

THE IMPACT OF DIGITALIZATION ON THE ACCOUNTING PROFESSION IN ROMANIA - A QUANTITATIVE RESEARCH

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Abstract

The intensification of business globalisation, the large-scale extension of digitalisation in the business sphere, and the acceleration of technological progress as a result of research-development-innovation, are strongly influencing and impacting on the strategic and competitive objectives of companies, and implicitly on business models, leading to a redesign of management strategy towards the market, and towards traditional business models that are progressively replaced by other business models, in a new optic based on maximising competitive advantages. The aim of this research is to provide a comprehensive perspective on the impact that the digitisation process is having on business and implicitly on the accounting profession from the perspective of accounting professionals. The methodology of the study was based on the use of a quantitative research using a questionnaire as a research tool, in order to collect the data necessary to achieve the purpose and which was addressed to accounting professionals in Romania, namely in the north-east of the country. The results of the research highlighted the primary role of accounting professionals in the context of paradigm shifts from traditional to digitized accounting, to ensure a high level of service to management, with notable effects on business sustainability. The study is highly useful for the state and regulatory bodies that can adapt their future policies and strategies in the field of accounting and taxation, the academic world that must urgently adapt its university curriculum to the new realities imposed by the expansion of the phenomenon of digitization in accounting practices, as well as the management of entities that must identify the real opportunities of the use of digitization in the entity with medium and long-term effects on the creation of added value for it.

Keywords

accountants' perception, digitization of the accounting profession, accountants' skills, redesigning the accounting profession

JEL Classification

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Introduction

The intensification of research-development-innovation (RDI) processes and the large-scale expansion of digital technology innovations have gradually led to the replacement of the human factor and the taking over of their tasks by software and digital workflows, thus leading to a virtual environment where data and information are available in electronic format and can be easily processed.

In this context of the spread of digitisation and the current large-scale technological changes in many areas of economic and social life, as well as in the business world, accounting, as a business function, could not remain unaffected by these changes, but has undergone and will continue to undergo corresponding changes. In this context, the research conducted by Gulin et al. (2019), highlighted that there is a significant influence of digital technology on both accounting information control systems and management of companies.

In this context, the authors Bakulina et al. (2020) identified, in their research, the existence of five stages of evolution of accounting based on technological and technical components, namely: traditional manual, mechanized, automated, robotic and artificial intelligence assisted accounting.

From this last point of view, we believe that artificial intelligence will have a major impact on the accounting profession in the future, in line with the replacement of traditional business models by business models based on research-development-innovation-digitisation (RDID). In our opinion, the established concept of research-development-innovation (RDI) must be supplemented by the digitalization component, which we do not limit or associate with the innovation component.

Therefore, in the context of the expansion of digitalization in accounting, the accounting professional must be involved in the appropriation, adaptation and use of these new emerging technologies, represented by artificial intelligence and digitalization, which will progressively impact their professional career. In this regard, authors Savić and Pavlović (2023) think that both, young and experienced professional accountants, need to acquire new skills and knowledge in order to meet the changing demands of the accounting profession, as well as the numerous challenges imposed by the accelerated expansion of digitalization in the accounting profession. Therefore, we believe that the evolution of the accounting profession, and last but not least its updating, is made possible by the development of technology and the expanding use of digital technologies and information systems in the accounting of today's entities.

Thus, we are of the opinion that the use of IT systems in accounting is leading to a huge reduction in the workload of accounting professionals, as their repetitive tasks, which are typical of traditional accounting methods, are much easier and faster to perform using digital technologies. We therefore believe that automating and streamlining time-consuming tasks clearly brings considerable and undeniable benefits.

From what we have said so far, it is clear that the changes in the business world, due to digitisation and automation of processes, have also had a major impact on the human factor involved in these activities, which in our view needs to adapt extremely quickly to these new realities, as we believe that the central role of the accounting professional, who is increasingly becoming a reference point for digital transformation, must not be lost sight of. These points are also agreed by the authors Gulin et al. (2019), who consider that the accounting profession is forced, to some extent, to constantly evolve due to the evolution of technology, digitalisation and globalisation.

In the research by Awang et al. (2022), they conclude that accounting professionals are receptive to and welcome the idea of automating repetitive and relatively easy tasks through IT infrastructure, which leads to recalibration of their tasks, increased time availability and thus the possibility of taking on more responsibility in terms of professional judgment.

In this context, the aim of our research is to identify the impact that the digitization process has on business and implicitly on the accounting profession from the point of view of accounting professionals, as well as to determine, from a theoretical and practical perspective, the position of accounting professionals in the era of digital technology in relation to the assumption of a new role for them within entities. In other words, the present research is focused on studying the perception of accounting professionals regarding the accounting profession in an economy that is increasingly characterised through the prism of globalisation and digitalisation.

Subsequent to the purpose of the research, the present paper aimed to achieve two specific objectives, namely:

O1 - critical review of the literature focused on identifying the impact of digitisation on the accounting profession;

O2- to identify the perception of accounting professionals on the changes in the Romanian accounting profession, through quantitative research.

In order to achieve the research purpose, a review of the literature was firstly carried out to substantiate the purpose and objectives of the research in relation to the most recent research on the topic studied, and secondly, a quantitative research was carried out based on the application of a structured questionnaire, administered electronically, to the accounting professionals in the North-East of Romania, in order to survey their perception of the impact of digitization on the accounting profession.

Thus, in relation to the logical design of the research described above, this paper has been structured in five parts. The first part is related to the Introduction section, in which the context of the present research was described and the research was positioned, in relation to the most recent research in the field on the studied topic, followed by a section dedicated to the literature review in the field, which allowed us to identify the most relevant research in the field, as well as the relevant research niches. The third section of this paper is dedicated to the research methodology that was used to collect the

information and data we considered relevant to achieve the purpose and objectives of the research. Also in this section, we described the research architecture and the methodological steps employed for data collection and processing, utilizing a structured questionnaire administered to accounting professionals. The fourth part of the paper presents the main results of the research carried out, resulting from the analysis of the structured questionnaire, and presents the own points of view related to the results of the research carried out. The last part of the paper is dedicated to the main conclusions, limitations and future research directions.

1. Review of the scientific literature

In order to achieve the first objective of the present research, this section is dedicated to a critical analysis of the literature on the studied topic, an approach that aimed to identify the current state of knowledge in the field on this thematic area and to substantiate, by appeal to existing literature, the purpose and specific objectives of our research. Thus, in order to achieve the first objective of the research (O1), we consider it appropriate, from the outset, to clarify the notion of digitization and then to "slide" into identifying the impact of digitization on accounting and the accounting profession in general.

In this context, we note the study by Gonçalves et al. (2022), who consider that the digital transformation is characterised by the merging of both physical and digital processes into decentralised systems, represents a major change in the social and organisational environment. It affects all aspects of people's lives, as society and organisations have changed their structures and companies and the economy in general have reinvented their value creation process, accounting being no exception.

In this regard, we note the view of author Smith (2018) that in the medium to short term, traditional accounting faces systemic risks from digitisation and the rapid way in which change is occurring in the accounting profession and in the business environment in general.

The importance of digitisation has also been confirmed in the global COVID-19 pandemic, where companies have had to embrace digital transformation in order to stay in business. This digital transformation was aimed at changing the entire business, enhancing efficiency, competitiveness, innovation, thereby fostering sustainable growth and development of the company (Bednarčíková & Repiská, 2021). Also, the social distancing measures adopted to combat the COVID-19 virus had an immediate impact on business processes. Thus, the impossibility of conducting business under normal conditions based on physical interaction and as a result of the impossibility of signing documents, led to the need for reorganisation of activities and rapid and widespread adoption of digitisation of decision-making and management processes, with accounting, as the main source of data and information for decision-making, being an important pawn in this endeavour (Coman et al., 2022).

The rapid spread of digitisation in accounting has also been driven by the expanding phenomenon of economic globalisation. Thus, economic globalisation is also making today's business environment increasingly dynamic and complex, involving economic

actors from different countries and business environments, which indicates an expansion of transnational business. Therefore, economic actors involved in these businesses, in order to make optimal management decisions, resort to a significant expansion of the volume of accounting information. Therefore, in order to have access to a considerable volume of information and to be able to process it, managers have felt the need for the widespread implementation of the digitisation of managerial and business processes, which has also led to a pressure on the shoulders of accounting professionals who have had to adapt to these new managerial information requirements and also to decide to implement new digital processes and techniques in accounting in order to successfully meet these management demands.

We can thus observe that the spasmodic pressure of transnational investors, in view of the expansion of the range of information required from the management of the companies in which they hold investments, has also led to a change in the way accounting is done, by abandoning traditional accounting at the expense of digitised accounting. This has been made possible by the pressure that managers put on accounting professionals to please their investors. We are therefore witnessing a vertical shift in the way information is processed and provided, at all three levels: investors, management and accounting professionals.

The research by Sytnik et al. (2022), which points out that accounting information requirements are constantly changing, and from this point of view the accounting profession needs to adapt quickly to current business processes and practices and to comply with the basic rules and principles of accounting, using technological innovations and solutions to be able to respond successfully to the changing information requirements of the widest possible range of stakeholders. To meet the new demands imposed by digitisation, the professional training of accountants needs to be expanded, both in terms of their specialist knowledge and in terms of the broadening of their digital skills and competences to efficiently handle a high volume of accounting information.

Research by Pavone (2021), in the Italian context, states that almost all accountants in Italy are on average digitally literate and that those with a higher level of education and less seniority are the most digitally literate accountants. This reality shows a good adaptation of the university curriculum to the requirements of the labour market in the accounting profession, a reality that, in our opinion, should be widely extended to Romanian university education.

In this regard, the authors Grosu et al. (2023), in a study focused on investigating the perception of accounting professionals regarding their readiness for continuing education in light of new trends in the labour market, conclude by stating that the digitization of accounting is necessary for the accounting profession to continue to contribute to the creation of value in the entities it serves.

In the same line with the aforementioned study, the work carried out by Ogaluzor (2019), reveals that digitization, should be seen more as a companion to the accountant than as a threat to the accountant's job. The author argues that digitization should be seen as an aid

to the accountant in order to reduce the amount of time he actually spends to perform his task and allows him to report more accurately and efficiently. At the same time, the author argues that digitisation can also become a threat to the untrained accountant and that it is imperative that any accountant has the necessary training to be able to keep their job.

Mihalciuc et al. (2023) consider that the process of digital transformation will accelerate in the accounting profession and can be seen as an opportunity for accounting professionals, who will have to improve and acquire new skills to analyse the data provided by new information technologies, constantly seeking to make new professional investments. For these reasons, we believe that the existence of new digital technology and the developments in this field will lead to a renewal of the accounting profession and offer new perspectives to the accounting profession.

Thus, the authors Opudu and Tonye (2022), are of the opinion that if accounting professionals give digital technology the chance to contribute to business efficiency, the accounting profession could become a standardised entity globally.

While the studies cited above have mainly highlighted the benefits and advantages of digitisation in the accountancy profession, there are also studies in which the authors have drawn attention to the fact that the digitisation of the accountancy profession should be seen both as an opportunity for the accountancy profession, but also as a threat to the human factor, as a result of the replacement of its work by artificial intelligence (AI). From this point of view, we note the research carried out by Gonçalves et al. (2022), through which they state that the digital transformation, from the perspective of accounting professionals, can be seen, on the one hand as threatening, because digitization allows the automation of activities and work processes that have been undertaken by accounting professionals, but on the other hand, it can also be seen as an opportunity, because it gives accountants the opportunity to focus on value-generating activities, freeing them from those routine tasks that can be performed by a robot. From the latter point of view, author Sumarna (2020), is of the opinion that the use of robotics and digitization has started to take over the role of accountants in operations such as sorting, recording and processing accounting transactions.

And Gunawan et al. (2022) consider that the presence of digital technology in the accounting profession may be a threat to the profession, as software will need to be constantly improved in order to be optimized and made more efficient. The authors also mention that there are also activities that will not be able to be replaced by technology, but could be maximized, namely: analysis of transactions, managerial functions and decision-making policies, also activities regarding planning, organization, operation, control, estimation of the economic life of fixed assets, but also issuing opinions on the correctness of financial statements.

From what we have said so far, we believe that digitisation is the future of the accountancy profession because the benefits of using digital technologies outweigh the inherent threats to the human factor. Thus, we believe that the human resource involved in this field has

only one option, that of accepting the new reality of today's globalised business, and adapting to the new changes inherent in a constantly changing business environment.

Thus, in this context, authors Opuđu and Tonye (2022) believe that the adaptability of accounting professionals, along with their desire to accumulate new knowledge, and their ability to leverage existing skills in addressing new situations encountered, places the accounting profession in a strong and prosperous position within a complex and ever-changing marketplace.

In view of the above, we believe that the digitalization of accounting has great potential to support the accounting profession, provided that accounting professionals apply an adaptive approach to the new realities imposed by the digitisation and globalisation of business.

2. Research methodology

In order to achieve the purpose of the research, the methodology initially involved a review of the literature. This review established the research's purpose and objectives in the context of studies on the topics. Subsequently, quantitative research approach was employed, utilizing a structured questionnaire administered electronically to accounting professionals in north-eastern Romania, in order to probe their perception of the impact of digitization on the accounting profession.

The questionnaire, consisting of twenty-six questions, was distributed to 60 accounting professionals in the surveyed area, who are either employees of economic agents (economist/accountant or economic/financial director) or independent accountants. The questionnaire, was created and distributed through the Google Forms platform, for reasons of ease and efficiency in collecting data from respondents. The questionnaire was divided into three distinct sections, each section was assigned homogeneous questions that would allow us to achieve the purpose and objectives of the research.

Thus, the first section included questions that allowed us to identify the profile of the respondents, namely: gender of the respondents, their territorial area of activity, age of the respondents, experience in the accounting field, position held in the entity and legal form of organization of the economic entity in which they operate. This section included a number of 6 questions out of the total of 26 questions related to the questionnaire.

The second section included questions on the extent to which the companies in which the surveyed accounting professionals or self-employed accounting professionals work integrate digitisation into accounting. A total of 9 questions have been allocated to this section.

The third section contained questions on the role and importance of the accounting professional in the context of digitisation of the accounting profession. For this reason, this section has been allocated 11 questions out of the total of 26 questions in the questionnaire.

3. Results and discussions

As mentioned above, the study questions were based on the relevant literature and aimed to achieve the research goal. In the following, the results of the questionnaire are presented in detail, grouped according to the three structures mentioned above. Thus, in what follows we will present in detail the most relevant results of the research carried out, on each of the three distinct sections.

3.1. Profile of accounting professionals

In order to identify a profile of today's accounting professional, the answers provided by respondents in the first section of the structured questionnaire were analysed. Thus, it emerged that in terms of the status of the respondents, out of the total number of 60 respondents, 57 are chartered economists/accountants and 5 are chartered accountants. In terms of respondents' experience, the study revealed a wider openness of young accounting professionals to such research related to the impact of digitisation on the accounting profession. From this point of view, 23 respondents have professional experience between 1-5 years, 25 have experience in the accounting profession between 5- 10 years and only 12 respondents have more than 10 years of experience in the field. The results from the first section also indicated a greater availability of women for our research, with the gender structure of respondents indicating that of the total number of respondents, 45 are women and 15 are men. These aspects have been graphically reproduced in figure no.1 as follows:

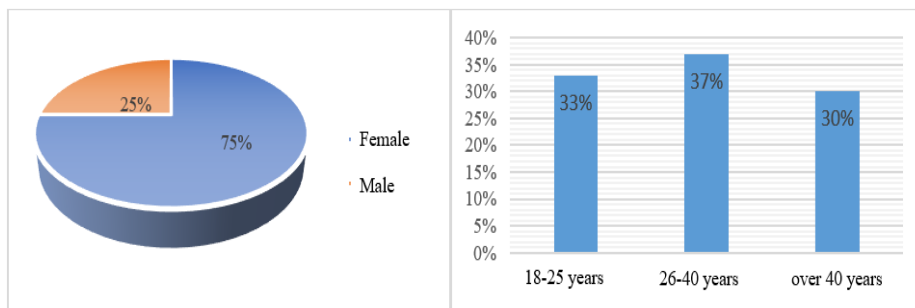


Figure no. 1: Gender and age of the persons questioned

Source: Own elaboration based on the answers in the questionnaire

Percentage-wise, from Figure 1 we can see that 75% of the respondents are female (45 people) and the difference of 25% are male respondents. This shows that in the North-East area of Romania the accounting profession is practiced more by female than male respondents. We believe that this representation is due to the fact that women are more attentive to details, are more responsible or even prefer office work compared to men who are more energetic, want a greater degree of freedom, a job where the degree of routine and sedentariness is not so accentuated and therefore prefer to engage in other kinds of activities. In terms of the age of the respondents, from the previous figure we observe a relative homogeneity of the respondents, with 33% of the respondents being in the 18-25

age range, 37% of the respondents being in the 26-40 age range, and 30% of the respondents being over 40. In terms of accumulated experience, the results of our survey revealed that most of the respondents, i.e. 80% of them, have little experience in the field of accounting (they have been working in the field for 10 years or less, as can be seen in figure no. 2).

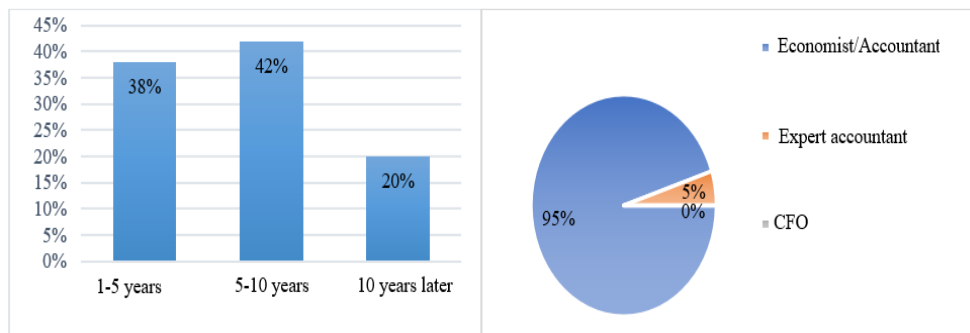


Figure no. 2: The experience and position held by the persons questioned

Source: Own elaboration based on the answers in the questionnaire

These results show that accounting is an attractive field for most young people, who start working after or even during their university studies. These results can also be explained by the fact that young people are more willing to take part in surveys such as the one we carried out than older people who are engaged in much more complex activities than younger people who are engaged in less complex and less work-intensive activities at the beginning of their careers.

The study also revealed that young professional accountants, working in the accounting field, have a high degree of IT knowledge due to the progress in university education and the adaptation of the university curriculum to the labour market requirements by studying practical subjects (in seminars and accounting and management informatics laboratories), i.e., integrated accounting software with a high degree of digitalisation. In terms of the respondents' functions, as can be seen in the previous figure, the distribution of the sample was 95% economists/accountants (57 people) and 5% accountants (3 people), which is also due to the fact that more young people work in the accounting field than older people, which implies that they are at the beginning of their career as economists/accountants, and that they will become accountants or financial managers as they evolve and advance in the field.

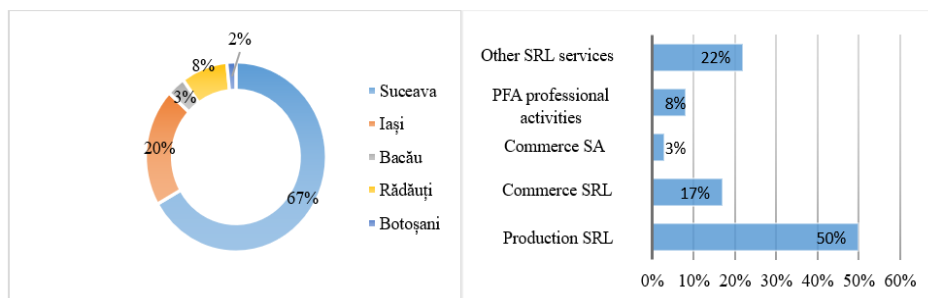


Figure no. 3: The place of activity, the legal form of the entity and the field of activity in which the questioned persons are active

Source: Own elaboration based on the answers in the questionnaire

Regarding the territorial distribution of respondents, as can be seen in figure no. 3, out of the total sample of 60 respondents, 67% were from Suceava (40 people), 20% from Iași, 8% from Rădăuți, 3% from Bacău and 2% from Botoșani. It can also be observed that the respondents carried out their activity and took decisions for 30 SRLs (89%), 5 PFAs (8%), and 2 SAs (3%) distributed over different fields of activity (production, trade, services).

Summarizing the answers to the questions in the first section, we observe a greater interest in the issue of digitization among young accounting professionals and confirm the hypothesis that digitization is necessary and timely and is perceived by them as an opportunity for career development, as they have more knowledge, skills and competences in the area of digitization of economic activity, i.e., accounting. Therefore, the identification of the respondents' profile allows us to identify that they expect that digitization, through the tools used, causes a continuous process of shaping the business environment in all sectors, with significant consequences on the business structure and processes, but also on the culture of organizations, to which, in our view, young accounting professionals will successfully adapt. Also, due to the fact that young accounting professionals are at the beginning of their professional careers, they are more willing to adopt digital technologies in accounting, compared to older, conservative professionals. We believe that young accountants will be the ones who will bring about the change of mentality in the profession, aware that the future of accounting undoubtedly belongs to digitisation because of the benefits it brings.

3.2. Acceptance of digitisation in accounting

As mentioned earlier, the second section of the study aimed to test the perception of accounting professionals regarding the integration of digitalisation in accounting. Under these aspects, out of the total number of respondents, 56 answered that they work with accounting software and only 4 answered against it. The analysis of the answers given by the respondents revealed that the most used accounting software is Saga, which is used by 70% of the respondents (as shown in figure no. 4), due to its high ease of understanding and operation, but also because it has a lower maintenance cost compared to other

software. We believe that these results are also due to the fact that most of the respondents are young and that this accounting software provides technical support for starting an accounting career.

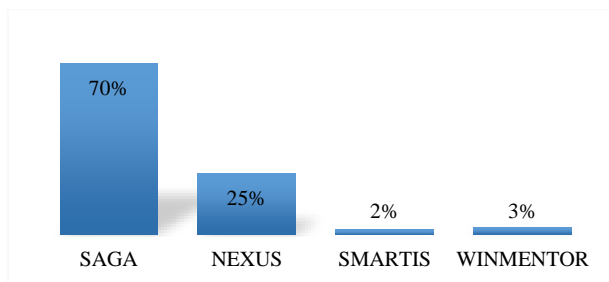


Figure no. 4: The computer programs with which the surveyed persons work

Source: Own elaboration based on the answers in the questionnaire

In terms of the factors that most influence the decision to implement digitization in the entity, the analysis of the answers provided by respondents revealed that they consider the most important determinants of digitization to be the costs of implementing IT technologies and equipment, and the ICT skills of employees, both factors being equally weighted among the respondents at 26%. Another factor considered by respondents to be a determining factor is the financial resources available to the entity, as the implementation of digital technologies requires a high consumption of resources. Data security, access and transfer of data between stakeholders is considered by respondents as a motivating factor in the decision to adopt and expand digitization in the entity, with 16% of respondents expressing a preference for this factor, to which is added the organizational culture of the entity, in a percentage of 10% (this last aspect shows that in North-East Romania there is not a high level of corporate governance, mainly oriented towards the digitization of the entities, but most of the entities are small companies with domestic capital). The aspects described above can be seen graphically in Figure 5 below, as follows:

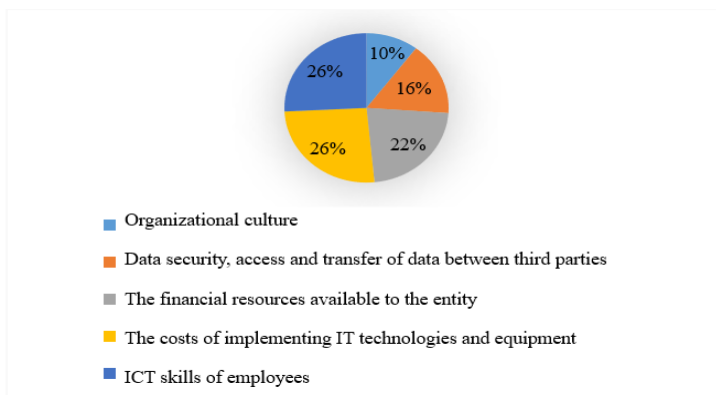


Figure no. 5: The factors that influence the digitization decision within the entities

Source: Own elaboration based on the answers in the questionnaire

As regards the acceptance of accounting professionals of the accounting and tax reforms in the recent period, the results of the survey showed that the majority of the respondents appreciate the changes in accounting with regard to the issues mentioned in the table below (Table no. 1), all of them considering it advantageous to abandon the manual preparation of accounting records or to introduce the online service represented by the Virtual Private Space provided by the National Tax Administration Agency (ANAF). Table no. 1 summarises the responses of the professionals on the above-mentioned aspects, as follows:

Table no. 1. The way in which the questioned accountants value digitization regarding certain aspects of accounting

	Advantage	Disadvantage	No effect
Renunciation of classic invoices drawn up on paper with a pencil by replacing computer programs, such as Facturis	34	26	
Abandoning the manual preparation of mandatory accounting records with automatic generation with the help of accounting software	60		
Introduction of the SEAP electronic platform (Electronic Public Procurement System)	23	25	12
The introduction of the SPV (Virtual Private Space) online service made available by A.N.A.F.	60		
Introduction of the e-invoice system	40	20	
The introduction of the online platform aici.gov.ro addressed to public institutions that do not have their own online registration system	52	8	

Source: Own elaboration based on the answers in the questionnaire

With regard to the digitisation of human resources records, the results of the research showed that the computer application represented by the General Register of Employee Records (REGES - REVISAL), responsible for employee records, has led to the digitisation of payroll activity and implicitly to the facilitation of the accountant's work. These aspects are shown graphically in figure no. 6 as follows:

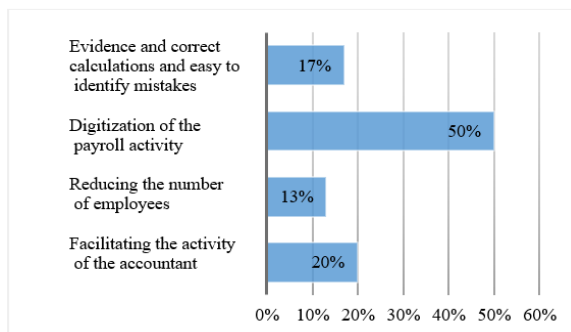


Figure no. 6: Purpose of the REVISAL application

Source: Own elaboration based on the answers in the questionnaire

In terms of respondents' opinions on the prospects for implementing cloud accounting technologies, the results of the survey showed that the vast majority of respondents, 70%, believe that small and medium-sized entities in Romania are not sufficiently prepared for the implementation of cloud accounting technology. This is due to the massive presence of small and medium sized entities in the North-East region of Romania (the least developed region of the country) and the fact that their accounting is not complex and the staff involved is also small. These issues are graphically depicted in the figure below as follows:

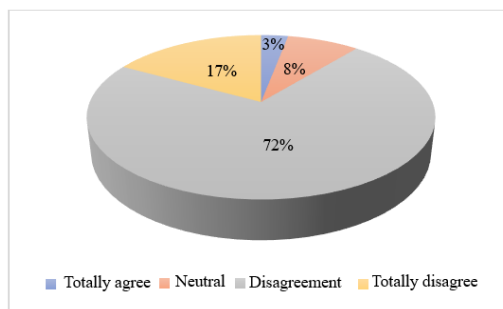


Figure no. 7: The extent to which small and medium-sized entities in Romania are prepared to implement cloud accounting technology

Source: Own elaboration based on the answers in the questionnaire

Another aspect of this study was the degree of use of electronic signatures in accounting activities, as we considered that this way of signing accounting documents represented an important step for Romania in terms of implementing digital technologies. We would like to point out that with the digitization of the submission and management of accounting documents online, for authentication and security, entities and therefore accountants are

distinguished by a digital signature, as opposed to the holographic signature of accounting documents.

The results of our survey reveal, as expected, that almost all respondents use an electronic signature at work, with only 7% of respondents not having such a signature, which in our view is represented by those who are at the beginning of their professional career and do not yet need one. In order to test the degree of understanding and implementation of digital technologies by entities, respondents were also questioned about the existence of a strategy at entity level to increase digital skills. In this respect, 80% of the accounting professionals surveyed answered that there is a strategy in place in the entity where they work to increase digital skills and they referred to database management, accounting software, data analysis through training courses and more, and only 12 people answered the opposite, i.e., 20% of those surveyed.

The results confirmed that young accounting professionals are more digitally literate than older professionals and receive training on the use of digital tools in accounting by the firms they work for. This is shown graphically in figure no. 8 as follows:

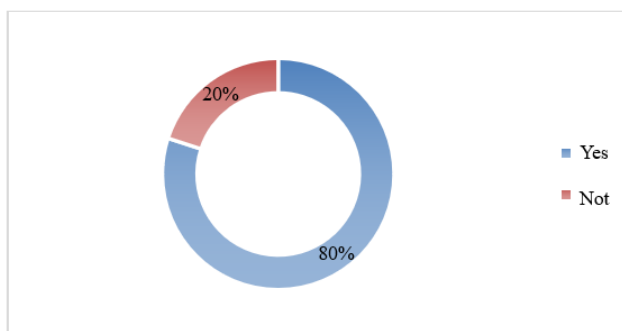


Figure no. 8: The existence of a society-wide strategy for increasing digital skills

Source: Own elaboration based on the answers in the questionnaire

From the point of view of the benefits brought by digitisation in the accounting activity, 47% of the respondents indicated that for the company they work for, having a high volume of digital skills would lead to a substantial reduction in costs and execution time of accounting processes, to a reduction of risks within the company, and only 2% believe that it would increase the competitiveness of the company, as can be seen in figure no. 10, shown below.

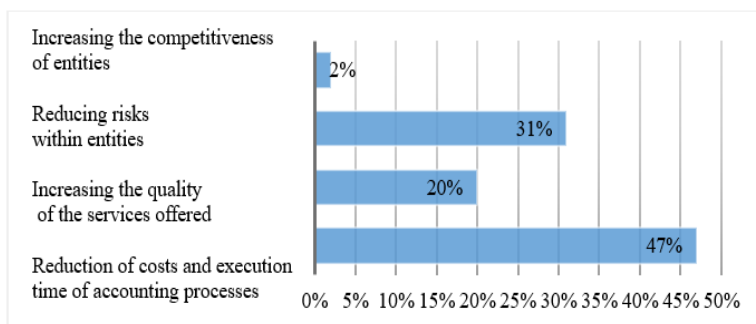


Figure no. 9: The benefits to society of accountants' digital skills

Source: Own elaboration based on the answers in the questionnaire

Summarizing the answers provided by the accounting professionals interviewed, we can conclude by stating that the majority of the entities in which the respondents work have, to a large extent, integrated digitization into accounting, more explicitly they already work with accounting software, with REVISAL, use electronic signatures and agree and believe that their work is made easier, especially in terms of preparing books and other accounting documents that can now be generated more easily from accounting software.

As for cloud accounting technology, our research revealed that it is already present in the Romanian business environment, due to the advantages of cost reduction and efficiency of the new technology. However, respondents are of the opinion that it is not appropriate to be implemented in small companies due to the high implementation costs, the uncertainty of using information in the decision-making process, fears related to the security and safety of data and information, and the fact that managers of these entities are more concerned about business prospects than those related to the digitization of processes.

3.3. Research results regarding the role and importance of the professional accountant in the context of the digitization of the accounting profession

The third and most extensive section of our research aimed to identify the perceptions of accounting professionals on their role and importance in the context of the digitisation of the accounting profession, using 11 closed questions. The analysis and processing of the answers provided by the respondents resulted in particularly interesting opinions applicable to the professional and business environment in our country, which are briefly presented below.

In this respect, a first item addresses the issue of the changes needed in the educational process in order to build the knowledge, skills and abilities required by digitisation. Thus, all the 60 respondents fully agreed with the statement that in the current accounting field technological and IT education is needed to respond at any time to the challenges brought by digitization, aspects that also reside in figure no. 10, as follows:

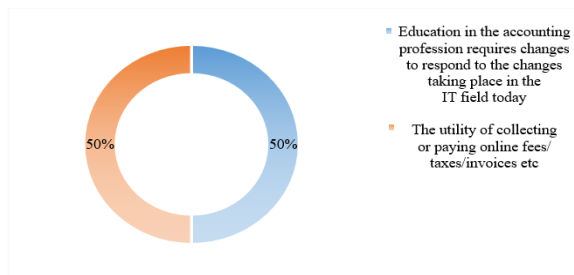


Figure no. 10: Changes in accounting due to digitization

Source: Own elaboration based on the answers in the questionnaire

Respondents were also questioned about the evolution of the accounting profession in Romania, in the context of the growing digitisation phenomenon. As can be seen from figure no. 11 below, a high percentage of 87% of respondents assess the impact of digitisation on the evolution of the accounting profession in Romania in a positive and very positive way, especially as the digitisation of processes and transactions can reduce working time by 60-70% compared to manual processing of these tasks, and only 13% of respondents consider that digitisation does not have a positive impact on the evolution of the accounting profession, but a neutral one.

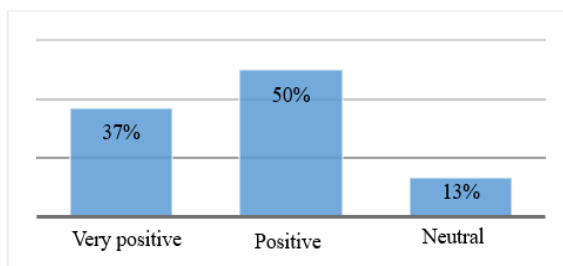


Figure no. 11: The impact of digitization on the evolution of the accounting profession in Romania

Source: Own elaboration based on the answers in the questionnaire

Respondents were also asked a question about their opinion of the accounting education system and whether or not it meets professional requirements so as to facilitate the entry of young accounting graduates into the labour market.

As can be seen in figure no. 12, 72% of the respondents confirmed that young graduates are not fully prepared to adapt to digitization processes, because during their schooling they study more the theoretical and less the applied side of accounting, i.e., they work very little with accounting software. For these reasons, we believe that there is an urgent need to change the curricula of accounting degree programmes, both undergraduate and postgraduate, and the urgent need for university education to focus more on the

introduction of courses in digital technology, based on integrated accounting software such as Enterprise Resource Planning (ERP), digital regulation and reporting, etc.

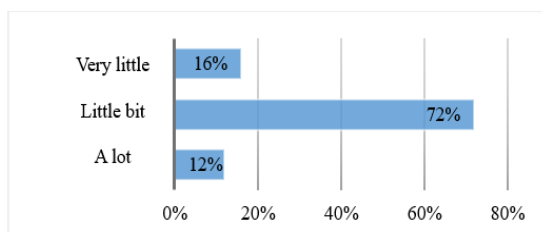


Figure no. 12: Does the education system in the field of accounting meet the professional requirements or not in such a way as to facilitate the entry into the labor market of young graduates in this field

Source: Own elaboration based on the answers in the questionnaire

Despite the advantages identified by the digitization of accounting, 95% of the respondents of our survey (as shown in figure no. 13) are of the opinion that no matter how modern accounting software is and will be in the future, it will not be able to replace the thinking and reasoning of an accounting professional at the expense of artificial intelligence, expressing their disagreement with the trend towards the replacement of the human factor by intelligent machines.

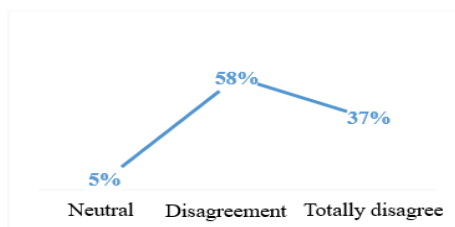


Figure no. 13: Digital technology vs professional judgement

Source: Own elaboration based on the answers in the questionnaire

Regarding the level of digital skills held by the respondents, the results obtained reveal that out of the 60 accounting professionals, 40 (67%) responded that they have medium digital skills, 15 respondents i.e., 25% of them have high level of digital skills, and only 5 respondents i.e., 8% of them have low level of digital skills held, which are graphically shown in figure no. 14. These results were also confirmed by the fact that respondents stated that there is a need for continuous training in the use of digital technology and that they need basic digital skills, which could be obtained if there were guided in the field of digitisation of accounting, and a significant proportion of respondents consider it necessary to develop their skills through training programmes in this regard.

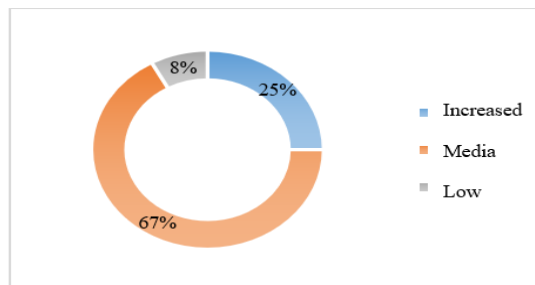


Figure no. 14: Level of respondents' digital skills

Source: Own elaboration based on the answers in the questionnaire

In terms of identifying the main challenges in the direction of digitization of accounting, respondents considered that the implementation and development of digitization in the field of accounting is quite difficult to achieve due to the high costs associated with them, but also the costs that reside in the training of human resources in the field of digitization of accounting, as they do not yet have a satisfactory level of digital knowledge, which is built up over time. Also, the increase in the level of complexity of activities in the field of finance and accounting, due to rapid changes in legislation and the spread of digitisation, means that this field is also facing problems in securing the human resources involved in such activities. These results are shown graphically in figure no. 15 as follows:

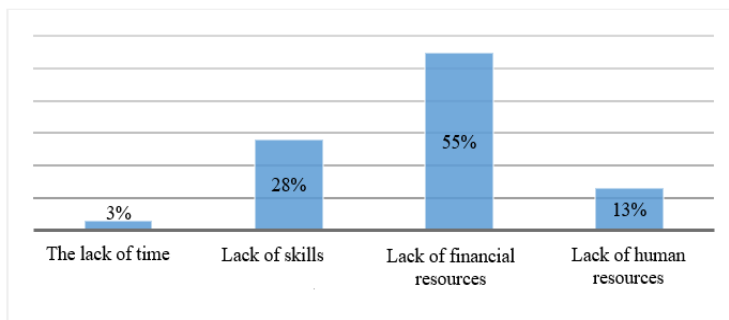


Figure no. 15: Main challenges regarding digitization and innovation in accounting

Source: Own elaboration based on the answers in the questionnaire

Another item pursued by our research aimed to identify the main role that accounting professionals play in the era of digitisation. In this regard, 88% of the respondents consider that the main role of the accounting professional continues to be that of data analyst and business evaluator. This belief stems from the understanding that accountants, with their ability to reason and identify potential errors, offer optimal solutions to the problems faced by entities at any given time going beyond the capabilities of software intelligence. Meanwhile, smaller percentages of respondents view the accountant's role

as being a consultant, business strategist and a partner with management in the value creation for the entity alongside management. These aspects are reproduced in figure no. 16 below as follows:

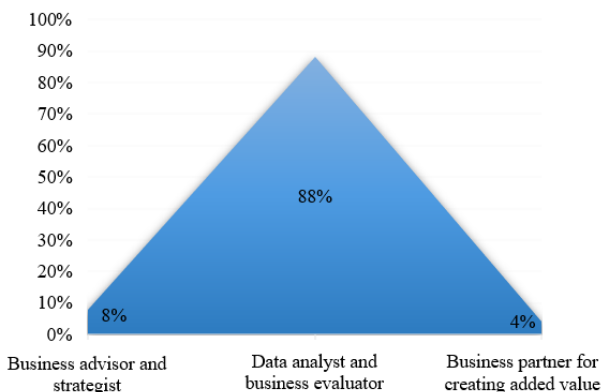


Figure no. 16: The role of the professional accountant in a digital environment

Source: Own elaboration based on the answers in the questionnaire

It follows that accounting professionals have a crucial role and a unique position within entities due to the fact that they know the entity best, through the accounting information they hold and which they prepare and make available to management to inform their strategic decisions.

They must therefore support their companies in the strategic decisions they make through the provision of quality financial reporting. To achieve this, they need to continuously improve their accounting knowledge, skills and competences in conjunction with those required by the widespread use of digitalisation in business.

From what has been stated so far, we can conclude that the role of the accounting professionals in the digital age is advancing day by day, with most of the specific activities of their work now being taken over and executed by computer programs, leading to shorter execution times, easier document preparation and reporting, as well as more efficient activities by reducing additional costs for companies caused by physical travel or additional salary costs due to exceeding normal daily working hours, and much more timely access for stakeholders to a high volume of real-time information needed to support economic decisions.

Conclusions

From what has been stated in the previous section, we deduce that accounting professionals play a key role within an entity and can ensure the success of a firm to the extent that they continuously update their level of knowledge, skills and abilities in the field of accounting, in line with the latest developments in the field, as well as aligning

them with the changes in international business practices, driven also by the widespread expansion of the phenomenon of digitisation.

In the latter respect, the developments that have taken place in the IT field in recent years inevitably lead to the need for accountancy professionals to acquire new professional skills and competences necessary for the use, processing and reporting of an ever-increasing volume of information useful to decision-makers in the process of economic decision-making, which requires accounting professionals to be proactive in response to these changes and to be able to adapt continuously in line with the evolution of current digital technology. From the analysis of the answers given by the respondents, on each section of the structured questionnaire administered to the accounting professionals, we can draw valuable conclusions, in line with the set aims and objectives. Thus, summarizing the answers related to the questions contained in the first section, we observe a greater interest in the issue of digitization among young accounting professionals and which confirms the hypothesis that digitization is necessary and timely and is perceived by them as an opportunity for career development, by the fact that they have more knowledge, skills and competences in the area of digitization of economic activity, i.e., accounting, even if they acutely feel the need for immediate improvement of digital skills and competences.

Also, due to the fact that young accounting professionals are at the beginning of their professional careers, they are more willing to adopt digital technologies in accounting compared to older, conservative professionals. We believe that young accounting professionals will be the ones who will bring about the change of mindset in the profession, aware that the future of accounting undoubtedly belongs to digitisation because of the benefits it brings and its ability to create long-term added value for the entity.

Also, the answers indicated by the respondents in the second section reveal that most of the entities in which the respondents work have, to a large extent, integrated digitalization into their accounting, respectively they already work with established accounting software, with REVISAL, use electronic signatures and agree and believe that their work is made easier, especially in terms of preparing books and other accounting documents that can be generated more easily from accounting software.

The study also showed a positive perception of cloud accounting technology among respondents, in that it is already present in the Romanian business environment, due to the advantages related to cost reduction and efficiency of the new technology, although they are of the opinion that it is not appropriate to be implemented in small companies due to the high implementation costs, the uncertainty of using information in the decision-making process, fears related to the security and safety of data and information, as well as the fact that managers of these entities are more concerned about business prospects than those related to the digitalization of processes.

Regarding the role of accountants in the digital age (section three of our study), the results showed that accounting professionals play a crucial role in the life of any entity because

the outcome of their work is directly reflected in the strategic decisions taken by management, with important effects on the success or failure of a business in the future.

They must, therefore, support their companies in the strategic decisions they make through the provision of quality financial reporting. To achieve this, they need to continuously improve their accounting knowledge, skills and competences in conjunction with those required by the widespread use of digitalisation in business.

From what has been stated so far, we can conclude that the role of the accounting professional in the digital age is advancing day by day, with most of the specific activities of his/her work now being taken over and executed by computer programs, leading to shorter execution times, easier document preparation and reporting, as well as more efficient activities by reducing additional costs for companies caused by physical travel or additional salary costs due to exceeding normal daily working hours, and much more timely access for stakeholders to a high volume of real-time information needed to support economic decisions.

Although the research has achieved its purpose and objectives, we consider that it has some limitations, especially related to the limited geographical representation in Romania, more specifically the north-eastern part of the country, which is also the most underdeveloped region of the country, with effects on the level of development of professionals in the field (we refer here to the high proportion of micro entities and small and medium-sized entities, with local capital and without the presence of foreign corporate governance), as well as the small sample size.

As future research directions we propose to extend the analysis sample to the national level, in order to better capture the views of accounting professionals in the context of business digitization.

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