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STUDY ON THE PERCEPTION OF STUDENTS OF THE FACULTY OF MANAGEMENT AND RURAL DEVELOPMENT REGARDING THE ROLE OF DIGITALIZATION IN THE TRAINING OF COMPETENCES NECESSARY FOR THE INTEGRATION OF GRADUATES IN THE LABOR MARKET

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Abstract

Among the consequences of globalization are the liberalization of markets, the development of technology, etc. elements that are interdependent and that have direct effects on economic development, demographic and political development. In these conditions, modern education, as a factor promoting research and innovation, must face the new challenges related to the construction of a multifactorial education, the formation of new skills, new professional competences, Therefore, the current paper aims to analyze precisely the problems of the digital transformation of the educational space and the training of professional skills, among the students of the Faculty of Management and Rural Development (FMDR) with the aim of increasing their degree of integration on the labor market. The research methodology assumed, on the one hand, an analysis of the specialized literature regarding the importance of digitalization in the formation of the competencies of university graduates, and on the other hand, the measurement of the FMDR students' perception regarding these aspects. Data collection was carried out with the help of a questionnaire with a number of 15 questions, which was applied to FMDR students and answered by a number of 127 respondents. The data were processed with the help of statistical methods, and the results obtained were analyzed and interpreted, forming the basis of the formulation of conclusions that highlighted the importance that digitization has in the training of graduates' skills and in increasing their degree of integration on the labor market.

Key words: *students' perception, digitalization, innovation, technology*

INTRODUCTION

Globalization is a social, cultural, economic, political and legal phenomenon that has contributed to the development of the modern world, to progress and innovation [9]. Therefore, currently, there is also talk about a digital globalization that accompanies the development of technology, the mobility of the labor force, which thus contributed to obtaining new skills for graduates. All these changes still require major changes, including the modernization of education systems. In this field, there are a series of barriers such as: focusing on training skills that do not keep up with the current world, orientation towards outdated education systems, failure to adapt to modern teaching-learning means, etc. That is why, at the institutional level, there is a need for the development of new skills that will contribute to the adaptation of graduates to the labor market, an aspect that in the long term will contribute to economic growth and innovation. Or this cannot be achieved without the involvement of educational institutions in general, but especially of higher education, which acts as a spearhead in terms of obtaining a highly qualified workforce and which must adapt to the new requirements, collaborate with business environment and welcome new industries.

In this way, digital technologies become an engine of development, an engine of social change throughout the world, higher education thus having a decisive role and having to adapt in turn, but not without

encountering numerous difficulties, and not only of an ethnic nature, but also of perception [14, 19]. Digitization is becoming a way of life today, it is part of our current life, and modern education must face more and more the demands of the young generation, which is a generation born and raised in a digital environment, a generation easily adaptable to modernization and technology changes [17]. At the level of the European Union, in its 28 states, there are over 100 policies that refer to digitization: transversal policies, educational policies and policies that refer to workplaces. There are also concerns found in the Digital Competencies Framework for Citizens (DigComp), which is structured in five areas, and which refers to 21 competencies. The five areas are: digital and information literacy; communication and collaboration; creating digital content; safety and troubleshooting.

Even if there were these concerns, what contributed at a rapid pace to the increase in the pace of development of digital skills was the Covid-19 pandemic. During the Covid-19 pandemic, the education system, like many other sectors of activity, had to adapt quickly and on the fly to the new conditions, because otherwise it would have risked closure [2, 8]. In this way, the pace of acquiring digital skills has increased. Digital skills presuppose the use of information and communication technologies for the purpose of information, communication and solving problems that belong to all areas of life, being included in the category of transversal skills, precisely because they allow the development of key skills (linguistic skills, mathematical skills, etc.) [12, 21]. Therefore, realizing the importance of digitization, the European Commission proposed in 2020 new objectives for the development of digital skills and competences, embodied in 12 actions that proposed quantitative objectives, a recommendation regarding education and sustainable professional training and a set of indicators through which it was aimed that by 2025, 70% of the adult population of the Union should have digital skills.

As far as Romania is concerned, as in the other member states of the European Union, there were concerns related to digitization that started before the Covid-19 pandemic. In 2016, the "Educated Romania" program was launched, a program that was followed by public debates that took place between 2016-2018. Although initially the program did not have a digitization strategy, as a result of the health crisis, it was necessary to face the new challenges on the fly. It is the Covid-19 pandemic that has led to the awareness of legislative gaps and to the highlighting of deficiencies regarding digital skills and the way of using technologies in education. This, although it is not specific only to Romania, but to all the countries of the European Union, even to all the countries of the world, is an important topic that must be discussed [22]. Eurostat data from 2019 showed that if at the level of the European Union, the share of young people aged between 19-24 with digital skills was 80%, in the case of Romania, their share was only 56%.

As in the case of the other member states, starting from 2020 Romania transformed digital education into a key objective of the teaching-learning-evaluation process, through which due importance was given to the acquisition of digital skills not only for students or young people, but for all those who they want lifelong learning [11].

A study developed by the Center for International Development and Cooperation Studies (IDC) that refers to digital skills in Romania shows that in terms of the business environment, over half of the companies believe that digitization will have a positive impact on the market, from the perspective the jobs they anticipate. Although they are not lagging behind in adopting modern IT solutions and technologies, which will lead to increased demand for digitally skilled people in the future. One of the biggest challenges, however, is finding people with both technological and social skills.

The vast majority of companies consider collaboration with academia to be the surest way to recruit people with digital skills. At the same time, the digital skills formed through personal use become a standard part of the Romanian employee's professional tools [5].

In addition to the role played by the specialized subjects from the analytical programs of the universities in the formation of digital skills, an important role also belongs to pedagogy, which in turn contributes to the formation of social skills [7, 13, 20].

It was found that the Covid-19 pandemic meant all over the world a period of rethinking teaching-learning-evaluation practices that had to adapt to the new conditions, had to acquire greater flexibility in terms of their application, have had to face some complex challenges, and to answer them in a short period of time [6].

Even if the COVID-19 crisis brought into discussion numerous opportunities related to digitization, it must be pointed out that it also highlighted the numerous risks related to the online environment, its security, etc. [1].

Pursuing the achievement of the objectives related to digitization and its role in the training of competences is a complex problem, which must be managed in an efficient way, by involving all the actors involved in this process, so that the results are the desired ones.

MATERIALS AND METHODS

The research methodology involved both the study of the specialized literature and the realization of a quantitative research that used the structured personal survey as a data collection method. The tool for gathering information was the questionnaire applied to the students of the Faculty of Management and Rural Development.

The questionnaire included 2 parts, the first part having 3 demographic questions, and the second part having 15 questions with closed or open answers, regarding the students' perception of the need to digitize the educational process in order to increase the chances of integration on the labor market.

The use of closed questions had the role of facilitating the use of several items, supporting the respondent's memory, filtering the rest of the questions and allowing the statistical analysis of the answers [3]. Open questions were used to eliminate the risk of suggestibility [4].

The 15 questions were the following:

Q1-What are the devices you use for learning activities?

Q2-How many hours a day do you use digital devices?

Q3-How many hours a day do you use digital devices for learning activities?

Q4-How much do you use technology in the learning activity?

Q5-How much do you want to learn to use software or other digital resources in the learning activity?

Q6-What are the devices you have access to within the faculty?

Q7-How motivated are you to use digital technology in the learning activity?;

Q8- In what proportion is digital technology used in courses and seminars?

Q9-In what proportion do you use software or other digital resources in the learning activity at the faculty?

Q10-In what proportion did the subjects studied during college contribute to the development of digital skills?

Q11-Which of the following skills have been developed by the subjects you studied in college?

Q12-Did online teaching activities contribute to the development of digital skills?

Q13-Have you attended digital skills training courses organized by the university apart from those studied in the education plan?

Q14-Do you consider that digital skills are useful in finding a job?

Q15-How important do you think digital skills are for your future activity?

The questionnaire was applied between March and April 2022, and the response rate was 28.22% (127 students responded, 450 tests were sent). Sampling was subjective. The students gave their consent regarding the participation in the case study.

Data processing was carried out with the help of statistical methods, and conclusions were formulated based on the results obtained.

RESULTS AND DISCUSSIONS

The questionnaires regarding the perception of the students of the Faculty of Management and Rural Development regarding the need

for digitalization in the education system with the aim of increasing the chances of their integration into the labor market was sent to a number of 450 students. The number of those who answered and for whom the completion of the questionnaire could be validated was 127 students.

From Table 1, where the data obtained from the 3 demographic questions were centralized, it is found that 70.07% of the respondents are female, and 29.93% are male. Almost 97% of student respondents are between 19-24 years old. Out of a total of 127 respondents, 24% are students in their second year, 43% in their third year and 33% in their fourth year.

Table 1. Demographic information

	Type	Frequency	%
Sex	Female	89	70.07
	Male	38	29.93
Age	19-24 years	123	96.85
	over 24 years	4	3.15
Year of study	II	31	24.40
	III	54	42.51
	IV	39	33.09

Source: own processing.

Base on the answers given to the 15 questions, of which 2 were questions with open answers and 13 with closed answers, the conclusions of the study could be formulated.

From the answers provided by the respondents to question no. 1: *What are the devices you use for learning activities?* we find that 88% of students use the phone in their learning activities, and 82% of them also use the laptop. None of them use the tablet for these activities, but 29% use the PC.

To open question no. 2: *How many hours a day do you use digital devices?* The answers varied from 2 hours to 8 hours. Thus, among the 127 respondents, most, i.e. 59%, use these devices 7-8 hours/day. At the same time, those who use the phone only 2, respectively 4 hours a day represent approximately 6% of the total respondents.

Of the total time spent using digital devices, the majority is dedicated to learning activities. Thus, to question no. 3, the open answers showed that the time used for these activities varies from 1 hour to 6 hours. The largest share of students, i.e. 29% of the total, spend 4, respectively 5 hours with the aim of their school preparation. The lowest percentage spent by the respondents for the purpose of carrying out educational activities with the help of digital devices is 6%, i.e. by those students who allocate 1 hour, respectively 2 hours/day.

Table 2. Survey Questions (Q1–Q5) with responses

Q	Survey Questions	Response (%)
1	What are the devices you use for learning activities?	Desktop – 29.4% Laptop – 82.4% Phone – 88.2% Tablet – 0% None of these -0.0%
2	How many hours a day do you use digital devices?	2 hours – 5.88% 4 hours -5.88% 5 hours – 11.76% 6 hours – 17.65% 7 hours – 23.53% 8 hours – 35.3%
3	How many hours a day do you use digital devices for learning activities?	1 hour – 5.88% 2 hours – 5.88% 3 hours – 23.54% 4 hours – 29.41% 5 hours – 29.41% 6 hours – 5.88%
4	How much do you use technology in the learning activity?	0-25% - 0% 26-50% - 23.5% 51-75% - 35.3% 76-100% - 41.2%
5	How much do you want to learn to use software or other digital resources in the learning activity?	Very much – 58.5% Much – 17.6% Medium – 23.5% Little -0.0% Not at all – 0.0%

Source: own processing.

According to the answers given to question no. 4: *How much do you use technology in the learning activity?* we find that this has an important place not only in the daily life of young people, but also in their learning activity. Thus, more than 76% of students predominantly use digital technology in the learning process (that is, in the proportion of 51-100%). None of the respondents appreciated that the use of technology is done in a proportion lower than 25%. This proves the necessity of using digitization in the learning activity, but to the same extent it must also be used in the teaching or evaluation activity. What was found, however, is that the new generations, although they are equipped with new cognitive abilities

that have been developed following the intensive use of media technologies, are still faced with a substantial gap in terms of educational factors and which comes from the radical transformation of styles cognitive and social practices [15, 16, 18].

Another question referred to the students' desire to use software or other digital resources in the learning activity. The answers provided show that the students are aware of their importance. Thus, 59% of them want to use them very much, and 18% very much. None of the respondents appreciated that the use of digital tools would be of little or no use (Table 3).

Table 3. Survey Questions (Q6–Q10) with responses

No	Survey Questions	Response (%)
6	What are the devices to which you have access within the faculty?	Wi-Fi – 64.7% Desktop – 52.9% Laptop – 41.2% Smart board – 35.3% Other devices – 11.8%
7	How motivated are you to use digital technology in the learning activity?	Very motivated – 58.8% Quite motivated – 29.4% Medium motivated – 11.8% Little motivated – 0.0% Not at all – 0.0%
8	In courses and seminars, digital technology is used in proportion to:	0-25% - 17.6% 26-50% - 41.2% 51-75% - 11.8% 76-100% - 29.4%
9	In what proportion do you use software or other digital resources in the learning activity at the faculty?	0-25% - 23.5% 26-50% - 35.3% 51-75% - 17.6% 76-100% - 23.5%
10	In what proportion did the subjects studied during college contribute to the development of digital skills?	0-25% - 23.5% 26-50% - 29.4% 51-75% - 17.6% 76-100% - 29.4%

Source: own processing

From the answers provided by the FMDR students, we find that during the teaching-learning-evaluation activities, they have access to a varied range of digital devices (65% use the WiFi network provided, 53% use PCs, 41% laptops, 35% use the existing smart boards in the classrooms, and 12% also use other devices. They also appreciate that they are motivated and encouraged in the use of digital technology (Table 3).

Thus, 80% of the respondents consider that they are *very motivated* or *fairly motivated*, but no one is a *little motivated* or *not at all motivated* in using technology in the learning process (Table 3).

From question no. 9: *In what proportion do you use software or other digital resources in the learning activity at the faculty?* it results that although they are used in a proportion greater than 75% by 24% of the students and in a proportion between 51-75% by a share of 18% of them, there are also 24% of respondents who use software in a proportion less than 25% (Table 3).

It can be observed that there is a direct correlation between the year of study and the use of digital educational resources, because in the category of respondents who appreciate that they use these resources in a lower proportion (0-25%), there are second year students, who according to of the analytical program study basic subjects, with a technical character, while the students of the III and IV years, who study economic subjects (Accounting, Project Management, Investment Efficiency, Simulated Enterprise, etc.) appreciate that the proportion of using social media is higher.

To the question with no. 11: *Which of the following skills were developed by the subjects you studied in college?* we find that almost 77% of the students appreciate that they have acquired data analysis and interpretation skills. They also developed skills related to the creation of digital materials (70.6%), information (use of databases, specialized websites, etc.) or research (for the preparation of projects, for the completion of the bachelor's thesis, etc), the weights being 58.8% each (Table 4).

Are you asking if the implementation of online didactic activities contributed to the development of digital skills? we find that the highest percentage of students, i.e. 41.2%, consider that these skills have been developed quite a lot. A share of 35.3% of students appreciates that these skills have been developed a lot, while approximately 18% appreciate a moderate contribution to the

formation of skills, and 6% a reduced contribution (Table 4).

Table 4. Survey Questions (Q11–Q15) with responses

No	Survey Questions	Response (%)
11	Which of the following skills have been developed by the subjects you studied in college?	IT skills – 52.9% Data analysis and interpretation skills – 76.5% Creating digital material – 70.6% Information skills – 58.8% Research skills – 58.8%
12	Did online teaching activities contribute to the development of digital skills?	IT skills – 52.9% Data analysis and interpretation skills – 76.5% Creating digital material – 70.6% Information skills – 58.8% Research skills – 58.8%
13	Have you attended digital skills training courses organized by the university apart from those studied in the education plan?	Yes – 17.6% No – 82.4%
14	Do you consider that digital skills are useful in finding a job?	Yes – 94.1% No – 5.9% I do not know – 0.0%
15	How important do you think digital skills are for your future activity?	Very useful – 82.4% Quite useful – 17.6% Medium – 0.0% Slightly useful – 0.0% Not useful at all – 0.0%

Source: own processing.

Although digital skills training courses were regularly organized within the USAMVB Counseling Center, only a small part of the FMDR students followed them (17.6%, but this category also included courses that had other organizers).

Regarding the extent to which FMDR students consider that digital skills will be useful to them in finding a job, only approximately 6% of them consider that they are not useful to them, the rest considering that these skills will increase their chances.

To question no. 15: *How important do you think digital skills are for your future activity?* we find that approximately 82% of the respondents considered that they were very useful, and the remaining 18% considered that they were quite useful (Table 4).

The respondents are aware of the fact that modern society requires the possession of these digital skills, which, as I said earlier, are no longer just necessary, but mandatory.

However, digital technologies have other advantages that must be remembered: they contribute to people's access to information, dematerialize spatio-temporal boundaries and contribute to the reduction of social or situational differences by creating new forms of communication or accelerate the process of globalization, as observed by Marshall McLuhan since 1961 through paradigm of the "global village" [10]. But let's not forget forms of exclusion, poverty or digital gap, which accentuate the old inequalities and thus require a transition from a protectionist approach to a dialogic one, centred on understanding how the young generation adopts, uses and interprets digitalization.

CONCLUSIONS

The Covid-19 pandemic was a good moment for reflection and development of trends related to the development of professional skills, especially digital ones that make a company's employees remain relevant on the labor market.

The unprecedented situation of this pandemic highlighted the discrepancy between the digital skills possessed by employees and those needed, which brought the issue of digitalization even more into discussion.

The future of the labor market is influenced by the development of digital skills of graduates, by their integration in the lifelong learning process.

The respondents appreciated that the university studies within the FMDR contribute to the development of digital skills and agreed that their possession is vital for increasing their competitiveness and professional insertion capacity.

In order to increase the degree of development of digital skills, we consider that it would be useful to develop partnerships between the main actors involved in the progress of the educational process: universities, the private

sector, public institutions. These partnerships must contribute to the development of sustainable public policies for the labor market, which offer real opportunities to the younger generations.

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