This is the most important stage in developing an effective strategy that provides a realistic assessment of one’s own resources and capabilities in relation to the state and needs of the external environment in which the institution of higher education operates. Based on this analysis, there is a rational choice of strategies from a possible set of options. Work on the strategy begins with a comprehensive study of the market situation in which the educational institution operates. One of the tools of regular strategic management is a matrix of qualitative strategic analysis, or a matrix of SWOT-analysis. Accordingly, summarizing the results of expert evaluation, we have developed a SWOT matrix, through which we can trace the ratio of external and internal environmental factors, which are interpreted in the categories of SWOT-analysis.

The matrix of SWOT-analysis is a kind of design of SWOT-strategies, which does not contain crucial data for management decisions, but allows to streamline the process of considering all available information using one’s own judgments and assessments; requires thinking about the situation and thinking about the future. Under these conditions, the role of the head-strategist, who develops certain measures to build a strategic balance, increases, as it is possible to develop inadequate measures that “quench” opportunities, taking them as threats (Shershneva, 2004).

The design of SWOT-strategies is implemented on the basis of an extended SWOT-matrix of four groups of strategies, each of which uses a certain paired combination of factors of internal and external environments:

- SO (strength-opportunities) strategies – require strategies to support and develop the strengths of the professional training system in the direction of realizing the potential of the external environment;
- ST (strength-threat) strategies – anticipation of strategies for using the strengths of the professional training system to mitigate (eliminate) threats;
- WO (weaknesses-opportunities) strategies – development of strategies to overcome the weaknesses of the professional training system due to the opportunities provided by the external environment;
- WT (weaknesses-threat) strategies – involve the development of such strategies that would allow institution of higher education not only to strengthen its potential, but also to avert possible threats in the external environment.

The factors that make up the SWOT matrix are necessarily checked for the presence of a synergy effect, as a result of which they can be strengthened or weakened.
The list of strengths and weaknesses, opportunities and threats, as well as their combinations (strategic directions for improving the quality of education in the context of institution of higher education) are presented in Table 1.

By filling in the SWOT matrix, it is possible to see the result: the main ways of quality professional training have been identified, the main problems of this system have been formulated, which are subject to the fastest solution for the competitiveness of this educational service.

**Table 1. SWOT-matrix**

<table>
<thead>
<tr>
<th>INTERNAL ENVIRONMENT</th>
<th>EXTERNAL ENVIRONMENT</th>
<th>STRENGTHS (S)</th>
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<tbody>
<tr>
<td>(I) Career guidance work using PR-technologies, digital marketing</td>
<td>(I) High competition in the educational services market of Ukraine and from European educational institutions</td>
<td>(I) Full use of the licensed volume</td>
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<td>(II) Updating the content of the educational program, expanding the forms of education, taking into account the results of non-formal education</td>
<td>(II) Adverse demographic situation, migration processes</td>
<td><strong>SO- STRATEGIES</strong></td>
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<td>(III) Realization of the right of applicants for higher education to select disciplines</td>
<td>(III) Insufficient funding of higher education institutions by the state, instability of state policy in the field of higher education</td>
<td>Populatization of the experience of Mukachevo State University on professional development of future specialists and development of teaching skills. Mastering</td>
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<tr>
<td>(IV) Qualitative composition of scientific and pedagogical workers</td>
<td>(IV) The impact of the economic crisis on the purchasing power of consumers of educational services</td>
<td>Conducting preparatory / compensation courses to prepare entrants for entrance examinations, including in a foreign language (I, II)</td>
</tr>
<tr>
<td>(V) Practically oriented training of the future manager</td>
<td>(V) Changes in basic values and lifestyles (declining demand for educational services)</td>
<td></td>
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<tr>
<td>(VI) Ensuring the quality of higher education</td>
<td>(VI) Inability to apply theory in practice</td>
<td></td>
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<tr>
<td>(VII) Formation of a modern educational environment, the use of modern educational technologies</td>
<td>(VII) Crisis phenomena in society (military aggression, pandemic, global environmental crises)</td>
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<tr>
<td>(VIII) Employers’ participation in seminars, conferences, trainings, management practice, review and defense of master’s theses</td>
<td>(VIII) Lack of qualified personnel</td>
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<tr>
<td>(IX) Development of full-fledged electronic multimedia courses in academic disciplines</td>
<td>(IX) Changes in consumer demand</td>
<td></td>
</tr>
<tr>
<td>(X) Participation of students and research and teaching staff in grant programs and projects, in economic contract research topics</td>
<td>(X) Imbalance of supply and demand in the labor market</td>
<td></td>
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<tr>
<td>(2) The educational program is accredited by National Agency for Quality Assurance in Higher Education</td>
<td>Digital Marketing (I)</td>
<td>Systematic updating of the curriculum content: introduction of relevant disciplines for today: &quot;Foreign communication of teachers in a multicultural environment&quot;, &quot;Information-digital technologies&quot;, &quot;Organization of inclusive education&quot;, &quot;Technologies of pedagogical management&quot; (II)</td>
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<tr>
<td>(3) Formation by the applicant of an individual educational trajectory</td>
<td>Presentation of the content of elective disciplines to students (III)</td>
<td>Provision of retraining services (IX)</td>
</tr>
<tr>
<td>(4) High level of professional development and teaching skills of research and teaching staff involved in the program</td>
<td>Involvement of leading specialists and employers in the educational process (IV)</td>
<td>Development promotion practice of teaching skills (bonuses, awarding letters of various levels) (VIII)</td>
</tr>
<tr>
<td>(5) Practical orientation of the educational program on the applicant for higher education</td>
<td>Strengthening a practice-oriented orientation in the process of forming professional competencies of future managers. Studying the foreign experience of similar programs in order to take into account the best practices (V)</td>
<td>Monitoring of the general level of professional training of MSU graduates (VI)</td>
</tr>
<tr>
<td>(6) Planned and purposeful work of the university to create a system of internal quality assurance of educational activities and higher education</td>
<td>Implementation of the information systems “Student Rating”, “Rating of a scientific and pedagogical worker” and the “Anti-plagiarism” system for master's theses (VI)</td>
<td>Establishment of the highest passing score upon admission to the IHE in order to improve the quality of graduate training; implementation of the system and mechanisms for ensuring academic virtue; formation on the university's website of the information block “Education Quality” (I)</td>
</tr>
<tr>
<td>(7) The presence of an electronic learning platform, a modern electronic library at the university</td>
<td>Active use and replenishment of the Moodle learning modular environment, development of the digital depository of the MSU library (VII, IX)</td>
<td>Formation of electronic multimedia educational content, which will allow to smoothly implement the educational process in force majeure circumstances (VII)</td>
</tr>
<tr>
<td>(8) Effective and efficient cooperation with employers, taking into account the regional context</td>
<td>Formation of the information block &quot;For Employers&quot; on the university website; attracting practice leaders from bases of managerial practice as reviewers of master's theses (VIII)</td>
<td>Monitoring of the educational labor market; the possibility of providing professional development services due to the extensive experience of pedagogical and practical activities of teachers (X)</td>
</tr>
<tr>
<td>(9) Cooperation with European universities, academic mobility program</td>
<td>Active participation in international projects, programs, grants; concluding agreements with foreign institutions of higher education and, as a result, strengthening integration into international systems of quality</td>
<td>Further integration of MSU into the international educational and scientific community (I, III)</td>
</tr>
<tr>
<td>WEAKNESSES (W)</td>
<td>WO- STRATEGIES</td>
<td>WT- STRATEGIES</td>
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<tr>
<td>(1) Low university rating</td>
<td>Increasing the number of highly qualified scientific personnel, expanding the presence of scientific publications in world scientific and metric databases (X)</td>
<td>Active work on employment of graduates; raising the level of scientific activity and international recognition (I, III)</td>
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<tr>
<td>(2) Insufficient material and technical base and social infrastructure to provide fundamental scientific, professional and practical training of students</td>
<td>Improvement of material and technical base (VII)</td>
<td>Modernization and opening of specialized laboratories, computer classes; improving living conditions in dormitories (III)</td>
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<tr>
<td>(3) Low motivation of students to study and research</td>
<td>Use of technologies of activation and intensification of activity of students (VII)</td>
<td>Reduction of the theoretical part of disciplines and strengthening of practice-oriented; active involvement of students in conferences, seminars, trainings, etc. (IV, V)</td>
</tr>
<tr>
<td>(4) Insufficient formation of soft skills</td>
<td>Application of teaching methods focused on the formation of communicative abilities, leadership skills, ability to work in a team, flexibility, mobility, stress resistance, etc. (VII, IX)</td>
<td>Creation of joint projects and, as a result, development not only of hard skills (professional skills), but also superprofessional (soft skills) that will give the chance of retraining to the graduate of EP (V, VI)</td>
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<tr>
<td>(5) Lack of teaching in a foreign language</td>
<td>Introduction to the curriculum of the discipline &quot;Foreign language communication of teachers in a multicultural environment&quot; (the first stage of overcoming the shortcoming); partial teaching of subjects in a foreign language to ensure the mobility and competitiveness of graduates (I, II, VI)</td>
<td>Launch of an exchange program with other countries, by improving the knowledge of foreign languages among students (I, II, VIII, X)</td>
</tr>
<tr>
<td>(6) A mechanism for recognizing learning outcomes obtained in non-formal education has not been developed</td>
<td>Development of a mechanism for taking into account distance learning courses (II, VII)</td>
<td>Development of a mechanism for recognition of learning outcomes obtained in non-formal education (I, VI, VII, IX)</td>
</tr>
<tr>
<td>(7) Higher education applicants are not trained in a dual form</td>
<td>Development of a mechanism for the implementation of the dual form of education; studying the issue of organizing branches of the graduating department of MSU on the basis of town institutions in order to start training higher education applicants in postgraduate education in the dual form of</td>
<td>Implementation of the dual form of education for the purchasing power of the consumer of educational services; the possibility of distance learning without excessive separation from practical activities (III, IV, VIII, IX, X)</td>
</tr>
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</table>
CONCLUSIONS

Carrying out a SWOT-analysis is important for the implementation of strategic planning, as it is an effective, affordable tool for assessing the state of the problem and the management situation in higher education. It gives the chance: to systematize problem moments; better understand the structure of resources that need to be focused on improving the activities and development of the institution in the future; monitor the general condition of the external and internal environment; identify and exploit new potential faster than competitors; choose the optimal path of development and avoid threats; make informed and well-thought-out decisions on the implementation of educational processes. The main advantages of SWOT-analysis are: simplicity and the possibility of involving a wide range of external and internal stakeholders in the discussion of the researched problems; systematization of data on internal and external factors that affect the process of strategic management and formation of strategic priorities; periodic diagnostics of the market and resources of the educational institution. The disadvantages that need to be considered are: a certain subjectivity in the selection and ranking of external and internal environmental factors; inability to take into account all the strengths and weaknesses, opportunities and threats (Boyko, 2018).

The SWOT-analysis of the system of professional training of future educational institutions heads, which is implemented at Mukachevo State University, made it possible to systematize information about internal and external factors that affect the quality of the educational process. Its results allowed to determine the competitive advantages of professional training, form strategic priorities (ways) and get a clear algorithm of actions, in particular: periodically review educational programs, permanently monitor the market of educational services and resources of Mukachevo State University, systematically take measures to ensure quality educational services under the master’s educational program “Educational pedagogical sciences: Management of educational institutions”.

At the same time, the analysis of the research results showed that the management of the quality of training of the future educational institution head depends on setting standards, updating educational programs, highly qualified staff, quality organization of the educational process and effective management.

Thus, the achievements of the study are:
1) the proposed improvement of the SWOT-analysis technology to determine the competitiveness of the educational institution on the basis of cyclical use;
2) taking into account during the SWOT-analysis of recurring and non-repeating factors of the internal and external environment of the higher education institution;
3) practical significance on the example of application of the SWOT-analysis matrix method scheme to improve the quality of professional training at Mukachevo State University. These proposals can be used as a basis for further research on the analysis of the higher education institution activity and the definition of strategic prospects for its development.

According to the results of the SWOT-analysis, it has been proved that it is important for the implementation of strategic planning of higher education institution activity.

Further research on the professional training of future heads of educational institutions at Mukachevo State University requires SNW and PEST analysis. Its results will allow to systematically and comprehensively develop a strategy for the development of the university and make effective management decisions in the process of training a competitive specialist.

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