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# GENERATION Y AND Z PERCEPTION OF DIGITALIZATION IN THE ACCOUNTING FIELD

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#### **Abstract**

The aim of this paper is to identify the perception and the opinion of the accounting students/graduates regarding the challenges behind the digitalization process of the accounting field based on the exploration of literature. Therefore, in order to achieve our goal, we have set the following objectives: Objective 1: making a review of the scientific literature regarding the digitalization of accounting; Objective 2: identifying the advantages and disadvantages of the digitalization of accounting; Objective 3: identifying the main effects of the digitalization process. We believe that our analysis can be used primarily for young people who want to follow a college program in accounting field and for those who wish to know what skills this field will require in the near future, as a result of the intensification of digitalization process.

**Keywords**: digitalization; future accounting; blockchain; smart technology; digital currency

**JEL Classification:** *M41* 

### I. INTRODUCTION

Today, we are in an age of digitalization, where new technologies have taken all branches of the economy by storm and brought them under drastic changes. In general, the purpose of new technologies is to simplify the processes and cost of activities in every society, so that it offers a better and more prosperous life or as we now like to say, a modern life for the members of society. We firmly believe that the future is knocking at the door. The process of digitalization will increasingly affect economic activities, replacing the human factor with new technologies. Therefore, the goal we pursued in developing this article was to identify the perception of students and young graduates about technologies which are behind the process of digitalization of accounting.

Digital transformation is a complex process with many implications in all areas, and to address this topic we have structured our work on three objectives, namely:

- 1. Review the literature about the emergent technology behind the accounting digitization process;
- 2. Identify the advantages and disadvantages of the accounting digitalization process;
- 3. Study the effects of digitalization process on the accounting profession.

The results obtained in this paper are important for young people (generations Y, Z) but also for teachers, because a negative perception of the future of accounting can have many implications. Choosing a future profession is essential for young people. For that to happen, young generations need to make informed choices, and this paper will come as a support for those who are unsure about choosing the accounting field or not. The , effects of digitalization of accounting, as well as our recommendations, will be relevant for young people who are interested in their future. At the end of the paper, we will list some practical suggestions in support of young people, for example, the skills sought by employers in the near future or how young people can prepare for the future of accounting and society.

#### II. METHODOLOGY

In this paper we resorted to the elaboration of a research based on the revision of literature, both national and international, to identify the impediments faced by the higher education system, from the perspective of accounting specializations. The anticipated results are based on opinions, contexts or situations already tested at national level, or at the level of other countries and published by prestigious authors in the field.

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#### III. ADVANTAGES AND DISADVANTAGES OF DIGITALIZATION IN ACCOUNTING FIELD

Accounting in Romania has gone through several stages, some even radical, in recent years. Many professionals in the field of accounting have gone through these changes (changes in political regime, in the use of computers, accounting software, smart technology, etc). For them, digital transformation is seen as a normal thing, as a natural evolution of accounting profession (Cosmulese & Socoliuc, 2019). We call it evolution because the technology as a whole has contributed to the efficiency of the processes, to a greater transparency of data and to a global use of the accounting systems. Today a large part of the accounting process is automated, the effects of digital transformation have been felt since the introduction of digital documents in accounting. Thanks to digitalization and emergent technologies, i.e., artificial intelligence, we have a wide range of tools which can be used to conduct business in a more productive way. For example, invoices, but also other documents of financialaccounting nature can be recognized and recorded in accounts automatically, without the involvement of the human factor. Another advantage of digitalization of accounting and beneficial for the economic entity is the reduction of costs. The process of digital transformation will lead to a decrease in expenses, accounting being done in a shorter time and with a reduced need for human factor (Cosmulese, Grosu, Hlaciuc, Zhavoronok, 2019). People from higher hierarchical levels will benefit from the fact, that at any time, they can access information regarding the situation of the economic entity. This information will always be available and up to date. However, one of the disadvantages of this transformation also occurs out of it. Data obtained from these automated processes must be carefully chosen, customized and analyzed according to the purpose for which they were achieved. Economic entities will have to rely on experts to carry out these tasks.

Table 1. Advantages and disadvantages of digitalization

Advantages	Disadvantages
1. Auditors will be more efficient with the use of new technologies and will add more value.	Data security related risks.
Decrease of accounting errors.	2. There is no legal framework for new technologies.
3. Real-time financial reporting.	3. High volume of complex data.
4. Lower costs overall.	4. Digitalization and optimization of processes is in itself a laborious and complex process, resulting in staff allocation conflicts.
5. Reducing the risk of data distortion.	5. The potential failure of the technology at some point.
6. A bigger volume of data which could be of use in taking decisions.	6. Risk of compromising confidential data.

Source: Authors compilation

#### IV. EFFECTS OF DIGITAL TRANSFORMATION IN ACCOUNTING PROFESSION

The process of digital transformation shouldn't be seen as a unified whole, instead it should be viewed as a matrix of interconnected technologies which have the potential to impact almost all areas of society. In accounting, digital transformation involves integrated systems, the use of software robots, solutions, cloud technology, blockchain technology, smart technology and many more. The process of digital transformation will have profound implications for society and the effects will be felt by most of the population. The process itself, will be a gradual one, and even though emergent technologies are offering many promises, for now they are in an early development stage. However, even so, we are interested in what effects they might have on society and how they will affect the field of accounting. To find out, we chose to do a meta-analysis of literature with topics such as the effects of digitalization. We captured the meta-analysis in Table 1.

Generally, most studies predict important changes in the field of accounting due to digital transformation. Scientists believe that the basic roles and tasks in accounting will continue to exist in the future, but we will no longer need the human factor. Those tasks will be carried out with the help of artificial intelligence. Frey and Osborne (2016) claim that 94% of the core accounting tasks, will be automated, thus the human factor being reduced to minimum. Another effect discussed in literature, is the capability for processing and processing information. New technologies will provide tools for real-time data processing. Blockchain, for example, can provide real time data information, that is, at the time when it is recorded. Technology will also innovate the way in which information within the reports will be shown, presenting it through technologies, such as: *virtual reality, augmented reality, etc.* 

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Table 2. Metanalysis - Effects of digitalization

Author(s), year	Purpose	Results/Conclusion	Effects
Yu et al., 2013	Cross-sectional examination of students, teachers, and employers view on the effectiveness of the study program followed within the faculty.	A difference in perception was observed between the self-assessment of students and the employer's assessment of what are the important skills in the accounting profession.	The difference between what skills students consider to be relevant and those that employers are looking for is an impediment for the former. However, when they were informed about the existence of this significant difference, they do become more motivated.
Frey & Osborne, 2016	The aim of this study is to find out how likely jobs in accounting profession to be replaced by the digitalization process, given the new possibilities offered by artificial intelligence.	According to estimates, about 47% of all jobs are belonging in the high-risk category, meaning that they will be automated in the near future (1-2 decades)	Most people that work in transportation, logistics and the administrative will be replaced by artificial intelligence in the near future. Basic accounting will also be automated, about 94% of jobs regarding accounting will be replaced within the next 10 years. With the development of technology, low-skilled workers will have to turn to jobs with tasks which are less susceptible to automation, that require skills such as creativity and social intelligence. Thus, they will have to acquire creative and social skills.
Strebko & Romanovs, 2018	Analysis of integration of Blockchain technology in different areas of modern industry.	The study concludes that the advantages of blockchain technology are decentralization, safety, and transparency. Distorting or deleting data from the blockchain network is almost impossible.	There's no need for a third party anymore. The system can operate without an intermediary and all network participants make their decisions. The time for processing transactions is reduced from 3 days to just a few minutes or even seconds. Records/transactions are available to each participant in the blockchain network and cannot be modified or deleted.
Kumar, 2018	This study aimed to investigate the impact digitalization of accounting had on economic entities.	The results of this research indicate that digitalization has had a direct effect on the way entities organize their business due to the implications for finance and accounting.	Digitalization provides entities with new accounting tool, knowledge and communication channels. The business environment will be affected by technology, which will lower costs for SMEs
Al-Htaybat et al., 2019	In this paper, it was studied the intersection of accounting practices, with a special focus on the implications on accounting.	Accounting practices can be improved with help from new technologies in multiple ways. Thus, in the future, the focus will be in developing knowledge in IT field.	An increased ability to process, visualize and interpret data/information using smart technology and 3d illustrations. Developing IT skills will help in the preparation of reports in a much shorter time. Augmented reality will be used as a conceptual visualization tool, presenting the links between capital, the business and organization.

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McGuigan & Ghio, 2019	The purpose of this paper is to provide a critical reflection on how technological changes are expanding the possibilities of accounting. Can artistic skills, challenges, openness, and inspiration essential to the humanization of accounting?	New technologies, combined with an artistic side, could access a latent potential in accounting, pushing its direction towards a more humanistic model. The incorporation of humanities components into a disruptive element (technological revolution) can avoid an unstable situation that is difficult to control by humans.	The automatization of basic accounting techniques will allow a reintroduction of humanities aspects into accounting. New technologies will allow accountants to think in a more creative and integrated way by questioning established terms, contributing to new ways of organizing and governing.
Nordgren et al., 2019	The aim of this paper is to analyze how blockchain technology affects the financial and accounting fields.	The authors provide an overview of the criticism and obstacles that need to be resolved if we want this technology to realize its potential.	In the future, the increased amount of data transferred, and the huge number of transactions will lead to a need for new innovative technologies such as blockchain technology. If blockchain technology manages to overcome certain obstacles (trust, security, scalability), then the way financial institutions operate will be radically changed. Institutions, governments, authorities and corporations will be eager to create and use innovative applications using blockchain technology in the near future.
Leiner- Hanerseder et al., 2021	In the context of the usage of artificial intelligence in accounting, the authors analyze its effects on the workforce.	Tasks and skills for existing professional occupations in accounting field will undergo major changes in the next 10 years due to digital technologies (based on artificial intelligence)	The basic roles and tasks will continue to exist in the future, but most will be caried out with the help of artificial intelligence and not by humans. For the new roles, people will need IT knowledge in order to make use of the new emergent technologies like artificial intelligence.
Gulin et al., 2019	The aim of this paper is to analyze and systematize the key challenges brought by digitalization in the accounting profession.	Changes in technology and digitalization process will have a significant impact in the accounting profession in the future.	In the future, thanks to new technologies, reports will be done daily, and we can expect an outsourcing in accounting. It will be done online, based on cloud technology. Stakeholders will need real-time information, when it takes place and without any delay. It will also be necessary to acquire new skills, especially engineering.

Source: Authors compilation

According to literature, the human factor in accounting will not disappear, although it will undergo changes, related to its purpose and tasks. Most articles we studied suggest big changes in the main role of accounting and it will also require new skills. In future accountants will oversee implementing new technologies and customizing them according to the needs, practices, and policies of economic entities. Tasks will be a matter of supervising the process and accountants will be using new tools to process, analyze and report data to users. To carry out those tasks, accountants will have to acquire new knowledge and skills, in particular: programming and data manipulation languages.

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Special emphasis will be placed on skills like analyzing and interpreting data. A good accountant will also have to develop his ability to communicate, bringing order to the chaos of data that economic entities will face in the future, by offering explanations and suggestions. Thus, we see an essential problem that students face, namely, the use of an outdated curriculum for their training, one that is not adapted for what will be expected from them in the near future. Also, the perception young people regarding accounting field is important, influencing them to a great extent in their choice of faculty/career. Therefore, we ask ourselves if the perception of young people is influenced negatively by an inadequate curriculum? Many studies show that the number of new students in the accounting field is decreasing.

The purpose of this paper thus becomes clear, trying to provide an answer for the question above and to find out whether students' perception of digitalization in accounting is influenced by their knowledge of new technologies that have the potential to transform this domain.

#### V. CONCLUSION

We conclude that the connection between smart technology and human resonance must be an accepted, mostly by the latter, because the implications can and will be felt much stronger by it, especially when there is a reduction in jobs. Obviously, we cannot ignore the positive effects brought by the implementation of smart technology in the accounting profession, effects that have already been noticed and accepted with success in the profession, i.e., bureaucracy has been reduced, the work of these professionals has been eased and finally, the execution times of certain activities or processes have been reduced.

In case of accounting profession, due to the digital transformation, the perception of students/graduates, regarding opportunities this field has to offer, is a mixed one. Thus, we suggest an information campaign or even a new seminar, within which emergent technologies will be approached and studied. Thus, considering the significant connection discovered, the perception of young people and students about the field of accounting will be influenced.

For those interested in further research, we suggest conducting a study on the influence that a revised curriculum, which has as a clear objective the training of students, with the emphasis placed on acquiring useful skills needed in the future, would have on young people's decision to follow as a specialization.

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