

# DIGITALISATION OF THE HUMAN RESOURCES DEPARTMENT

**Andreea-Mădălina Toader<sup>1</sup>**

## **Abstract**

The new digital trends are triggering the interest in the evolution of the future of work. The use of digitalisation in various sectors of activity has become an essential element in the success of organisations. An important role within organisations is played by the human resources department, seen as a business partner. It has the task of using the tools appropriate to the transformations existing on the labour market and meet the challenges posed by the new generations, but also globalisation. Thus, the purpose of this paper was to identify how human resources specialists relate to digital technologies and what are the advantages of using it. The research involved 40 subjects working in the field, in companies in the counties of Iasi, Suceava, Bucharest and Cluj. We found that the digitalisation of the human resources department means for the chosen sample, the increase of work efficiency and the implementation of technical measures to allow the proper functioning of technologies. The research method used in this paper was the sociological survey. The tool used was the online questionnaire, the data collection period being May - June 2020.

**Keywords:** digitalisation, technologies, innovations, organisations, human resources department

## **Résumé**

Les nouvelles tendances numériques suscitent l'intérêt pour l'évolution de l'avenir du travail. L'utilisation de la numérisation dans divers secteurs d'activité est devenue un élément essentiel de la réussite des organisations. Un rôle important au sein des organisations est joué par le service des ressources humaines, considéré comme un partenaire commercial. Il a pour mission d'utiliser les outils adaptés aux transformations existantes sur le marché du travail et de relever les défis posés par les nouvelles générations, mais aussi la mondialisation. Ainsi, l'objectif de cet article était d'identifier comment les spécialistes des ressources humaines se rapportent aux technologies numériques et quels sont les avantages de leur utilisation. La recherche a porté sur 40 sujets travaillant sur le terrain, dans des entreprises des comtés d'Iasi, Suceava, Bucarest et Cluj. Nous avons constaté que la digitalisation du service des ressources humaines signifie pour l'échantillon choisi, l'augmentation de l'efficacité du travail et la mise en place de mesures techniques pour permettre le bon fonctionnement des technologies. La

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<sup>1</sup> Human Resources Specialist, MA student at Sociology of Organizations and Human Resources, Sociology and Social Work Department, Faculty of Philosophy and Social-Political Sciences, "Alexandru Ioan Cu za" University of Iași, Carol I 11, 700506, Iași, Romania, 075573711, e-mail: toaderandreea286@gmail.com.

méthode de recherche utilisée dans cet article était l'enquête sociologique. L'outil utilisé était le questionnaire en ligne, la période de collecte des données allant de mai à juin 2020.

**Mots-clés:** digitalisation, les technologies, des innovations, organisations, département des ressources humaines

### **Rezumat**

Noile tendințe digitale stârnesc interesul privind evoluția viitorului muncii. Utilizarea digitalizării în diverse sectoare de activitate a devenit un element esențial în succesul organizațiilor. Un rol important în cadrul lor îl deține departamentul de resurse umane, văzut ca un partener de business. Aceștia îi revine sarcina de a utiliza instrumentele adecvate transformărilor existente pe piața forței de muncă și de a face față provocărilor lansate de noile generații, dar și de globalizare. Astfel, scopul acestei lucrări a fost identificarea modului specialiștilor în resurse umane de a se raporta la tehnologiile digitale și care sunt avantajele utilizării acestora. La cercetare au participat 40 de subiecți care lucrează în domeniu, în cadrul unor companii din Județele Iași, Suceava, București și Cluj. Am descoperit că digitalizarea departamentului de resurse umane semnifică pentru eșantionul ales, creșterea eficienței în muncă și implementarea unor măsuri de ordin tehnic care să permită buna funcționare a tehnologiilor. Metoda de cercetare folosită în această lucrare a fost ancheta sociologică. Instrumentul utilizat a fost chestionarul aplicat online, perioada de culegere a datelor fiind mai-iunie 2020.

**Cuvinte cheie:** digitalizare, tehnologii, inovații, organizații, departamentul de resurse umane

## **1. Introduction**

The company, which is in a permanent change, has undergone over time a number of transformations whose cause was represented by the needs of the social actors to contribute to the improvement of living conditions. The technological innovations are among the results obtained by individuals in response to the desire to facilitate the laborious processes carried out at work. At the same time, innovation is one of the objectives pursued in business development.

It 'works systematically to identify, develop and implement new ideas that add value to customers and, therefore, value to business' (Șoitu & Johansen, 2017, p. 11). The spread of technology went through several stages until it reached the moment of creating artificial intelligence, that is why, today, when we talk about digitising some sectors, we take into account both the incipient phases of the development of that field, the economic possibilities of the organisation, and the development of the country in which an organisation operates.

The industrial revolution that first broke out in England at the end of the 18th century and in the first decades of the 19th century, and then extended to other states, laid the foundations for a transformation of what human resources management is today. The development of all sectors of activity, the multiplication of factories, their endowment with various equipment, have led to the expansion of the dimensions of many organisations. The transition to digitalisation was one that

took place gradually, taking several years to adapt organisations to new technologies.

The social and digital socialising tools, notes Dessler (2016), change the way people look for jobs, but also the way companies recruit, retain, pay and train employees. This has transformed the practice of human resources management and created a new human resources management.

The robots can handle tasks such as: registration of leave requests, can answer the employees' questions about ambiguities (chatbots), can manage large amounts of information about employees and candidates, can handle recruitment and everything that involves a lot of time and energy lost during these processes, which are very important, but which lose sight of the specifics of the human resources department, which should deal more with the relationships between people and their needs and let robots handle these routine tasks. The digital transformation of the human resources departments allows setting real-time goals, constant updating of these objectives closely related to the real needs, the use of various applications to increase employee productivity and effective communication with a larger group of specialists to encourage the exchange of ideas. At the same time, the continuous digital dialogue that takes place between employees and managers contributes to establishing a closer relationship, recognising the merits of employees and receiving quick feedback, which helps them improve from one stage to another (Rimon, 2017).

The workforce must adapt to the new challenges, have a set of skills necessary for the demands of the labour market and be in a constant search to update their knowledge of the rapid changes taking place in their field of activity (Netedu, 2013; Medeleanu, 2016).

Human resources specialists come to support the adaptation of employees to the new changes. They are always looking for quick solutions to problems that arise within organisations.

The Human Resources Information System brings a number of benefits to the department related to: data integration, accuracy, benefits management, recruitment management, but it may also have some disadvantages such as: security, cost and the need for an IT specialist to manage the system (Bruce, 2014).

The digitalisation helps the specialists of this department to know better the characteristics of the employees, thus offering them certain ways of working according to the profile of each one. This increases employee productivity and is another advantage of digitalisation (Hoffman, 2020).

Also, in addition to the advantages listed, digitalisation also has less good parts. A major disadvantage of digitising the human resources department is the violation of employee confidentiality. For example, if a hacker accesses a database of an employee, he/she may incorrectly expose his/her personal details, and the existence of a password does not fully guarantee the security of the data. Another disadvantage refers to the loss of time due to certain technical difficulties that may occur, which can lead to slowing down work tasks (Faber, 2017). The pressure is heightened by the need to always keep up with the news that is growing

substantially and is felt on the performance of employees. The increase of the level of work with the help of digital leads to a significant reduction in interactions between employees of an organisation, which could be to the detriment of their mental health (Cazan, 2020).

## **2. Research methodology and objectives**

I present in the second part of this paper the methodology of the quantitative study conducted in 2020 on 40 human resources specialists, 8 male decision makers and 32 female decision markers aged between 22 and 51 and working within companies from the counties of Iasi, Suceava, Bucharest and Cluj. The sampling technique we used is based on volunteering. The method used in this research is the sociological survey, the technique used being the survey based on questionnaire. In order to identify how human resources (HR) specialists related to digital technologies and what are the advantages of using them, we applied a questionnaire to the subjects, which for objective reasons (COVID-19 epidemic), had to be disseminated online on different social networks (facebook, linkedIn, e-mail). The socio-demographic criteria such as: age, gender (female/make), subjects' studies (university/postgraduate), specialisation of studies, length of service in the company, total work experience, company where respondents work, position in the company, type of position (execution/management), county, helped us to build an image of what digitalisation means for each category of subjects, depending on the variables mentioned.

This research had four objectives:

1. Identifying the significance of digitalisation in the vision of human resources specialists
2. Identifying the link between digitalisation and the pandemic
3. Identifying the digital technologies used in the human resources department at present
4. Assessing the advantages perceived by HR specialists in terms of the process of digitalising their own department.

## **3. Data analysis**

The data analysis was performed using the SPSS program which is used in statistical analyses. The research conducted on the topic 'digitalisation of the human resources department' consists of two parts: (a) descriptive analysis and (b) hypothesis testing. The first question in the questionnaire is one with a free answer, which allowed us to analyse how the HR specialists perceive digitalisation of their own department. The answers obtained involved the qualitative analysis of the data, as follows:

Invited to answer the question 'describe in a few words how you see digitalisation', the respondents had well-argued points of view. We grouped their opinions into four thematic areas: efficiency, technical advantages, opinions

against digitalisation, and the fourth was called other opinions. We noticed in the answers obtained that most respondents see digitalisation as an automation of repetitive processes, this being an important advantage for them, and with the spread of digital trends, the emphasis is on flexibility, availability, toward accepting new challenges, adapting to changes and higher reaction speed. The quick operation of the tasks is another answer that demonstrates that digitalisation reduces the time spent working on tasks and reduces the risk of error. This wave of digitalisation requires an update of the knowledge and skills assimilated by employees, and the data obtained from our research show that the acquisition of new skills is absolutely necessary to keep up with it.

Depending on the positions held and the company in which the respondents work, we could observe a different way of answering this question, the answers obtained being related to the technical part of how digitalisation has an impact on the human resources department. The impact was observed by the respondents at the software level, these being used both on the recruitment side and in terms of personnel training and administration. We found out from the respondents' answers that digitalisation is seen by them as a remote recruitment/selection process; online trainings; creating tools to help the onboarding part and in online; contracts, remote certificates (eg., docuSign), HR chatbot, integrated systems, employee self-service tools, creating a dashboard - HR metrics -, that measures in real time those parameters considered important for the organisations - Key KPI's. If for some respondents, the digitalisation of the human resources department is a good thing, we could also identify contrary opinions that have shaped a new vision regarding this process, one of the subjects claiming that the safest way to solve problems is human interaction between employees and the human resources department.

According to the statistics, Romania is far behind the member states of the European Union, in terms of technology. This was also supported by a subject who mentioned that in Romania a sudden transition is being tried, but the employees are not prepared from many points of view. What should make the job easier, it actually makes it harder.

The communication through different platforms allows collaborative work, but the last-minute changes may be too demanding for human resources specialists, according to them. The digitalisation is a necessary thing; it is seen as a positive thing for the organisation and its employees. Its need is of great importance, but there are companies that, for various reasons, do not adopt this idea, even if it would be useful for employees. The digital solutions that specialists can operate with may differ depending on various criteria. We further tested the following hypothesis: H1. There are significant differences in the options of digital solutions proposed according to the type of job of those interviewed (Management vs. Execution).

We used the Chi-Square statistical test based on which we deduced that the type of job influences the choice of digital solutions. For example, the management dominates in choosing all digital solutions, except the second one (mobile

technology). The hypothesis was confirmed, the two variables are associated (Chi=16.3, df=6, p=0.01).

**Table 1.** *Digital solutions*

		Digital solutions						
		Cloud	Mobile	Social-media	Data analysis	Collaborative work	Electronic invoice	Total
		%	%	%	%	%	%	%
SD8	Management	77.8	77.8	77.8	55.6	88.9	55.6	100
	Execution	54.5	86.4	40.9	27.3	59.1	63.6	100
	Total	65	82.5	57.5	40	72.5	60	100

**Table 2.** *Pearson Chi-Square Tests*

		Digital solutions
SD8	Chi-square	16.339
	df	6
	Sig.	.012*

The Chi-square statistic is significant at the 0.05 level.

We further asked ourselves whether digitalisation has an influence on the overall performance of the company and we developed the following hypothesis which we divided into three sub-hypotheses (H2.a; H2.b; H2.c) and we tested them as follows:

H2. The influence of the digitalisation of the HR department on the general performance of the company is not differently represented by the age, seniority, type of job and type of university specialisation of the respondents.

H2.a. The influence of the digitalisation of the HR department on the general performance of the company is not differently represented by the age of the respondents. The data analysis shows that the two variables are not associated (Chi=0.800, df=1, p=0.370). We deduce that there are no significant differences in the assessment of the role of digitalisation by age categories (under 30 years and over 30 years). The hypothesis was confirmed.

H2b. The influence of the digitalisation of the HR department on the general performance of the company is not differently represented by the seniority. The data analysis shows that the two variables are not associated (Chi=1.54, df=1, p=0.462). We deduce that there are no significant differences in the assessment of the role of digitalisation of HR services by seniority categories. The hypothesis was confirmed.

H2c. The influence of the digitalisation of the HR department on the general performance of the company is not differently represented by the type of job of the respondents. We obtained the following results from the data analysis:

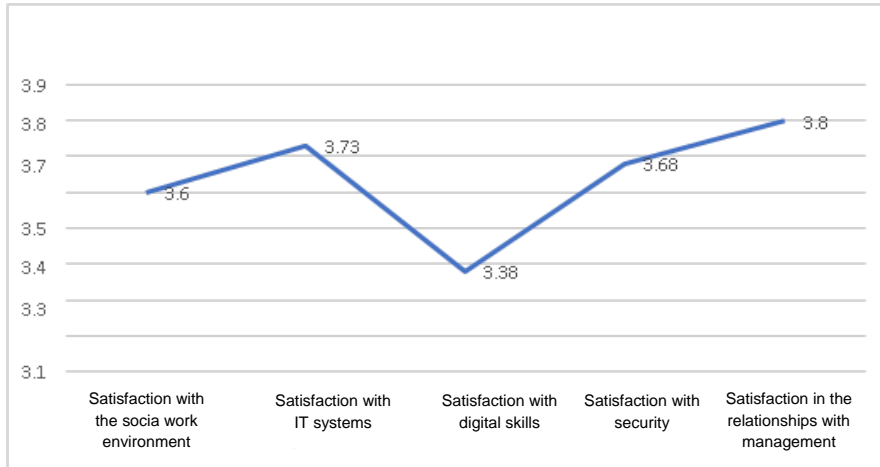
**Table 3.** *The influence of digitalisation on employees depending on the position held*

			VAR00003		Total
			Large and very large	Small and very small	
SD8	Management	Count	12	6	18
		Expected Count	11.7	6.3	18.0
		% within SD8	66.7	33.3	100
	Execution	Count	14	8	22
		Expected Count	14.3	7.7	22.0
		% within SD8	63.6	36.4	100
	Total	Count	26	14	40
		Expected Count	26.0	14.0	40.0
		% within SD8	65.0	35.0	100

The statistical test had the following values: (Chi=0.04, df=1, p=0.84). We deduce that there are no significant differences in the assessment of the role of digitalisation of HR services by type of job. In fact, we see in Table 1 that the scores for both types of jobs are very high and almost equal (66.7 % and 63.5%). The hypothesis was confirmed.

Whether or not digitalisation brings satisfaction was another point of interest of the research, and the third hypothesis was tested: H3. The satisfaction with the technical work environment in HR is positively correlated with satisfaction with the human work environment

We developed two statistical indices for this hypothesis: satsftehn (satisfaction with the technical work environment in HR) and satsfuman (satisfaction with the human work environment in HR). This hypothesis was tested using the Spearman test from which we could observe that there is a statistically significant correlation of high intensity and the same meaning ( $r=0.671$ ,  $p=0.01$ ,  $N=40$ ), the hypothesis was confirmed, which indicates that digitalisation should only be used as a tool, employees also need interaction with the social environment, as shown in the following figure:



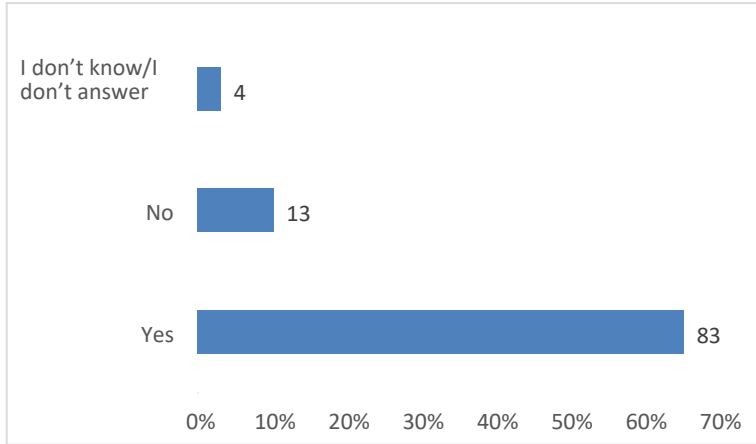
**Figure 1.** *Satisfaction with the technical and social environment*

We asked the human resources specialists on a scale from 1 to 5, (where 1 means that they are very dissatisfied, and 5 means that they are very satisfied), how they appreciate the following aspects. The results were as follows: of the five elements, the most appreciated is ‘satisfaction with the social work environment’, averaging 3.8 out of 5. This is followed by ‘satisfaction with digital skills (3.73), ‘satisfaction with management’ (3.68), ‘satisfaction with computer systems’ (3.6) and finally ‘satisfaction with cyber security (3.38). It can also be seen in the graph that the respondents opted more for the human side, than for the technological side.

### *3.1. Accelerating the digitalisation of the human resources department*

‘Working anytime, anywhere: The effect on the world of work’ study, carried out by the International Labour Organization and the European Foundation for the Improvement of Living and Working Conditions, held in 2017, claimed that Romania is among the countries with a percentage below 15% of the employees. Things have changed, and 2020 is a real challenge for organisations because of the Coronavirus pandemic and the economic effects felt by employers. The effects produced by the spread of the virus in terms of using digitalisation as a way out of business deadlock, was another point addressed in the paper. The digitalisation of the Human Resources Department was implemented rapidly due to COVID-19 epidemic, as can be seen in figure 2.



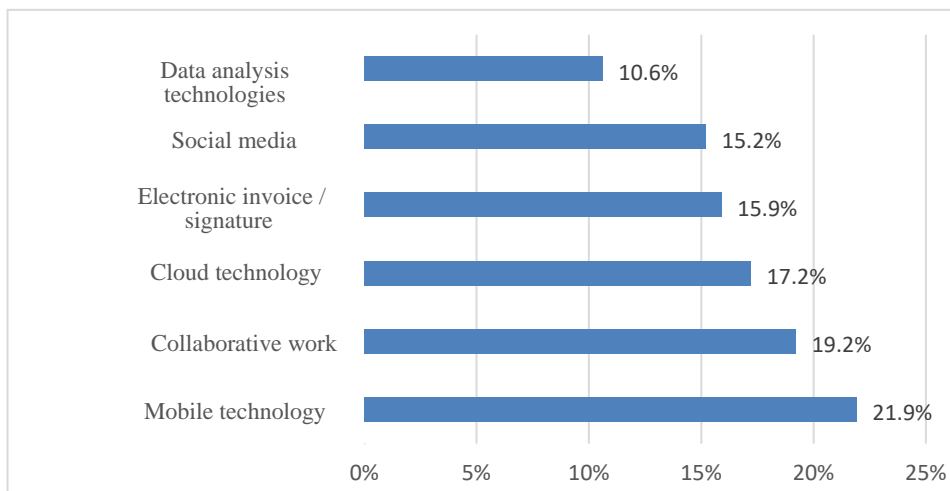


**Figure 2.** Accelerating the digitalisation of the human resources services

The majority of respondents (83%) declare that the COVID-19 pandemic has accelerated the digitalisation and automation of services in the human resources department. A smaller percentage (13%) declared that the pandemic did not contribute significantly to the digitalisation of services. Some respondents (4%) have no opinion on this issue. The coronavirus pandemic has hindered employee mobility, most being forced to work from home.

**3.2.** Digital solutions used in the human resources department

Adopting digital solutions by organisations as a strategy to gain an advantage over competitors is an important decision for every employer. Next, we wanted to find out what are these digital solutions used in the human resources department and we got the results that can be seen in figure 3.



**Figure 3.** Digital solutions

When asked what digital solutions are used in your own department? The respondents answered as follows: mobile technology (21.9%), collaborative work (19.2%), cloud technology (17.2%), electronic invoice/signature (15.9%), social media (15.2%) and data analysis technologies (10.6%).

### *3.3. Recruitment methods*

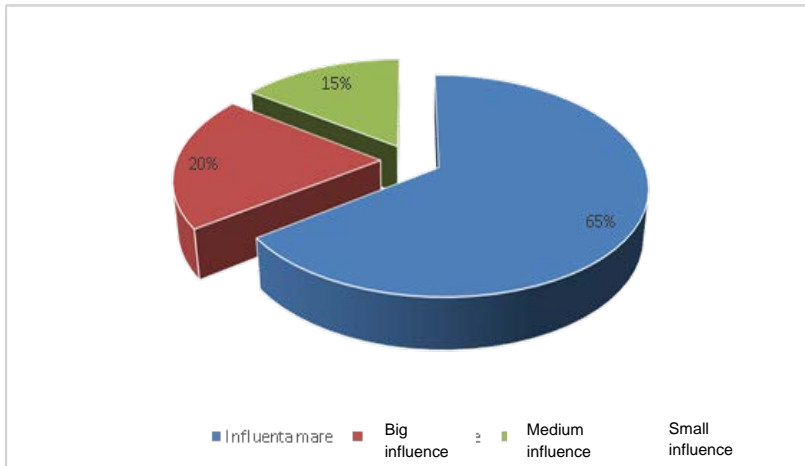
The technological processes have transformed recruitment and selection practices, with the help of multimedia tool: telephone testing, reviews of different projects through video calls, use of different recruitment platforms, and information about potential candidates can be collected from various social networking sites, data that are subsequently verified by recruitment specialists (Derous & De Fruyt, 2016).

The surveyed specialists declared that they use the following recruitment methods: in a percentage (31%) they use online ads, then recommendations (28%), social media channels (24%) and their own databases (17%).

### *3.4. The influence of digitalisation on the company's business*

A study published in 2017 by Valoria Business Solutions shows that digitalisation has an influence on any business, and depending on the size and industry, the following aspects were found: 35% of the Romanian companies say that the influence of digitalisation on them has been great. The confidence in the digitalisation process is low, with 22% saying that they don't have confident, and the challenges are difficult to manage. The digitalisation process in traditionalist companies reaches a percentage of 23% in Romania and only 10% worldwide.

The technology used in such companies is rudimentary, with access to digital data being limited. The companies starting to adopt the digital process are in a percentage of 37% in Romania and 14% worldwide, mobile and cloud technology representing the main technologies used in companies, and the development of a strategy for digital transformation is one of the objectives they want to achieve. 24% are minimalist and have started to develop digitalisation strategies for the company. Only 9% are advanced, with an appropriate technological infrastructure that covers the company's needs, while worldwide the percentage is 32%. The leaders, 7%, have implemented the digitalisation throughout the company and have started to make big gains from its implementation, and globally they are 32%. The thing was claimed by the decision makers involved in this research, as can be seen in the following figure:



**Figure 4.** *The influence of digitalisation on the human resources department*

This graphic shows that (65%) of the respondents declared that the digitalisation of the human resources department has a great influence on the business of the companies. A percentage of (20%) consider that the influence of digitalisation on the business is medium, and (15%) consider that the influence is small.

### *3.4 The advantage of digitalisation*

The digitalisation brings many advantages to the human resources department, as we could identify in this paper. The most answers of the specialists focused on the benefits of process simplification (36%), followed by cost reduction (23%), capitalising on the strategic role of human resources specialists (20%) and facilitating the recruitment process (18%). In a very small percentage (3%), some of the respondents declared that the advantages of integrating digitalisation in the human resources department are other than those mentioned.

We also identified the software programs used in the department, with the following percentages: software for payroll (28.7%), software for human resources management (25.2%), software for timesheet (20.9%), software for management of compensation and benefits programs (12.2%) and software for management of courses and employee training (10.4%). Only (2.5%) of them declared that they use other software programs in the department.

All the mentioned technologies create a set of advantages that impose human resources specialists in a strategic role in organisations.

#### 4. Conclusions

The digitalisation of the Human Resources Department is a new topic, of interest for the business environment, a complex process involving digital actors, but also the investment of important financial resources. The transition from the traditional personnel department, with administrative role, to the new human resources department, with strategic role in the organisation they are part of, is marked by gaining the trust of management in terms of its contribution to strategic decision making, but also by the managing of the most important recourses of the organisations, the human resource.

The phenomenon of digitalisation is spreading rapidly. The jobs well-known until yesterday will be replaced by new ones aimed at using advanced technologies. By default, the digitalisation of the Human Resources Department will look different over time. The epidemiological period has taught us to breathe everything related to online, digitalisation.

The new generations entering the labour market are a digital workforce, therefore, the HR specialists have the task of creating and providing a 'digital workforce', and all this forces this department to become a digital one. The tools used in companies, the new technologies presented and sudden changes, make the work of the HR specialists more challenging, but sometimes they test their psychological resilience, because there may be situations where the lack of digital skills can be a barrier in providing HR services.

The access to several companies in the country helped us to form a broad perspective on the digital technologies used in the HR department at present, but also on the advantages brought by their use. Following the analysis of the data we obtained in our research, the objectives we set ourselves were achieved.

We can conclude that the digitalisation of the human resources department is seen by a sample chosen as a necessary process and should be used as a tool that brings a number of advantages, but also disadvantages, depending on the case. It involves the use of technologies that make the work of specialists more efficient. The advancement of technology does not arouse fear among employees, conveying the idea that robots will take their jobs, I noticed that it was rejected by those involved in research. The measures imposed by the authorities with the spread of the new coronavirus have forced many businesses to accelerate the implementation of digitalisation for their business.

The results obtained in this research present an overview of the topic of the paper. The subject is a complex one, and in Romania the evolution of digitalisation will be observed during this period. Certainly, avoiding human interaction will have effects on individuals, and in this regard I propose to conduct a qualitative sociological study on employees in corporations, to indicate whether digitalisation has contributed to the simplification of labour relations or created effects related to the lack of need of human interaction between colleagues.

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