Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development
Vol. 22, Issue 4, 2022
PRINT ISSN 2284-7995, E-ISSN 2285-3952

STUDY ON THE PERCEPTION OF STUDENTS OF THE FACULTY OF MANAGEMENT AND RURAL DEVELOPMENT REGARDING THE TEACHING - LEARNING-ASSESSMENT ACTIVITY CARRIED OUT ONLINE DURING THE COVID-19 PERIOD

Ramona Elena ANGHEL, Alina MARCUTA, Cristiana TINDECHE, Mihaela ROSU, Constantin TRAISTARU, Liviu MARCUTA

University of Agronomic Sciences and Veterinary Medicine Bucharest of Bucharest, 59 Marasti Boulevard, District 1, 011464, Bucharest, Romania, Phone: +40213182564, Fax:+40213182888, Mobile:+40744 6474 10, Emails: ramona.anghel@usamv.ro: alinamarcuta@yahoo.com; tindeche_cristina@yahoo.com; mihaela.rosu@usamv.ro; constantin.traistaru@usamv.ro; liviumarcuta@yahoo.com

Corresponding author: alinamarcuta@yahoo.com

Abstract

The role of a higher education institution is to train specialists who have the necessary skills for their integration into the labor market. The Faculty of Management and Rural Development is one of the 7 faculties of the University of Agronomic Sciences and Veterinary Medicine in Bucharest and which, through the mission and objective, it has proposed as the university curriculum to increase the quality of the didactic act with the aim of training specialists who can integrate into the current knowledge-based society, specialists who can assume responsibilities, be creative, original, flexible, adaptable, with an analytical thinking, innovative and able to run businesses, so that the motto of the faculty is "Preparing to lead!". The new challenges facing today's society make higher education institutions rethink their priorities, having to continuously adapt to meet the challenges that accompany modern society. Therefore, they need modern teaching-learning-evaluation strategies, which respond to the changing requirements and require a digital transformation. The experience gained during the Covid-19 pandemic has accelerated progress in this direction, but more is needed so that the needs of young people raised in a digital society, with digital needs and digital skills can be met. The present study aims to measure the perception of the Faculty of Management and Rural Development students regarding the extent to which digital technology has been applied in the online teaching-learning-evaluation process and its effectiveness. The research methodology assumed the analysis of specialized literature regarding the use of digitization in the application of modern methods in the teaching-learning-evaluation process. The case study was carried out starting with a questionnaire that contained 15 questions addressed to the students of the Faculty of Management and Rural Development. The processing of the answers was carried out with the help of statistical methods, and the results obtained after their interpretation showed that both the teaching staff and the students adapted quite quickly to the online education system. The teaching-learning methods were varied, as were the learning tools used. Among the strong points of online education were flexibility, accessibility, and a variety of methods used in the teaching-learning activity, and among the weak points were identified: maintaining the students' attention during the teaching-learning activity, time management, or the level of digital skills of the teaching staff..

Key words**:** *teaching-learning-evaluation methods, online education, digitization*

INTRODUCTION

In a modern society, which registers an increasingly alert pace of development, digitization becomes one of the most important elements of the development of all the society's systems, and education, as its top sector, must constantly adapt to these changes. Digital technologies have an important role in improving the didactic process within higher education institutions, which contributes on the one hand to its modernization and development, and on the other hand to the development of skills that make it possible to integrate graduates into the labor market. And this time globalization can be brought into the discussion, as a phenomenon that has contributed to the change of society's development perspective and which is closely related to the structural changes of the labor market that have led to the transformation of higher education, to the need for its

modernization and transition to digitization. The consequences of globalization are related to technological progress, to how it determined the development of economies and demographic development, with direct effects on the labor market [9]. On the other hand, economic growth is influenced by innovation [8], by the use of modern research technology, which aims at innovation and which benefits from the most modern technologies, i.e. digitization.

The digitization of education has been debated for a long time, trying to find answers regarding its effectiveness. Therefore, new forms of education have appeared (e-Learning, blended learning, etc.), different or combined with the classic systems, and which have come to the aid of people who wish to continue their education, but who, due to valid reasons (age, existing a job, social, economic reasons, etc.) would not have been able to do this [3]. These new forms of education involved both new educational resources and pedagogical methods adapted to the new conditions.

According to Aboagye et al., there is a difference between teaching, which can be done inside or outside the classroom, and e-learning or blended learning, as formal learning systems that are done with the help of computer technology and the Internet [1].

These systems were applied during the Covid-19 pandemic out of the need to quickly respond to the need to resume the education process and out of the desire to face the challenges and shortcomings that accompanied that period.

One of the few positive aspects of the Covid-19 pandemic was the development and use of technologies that allowed traditional activities to migrate online. These have allowed both work and education to take place remotely. Educational institutions went through a rapid experiment and had to adapt to these conditions, which brought unprecedented progress not only in the field of technology but also in that of pedagogy, which in turn became digital [14].

In this way, technology, and digitization were the ones that prevented the collapse of the educational system, but also of other aspects of life [13].

Online education has not appeared yet, because, at least in higher education, it has been practiced for a long time in the form of open distance education, blended learning, etc. which have granted certain flexibility in terms of teaching-learning-evaluation to respond pedagogically to the needs of students, without these processes being restricted by time, space or distance [6, 11]. And the development of such systems can only be possible through the development of digitalization, which can represent a factor of progress, but equally can lead to a decrease in the efficiency of the educational process when it is not adapted to the needs of students and teaching staff. Along with these changes, there is also a change in the role of the teacher who becomes a learning facilitator, mentor, and research partner who offers students the opportunity to acquire the skills they need, innovating and developing new teaching methods taking into account the learning needs of students, by the learning context, but also by their individual interests [7].

The success of online education, therefore, depends not only on the existence of platforms, technology, and digitization but also on the implementation of the principles of modern pedagogy, on respecting confidentiality, the rights of individuals, etc.

No matter how efficient the technologies used in the educational process are, they cannot replace the pedagogical part, which must subordinate digitization [17].

The learning activity during the Covid-19 pandemic can be considered experiential learning because the students operated with experiences, and concepts, checking the implications that their use had in achieving the objectives. This process is complex, and it could not be optimal without the use of suitable pedagogical methods, because it would complicate the instructive-educational activity, which could lead to abandonment [2].

The success of online education, from a pedagogical point of view, is ensured on the one hand by personalization, authenticity, and collaboration [5, 12], and on the other hand by the use of technology to support pedagogy.

These elements improve both the learning experiences and the students' motivation to achieve the objectives [4, 15].

Digitization of education is a complex process, which, in addition to ICT tools, also requires new teaching methods that lead to the improvement of the quality of education. Therefore, digitization and the structure of the curriculum are interdependent elements, because any technological change is accompanied by new requirements regarding the contents and pedagogical methods used [16].

In Romania, the problem of digitization is not a new one, its foundations were laid in 2016 through the "Educated Romania" project, which involved a public debate and which carried out the projection of the future, imagining its challenges for the present society [10]. The 15 education transformations included in the public debate were proposed for the next period, until 2030.

Therefore, the digitization of education had begun before the onset of the Covid-19 crisis, which represented a way to face new challenges, accompanied by numerous difficulties.

To the same extent, however, the return to the classical education system, after the online period, affected the way education is carried out.

MATERIALS AND METHODS

The research methodology assumed, on the one hand, the analysis of the specialized literature regarding the use of digitization in the development of higher education, and on the other hand, a quantitative study carried out by applying a questionnaire consisting of 15 questions to the target group.

The target group was represented by the students of the Faculty of Management and Rural Development, from years II, III, and IV. During the survey, a sample was not created, but a questionnaire was developed that was completed online by the students.

The questionnaire was applied between May and June 2022, and the number of respondents was 131.

The evaluative questions on which the study was based were the following:

Q1-Did you participate in online courses and seminars?

Q2-What was the level of attendance at the online courses and seminars?

Q3-Did you manage to adapt to the form of online teaching-learning?

Q4-What was the effectiveness of online teaching-learning?

Q5-Were interactive teaching methods used in the teaching process?

Q6-What was the degree of use of these methods?

Q7-What were the resources used in the online teaching-learning process?

Q8-Which of the following tools were used in online teaching-learning?

Q9-How were the workloads received for the online activities?

Q10-How satisfied were you with the effectiveness of online teaching?

Q11-What were the main obstacles in the transition to online education?

Q12-What were the main advantages of online education?

Q13-What will you miss the most during online interaction compared to face-to-face teaching?

Q14-Can the online teaching-learning activity replace the face-to-face activity?

Q15-What were the problems that arose with the online assessment?

To answer these questions, the questionnaire covered the following aspects:

• the quality of the instructional-educational activity;

• online teaching-learning results;

• the effects, at the individual level, of the online teaching-learning system;

The assessment limits were given by:

• the collected information that was, in general, at the level of perceptions;

• the survey was based on a questionnaire that was carried out only for students, data were not collected from teaching staff;

• the difficulties of attributing the effects declared by the respondents;

• lack of control groups.

• data analysis was done only through descriptive statistical methods.

Characteristics of the group of respondents
32 students from the second year, 51 students from the third year, and 48 students from the fourth year answered the questionnaire. Data processing was done using statistical methods, the results being then presented through the interpretations, tables, and graphs in the paper.

RESULTS AND DISCUSSIONS

The present study was carried out based on data collected with the help of a questionnaire, which included 15 questions related to the learning experience of the students of the Faculty of Management and Rural Development during the Covid-19 pandemic. The demographic data regarding the respondents are presented in table 1, noting that 63% of the respondents were women, and 37% were men. The distribution by years of studies shows that 39% of the respondents are students in the third year of study, 37% in the fourth year, and 24% in the first year of study.

Table 1. Demographic information

	Type	Frequency	%
Sex	Female	82	62.60
	Male	49	37.40
Year of Study	II	32	24.42
	III	51	38.93
	IV	48	36.65

Source: own processing.

To the first question: *Have you participated in online courses and seminars*? we note that all respondents participated in online activities during the Covid-19 period, this being the mandatory condition for the promotion of the academic year. At the same time, another reason for participating in the online activities was the novelty of the system and the possibility of interaction with colleagues and teaching staff at a time when everyone was isolated.
To question no. 2: *What was the degree of attendance at the online courses and seminars?* we find that 59% of the students of the Faculty of Management and Rural Development had a presence between 76-100% regarding the courses and seminars held online, while 17% of them had a presence between 25-50%, the reasons being related to the existence of a job, the occurrence of technical problems or the lack of electronic devices that would allow them to log in under good conditions for attending classes or seminars (Figure 1).

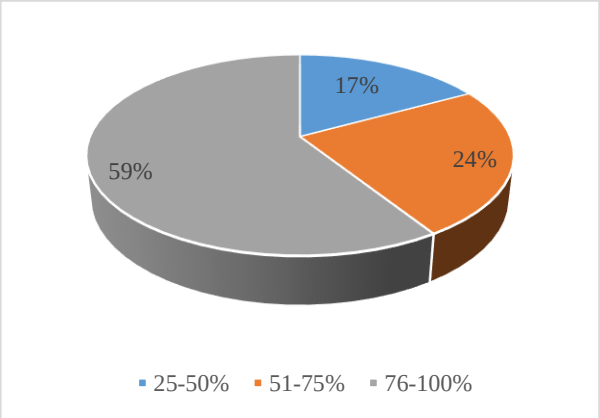

Fig. 1. Share of participation in online activities
Source: own processing.

To question no. 3: *How did you adapt to the form of online teaching-learning?*, we find that of the total number of respondents, 21% adapted very easily, 61% adapted easily, and 18% adapted moderately to this form of teaching-learning. Although in the questionnaire there were also difficult and very difficult options, they were not chosen as answers. Thus, we find that the students had no difficulties in adapting to the new system, in this sense their digital skills were useful to them (Figure 2).

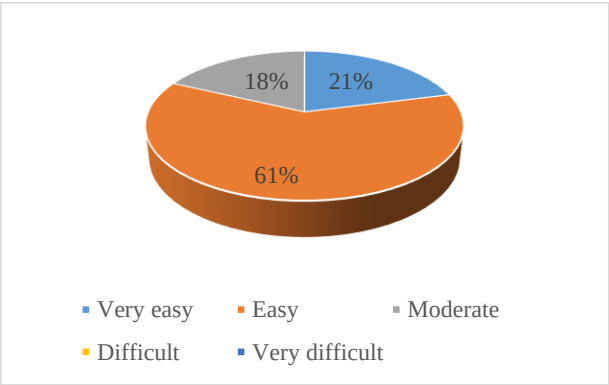

Fig. 2. The situation of students' adaptation to the online teaching-learning system
Source: own processing.

Question no. 4 referred to the efficiency of the teaching-learning activity carried out in the online system.

From the answers collected based on the questionnaire, we find that 9% of the students consider that the efficiency of the teaching activity was less than 25%. Most of them (48%) believe that the efficiency was between 51-75%, while 22% of the students believe that it was over 75% (Figure 3).

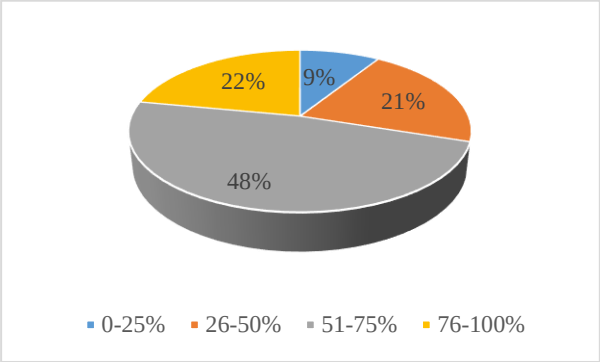

Fig. 3. The situation of the effectiveness of online teaching-learning
Source: own processing.

To question no. 5: *Were interactive teaching methods used in the teaching process?* 87% of the respondents believe that such methods were used, while 13% believe that they were not used.
To question no. 6. *Regarding the degree of use of the methods in the online teaching activity*, 17% of the respondents considered that the use of these methods was below 25%, while 20% considered that the interactive methods were used in a higher proportion of 75%.

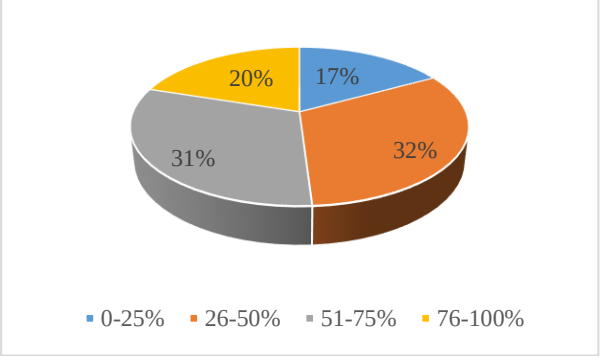

Fig. 4. Share of the use of interactive teaching methods
Source: own processing.

At the same time, 32% of students, respectively 31% considered that interactive methods were used in proportions between 26-50%, respectively 51-75%, which demonstrates the fact that, in general, students considered the teaching activity as being an interactive one (Figure 4).
To question no. 7: *What were the resources used in the online teaching-learning process?* the answers received showed that different educational resources were used during the teaching-learning activity.
We find that all the responding students used the university's platform. 92% of them communicated with the teaching staff by email, as a result of the fact that the course and seminar materials were sent to them in this way. A share of 76% of students used the Google Classroom platform, and 78% of them used the Google Meet platform. The least used resource was the Microsoft Teams platform, with only 22% of students using it (Figure 5).

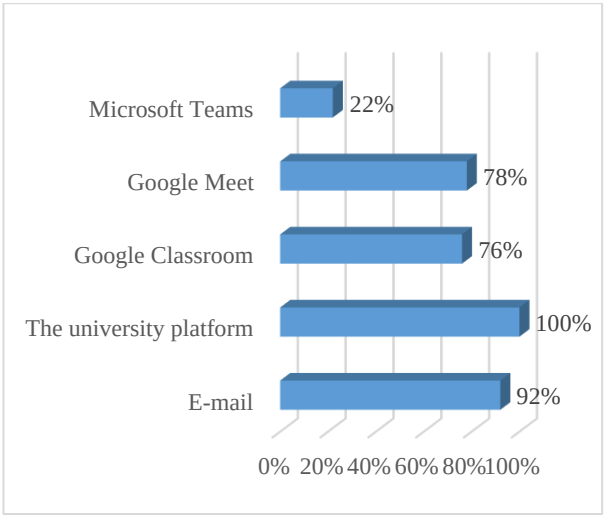

Fig. 5. Share of the use of educational resources
Source: own processing

To question no. 8. *Regarding the means used in online teaching-learning*, the students appreciated that in 92% of cases different digital materials were used (PPT, Prezi, etc.), and 42% appreciate that they were involved in didactic games (Tenty questions, Pictionary, Taboo, etc), 37% used different learning platforms (Kahoot, Socrative, Gimkit, etc), and 2% used other teaching-learning means.
To question no. 9: *How do you rate the tasks received for the online activities?*, the answers show that 58% of the responding students considered the tasks as attractive, and 35% of them as unattractive. 7% of them were undecided about answering (Figure 6).

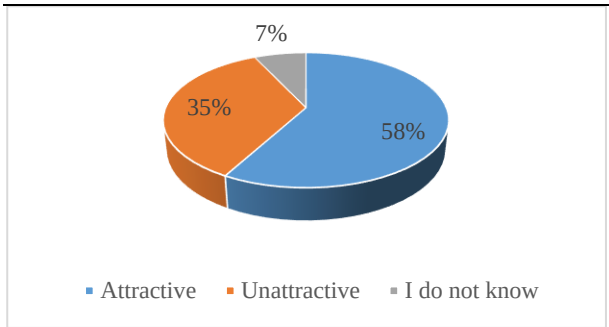

Fig. 6. Assessment of the degree of attractiveness of work tasks
Source: own processing.

To question no. 10: *How satisfied were you with the effectiveness of online teaching?*, 2% of respondents were dissatisfied, and 7% were not satisfied, considering that online teaching was not effective for them. On the other hand, 43% of the respondents were very satisfied, 26% satisfied, and 22% moderately satisfied, which indicates that in general, both students and teachers managed to switch to the online teaching system in a short time and adapt to this new experience (Figure 7).

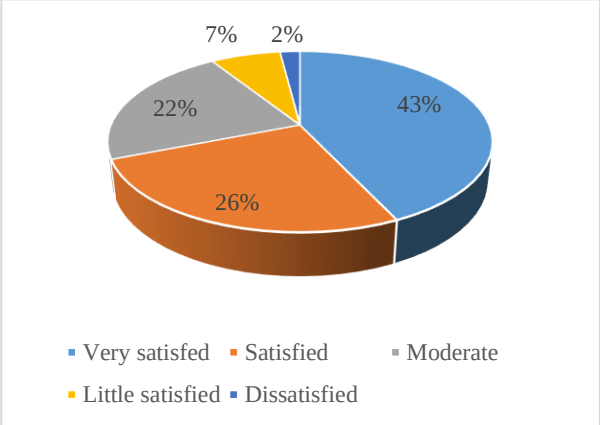

Fig. 7. Degree of satisfaction with the online teaching-learning activity
Source: own processing

Questions 11 and 12 tried to identify *the strengths and weaknesses related to online teaching*, as they were perceived by the students of the Faculty of Management and Rural Development.
Regarding the weak points of the online teaching process, the answers were, in the order of the answers offered, the following: the efficiency of maintaining the students' attention/motivation/involvement in the teaching activity; time management; the teacher's access to technology; the low level of digital skills of the teacher; student access to technology; other causes; the low level of digital skills of the student (Figure 8).

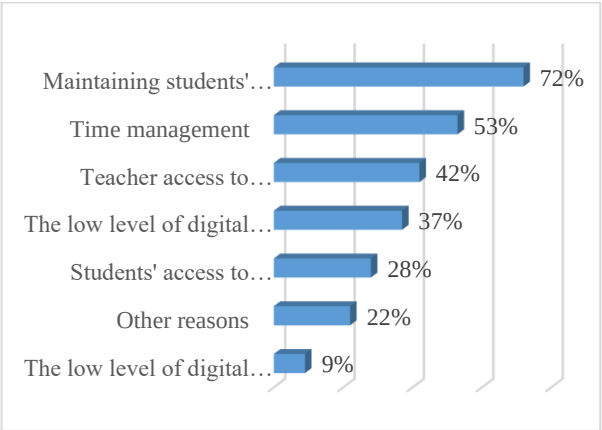

Fig. 8. The weak points of online teaching
Source: own processing.

The strong points of online teaching were represented, in the order of the assessments made by the students, the following: flexibility; accessibility; ease of use of technology; the variety of work tools; innovation; autonomy and motivation; other reasons (Figure 9).

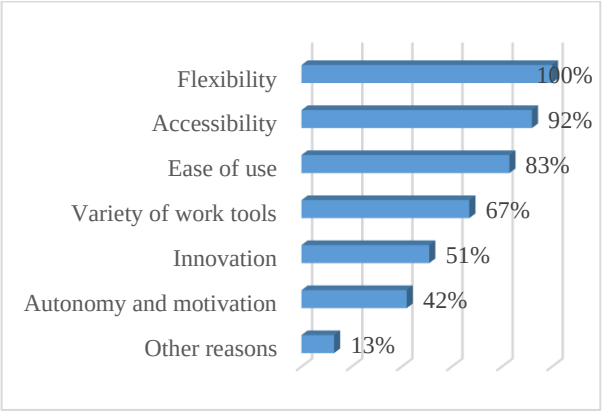

Fig. 9. Strengths of online teaching
Source: own processing.

To question no. 13: *What did you miss the most during online interaction compared to face-to-face teaching?*, most of the respondents (57%) considered that interaction with colleagues was what they missed; 45% considered that interaction with teachers was what they lacked; 19% considered it a learning space and the fact that they had to share the same space with other colleagues (those from the student dormitories) or with

other family members, was what disturbed their educational process.
17% of the students had various other reasons or causes, and 9% of them considered that they lacked all these aspects (Figure 10).

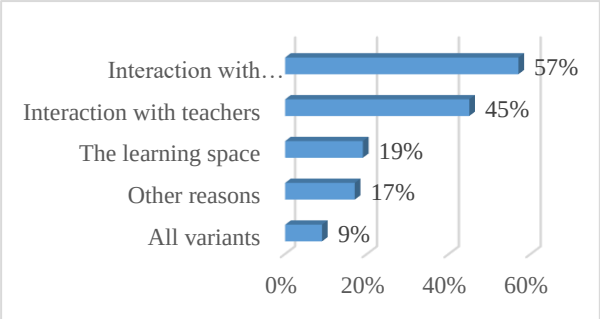

Fig. 10. The aspects that were missing during the online activities
Source: own processing.

To question no. 14. *When asked about the possibility of replacing the face-to-face teaching-learning activity with the online teaching-learning activity*, only 2% of the respondents believed that this could not be possible, while 47% of the respondents believed that this may be possible, and 51% considered that the 2 categories of activities can be complementary.
To question no. 15. The last question of the questionnaire tried to identify *the difficulties of the respondents regarding the assessment activity carried out online.*
Thus, it was found that most problems were technical, but in a proportion of 9%, there were also problems related to understanding the subjects.
At the same time, 23% of the respondents did not have any problem with the online evaluation (Figure 11).

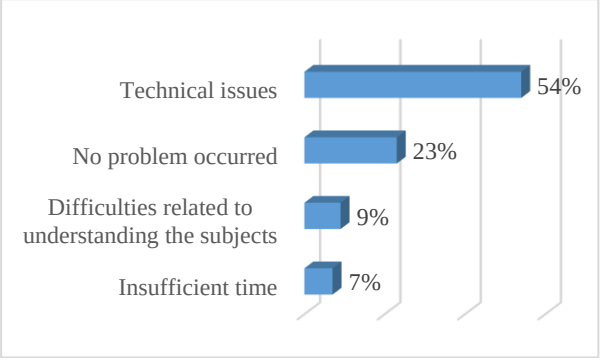

Fig. 11. The aspects that were missing during the online activities
Source: own processing

CONCLUSIONS

The Covid-19 pandemic has demonstrated the fact that digitization is becoming more and more important, contributing to the modernization of education, to the development of new skills that will help future graduates to adapt to the conditions imposed by the labor market.
The current study showed that one of the problems related to online education was that of training, involving students in participating in the teaching activity.
The teaching-learning methods used were varied, as were the means of learning. Among the strong points of online education were flexibility, accessibility, and the variety of methods used in the teaching-learning activity, and among the weak points were identified: maintaining the students' attention during the teaching-learning activity, time management, or the low level of skills in digital tools of the teaching staff. The causes that prevented the evaluation activity were related to technical difficulties, insufficient time, or misunderstanding of work tasks.
The transition to online education during the pandemic demonstrated the ability of higher education institutions to adapt to the new conditions, to ensure the continuity of activities, even if they encountered difficulties and even if they still have many aspects to improve.
Digitization of education is no longer an option, but a necessity, thus ensuring the transition from traditional to modern education. However, it requires the existence of a well-trained human resource in the digital field, which can face the demands of the young people it trains.

REFERENCES

[1]Aboagye, E., Yawson, J. A., Appiah, N., 2020, Covid-19 and e-Learning: the challenges of students in tertiary institutions, Social education research, 2(1), 1–8.
[2]Ahmed, V., Opoku, A., 2022, Technology supported learning and pedagogy in times of crisis: the case of Covid-19 pandemic, Education and information technologies, Vol. 27(1), 365–405.
[3]Alecu, I.N., Marcuta, L., Marcuta, A., Angelescu, C., 2011, The role of an e-learning platform in the

sustainable development of the online learning at the University of Agricultural Sciences and Veterinary Medicine, Distance Learning Department, Bucharest, Romania, Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development Vol.11(2), 5-8.

[4]Henderson, M., Selwyn, N., Aston, R., 2017, What works and why? Student perceptions of 'useful' digital technology in university teaching and learning. Studies in higher education, Vol. 42(8), pp.1567–157

[5]Kearney, S. M., Brad, H., Boddy, D., 2015, The Future of Work in the Age of the Machine, The Hamilton Project. Advancing Opportunity, Prosperity, and Growth, https://www.goiam.org/wp-content/uploads/2014/06/www.hamiltonproject.org_files_downloads_and_links_Work_in_Machine_Age_February_2015_FINAL.pdf, Accessed on 20.08.2022.

[6]Kovari, A., 2022, Digital Transformation of Higher Education in Hungary in Relation to the OECD Report, DIVAI 2022 – The 14th international scientific conference on Distance Learning in Applied Informatics, 229-236.

[7]Loughran, J., 2013, Pedagogy: Making sense of the complex relationship between teaching and learning. Curriculum Inquiry, Vol. 43(1), 118–141

[8]Mărcuţă, L, Mărcuţă, A., 2013, Role of supply chain management in increasing the competitiveness of companies in a global context, Scientific Papers Series - Management, Economic Engineering in Agriculture and Rural Development 2013 Vol. 13(1), 227-229.

[9]Marza, B., Marcuta, A., Marcuta, L., 2018, Role of Corporate Governance in the Context of Globalization. In S. Marginean, C. Ogrean, & R. Orastean (Eds.), Emerging Issues in the Global Economy. Springer Proceedings in Business and Economics, pp. 229-236. Springer. https://doi.org/10.1007/978-3-319-71876-7_21

[10]MEN, 2021, Strategy regarding education digitalization in Romania (Strategia privind digitalizarea educației din România), SMART – EDU, https://www.edu.ro/sites/default/files/SMART.Edu%20-%20document%20consultare.pdf, Accessed on 20.08.2022.

[11]Molnár, Gy, 2012, Collaborative technological applications with special focus on ICT based, networked and mobile solutions, WSEAS Transactions on Information Science and Application, Vol.9(9), 271-281.

[12]Pettersson, F., 2021, Understanding digitalization and educational change in school by means of activity theory and the levels of learning concept, Education and information technologies, Vol. 26(1), 187–200.

[13]Simakhova, O. A., Artyukhov, E. A., Shmarlouskaya, A. H., 2022, Problematic issues of digitalization of education in Eastern Europe, Cte Workshop Proceedings, Vol. 9: Cte-2021, pp. 1-15, https://acnsci.org/journal/index.php/cte/article/view/64/92, Accessed on 20.08.2022.

[14]Varghese, S., 2022, Transforming Education through Media Marketing Post Covid. IIBM'S Journal of Management Research, Vol.6(1-2), 60-70. https://doi.org/10.33771/iibm.v6i1-2.2168, Accessed on 30.08.2022.

[15]Yates, A., Starkey, L., Egerton, B., Flueggen, F., 2020, High school students' experience of online learning during COVID-19: The influence of technology and pedagogy. Technology, Pedagogy and Education, https://doi.org/10.1080/1475939X.2020.1854337, Accessed on 30.08.2022.

[16]Zaripova, D.A., Zakhirova, N.N., Makhmudov, A.A., 2021, Digitization of education and the role of teachers and students in this process, International Journal Of Philosophical Studies and Social Sciences, Vol. 1(2),196-202, http://ijpsss.iscience.uz/index.php/ijpsss/article/view/59/53, Accessed on 26.08.2022.

[17]Zierer, K., 2019, Putting learning before technology! The possibilities and limits of digitalization, Routledge Publishing House, New York.