

# IMPLEMENTATION OF UNIVERSITY SUSTAINABILITY MANAGEMENT BY MEANS OF UNIVERSITY PERFORMANCE STRATEGIES

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**Abstract:** *This paper addresses the basic aspects of ensuring sustainability in higher education institutions through the development and implementation of university sustainability management that serves as a basic pillar in cultivating sustainability in higher education institutions. The relevance of the research topic derives from the need for universities to be competitive, to attract and motivate students, but also to gain the trust of stakeholders that can be guaranteed, in the 21<sup>st</sup> century, only through effective programs focused on ensuring a balance between ecological-economic-social environment. The aim of the paper is to identify the possibilities of implementing the university sustainability management in higher education institutions. The research problem is to find solutions for overcoming the main challenges faced by higher education institutions. The research question is: what is the safest way to achieve sustainability in higher education institutions. Thus, in this context, we elucidate the fact that within the universities of the Republic of Moldova it is necessary to implement effective strategies to ensure sustainability by means of implementing an efficient management aimed at achieving sustainability. The research methodology focused on the use of several methods such as: analysis, synthesis, induction, deduction, abduction, documentation, scientific abstraction. In conclusion, we can reiterate that ensuring sustainability in higher education institutions is possible due to the implementation of viable and efficient instruments that place special emphasis on the implementation of university sustainability management. Stepping firmly on the path of sustainability is possible by grounding the activity of universities on successful sustainability strategies, which must be implemented in all subdivisions, faculties, university departments.*

**Key Words:** *sustainability, university sustainability management, strategy, university, principles of sustainability.*

## 1. Introduction

Sustainability, in the 21<sup>st</sup> century, is a bridge of ensuring competitiveness in higher education institutions, which are becoming increasingly vulnerable to the influence of various external factors, such as: reduced birth rates that determine the reduction of the number of students in higher education institutions, changing preferences of young people in choosing the profession, increasing students' expectations towards higher education institutions, along with the need to gain the trust of potential students in the chosen educational institution.

All these changes require universities to become more competitive, to identify successful ways to achieve sustainability. A real challenge for every higher education institution is to identify the tools that deserve to be applied in higher education institutions in order to achieve sustainability.

In this sense, universities are forced to identify a way to achieve sustainability, and in parallel to this, to identify the necessary measures and tools that must be applied in order to achieve sustainability.

Apart from this, higher education institutions must re-evaluate their activity in the direction of ensuring an effective collaboration with all stakeholders in order to achieve sustainable development.

This paper emerged from the need to outline a safe path, aimed at achieving sustainability in higher education institutions in the country in order to ensure an ecological-economic-social balance.

Sustainability in higher education institutions is the weapon employed by the universities in attracting students, in motivating them, but also in increasing the notoriety of the higher education institution.

*The relevance of the research topic* derives from the need for universities to be competitive, to attract and motivate students, but also to gain the trust of stakeholders that can be guaranteed, in the 21<sup>st</sup> century, only through effective programs focused on ensuring a balance between ecological-economic-social environment.

*The general research objective* is to identify the possibilities of implementing the university sustainability management within higher education institutions.

*The research objectives*, subsumed to the general objective, are:

O1: studying the theoretical milestones of sustainability;

O2: identifying the necessary instruments to ensure sustainability in higher education institutions;

O3: evaluating the possibilities of applying university sustainability management within higher education institutions.

*The research problem* is to find solutions to overcome the main challenges faced by higher education institutions.

*The research question is:* what is the safest way to achieve sustainability in higher education institutions.

Thus, in this context, we elucidate the fact that within the universities of the Republic of Moldova it is necessary to apply effective strategies to ensure sustainability by implementing an efficient management aimed at achieving sustainability. The research methodology focused on the use of several methods such as: analysis, synthesis, induction, deduction, abduction, documentation, scientific abstraction.

## **2. Contents**

### **2.1. Conceptual milestones regarding sustainability**

Sustainability is a concept focused on achieving human development goals and simultaneously supporting the capacity of ecosystems by providing natural resources and protecting life and nature, without diminishing the chances of future generations.

This concept is perceived as significant in ensuring social and economic development, as it was first defined by the United Nations World Commission on Environment and Development (WCED) in 1987.

The Report “Our Common Future” defined sustainability as “the development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland Report, 1987).

WCED sought to explore the causes of the environmental degradation, as well as the interconnections between social equity and economic growth. Sustainability objectives integrate the three economic, social and environmental aspects for ensuring the development of future generations. Given the current activities at the international level, the United Nations Agenda for Sustainability, based on the document “Transforming our World: The 2030 Agenda for Sustainable Development” was drafted in 2015. The new Sustainability Objectives, from the perspective of 2030, underline, among others, the relevance of higher education in the efforts for a better future (UNO, 2015).

The inclusion of the UN sustainability objectives within the curriculum will support the development of the future-oriented skills. This can be achieved by promoting social, economic and political change, which can be reinforced by professional leaders and specialists.

Recent developments also show that the European Union Strategy “Europe 2020: a strategy for smart, sustainable and inclusive growth” adopted in 2010 highlights, in this context, the crucial importance of innovation, education, digital society, training and lifelong learning (EU, 2010).

According to the Global Action Program on Education for Sustainable Development, adopted by UNESCO in 2014, we can stress the fact that political agreements, financial incentives and modern technologies are not enough to achieve sustainability (UNESCO, 2014).

Radical changes are indispensable, in particular, in the way we think and act when we shape relationships in a social context and in line with the ecosystem. In order to ensure sustainability that meets the needs of present and future generations, it is necessary to furnish all individuals with adequate knowledge and skills to form a system of values related to sustainability.

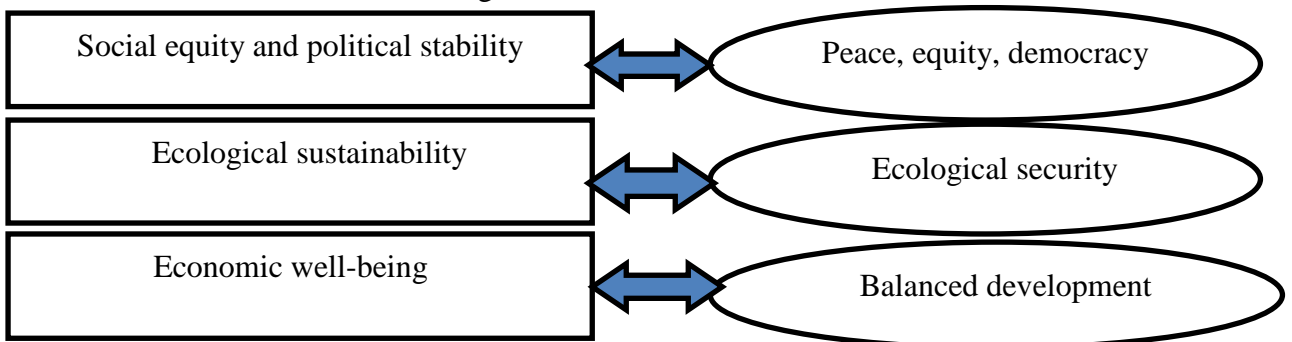
Researchers from the field of sustainability. Erpenbeck and Rosenstiel, point out that “sustainability requires a change in people’s consciousness and provides a framework for further decisions and actions”. Consequently, a “new culture of learning” is needed (Erpenbeck, Rosenstiel, 2003).

## 2.2. The role of education in ensuring sustainability

According to sustainability experts, such as Urbaniec, education should focus on self-organization and competence. The purpose of education is to support the development of the personality, in order to manage complex situations and make appropriate decisions, to respond and to have high ethical standards in accordance with the requirements of sustainability (Urbaniec, 2018).

Thus, in the 20<sup>th</sup> century, the foundation of the ideas of sustainability was laid as a vital orientation for the development of humanity in the 21<sup>st</sup> century.

We can distinguish three sustainability factors, which are closely linked to certain universal human values, shown in Figure 1.



Sustainability factors are closely interrelated and interdependent. For example, it is clear that economic development cannot be sustainable if:

- environmental requirements are neglected;
- lack of transition to more ecological technologies;
- neglecting the development of the health system, education, social security, etc.;
- lack of ensuring a fair distribution of resources among people;
- neglecting the needs of future generations;
- avoiding the development of democracy.

Ensuring *sustainable development* requires positive, balanced and concomitant changes in all factors. The Report “Our Common Future” of the Brundtland Commission recommends undertaking urgent actions in eight key areas:

- Population and human resources;
- Food safety;
- Urbanization problems;

- Energy;
- Industry;
- Biodiversity and ecosystems;
- Conflicts and environmental degradation;
- Unified ideology in management (Brundtland Report, 1987).

Solving problems in these areas will help to overcome contradictions and ensure sustainability, issues that aim to meet the needs of the current generation, without compromising the ability of future generations to meet their needs.

A fundamental pillar in ensuring sustainability in society is sustainable education, which focuses on ensuring an education based on a culture of sustainability, which strives to ensure a balance between ecological security, economic well-being and social equity.

Sustainable education is crystallized by changing the mentality of the present generation in order to ensure an ecological, social, economic balance, providing access to future generations to the planet's resources, using a culture of sustainability, through modern teaching methods focused on cultivating sustainability.

### **2.3. A sustainable university – the university of the future**

One of the fundamental pillars of sustainability is the university education, represented by higher education institutions, which constitute the main players that contribute to the dissemination of the culture of sustainability in society, the formation of students' skills and habits related to sustainability and can ensure coherence between social, ecological and economic.

A sustainable university is the university that harmoniously combines education, research through a complex process of ensuring an interdisciplinary balance in the context of optimal use of the natural, social and economic environment by collaborating with stakeholders involved in this process.

According to the definition offered by Velazquez, a sustainable university always refers to the environmental, economic and social concerns it should have, regarding its activity and responsibility to "lead by example". The researcher states that a higher educational institution university "involves and promotes, on a regional or a global level, the minimization of negative environmental, economic, societal, and health effects generated in the use of their resources" (Velazquez et al., 2006).

The researcher, Cole, mentions that "a sustainable campus community acts upon its local and global responsibilities to protect and enhance the health and well-being of humans and ecosystems [...] to address the ecological and social challenges" (Cole, 2003).

On the other hand, the renowned researchers Alshuwaikhat and Abubakar, elucidate that "a sustainable university campus should be a healthy campus environment, with a prosperous economy through energy and resource conservation, waste reduction and an efficient environmental management, and promotes equity and social justice" (Alshuwaikhat și Abubakar, 2008).

In this context, the main mission of the sustainable university is to maximize the development of the creative potential of all members of the university community: academic staff, engineers, technical staff, and administration.

### **2.4. University sustainability management – a secure approach towards the sustainability of higher education institutions**

#### **2.4.1. The role and functions of university sustainability management**

For the sustainable development of a higher education institution, we should develop a sustainable university development strategy that contributes to the transition to its sustainable functioning which, in turn, allows the accumulation of the university

potential and its direction towards creative and productive interaction with the social, economic and ecological environment.

Being a distinct field of study, the university sustainability management fulfills several functions, such as:

1. *University sustainability planning* – this function is performed by the university management team, on the one hand, but also by deans and department heads on the other hand. When planning activities related to achieving university sustainability, the university, in collaboration with the faculties and departments, plan the procedures, activities through which they can achieve university sustainability. The activities planned in this chapter are enclosed in 3 different areas, as:

– *the ecological sector* – involves planning the activities of the university related to ensuring concrete activities of the institution in this sector such as: energy security, the use of renewable energy sources, opportunities to reduce water consumption, the increase of green zones on the university campus, the use of green transport, etc.;

– *the social sector* – this sector includes such activities planned by the university in the social field, as: ensuring the health and safety of the academic staff, of other categories of employees, and of classrooms students, ensuring social ethics and equity;

– *the economic sector* – this sector includes the activities planned by the university in the economic sphere in order to increase the university economic growth, such as: ensuring the economic well-being, increasing the competitiveness, increasing the economic profitability, diversifying the university offer, a rational consumption of resources.

As a result of the planning process of the university activities related to achieving sustainability, the university sustainability strategy is developed.

*The university sustainability strategy* is a long-term plan developed by the university in the context of ensuring sustainability within the university by capitalizing on education and research based on a university culture oriented towards sustainability.

The strategy is elaborated by a commission oriented towards sustainability that has been appointed by the rector of the university. The Commission identifies the most relevant measures to achieve sustainability in the future. In this planning process, the activities meant to ensure sustainability within the university, must be focused on the sector of education – research – teaching, and involve the application of university performance management within these academic sectors.

2. *Organizing the accomplishment of university sustainability* – performing this function, the university must find the most relevant ways to organize its activities in order to achieve sustainability. Therefore, by collaborating with the academic environment, along with other universities, institutions, the private sector, agencies, the university identifies the measures that will be implemented in a certain time framework. Activities undertaken with the purpose of achieving sustainability must be simple and easy to implement, both within and outside the academic environment.

The university can carry out several activities at the level of departments, faculties in order to achieve sustainability:

– *organizing seminars, conferences, workshops* – these activities will help change the mentality and raise awareness of the need to address university sustainability.

– *organizing the sustainable university website* – this site may involve activities identified by students that can be applied to increase university sustainability, reinforced by the university management.

– *organizing the sustainability day at the university* – on this day, various educational activities could be carried out in order to conceptualize the need to achieve sustainability.

– *organizing the research, and the research projects with topics focused on sustainability* – this research will help raise awareness of the need to achieve sustainability within the university.

3. *Coordinating activities in achieving university sustainability* – the coordination of activities must be carried out in correlation with all the people involved in the process of ensuring sustainability within the university. Thus, depending on the stakeholders involved, but also in close correlation with students, academia, the university must coordinate the implementation of all planned activities. Obviously, the sustainability commission must find the best solutions in order to achieve university sustainability.

4. *Monitoring and controlling the achievement of university sustainability* – monitoring and control of achieving sustainability must be done both internally, inside the university, and externally, outside it. Consequently, within the university, the control must be focused on 3 basic directions:

- pre-control;
- control during the performance of activities;
- post-control.

From within the university, the people responsible for carrying out the control must be people such as the rector, the sustainability commission, the deans, the heads of the departments, the heads of the research laboratories, the librarians.

From outside the university, the people in charge can be the department heads, business managers, agencies, town halls, companies.

5. *Adjusting university sustainability* – the activities related to the adjustment of the achievement of university sustainability must be carried out continuously, because once some activities have not been carried out in time or have not brought the desired results, it is necessary to adjust the activities and make certain corrective measures.

The process of adjusting measures in the direction of achieving sustainability within the university must be continuous and include all those involved in achieving university sustainability. The adjustment measures will help the university to reach the path of sustainability and to step firmly in a sustainable and balanced world, manifesting a responsible activity towards itself and all its stakeholders.

Finally, the activities of a sustainable university must not only take into account the social, environmental and economic interests of the society, but also contribute to their fulfilment. This effect is exactly what the emergency can achieve when implementing a sustainable university management.

#### 2.4.2. Applicability of university sustainability management

Sustainability involves such a way of organizing the activities of a higher education institution that all its subsystems function as harmoniously as possible, the potential of all members of the university community is fully and efficiently used. The transition to sustainable management and the functioning of the university is possible with a change in the development strategy of the university.

An analysis of the current situation has shown that, despite the fact that some universities introduce elements of the concept of sustainability, such activities aim to solve a variety of specific problems associated with the functioning of a university and this is not complex. Therefore, the management of the sustainable university aims to harmonize the entire internal activity of the university and is partially in line with the concept of sustainable university management.

A higher education institution differs from an enterprise in that it is mainly involved in educational and research activities. Among the activities carried out within the university, several major interrelated fields can be distinguished. If we imagine an

educational institution organised as an integral system, at that point these subsystems will correspond to the following areas:

1. *The material and technical subsystem of the university* includes everything related to the operation and maintenance of the material and technical base: buildings and structures, furniture, equipment, vehicles, infrastructure elements, the redistribution of funds;

2. *The educational and scientific subsystem* includes the following organization of the educational and research activities: the development and implementation of educational programs, the development of curricula, as well as everything directly related to the educational process itself; organizing and supporting scientific research, promoting innovation;

3. *The social subsystem* includes all participants in the university community, which comprises the administration, the engineers and the technical staff, faculty staff members and students; extracurricular agreement activities, cultural events, information assistance for the university life;

4. *The management subsystem* unites the administrative apparatus, the decision-making mechanisms, the elaboration and approval of the development programs.

Within the university system, these are closely interconnected, but, as a rule, when planning activities and developing strategic development plans, each is considered separately. The management identifies 2-3 of the most priority areas, the development of which will focus on capacity and key resources.

#### 4.3. Principles of application of university sustainability management

The concept of the university sustainability management is based on certain principles, the performance of which constitutes an integral part of the sustainable development of any territory.

For the reason that the concept of sustainability expresses a certain vision of the world, it is manifested exactly in the following principles.

1. *The principle of responsibility for the future*: the training of the specialists, the research and development of applied projects within the sustainable university should be focused on the needs of future generations, i.e., specialties and research should be relevant at least in the medium term run;

2. *The managerial solution of environmental problems*: the introduction of environmental initiatives aimed at environmental protection should be recognized and supported by the university senior management;

3. *The principle of partnership* is realised when all the stakeholders achieve their interests. It can be manifested, for example, in the fact that for the development of educational programs, specialized boards of administration, teachers, graduates of similar programs and representatives from the business environment can be brought together;

4. *The principle of openness*: involves the free exchange of various information, including reporting about the university activities from different industries, research data and lectures;

5. *The principle of unity of objectives*: the unity of objectives must be respected by all the participants in the university community, and in all areas of its activity;

6. *The principle of greening all areas*: as environmental issues are manifested in all areas of sustainable university functioning; this should be taken into account when elaborating a university development strategy;

7. *The principle of complexity*: all decisions taken should be of a systemic and complex nature, i.e., the short-term and long-term consequences of certain decisions must be taken into account when planning the activities;

8. *The principle of environmental education*: the courses on ecology and sustainability should be included in educational programs in all areas of training;

9. *The principle of equality*: all areas of training and research are equally important and should aim to address sustainability issues.

### 5. Challenges in implementing university sustainability management

*The implementation of university sustainability management* is a complex process, which includes the realization of several activities related to planning, organization, coordination, control, evaluation of the efforts of the higher education institution in order to achieve sustainability.

The first priority for the emergence of achieving university sustainability is the harmonization of the university internal activities.

A modernized management of the classical instrument can help the institution in this respect. The sustainability strategy of the higher education institution is the best tool used in international arenas in order to achieve a sustainable university management.

*Sustainable university strategy* is based on the following basic principles: the principle of partnership, the principle of openness and transparency in work, the principle of taking into account the interests of future generations, the principle of combining environmental, economic and social objectives. The activities for the implementation of the sustainable university strategy are based on the creation of working groups, whose activities would aim at identifying and solving the internal problems of the university functioning.

At the same time, the preconditions for an effective activity are: the participation of all stakeholders in all stages of the implementation of the strategy; the faith in local specialists; revealing the internal potential of the participants in the process; self-updating of the participants throughout the process.

In order to identify the competitive advantages, universities have to implement the university sustainability management, which consists in managing the complex university system in order to ensure the economic, social, ecological balance through penetrating a culture oriented towards sustainability of teaching and research in a sustainable campus, training of sustainable skills integrated through curriculum, skills, values, practical activities.

### 3. Conclusions

To conclude, we would like to mention that by implementing the university sustainability management, the higher education institutions are able to increase their competitiveness, to have a responsible activity towards society, attracting new students based on the right attitude towards ecological, social and economic environment.

We can point out that operating in a fierce competition environment, higher education institutions constitute the poles of sustainability penetration throughout the society, given that higher education institutions are the catalysts for changing mindsets, cultivating values and skills focused on sustainability, and planting skills and abilities to promote responsible activity in the society.

In order to achieve sustainability, higher education institutions are required to:

1. *Implement university sustainability management* – from the carried-out research we noticed that the fundamental pillar of ensuring sustainability in higher education institutions constitute the implementation of university sustainability management, which is based on a viable, successful tool that is designed to ensure the sustainable development of universities and support the process of ensuring the strategic competitiveness in higher education institutions;



2. *Elaborate a strategy to ensure sustainability* – a sustainability strategy must be developed within the universities, with the aim of engaging all university subdivisions and generate synergistic effects;

3. *The concerns on ensuring sustainability must become systematic concerns for the whole academic environment* – in order to ensure the sustainability, it is necessary to apply effective measures to guarantee sustainability in higher education institutions to be implemented within the system, by involving the entire academic environment in order to achieve synergy and performance in this system;

4. *Ensuring the collaboration of higher education institutions with its stakeholders* – in order to streamline the sustainability assurance system in higher education institutions, it is necessary to ensure effective collaboration with university stakeholders, which could help universities in directing the implementation of university sustainability management therein.

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