

## SESIUNE PLENARĂ

CZU:378

### THE UNIVERSITY BETWEEN ADAPTATION TO CHANGE AND INNOVATION: PRACTICAL ISSUES

**Viorelia Lungu** Dr. Associate Professor, Technical University of  
Moldova, Chișinău [viorelia.lungu@ssu.utm.md](mailto:viorelia.lungu@ssu.utm.md)

**Summary:** The University of the Republic of Moldova being determined by the accelerated pace of change, globalization and competitiveness, social crises, needs to direct its actions for change, innovation, to prepare young specialists to cope with labor market requirements.

In order to determine the level of adaptation to change and innovation, a questionnaire was applied to managers within the university. As a result, it has been found that universities are in a situation of different planning scenarios for the future and, the proposed reforms focus only on some issues of universities that choose more to adapt to the situation than to change it.

**Key words:** change, innovation, future.

#### **Introduction**

In order to change and develop science and culture, technology and methods, economics, politics and human spirituality, it is necessary to change and develop in a flat way the consciousness and behavior of the personality. [8, p.158]

The formation of a personality with a spirit of initiative, capable of self-development, which possesses not only a system of knowledge and skills necessary for employment on the labor market, but also independence of opinion and action, is provided in the Education Code of the Republic of Moldova. [2] This ideal is put into practice through university education policies.

Higher education institutions have key functions in the process of transmitting, producing and transferring knowledge within a „knowledge-based society generates profound transformations fostering social and economic development to the point where this factor becomes the key element in producing added value, but also the overall prosperity of both internal and national economies”. [9, p.96].

It is proved that higher education institutions have key functions in the process of transmitting, producing and transferring knowledge based on innovations and performance programs that requires a new inter-relational system, different from the current one.

*The development of technology and information* occupies an increasingly important place in education, especially during the COVID-19 pandemic, where the need for high-performance and constantly adapted computer systems of technological dynamics, is increasingly evident and online learning is more

applied [15]. And, social developments have shown that the main characteristics of the knowledge society are related to: the expansion and deepening of scientific knowledge, the management and use of knowledge in the form of technological and organizational knowledge, the production of new technological knowledge through innovation, the emergence of a new economy. The process of innovation becomes decisive, the dissemination of knowledge to all citizens through new means, the shaping of the global community, the production of a cultural revolution based on knowledge, the need for ecological sustainability through rapid technological adaptations [11].

Out of this we see that knowledge, innovation and market demands are factors that contribute to change. And, "unlocking unrealized value can have a profound impact on markets, the world and the people who walk through these doors." [14].

Society is marked by various transformations that involve great changes both individually and socially. The latter, "are related to the reform of education, the future evolution of human society that requires changes in professional activity." [7, p.76]

The emerging understanding that change is unpredictable and sometimes chaotic places limitations on any planned change pattern. And identifying the relationship between planning, change, and innovation can help reduce this problem.

Most countries are trying to gain a competitive advantage in the field of knowledge and innovation, which is necessary for growth and employment. For this aim, they carry out reforms based on the need to develop an integrated vision and strategy for research, development and innovation policies and specific actions; establishing research and development priorities and identifying a balance in the use of available resources; involvement of all social actors in the formulation and implementation of science policies, etc. [4 ]

At the same time, the future of universities in the Republic of Moldova is uncertain, they are faced with various challenges (insufficiency of students, insufficiency of young specialists with scientific degrees, funding, etc.). In order to meet these challenges, universities face the need to adapt to a series of profound changes, namely they must prepare students with tools to help them, to build their own future. [1, p.97]

In order to determine the challenges of the universities and the ways of preparing them for the future, the Questionnaire was applied: *Assessing the level of adaptation to change and innovation of the higher education institution* to 62 people with managerial positions within the university.

From the data analysis, we present the results of the most important answers. For example, the question: what are the challenges does your institution face? the answers were summarized:

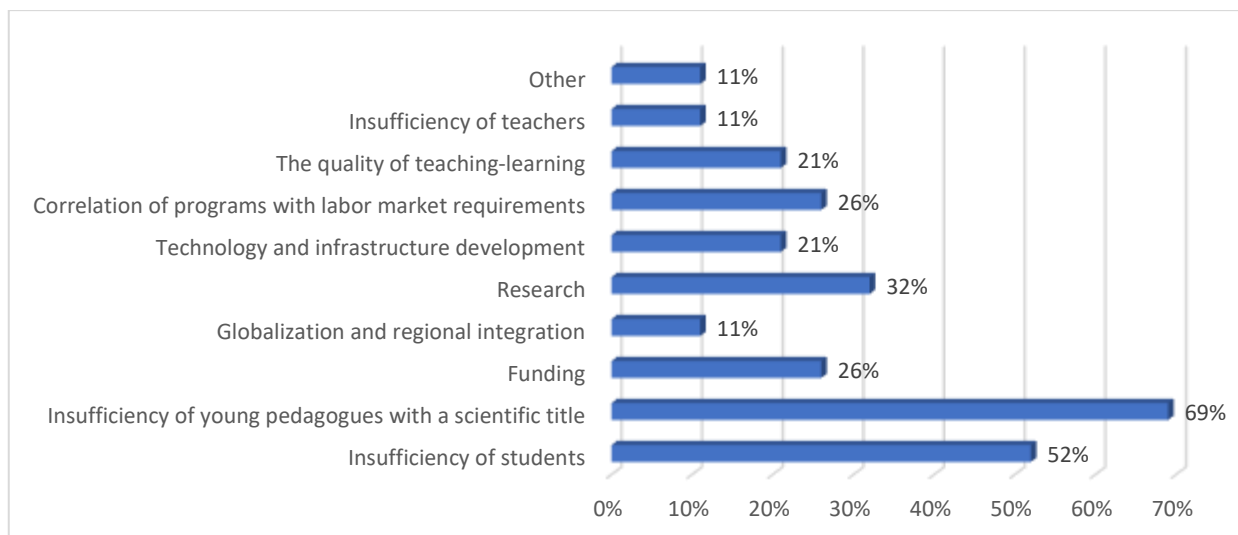


Figure 1. Frequency of challenges universities face in the Republic of Moldova

The figure above shows that most universities have difficulties in the insufficiency of young and scientific teachers 69%, followed by the insufficiency of students - 52%.

As actions to overcome the identified challenges, the university managers were proposed: increasing the attractiveness of the scientific-didactic functions - 11%; focusing on quality; projects - 10%; continuous training, systemic solutions, analysis of what other countries do - 5%.

In essence, the proposed solutions highlight a narrow view, or too few respondents see viable solutions in terms of reducing the challenges universities face.

In order to determine what types of innovations universities focus on, the question was: Does your institution focus on innovations? With the presentation of the various answer options to select the ones that focus on the university. From the data analysis we present the results in the figure below:

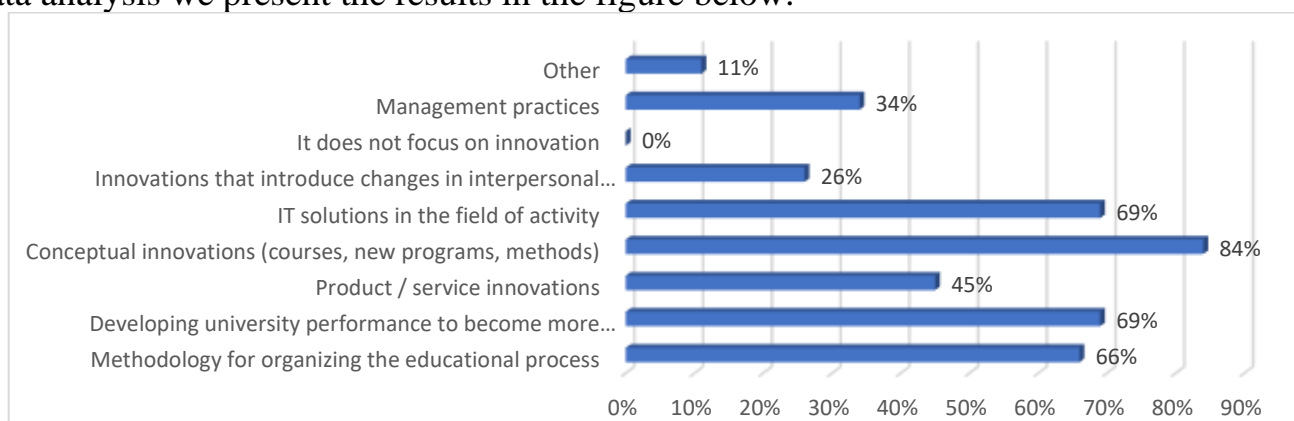


Figure 2. Frequency of the types of innovations that universities focus on

We notice that the respondents mostly support - 84% of the universities in the Republic of Moldova focus on conceptual innovations, they refer to new educational programs, new courses / modules and new teaching methods. Another

type of innovation is focused on developing university performance to become more competitive and IT solutions in the fields of activity - 69% per variable.

The next question was what is the vision of managers regarding the future of the institution, as a result about 60% of respondents opt for differentiated and forward-looking vision and 40% opt for ordinary and reactive vision.

The interest is presented by the selected response of 84% of respondents stating that the administration is concerned with restructuring key processes, and 16% focused on restoring key processes.

The answer to this question confirms that most understand that in order to be competitive in the market it is necessary to make restructurings in key university processes (education, research, internal / external communication), [12, p.21] but are not sure why must the actions be taken.

Also interest is in the answer to the item: is the plan of the institution / faculty / department built on the basis of ...? Most respondents opted for: labor market requirements - 74%, anticipatory and innovative visions - 45% and only 27% are interested in students.

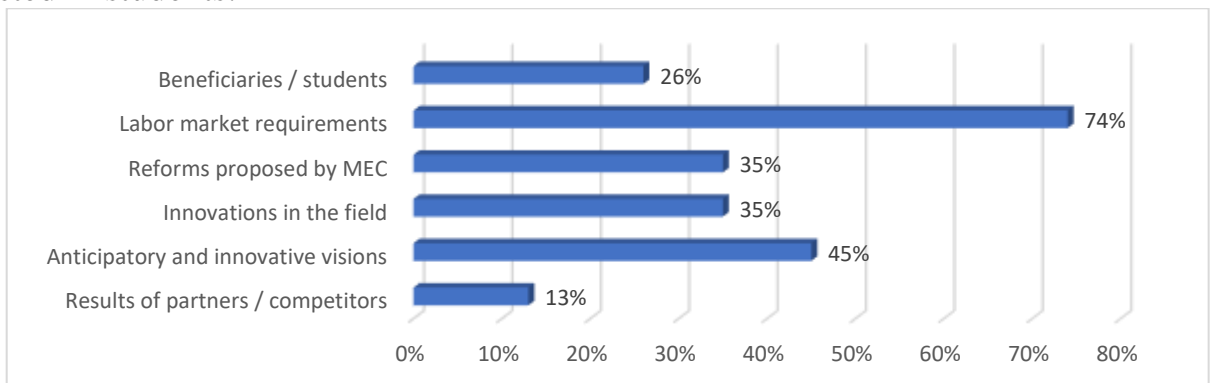


Figure 3. Focusing the institution / faculty / department's plan on priorities

We notice a discrepancy between figure 1 where the insufficiency of students -52% is highlighted as a problem, and in the development plan of the university / faculty / department in figure 3 only 26% identify the need to focus on students, which confirms their escape in this regard.

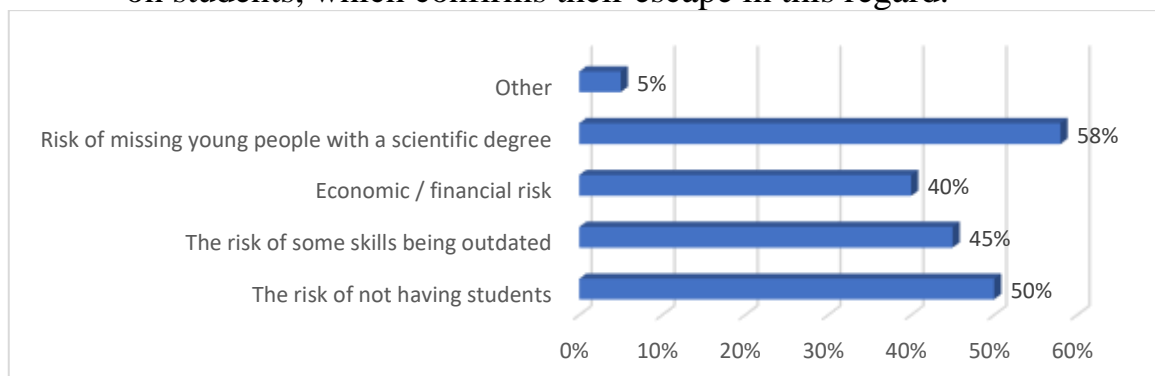


Figure 4. Frequency of risks to higher education institutions

The analysis of the results shows a tendency of the respondents to identify the risk of lack of young specialists with a scientific title - 58%, followed by the

risk of not having students - 50%. We note that 45% identify the presence of the risk that some skills / specialties will be exceeded.

We would like to mention that despite these risks, 55% of the subjects opt for the form of achieving innovations through changes in the conception of the organizational system, and as innovations proposed in the last 3 years were highlighted: ICT teaching methods - 11%; new programs, courses, skills - 21%; interdisciplinary projects - 5%.

Many respondents did not answer to this item, which shows that some managers know less about the types of educational innovations. At the same time, they propose as reforms: salary increase - 5%; curriculum reform - 11%; improving the psychological climate in the institution - 5%; increasing the number of practical hours - 14.5% of respondents.

We consider the proposed reforms to focus only on some issues of universities that choose more to adapt to the situation than to change it, where the future of higher education in Moldova is bleak, and as a development plan for the next 5 years focuses on: modernizing teaching, infrastructure, - 5%; cooperation / collaboration - 14.5%; internationalization of academic activities - 9.6%; modernization of study plans, new plans - 19%; research promotion - 9.6%; digital skills, prospective skills - 9.6%; research projects - 9.6%.

In order to determine if the respondents understand the meaning of prospective competencies, the question has been asked how are these achieved in your institution? What aroused interest was that the majority of respondents answered 67% - professional skills (TUM) and personalities open to innovation and change - 50% (UST), noted that of all universities surveyed 22.5% of respondents said that the university trains prospective personalities by focusing on skills required on the labor market, to cope with changes in the field, critical thinking and ensuring the concordance between research-innovation-education-technology transfer, holistic development, etc.

These responses reveal a number of issues to overcome, although a less secure plan for mitigating crises / challenges is proposed, and very few respondents anticipate possible implementations of innovations than through new programs. Only one respondent emphasized the need to set up a research institute / laboratory.

We understand that universities have largely modernized laboratories from the perspective of computers, laptops, etc., which shows the fact that they focus on a tool related to access and possession of as much information as possible. But the problem remains unresolved, due to the fact that the student is less taught to learn, [6] - a vector in adapting to change.

On the other hand, says G. Carden, "because of the pandemic that could cause the confrontation with the lack of a job, the imposition of social restrictions, travel, there may be an explosion of interest in investing in education. This situation will lead to an accelerated increase in competition for a place in the most desired or ranked institutions, starting in 2022. It will be interesting to program

the correlation of multiple disciplines with an impact on public health, the economy and policy development. " [3]

Although this idea seems outdated, it is open to reflection. Universities can offer various online distance learning courses, thus managing to solve the problem of student disability.

We would like to mention that the study conducted by us does not differ much from the results of other studies conducted in the Republic of Moldova. Thus, about 5% of respondents consider teachers as a good resource, which can lead to positive changes and therefore should be involved in generating solutions to improve the education system. [16, p.11] At the same time, teachers acknowledge that the education system in Moldova is changing too slowly, not being able to respond to the dynamics and demands of the private sector. [16, p.16]

The uncertain situation of the present creates a climate of insecurity, which leads to the search for a global approach to the problems. In this sense, the correlation between resources and information is ensured, flexibility to change, modeling to the new, quality and performance of the specialist to respond as adequately and as fully as possible to the demand on the labor market [10, pp. 11-13].

In order to become innovative, universities open various innovative laboratories, being an innovation ecosystem, with the aim of finding creative ways to collaborate, in order to have a positive impact on the world "[5], being a link between academia and economics.

We would like to mention that, according to the data of the National Agency for Research and Development, in the Republic of Moldova [13] there is a science-technology park and 7 innovation incubators (UTM, USM, ASEM etc.), created at the proposals of scientific-technological and scientific-educational clusters with different specializations. However, during the research, the precariousness and lack of information transparency regarding the activity of university innovative incubators was observed.

**Conclusions.** Although universities are the ones that promote change through education and need to focus on innovation, they are in a situation of different planning scenarios for the future, so that they can adapt but also create an effective-strategic response to reduce the caused crises.

The university environment ensures the implementation of innovative research in practice, so that the companies incubated in the university environment are as competitive as possible both locally and internationally. However, the crisis situation is not being overcome in various directions, which is why the demand for new, correlated multi-impact programs is expected to increase. And the proposed reforms focus only on some issues of universities that choose more to adapt to the situation than to change it. These answers reveal a number of issues to overcome, although there is less of a proposed plan to reduce them, and only new implementations of innovations through new courses and the

provision of computer labs are foreseen. However, we believe that universities have a key role to play in shaping the future of society and are responsible for promoting innovation in order to become forward-looking.

**Acknowledgment.** This paper is an output of the science project „Postdoctoral Programs” for the years 2021-2022, priority: Society challenges entitled: Conceptual and Methodological Fundamentals of Prospective Education.

### References:

1. ATAMAN, V. Cercetarea abordărilor conceptuale ale incubatorului de afaceri amplasat în mediul universitar. In: Scientific Collection ”InterConf”. Vol. 1(40), 26-28 ianuarie 2021, Hamburg. Hamburg, Germany : Peal Press Ltd., 2021, pp. 97-110. ISBN 978-3-512-31217-5.
2. Codul Educației al Republicii Moldova, nr.152 din 17.07.2014 <http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=355156>
3. CARDEN, G., YOUNG, L. Beyond the Pandemic: the role of universities in shaping a better future. (accesat, 03.11.2021). Disponibil: <https://www.hepi.ac.uk/2020/05/08/beyond-the-pandemic-the-role-of-universities-in-shaping-a-better-future/>
4. CIUCIUREANU, G., MINCIUNĂ, V. Strategia de cercetare-dezvoltare a Republicii Moldova: instrument pentru creșterea competitivității? (accesat, 29.12.2021) Disponibil: [file:///C:/Users /User/Downloads/ Strategiade cercetare dezvoltare a Repu.pdf](file:///C:/Users/User/Downloads/Strategiade_cercetare_dezvoltare_a_Repu.pdf)
5. Harvard innovation labs [Accesat: 24.02.2022]. <https://innovationlabs.harvard.edu/about/>
6. LUNGU, V. Learning to learn competence - major imperative in changing adaptability to labor market requirements. In: International Conference on Humanities, Social Science and Business Management (ICHSSBM) december 22 nd 2021, pp.25-31. <http://www.digitalxplore.org/proceeding.php?pid=1194>
7. LUNGU, V. Challenges of society in the 21st century. In: *Acta et commentationes (Științe ale Educației)*. 2021, nr. 2(24), pp. 76-82. ISSN 1857-0623. 10.36120/2587-3636.v24i2.76-82
8. LUNGU, V. Anticiparea competențelor. In: *Învățământ superior: tradiții, valori, perspective Științe Socio-umanistice și Didactica Științelor Socio-umanistice*. Vol. 3, 29-30 septembrie 2020, Chișinău. Chișinău, Republica Moldova: Universitatea de Stat din Tiraspol, 2020, pp. 158-165. ISBN 978-9975-76-311-0, 978-9975-76-314-1.
9. LUNGU, V. Knowledge-based society - a condition to ensure sustainable development. In: *Eastern European Journal for Regional Studies (EEJRS)*. 2019, nr. 1(5), pp. 96-111. ISSN 2537-6179.
10. LUNGU, V. Adaptarea ofertei educaționale la dinamica pieții muncii. Conferința științifică cu participare internațională. Creșterea impactului cercetării și dezvoltarea capacității de inovare. 21-22 septembrie 2011. Rezumatele

comunicărilor, științe sociale Vol.II. Ed.CEP USM. Chișinău 2011, pp. 11-13. ISBN 978-9975-76-312-3.

11. MUNTEANU, I., IONIȚĂ, V. Managementul Cunoștințelor. Chișinău: Cartier, 2005.

12. NEGURĂ, V. Evaluarea și asigurarea calității în învățământul superior. Institutul de Politici Publice. [citat 01.03.2022]. Disponibil: [https://ipp.md/old/public/files/Publicatii/2007/Studiu\\_Negura\\_Valentin.doc](https://ipp.md/old/public/files/Publicatii/2007/Studiu_Negura_Valentin.doc)

13. Parcuri și incubatoare [citat 01.03.2022]. Disponibil: <https://ancd.gov.md/ro/content/parcuri-%C8%99i-incubatoare>

14. SOMEȘAN, C. Rolul incubatorului universitar în dezvoltarea inovării, transferului de tehnologii și antreprenoriatului academic. Cazul Ita Goldtech Arad. În: Studia Universitatis Vasile Goldiș, Arad. Seria Științe Economice 1:161-174. <https://www.cceol.com/search/article-detail?id=136434>

15. SILISTRARU, N. Învatarea în pandemie sau cum „să înveți” online. In: Cercetarea și inovarea educației din perspectiva exigențelor actuale ale pieții muncii. Ediția 1, vol.1, 30-31 octombrie 2021, Chișinău. Chișinău: Tipografia UST, 2021, pp. 182-190. ISBN 978-9975-76-368-4..

16. VASILESCU, D., MIDONI, J. Viitorul educației superioare în Moldova o privire asupra percepțiilor studenților. 2019 (vizualizat 15.12.2021) Disponibil: [file:///C:/Users/User/Downloads/03\\_VIITORUL-EDUC\\_var-ROM\\_23-01-2020\\_NEW%20\(3\).pdf](file:///C:/Users/User/Downloads/03_VIITORUL-EDUC_var-ROM_23-01-2020_NEW%20(3).pdf)