ASSESTMNETS OF MANAGERAL AND ENTREPRENERIAL COMPETENCES FOR BACHEORS AND MASTERS OF ECONOMIC UNIVERSITIES

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Abstract. The proposed paper describes the theoretical and practical aspects of implementing the certification of managerial and economic competences using business simulation ViAL +. Certificate.

Keywords: business simulation, ViAL+.Certificate, skills, education, certificate, competence, assessment

I.   Introduction. In many Ukrainian methodological, scientific and scientific-pedagogical works, articles, and recommendations, the main direction of reforming the training process of a specialist was outlined based on a competent approach. An important element of the current educational reform is the formation of new standards with a clear list of specialist competencies. We must prepare specialist who is ready to carry out the tasks of practical activity. Success is possible only in combination of efforts of the student, educational institution, employers and government. In generally, there aren't this situation in post-soviet countries, such as Ukraine.

The main means of diagnostics are objective test methods (exams) and qualification project (bachelors or masters work) [1; 2]. However, as our opinion, based on the practical experience of training specialists in higher education institutions, the final state examination and qualification work cannot fully demonstrate the degree of possession of all competences.

Considering the above, we note the problem of the development and implementation of diagnostic tools for students of the actual level of possession of each individual competence defined in the standards.

And we prepare to show practical method of diagnostic of competences for bachelors and masters. And this instrument can use not only in Ukraine, but other post-socialist and other market-oriented countries.

II. General description of diagnostic method of economic and managerial competences. For diagnostic of practical economic and managerial skills, we use training technologies. Such technologies include business simulations and business games. These technologies envisage training and preparation of a student for making decisions in conditions that are as close as possible to the real ones. But also, technologies can be used as a tool for assessing the knowledge and skills acquired (competences) of a future specialist. The business simulation ViAL+ [3] is such technologies. ViAL+ recreates the competition economic environment that is as close to reality as possible. Parameters of this simulation make it suitable for solving the problem of diagnosing the actual level of possession of students by each individual competence.

This is achieved by the fact that each participant in the business simulation environment ViAL + gets in control of his own company with a certain starting capital for its further development. During the training period, the student decides regarding:

 − production management;
 − marketing and sales management;
 − sales management;
 − management of personnel (HR);
 − financial management;
 − accounting activities.

Thus, for a certain period, a student can demonstrate his skills and skills in solving issues that will arise in the management of the company in the conditions of intense "live" competition. Based on the main version of the business simulation ViAL+ was created modified version of the ViAL+ ─ ViAL+.Certificate. This version includes a mechanism for assessing the level of competence for student-bachelor or student-master during the management of the training company.

The Mechanism of Evaluation of Level Competence (MELC) consists of an appropriate system of indicators and evaluation criteria, algorithms, and the testing process. Definition of the system of indicators of competence assessment is based on: analytical, planning, organizational, control and information group of competences

The assessment of the competence level is based on two main algorithms:

1. Based on the general indicator of the rating and / or its individual parts, which reflect the necessary specificity of the student's skills;

2. Performance of a special task at the beginning and/or during the testing in the business simulation ViAL+.

The first algorithm use rating of participants in the simulation environment, which takes place using the system of general score assessment. It consists of 13 indicators, grouped into 4 content groups:

1) indicators of the general state of the company - profit, market share, productivity, profitability of the enterprise;

2) financial state indicators - net cash flow, together with current deposit amount, current liquidity ratio (rapid liquidity ratio), total liquidity ratio (coverage ratio), asset value;

3) indicators of marketing and external actions - the amount of contracts, assortment;

4) indicators of the state of the internal environment - the load of equipment, the efficiency of the use of retail space, the efficiency of the use of raw materials.

Rating indicators are calculated in three stages:

1. Ranking between companies for each indicator separately. The best score gets the maximum score (equal to the number of companies), and 0 points is obtained by the company with the lowest score or with a value that is beyond the permissible limit.

2. The rank score for each company is multiplied by the weight of the indicator.

3. At the end of the calculation, the sum of the results of the rank of points with their weights and the formation of the final score in the balls takes place.

Special tasks and relevant evaluation criteria have been developed during 2015 year for implementation the second MELC algorithm. Special tasks are the form of tables, open and closed testsю They propose to make economic analysis (planned, current and final) in the following areas: analytical, informational, marketing, production, marketing, financial. Quality of performance each task makes possible to determine possibility by student using tools for analysing, planning, organizing and controlling of company. The evaluation is based on the results of the last training period, which lasted at least 25 rounds (6 years of the company's activity) in the simulation of ViAL +.

The main stages of diagnostic of economic and managerial competences are:

1) registration of the participant in the business simulation environment ViAL+.Certificate and provision to the company with 10 million start-up capitals in the virtual environment of business simulation ViAL +;

2) the passing of the educational stage with the interface and specificity of decision making in the business simulation ViAL +. However, it is recommended that the test participant be familiarized with the program before and during the entire period of decision-making;

3) planning of activities and making the first decisions on building the company's potential. Making of the first MELC's tasks for assessing the current state of the company's environment, setting the tactical and strategic goals of the company's development in the target tree format;

4) adoption of current decisions on expansion of the company's activity and realization of the set goals. Making of MELC's intermediate tasks in relation to the assessment of the current state of the company, its competitors, as well as for the formation of the necessary information base and resources for the company's activity and obtaining tactical advantage;

5) adoption of the latest decisions on company management, fulfilment of all the final tasks of MELC and self-assessment of the company's performance;

6) summing up the results of the test.

III. Example of assessments of competence "controlling of using resources". For understanding of diagnostic method of economic and managerial competences will be shown an assessment of the level of competence "Controlling of using resources". According to this skill, student must to know how to plan and use material and intellectual resources of during operative, tactical and strategy period of function of company.

The participant in the simulation ViAL+ can manage two types of resources:

− raw materials: normalized milk (for all types of products) and leaven (for dairy products);

− shops for the sale of final products.

To assess the competence of "Controlling of using resources" is not offered special tasks. The interface of business simulation ViAL+ provides special forms for raw material production (Fig. 1), the purchase of raw materials from a competitor (Fig. 2), as well as for the construction of own stores and the leasing of shop (Fig. 3). Also, the participant is available statistics on the use of raw materials and retail space for rapid adjustment of decisions.
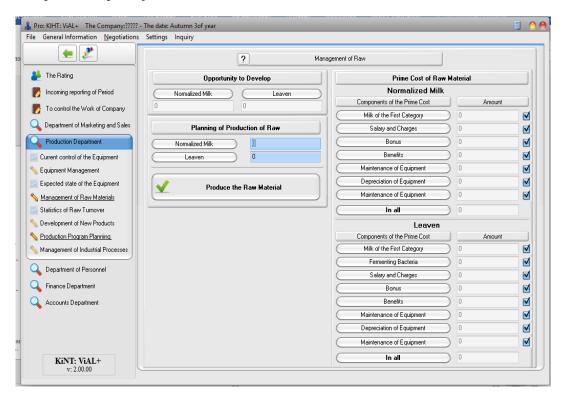

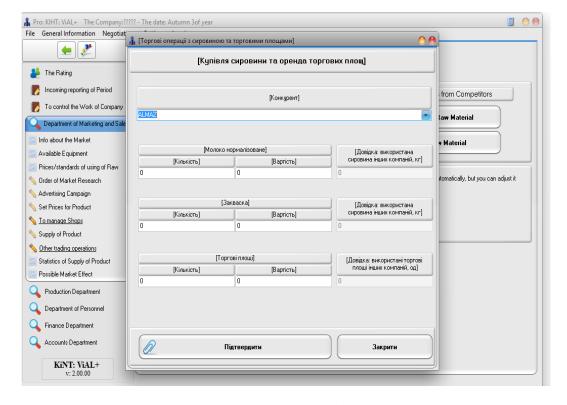*Fig. 1. Form of ViAL+ for production of raw material*

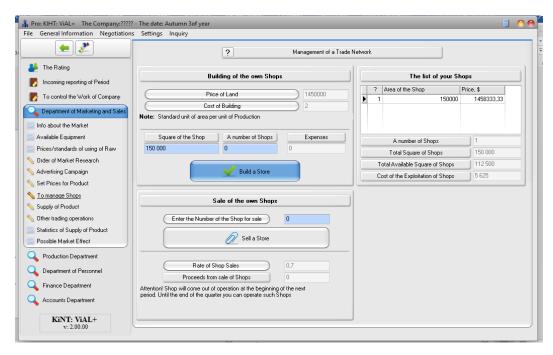*Fig. 2. Form of ViAL+ for sale/purchase of raw material*

Fig. 3. Form of ViAL+ for building shop

An analysis of the use of enterprise resources in the business simulation ViAL + can take place in two directions:

1) determination of the volume of own production of raw materials to fully use it in the further production process. Since the raw material remains in the next round, they become direct losses to the enterprise;

2) determination of the volume of procurement of raw materials to competitors in the market (real participants) for further use in the production process. Excess supply of raw materials leads to losses in activity, since the raw material is available only at the current round.

Similarly, there is an analysis of the use of own or leased competitors' shopping areas. In case of own trading space, the participant pays for each period a permanent fee for their service. If there is an agreement on the lease of retail space from a competitor, he pays him an appropriate rent. Accordingly, if the own or leased area is not fully using, then it leads to implicit losses in the profitability of a unit of finished product due to an increase in sales costs per unit of output.

To assess the level of ownership of the competency under consideration, the following steps are taken:

1. Keeping the results of the rating of the participants (indicators: efficiency of the use of raw materials, efficiency of use of shops) after each round of decision-making;

2. Finding the total amount of points received separately for each indicator of the efficiency of the use of raw materials and the efficiency of the use of retail space;

3. Finding the maximum score that could be obtained by the participant during the evaluation period, if there are own or purchased / leased resources from competitors. For this:

3.1. we find the number of periods when the value of each of the indicators of the rating (efficiency of the use of raw materials, the efficiency of use of retail space) was non-zero;

3.2. we find the product of values: the number of periods when there was a nonzero value; Weight of the indicator; Number of participating teams.

4. We find the percentage of achieving the ideal value by dividing the actual amount of points separately for each indicator for its ideal value.

For this indicator of evaluation, the following criteria were proposed for deviation (Table I)

Table 1. Criteria of deviation from the actual ideal efficiency for indicators of diagnostic competence "controlling of using resources"

Indicator	Value of criterion for the estimation range			
	100	60	15	1
Deviation from the actual ideal efficiency of raw material use	0.95	0.5	0.15	0.01
Deviation from the actual effective use of commercial space	0.95	0.5	0.15	0.01

This rating allows to show the student's ability to manage the company in dynamics and eventually. Each indicator makes it possible to compare the ability to make decisions and implement them in the life of each student.

The overall score for each competency is expressed as a percentage, which shows the actual achieved level of ownership. In this case, the participant must be able to demonstrate the minimum required level of skills for managing the company for a positive evaluation. Accordingly, the following assessment boundaries are proposed:

1. Poorly – 0 % -59.99 % - the test participant has not reached the basic level.

2. Basic / satisfactory level – 60 % -69.99 % - achievement by the participant of the basic level is 60% from the reference level or more up to 69.99 %.

3. Normal level of practical skills and abilities – 70 % - 89,99 % - the participant has achieved certain results within the framework of this ability: the average place in the rating or task execution is 70-89.99 % of the required.

4. Excellent level - 90-100 % - the participant achieved high results from this skill and skill, took highly effective decisions and fully performed tasks that corresponded to the actual value now and / or actual values in the future, if the forecast was made and conducted analytics. All tasks are fulfilled

V. Conclusions. But, Thus, thanks to the development of modern information technologies, the possibility of an objective assessment of the level of competence of each student is formed. This is ensured by creating a situation that is as close as possible to the reality in which the student makes managerial decisions.

The proposed MELC mechanism opens the possibility of an objective quantification of the student's level of competence and reflects it in the appendix to the European standard diploma.

This allows us to formulate common approaches to the assessment of graduate skills and abilities for employers (businesses), government agencies, universities and all other stakeholders.

In the process of implementing the MELC project, consideration should be given to possible difficulties in:

− drawing up a specific list of specialist skills that can be diagnosed with the help of business simulation ViAL +;

− the formation and allocation of specific tasks that will help to identify the possession of one single competence, since each of them is in close relationship with others, and this or that solution can show both one skill and a few skills and abilities;

− determination of indicators and criteria for assessing the level of ownership of one or other competencies;

− outlining the "reference" criterion value for the assessment of skills and abilities;

− establishing limits for the minimum necessary, normal and excellent levels of possession of the necessary competencies.

In addition, it is important to exclude the dual interpretation of the value of a task. Each student's task must be as clear and easy as possible.

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