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OPEN AND DUAL EDUCATION FOR SUSTAINABLE NATIONAL DEVELOPMENT

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The changing world puts forward radically new requirements for the content of education, which should be based on fundamental values and knowledge. The development of the modern education system in the current conditions, as the world practice shows, can be successfully secured by implementing the principles of open education, such as [1]:

- open study, i.e. the freedom to create an individual study programme by choosing from a system of subjects;
- freedom to choose where to study: students can be physically absent from the classroom for most of the time studying and can choose where to study;
- moving from 'education for life' to 'education through life';
- development of individuality, which is fundamental.

The need to reduce the gap between the specific (professional) competences of graduates of educational institutions and the professional competence requirements of specialists in the labour market has made the introduction of a dual form of education urgent.

However, “at this stage of its development, dual education is no longer limited to cooperation between educational institutions and enterprises, but is based on complex network links between a wide range of stakeholders. The emergence, effectiveness and success of dual education in different national contexts depend on a number of factors - historical, cultural, social and economic. It is therefore necessary to look at dual education through the prism of process, project and system approaches” [2].

Projects and programmes always involve change. They create value for stakeholders and have an end result in the form of a new (innovative) product or service. Let us define innovation as a process of change characterised by the creation of measurable value.

To implement a systematic model for managing the integration of projects in dual education (DE) development portfolios, the first step is to identify the stakeholders involved and assess their values. The main types of stakeholders for

dual education projects are the state, business structures, regional employers, educational institutions, and students [3]. Each stakeholder has their own values related to their expectations for project outcomes.

The sustainability measurement system requires a quantitative indicator that reflects the economic and social development of educational projects. The chosen measure of value is the level of value.

To comprehensively assess the value of dual education projects, one must consider the following specific components: the graduate employment rate in the specialty; the degree of compliance with the development of priority industries in the region and country; the number of employers involved in the training of dual education students; the degree of meeting the future needs of employers in the competencies of employees in demand; the degree of compliance of the DE project with the development strategy of the educational institution, and the qualitative state of competencies of the project product.

To comprehensively assess the value of a $Q_{project}$, both quantitative and qualitative factors are considered. Fuzzy descriptions of these factors are proposed to determine the project's value level. Aggregate the data collected within the hierarchy of manifestation factors, taking into account the weighting coefficients (ω_{1i}) of the value indicators at the first level of the hierarchy:

$$\mu_{Q_{projekt}}(x) = \sum_{i=1}^4 \mu_i(x) \times \omega_{1i}, \quad (1)$$

The project value level $Q_{project}$'s membership function and linguistic interpretation were obtained as a result. The level of project value can be determined by comparing linguistic variables using membership functions with a standard classifier consisting of 5 levels on a scale of 0-1.

Conclusion. The proposal suggests using the value level of projects in $Q_{project}$ development portfolios as an indicator in the system for measuring the sustainability of educational projects. This will be based on four indicators: Q_{gov} , Q_{bus} , Q_{univ} , and Q_{stud} . These indicators represent the project's value for the state, business structures and employers of the region, educational institutions, and students, respectively. The value level is formed by aggregating manifestation factors in a multi-level hierarchy model, considering the defined system of the ratio of project value indicators and their components (1).

References

1. Research Universities: World Experience and Prospects for Development in Ukraine: a monograph / edited by Doctor of Economics, Professor A. Pavlenko and Doctor of Economics, Professor L. Antoniuk. Kyiv: KNEU, 2014. P. 350.
2. Davlikanova O., Hofstetter H. The «Duales Studium» Adaptation as an Innovation in Ukrainian Tertiary Education: Management Aspects and Results. Marketing and Management of Innovations. 2020. №3. P. 208221.
3. Kozyr S.V., Molokanova V.M. System analysis of project integration management in dual education development portfolios. Information Technology: Computer Science, Software Engineering and Cyber Security. 2023. 1, P. 4049, doi: 10.32782/IT/2023-1-6.