

THE ORIENTATION OF ENTREPRENEURSHIP EDUCATION TOWARDS THE PRINCIPLES OF SUSTAINABLE DEVELOPMENT

Lilia COVAȘ¹, Angela SOLCAN²

¹ Academy of Economic Studies of Moldova, Chisinau, Republic of Moldova,

ORCID: <https://orcid.org/0000-0002-0858-8414>, covas.lilia@ase.md

² Academy of Economic Studies of Moldova, Chisinau, Republic of Moldova,

ORCID: <https://orcid.org/0000-0002-8810-7616>, ansolcan@ase.md

Abstract. Sustainable development represents one of the greatest challenges of the 21st century, but, at the same time, it offers viable opportunities to countries, businesses, and the population, becoming a development model that allows, in an intelligent way, to benefit from economic, social and environmental advantages. Sustainable development goals, promoted by the UN, are included on the agenda in many countries, including that of the Republic of Moldova. Several actions are being taken in the country to direct state strategies and policies towards the implementation of the SDGs, while also noting certain deficiencies in this process. An important role in this endeavour belongs to higher education institutions, which not only must promote the values of sustainability, but must undertake certain actions that will cause change in this sense within society.

Providing students, who are future entrepreneurs with the necessary knowledge and skills to promote sustainable development and sustainable lifestyles, will allow them to contribute considerably to the familiarization of this concept within the business environment and the population. For these reasons, a study was initiated, aimed at identifying the level of knowledge of the principles of sustainable development and the current perceptions among students from the Business and Administration study program, Bachelor's degree, and company representatives. An online questionnaire was distributed among students and practitioners, which aimed to identify the attitude, perception and knowledge regarding Sustainable Development. The answers provided by students and practitioners will allow to determine the existing trends and to identify actions for the development of a sustainable entrepreneurship in the Republic of Moldova. Identifying existing gaps will allow adjusting entrepreneurship education to the challenges and opportunities related to sustainable development.

The study was carried out within the Erasmus+ project "Skills4future – Developing and improving the STEAM skills of students and teachers for curriculum innovation and sustainable development of higher education institutions and local businesses", no. 101081787.

Keywords: sustainable development, Agenda 2030, higher education institution, entrepreneurial education

INTRODUCTION

A prosperous development of a country is impossible if simultaneous progress on three dimensions is not ensured in the long term: economic, social and environmental. Thus, it becomes imperative to propagate the concept of sustainable development, which promotes the idea of conciliation between economic and social progress, without endangering the natural balance of the planet [1].

The 2030 Agenda on Sustainable Development, promoted by the UN, has a universal applicability for all states, regardless of their level of development and priorities. In the Republic of Moldova, the adaptation of the 2030 Agenda began as a result of the collaboration between the Government, the UN Moldova and Expert-Group, which provided analytical support to the entire process [2]. Thus, taking as benchmarks the new long-term priority objectives, the National Development Strategy "Moldova 2030" was developed. The major goal of NDS „Moldova 2030” is to visibly increase the quality of life of people in the Republic of Moldova, serving as a concrete tool by which the Republic of Moldova undertakes to implement the Sustainable Development Goals (SDG), which are aligned with its own priorities and resources. In this context, various policies, initiatives and projects aimed at facilitating the orientation towards the principles of sustainable development were developed in the Republic of Moldova.

The analysis of the route carried out by the Republic of Moldova in the process of implementing the principles of sustainability, promoted by the UN 2030 Agenda, allows us to ascertain that considerable efforts are needed in this direction. In order to help facilitate the implementation of the SDGs, it is necessary to develop special skills and knowledge. These are important both for the individual, because they will motivate towards a sustainable way of life, for economic entities, favouring increasing the level of sustainability of companies, and for society,

being directly related to the country's development, the achievement of the Sustainable Development Goals and the identification of innovative solutions to global problems.

Higher education institutions play a major role in creating a sustainable future [3]. Thus, higher education institutions represent a key lever in the definition and implementation of favourable strategies, and education for sustainability and the encouragement of a sustainable lifestyle are increasingly present in the academic and professional training of individuals, influencing sustainable behavioural changes through teaching, training, research and development [4].

Leal Filho highlights that the implementation of sustainable development in universities is not only a matter of politics, but must be supported by concrete actions in several areas: the greening of the curriculum; campus operations; research; extension (continuing education and continuing education programs); specific projects [5]. The strategic implementation of sustainability in universities requires a major rethinking of innovation in the organizational framework, both in their internal organization and functioning, as well as in the interaction with external stakeholders [6].

In this way, higher education institutions have a viable potential for creating and developing the necessary skills to facilitate society towards sustainable development, aligned with the requirements of the 4th Industrial Revolution. Providing students with the knowledge and skills needed to promote sustainable entrepreneurship, sustainable development, sustainable innovation and lifestyles will make it possible to make a significant contribution to promoting these concepts in the business environment and among the population, having a beneficial effect on the economic and social development of the Republic of Moldova.

Thus, the new circumstances impose the need to develop new skills, different from those promoted by universities in the Republic of Moldova during the recent decades. There is an urgent need to integrate the concept of sustainable development and sustainable education into university programs. As a first step in achieving this approach, a study was carried out aimed at determining the opinions of students and business representatives regarding the values related to sustainable development, the level of familiarity with this concept, the actions taken by companies, etc. which contributed to identifying the particularities of the existing context.

The study allowed several conclusions to be drawn and arguments to be presented that there are multiple untapped opportunities in the education system of the Republic of Moldova to align with the SDGs and the 4th Industrial Revolution, and universities have an important role to play in this endeavour.

EXPERIMENTAL

It would be helpful to start by identifying the perceptions and opinions of students and business representatives regarding the concept of sustainability, the significance of this approach, the main actors, and the implementation methods before attempting to relate the curricula to the Business and Administration study program, Cycle I, Bachelor. For this purpose, at the Management and Entrepreneurship department, the Academy of Economic Studies of Moldova (ASEM) conducted a study. The study was carried out between April 3rd – May 2nd 2023. Questionnaire-based survey method was used to identify existing perceptions and attitudes towards the variables investigated. The survey was conducted online through Google Forms.

For students and practitioners, two different questionnaires were developed, but which aimed to identify the level of familiarity with SDGs, perceptions of the main values promoted by Sustainable Development, knowledge of stakeholders on the Sustainable Development dimensions (economic, social and environmental), opinions on responsibility for the implementation of SDGs, etc.

The questionnaires were completed by 91 students from the Business and Administration study program, cycle I, Bachelor, who study at full-time and part-time programs, from all years of study.

Regarding the business environment, the research was carried out on a sample of 34 local practitioners and employers in the Central area of Republic of Moldova. In order to ensure a higher level of study representativeness, practitioners were from economic entities (76.5%), from professional associations (5.9%), from NGOs (5.9%) and from government entities (11.8%), also represented nine fields of activity and companies of all sizes: micro companies (29.4%), small (29.4%), medium (23.5%) and large (17.6%).

The answers provided by students and practitioners allowed to determine the existing trends and identify actions to promote the values of sustainable development and create sustainable entrepreneurship in the Republic of Moldova.

RESULTS, DISCUSSION

The implementation of the 2030 Agenda on Sustainable Development in the Republic of Moldova also includes actions that can contribute to the development of new skills and knowledge: acquiring knowledge and skills needed to promote sustainable development and sustainable lifestyles, environmental protection, healthy lifestyles, human rights, gender equality, the culture of peace and nonviolence, global citizenship and appreciation of cultural diversity, as well as the contribution of culture to sustainable development [7]. Thus, the first aspect analysed in the study concerns the **level of awareness of students and representatives of the business environment regarding the 17 Sustainable Development Goals (SDG)**, which is presented in figure 1.

Discussion: It is encouraging that more than half of respondents are aware of the Sustainable Development Goals and the UN 2030 Agenda for Sustainable Development (SDG). Analysing the SDGs degree of knowledge of **students**, we can highlight that the best known are: SDG4 “Quality education” – 75.9% of respondents and SDG3 “Good health and well-being” – 74.7%. Students also mentioned that they are familiar with SDG8 “Good jobs and economic growth” – 69.7%, SDG16 “Peace, justice and strong institutions” – 68.2% and SDG12 “Responsible consumption and production” – 67.8%.

The SDGs less known to students are SDG1 “No poverty” – 48.3% of responses, SDG7 “Renewable energy” and SDG14 “Life below water” – about 46% of respondents marked each of these goals and SDG 10 “Reduced inequalities” – 44.3% of students indicated Quite unknown.

The state’s effort to create a sustainable society and economy will not be successful if business is not involved. Regarding the awareness of **the business environment representatives** in the field of Sustainable Development Goals, we notice a positive point: most respondents are aware of almost all objectives: „relatively familiar” responses range from 50% to 82.4%. At the same time, the largest number of respondents are familiar with the following objectives: SDG 5 “Gender equality” – 82.4% of respondents, 79.4% respondents noted that they are well informed about the following three objectives: SDG 7 “Renewable energy”, SDG 8 “Good jobs and growth” and SDG16 “Peace, justice and strong institutions”.

The least known objective is SDG14 “Life below water” – only 50% of respondents mentioned that „rather do not know” about this goal. Also, a large percentage of those who responded “rather do not know”, i.e. 41.2% reported to SDG11 “Sustainable cities and communities”, also, 38.2% of respondents noted rather the unfamiliarity of SDG17 “Partnerships for the goals”.

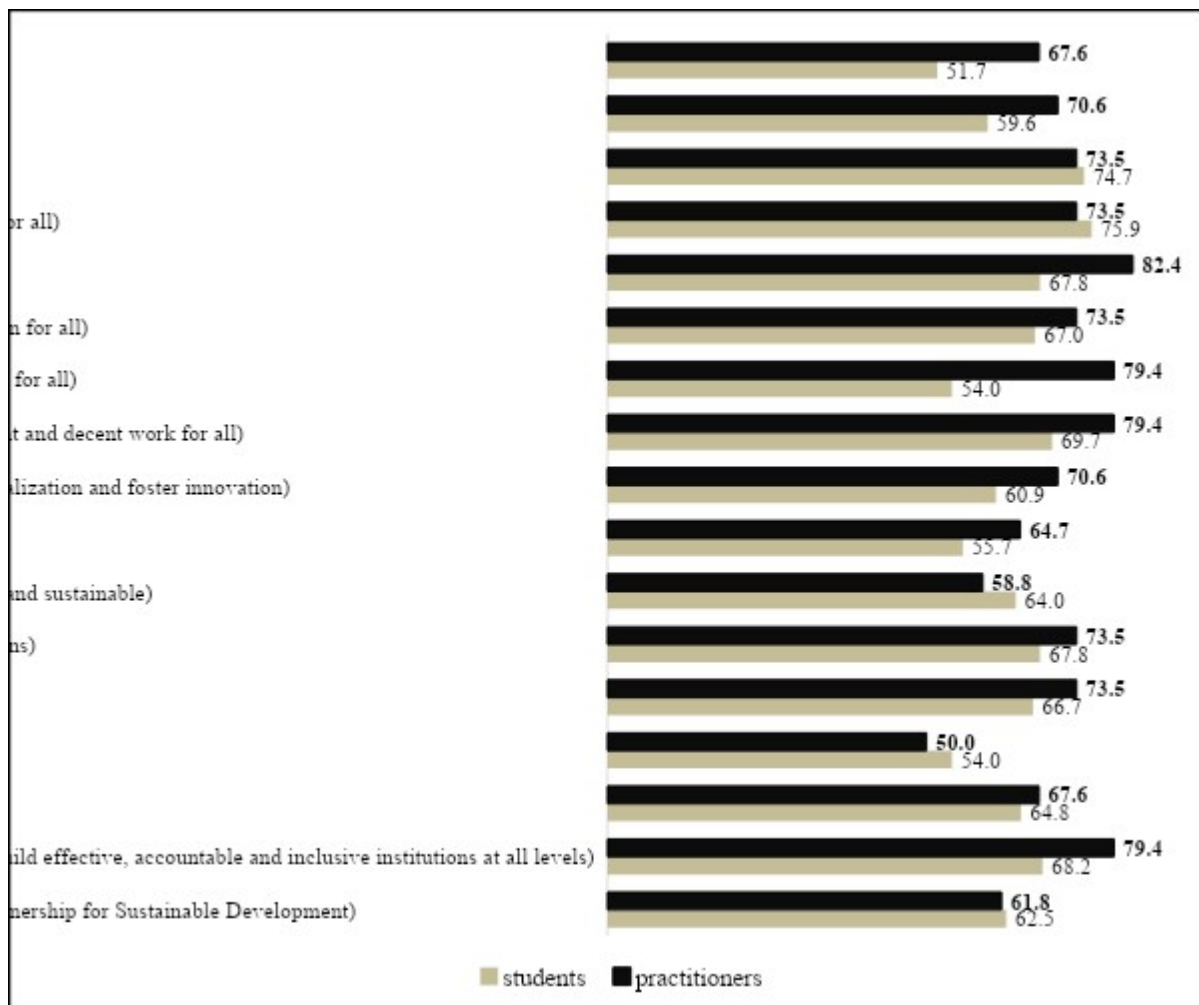


Figure1: The distribution of practitioners’ and students’ awareness related to 17 SDGs

Another key moment in estimating the perceptions towards sustainable development components is the **opinions of students and practitioners on the fundamental values of sustainability**. The analysis of practitioners’ and students’ values related to sustainable development is shown in Figure 2.

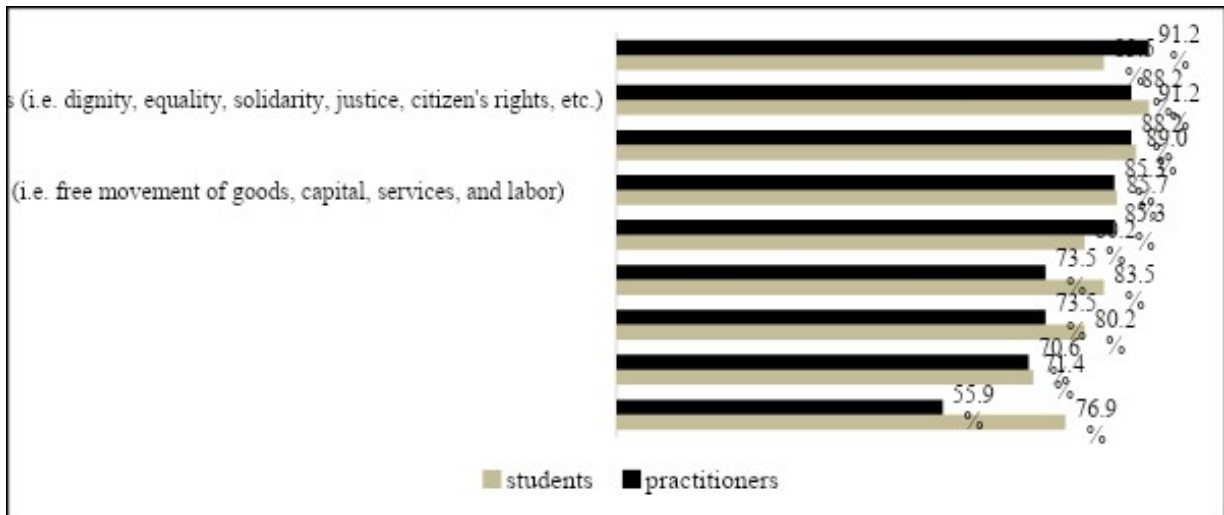


Figure 2. The distribution of practitioners' and students' values related to sustainable development

Discussion: Most **students** consider that the most important values in sustainable development are Respect for human rights and freedoms (i.e. dignity, equality, solidarity, justice, citizens' rights, etc.) – 91.2% among respondents, Rule of law – 89%, Respect for the EU's fundamental freedoms (i.e. free movement of goods, capital, services and labour) – 85.7%, Social justice and the correctness of education / work systems - 83.5%. At the same time, students considered less important: Gender equality – only 71.4% of respondents mentioned this, and the Cultural Diversity Assessment – only 76.9%.

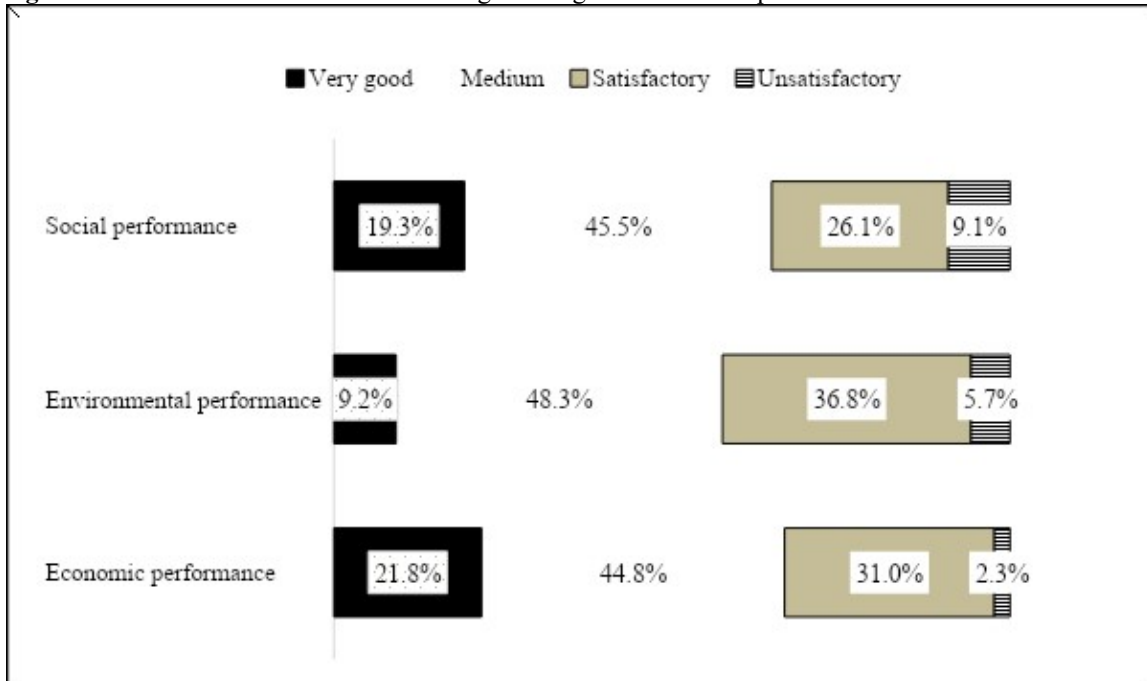
Analysing the answers provided by **practitioners**, we notice that most business representatives mentioned the high importance of all these values. The Correctness of education/work systems was assessed the highest: approximately 91.2% of respondents indicated this value as very important for them, followed in descending order by Respect for Human Rights and Freedoms (i.e. dignity, equality, solidarity, justice, citizens' rights), etc.), as well as the Rule of law, which were mentioned by 88.2% of respondents, followed by values related to Respect for the EU's Fundamental Freedoms and the Principles of Equality and Solidarity, which were mentioned as the most important of 85.3% of respondents.

The values of Social Justice and Democracy in society were estimated to be important by 73.5% of respondents. It's interesting to note that fewer respondents highlighted ideals like Appreciation on cultural diversity; only 55.9% of practitioners rated this value as vital, whereas 70.6% of respondents rated the concept of Gender equality as important. We can see a similar situation with the students' answers.

It should be mentioned that in the Strategic Development Plan of the Academy of Economic Studies of Moldova for the period 2023-2027 are determined as specific objectives: strengthening scientific research from the perspective of sustainable development of the higher education system; promoting fundamental and applied scientific research related to the needs of sustainable development and resilience; harmonization of research and innovation with sustainability requirements. To this end, work is being done to develop an institutional infrastructure and optimize the conditions for promoting the concept of sustainable development in ASEM study programs, development and provision of research and consultancy services dedicated to the public and business environment, promotion of sustainable entrepreneurship, etc.

However, in order to better understand the current state, it was proposed to **assess the degree of students' knowledge on the dimensions of the economic, social and environmental performance of sustainable development**. The analysis of students of knowledge on Economic, Social, Environmental performance is presented in figure 3.

Figure 3. The level of students understanding with regard to SD concepts



Discussion: Most **students** mentioned that they gained knowledge on all 3 dimensions/domains (Economy – Environment – Society) of sustainable development. Thus, 66.7% of respondents assessed their knowledge of the economic dimension as **Good** (44.8%) and **Very Good** (21.8%). The knowledge obtained on social performance was assessed by 64.8% of respondents as **Good** (45.5%) and **Very good** (19.3%), and knowledge on environmental performance – 57.5%, including 48.3% **Good** and 9.2% – **Very good**.

Taking into consideration that the share of respondents who rated knowledge **Well** and **Very well** in the dimensions of Social Performance and Environmental Performance is lower, it is important to promote balanced sustainable development on all 3 dimensions, combining economic, social and environmental needs.

The knowledge gained in the field of sustainable development can only be useful by applying it in the organizational environment or everyday life. Another important moment of the study is to determine the **degree of adoption of sustainable behaviours**. The analysis of adopted measures for living more sustainable is presented in figure 4.

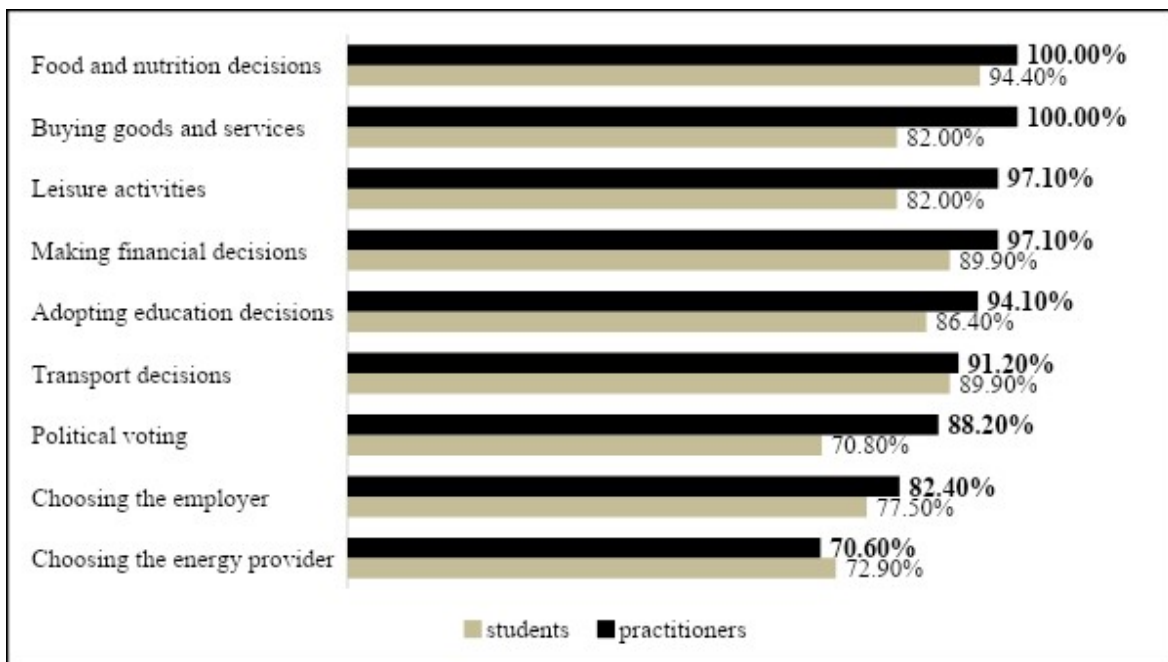


Figure 4. Frequency of sustainable measures adopted by practitioners and students

Discussion: According to the survey, **students** mentioned that they are most likely to consider sustainability issues when making decisions about food and nutrition, 94.4% of respondents indicating that **Sometimes** (42.7%) or **Always** (51.7%) take sustainability into account when making these decisions. Financial decisions were the next (89.9%, including 33.7% – Sometimes 56.2% – Always), transport decisions (89.9%) and education decisions (86.4%).

On the other hand, the survey showed that a smaller proportion of students consider sustainability criteria when choosing an energy supplier (70.5%), when making political voting decisions (70.8%) and when choosing an employer (77.5%). In these cases, a higher proportion of respondents (15.9%, 12.4% and 10.1% respect) indicated that they rarely or never take sustainability into account.

Relative training for behaviour involving an increase in the level of sustainable development was observed by most **practitioners'** responses to the analysed issues. In the top of the answers that mirror sustainable behaviour are Food and Nutritional Decisions (100%) and Purchase of goods and services (100%). Next: Recreational activities (97.1%) and financial decisions, which accumulated the same result.

Sustainability aspects are less taken into account when adopting educational decisions (94.1%) and in transport decisions (91.2%).

The behaviour associated with political voting, as well as the search for an employer, require a low level of sustainable commitment. And the aspects of sustainable development are the least cautious in choosing an energy supplier (70.6%).

Positive changes in society to implement the principles of sustainable development can only be achieved through concrete actions, carried out at all levels. The analysis of **responsibilities for the implementation of sustainability-related directions** is presented in figure 5.

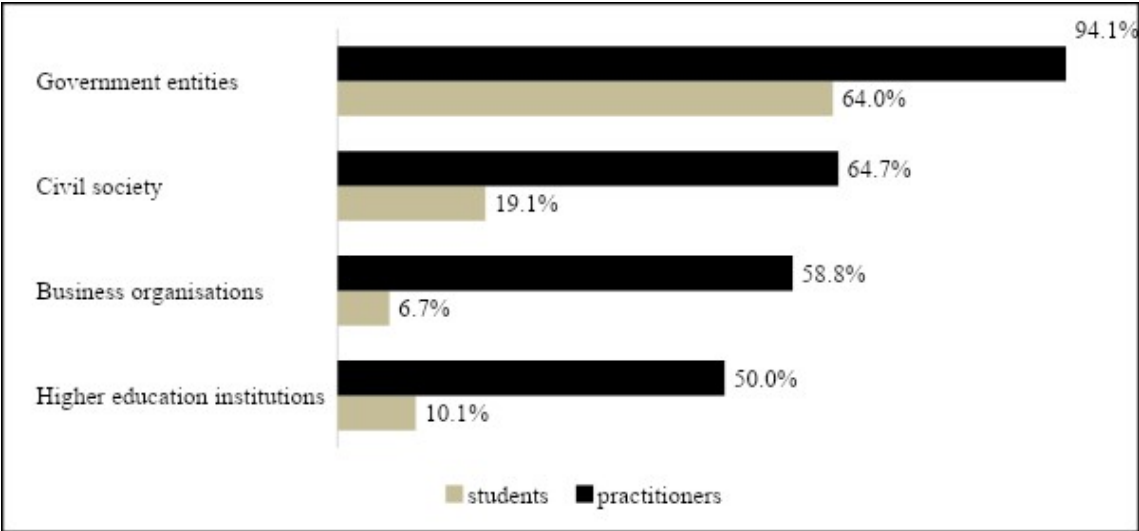


Figure 5. The responsibilities for implementing SDGs

Discussion: According to the survey conducted among **students**, most of them (64%) consider that government entities are most responsible for the implementation of the Sustainable Development Goals in the country. In second place, with 19.1%, is civil society, followed by higher education institutions with 10.1%. Instead, only 6.7% of respondents believe that businesses have the greatest responsibility for implementing these goals, which suggests that students believe that the government and civil society must play a more important role in promoting sustainable development in the country.

As can be seen from figure 5, the maximum number of respondents, **representatives of the business environment**, treats the Government as a body with maximum responsibility for the implementation of SDGs – 94.1%. Likewise, a large number of respondents consider that civil society (64.7%) is responsible for moving to a sustainable economy. The lowest number of respondents hold responsible for the implementation of SDGs – Higher education institutions (only 50% define them as) responsibilities.

It should be noted that a relatively small proportion of respondents – 58.8% consider the business responsible for increasing the country’s sustainability. This suggests a conclusion: not all business representatives are held responsible for implementing the 2030 Agenda for the Implementation of the Sustainable Development Goals, relying on the actions of other stakeholders.

However, companies are aware that they need to take corporate social responsibility actions, which would facilitate the transition to the values of sustainable development. They noted the benefits of responsible business

behaviour: contributing to profits and more sustainable growth, new market opportunities and creating long-term value for stakeholders.

Thus, it becomes important to analyse what actions companies take in order to implement SDGs. **The main contribution of company / employee to SDGs** – is presented in figure 6.

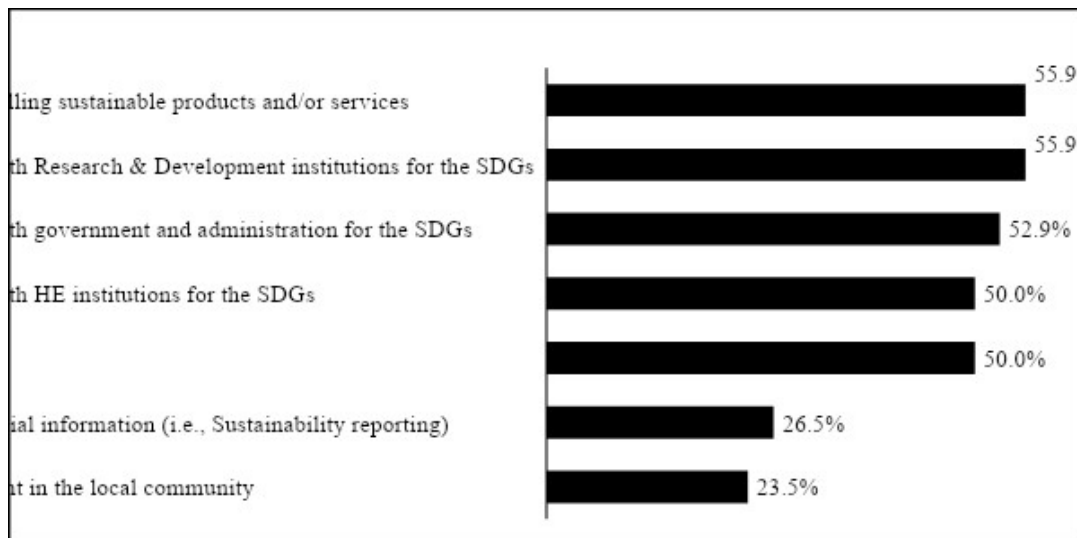


Figure 6. The main contribution of company/employer to SDGs

Discussion: It should be noted that of the seven areas proposed in order to identify the contribution of the company/employees in the implementation of the SDGs, only two received fewer votes – this is the philanthropic commitment in the local community (only 23.5% of respondents noticed their contribution in this) and Disclosure of non-financial information (i.e. sustainability reporting) – 26.5%. The other areas were noted by at least 50% respondents. Thus, most of them tend to participate in the Manufacture and/or sale of sustainable products and/or services (55.9%), Building partnerships with research and development institutions for SDGs (55.9%) and Building partnerships with the government and administration for SDGs (52.9%).

Respondents noted less involvement in building partnerships with higher education institutions for SDGs (50%) and Responsible Operations (50%).

We can see that a much higher percentage in these areas is due to the fact that entrepreneurs and employees are already associating their direct activities with these areas and therefore, can be seen a greater need for these areas to be in line with the Sustainable Development Goals.

CONCLUSIONS

We can conclude that both students from the Business and Administration study program, as well as business representatives have heard about the concept of Sustainable Development and know about the UN 2030 Agenda for Sustainable Development, as well as about the Sustainable Development Goals (SDG).

Interested parties are familiar with the content of SDGs, however it is necessary to point out that for students they are less known: SDG 1 “No poverty”, SDG 7 “Renewable energy”, SDG 14 “Life below water” and SDG 10 “Reduced inequalities”. And, for the business environment representatives, the least known is SDG 14 “Life below water”, SDG 11 “Sustainable cities and communities” and SDG 17 “Partnerships for the goals”. This means that in the courses studied it is necessary to draw more attention to the mentioned topics.

Both students and practitioners consider all values in sustainable development to be important, all of them mentioning the Respect for human rights and freedoms, the Rule of law and the Respect for the EU’s fundamental freedoms, Social justice and the correctness of education / work systems.

Respondents had similar views on the lesser importance given to Gender equality and the Appreciation of cultural diversity. We believe that this is due to the particularities of the national culture of the Republic of Moldova, these values are less often taken into account.

Most students mentioned that they acquired knowledge during their studies on all three dimensions: economic, social and environmental of sustainable development, but in different proportions. Because the share of respondents who rated knowledge well and very well in the dimensions of Social Performance and Environmental Performance is lower, it is important to promote balanced sustainable development on all 3 dimensions, combining economic, social and environmental needs.

From the point of view of the importance and need to teach knowledge and skills at university, respondents consider absolutely all directions presented in three important areas: economic, social and environmental, highlighting the most relevant and important, the following:

- Competition, regulations and fair-trade practices;
- Innovation and responsibility for the product;
- Compliance with environmental requirements;
- Environmental assessment of the supplier;
- Circular economy;
- Sustainable jobs;
- Lifestyle and sustainable education.

According to the survey, students mentioned that they are most likely to consider sustainability issues when making decisions about food and nutrition, financial decisions, transport decisions and education decisions. In the same vein, the survey showed that a smaller proportion of students consider sustainability when choosing an energy supplier, when making political voting decisions and when choosing an employer.

While practitioners noted that they always took into account the principles of sustainability when receiving food and nutrition decisions and buying goods and services, leisure activities, financial decisions.

Similar to students' responses, practitioners noted that in political voting decisions, when choosing an employer and at the choice of energy supplier, sustainability issues are taken into account less.

It is interesting to note that students consider that the biggest responsibility for implementing the Sustainable Development Goals in the country is borne by government entities. Civil society ranks second, followed by higher education institutions. Thus, in the students' opinion, business environment has the least responsibility in the realization of the SDGs in the country.

Representatives of the business environment also believe that the Government is responsible for the implementation of the SDGs, followed by civil society, business organizations and higher education institutions. This suggests a conclusion: not all business representatives are held responsible for implementing the 2030 Agenda for the Implementation of the Sustainable Development Goals.

According to the study, we can conclude that certain changes are needed to adjust curricula to the new rigors imposed by sustainable development. In order to meet the challenges and opportunities related to sustainable development, it is important to include in the university curriculum disciplines related to: Social entrepreneurship; Competition, regulations and fair-trade practices; Corporate social responsibility; Circular economy; Environmental assessment of the supplier; Occupational health and safety. At the same time, it is necessary to complete the university curriculum with several topics related to this concept, to promote sustainable behaviour in business and to convince students of the need for personal and organizational involvement in the given approach.

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Corresponding author:

Lilia COVAȘ, Associate Professor

Academy of Economic Studies from Moldova, MD-2005, Banulescu Bodoni str. 61, Chisinau, Republic of Moldova

Email: covas.lilia@ase.md