

THE IMPACT OF DIGITALIZATION AND AUTOMATION ON THE ACCOUNTING PROFESSION IN ROMANIA: A QUALITATIVE STUDY

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Abstract:

This research endeavor aims to identify the level of digitalization within the largest accounting and consulting firms in the Romanian market, the impact of digitalization and automation on these entities, and the obstacles encountered throughout the digitalization and process automation transition. The purpose is to highlight the probability of future job losses, as well as the opportunities emerging from the digitalization of the accounting profession. Furthermore, the research seeks to elucidate the opinions of professionals regarding this context and the requirements of employers concerning the skills that young graduates in the field must possess. Methodologically, a qualitative approach was employed, consisting of semi-structured interviews applied to 10 accounting professionals (directors, partners, and senior managers) operating within the largest accounting and consulting service providers in Romania. The results were interpreted based on Actor-Network Theory (ANT) to examine how networks are developed and maintained, as well as the interaction roles played by various actors in the transformation of the accounting profession following its digitalization. The research corroborates the findings of previous studies regarding firm competitiveness and their investments in technology (Jylhä și Ssynimaa, 2019). Additionally, the study's findings are consistent with the results of other research asserting that accountants' tasks will be transformed, while human involvement will remain necessary for specific activities (Kokina și Blanchette, 2019; Holmes și Douglass, 2021). [1]; [2].

Keywords: automation, accounting profession, digitalization, impact, competitiveness, semi-structured interview, Actor-Network Theory (ANT).

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1. Introduction

Drawing on Actor-Network Theory (ANT), this research endeavor focuses on the transformation process generated by automation within the financial-accounting field and the role played by actors in this process. Consequently, the research aims to identify the

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impact of automation on the accounting profession within the largest outsourced accounting service firms in Romania, alongside other significant aspects related to this subject. To achieve its objective, the study utilizes a qualitative approach based on semi-structured interviews as its primary method. In this regard, the main goal is to address the following research question: *How has automation transformed the accounting profession in Romania?*

In Romania, the accounting profession is heavily legislated by state institutions, similar to France; however, regarding accounting regulation, it interfaces with other economic disciplines such as statistics, taxation, micro and macroeconomics, and legal sciences, resembling liberal states like the United Kingdom or the United States (Cobzaru, 2018). The primary accounting normative acts in Romania are Legea contabilității nr. 82/1991, O.M.F.P. nr. 1802/2014—which presents a single set of accounting rules for both individual and consolidated financial statements—O.M.F.P. nr. 2861/2009 regarding the inventory of assets and liabilities, O.M.F.P. nr. 2634/2015 concerning accounting documents, Legea nr. 227/2015 regarding the Tax Code, the Tax Procedure Code, and Legea nr. 31/1990 regarding companies. Romanian accounting standards comply with the rules provided in the Fourth and Seventh European Directives adopted through O.M.F.P. nr. 1802/2014 and those stipulated in IFRS for certain companies and groups of companies. The professional organization regulating the accounting profession in Romania is the Body of Expert and Licensed Accountants of Romania (CECCAR). It is empowered to maintain registers for its members, establish initial and continuing professional development requirements, and set ethical standards. The organization comprises expert accountants and licensed accountants, and for public practice, membership is mandatory (IFAC, 2021). CECCAR is taking the necessary steps to adapt to new expectations regarding the skill sets and roles of accountants for the upcoming changes (Popa și Șova, 2020). Although Romania ranks last in the European standings regarding the Digital Economy and Society Index (DESI), tax authorities appear to be making efforts to digitalize the accounting and tax system and to perform company audits automatically. Within this context, starting in 2022, certain companies were required to report all accounting information through the Standard Audit File for Tax (SAF-T) system. The primary role of SAF-T was to standardize the transfer of information between tax authorities and taxpayers, providing benefits to both parties. SAF-T involves the periodic reporting of a set of information (initially and additionally, in a predefined format) that facilitates the review by tax authorities of the operations carried out by taxpayers (PwC, 2021). This new standard aims to reduce the VAT collection gap and digitalize tax inspections (Deloitte, 2021). Another requirement from the tax authorities for certain taxpayers, starting in 2022, was related to the electronic invoice (RO e-factura). According to EY (2022), the creation of this system, as well as the use of the electronic invoice, contributed to achieving public policy priorities such as the digitalization of public sector activity, financial transparency, and the promotion of sustainable development. Simultaneously, the electronic invoice and the use of the SAF-T system will specifically reduce costs and increase the efficiency of the public sector.

2. Literature Review

The evolution of technologies such as cloud computing, blockchain, artificial intelligence, big data, RPA, digital reporting, and other related tools has had and continues to have a significant impact on how accounting is conducted in contemporary practice. Regarding this subject, previous studies have focused on how various technologies are utilized or implemented in the accounting field (Dilla și Raschke, 2015; Kokina și Blanchette, 2016; Ma et al., 2021) [3];[1];[4], what the advantages and disadvantages of using new technologies in accounting are (Bogasiu și Ardeleanu, 2021), or what the accountants' perception is regarding this aspect (Macovei et al., 2021) [5]. However, the literature regarding the impact of digitalization, and especially automation, on the accounting profession remains limited. The term "automation" encompasses a broad range of technologies aimed at reducing human intervention within processes. The automation of the accounting profession is not a new subject, but attention to this topic has increased significantly in recent years. In the 20th century, when accounting began its transition to computers, many researchers directed their attention to the automation of accounting, discussing its impact on the field and on accountants (Keenoy, 1958; Kerremans et al., 1991; Wilson și Sangster, 1992) [6];[7];[8]. Currently, attention is directed toward new automation tools and how they influence the accounting profession, as well as the transformations regarding the jobs of accounting practitioners. In this regard, researchers have discussed various automation tools, such as artificial intelligence (AI), robotic process automation (RPA), or optical character recognition (OCR), utilized by accountants in automating processes to facilitate their work and ensure greater accuracy. AI tools represent systems programmed to function and think like human intelligence, but possessing the capability to perform tasks better than humans. This capability is attributed to the experimental aspect of computer science involved in programming an intelligent machine capable of functioning across various tasks using its own intelligence (Dongre et al., 2020) [9]. On the other hand, RPA represents the automation of structured, rule-based activities and repetitive operations typically performed by humans (Cohen et al., 2019) [10]. OCR represents business solutions used to convert handwritten or typed texts into machine-readable formats (Gotthardt et al., 2020). Used in conjunction, these three tools can represent an ideal for automating accountants' work, thereby limiting human intervention and improving business processes (Shidaganti et al., 2021). Although these technologies are widely utilized at the level of accounting firms and internal accounting departments, human intervention is still required for other activities such as data processing and analysis. Regarding this topic, Kokina și Blanchette (2019) [1], in their paper concerning RPA in accounting, conclude that accounting practitioners will have other opportunities, such as exception analysis, robotic software development, support, and testing, even if employees are likely to be replaced by robots for certain tasks. Additionally, skills related to data management, data cleansing, and the correction of incomplete and inaccurate data will remain within the purview of employees rather than computers (Holmes și Douglass, 2021) [2]. Furthermore, the results of the study conducted by Mohammad et al. (2020) maintain that humans are still necessary for data analysis and interpretation, as well as for creativity and imagination, while their former jobs will be taken over by codes and AI-based robots. As demonstrated by the findings of the aforementioned studies, the accounting profession

will not disappear in the future, but accountants' jobs will undergo transformations, and the primary skills they should possess are IT-related. Automation exerts an influence not only on accountants' jobs but also on accounting firms. In this regard, Jylhä și Syynimaa (2019) found that the use of new technologies will increase productivity and price competition. Moreover, the authors assert that accounting firms unwilling to invest in or utilize technology are at risk of disappearing from the market. Other aspects relate to data quality and consistency, which will be improved through automation, alongside faster reporting speeds, enhanced process focus, an extended range of services, reduced costs, and expanded IT qualifications for employees (KPMG, 2017). While the aforementioned studies have identified the impact of automation on the accounting profession across different contexts, the present research aims to identify the influence of digitalization and automation on accounting within the Romanian context.

3. Research methodology

To achieve the objective of identifying the impact of digitalization and automation on the accounting profession, a qualitative method based on semi-structured interviews was selected. In researching the transformation of the accounting profession within the Romanian context, previous studies have employed the interview as a qualitative method (Albu et al., 2021; Albu et al., 2011) [11];[12], alongside other qualitative approaches (Feleagă, L., și Feleagă, N., 2016). This method facilitates an understanding of how various actors contribute to this transformation, the identification of the level of automation within accounting firms, and the influence that automation exerts on the accounting industry. In total, 10 interviews were conducted with directors, partners, senior managers, and automation managers involved in the digitalization and automation of accounting, operating within the 10 largest accounting firms in Romania. This context was selected considering the level of the DESI index recorded by Romania, even in 2023. In this regard, the aim was to ascertain whether this ranking is valid in Romania, alongside determining the level of digitalization and automation within the accounting profession. Furthermore, according to the study conducted by Lowe (2004) [13], a local investigation is necessary to uncover the nature of accounting practice. The interviews were conducted between May 2023 and February 2024, lasting approximately one hour each, with the exception of the initial interview. Table 1 presents the list of interviewees, the duration of each session, and the precise date on which each interview was conducted.

Table 1. List of interviews.

Ref. No.	Position within the company	Abbreviation	Duration (min)	Date
I1	Partner	Non Big 4.1	120	05.05.2023
I2	Partner	Non Big 4.2	60	14.11.2023
I3	Senior Manager	Big 4.1	60	24.11.2023

I4	Senior Manager	Big 4.2	60	06.12.2023
I5	Senior Manager	Non Big 4.3	60	07.12.2023
I6	Director	Non Big 4.4	60	28.12.2023
I7	Senior Manager	Non Big 4.5	60	29.01.2024
I8	Director/ Automation Manager	Big 4.3	60	02.02.2024
I9	Automation Manager	Non Big 4.6	60	08.02.2024
I10	Partner	Big 4.4	60	10.02.2024

Source: Author's elaboration adapted from Albu et al. (2011) [12].

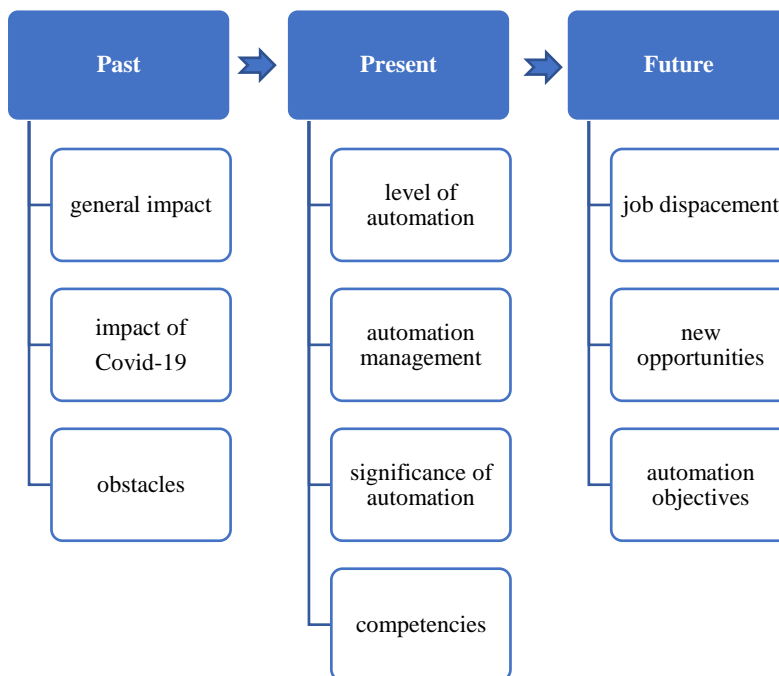
The interviews were conducted face-to-face or via online meeting platforms (Zoom, Google Meets, Teams). They were carried out in Romanian and subsequently translated into English. During each interview, notes were taken and transcribed immediately upon completion to prevent the loss of details. The interviews were analyzed using the directed content analysis technique (Hsieh și Shannon, 2005) [14]. For conducting qualitative research, the utilization of theory was necessary to provide comprehensive and complex understandings of the subject matter. To better explain the transformation process of the accounting field due to automation and the impact that automation exerts on the profession, the study relied on Actor-Network Theory (ANT). This social theory was proposed by Callon M. (1986), Law J. (2007), and Latour B. (2005), and was initially utilized in the fields of technology and science. Employing this theory, researchers can better investigate how accounting intervenes in local actions and the interconnections among accountants, the technology they use, and inscriptions (O'Connell et al., 2014) [15]. ANT specifically examines how networks are developed and maintained, as well as the interaction roles of various actors within the transformation (O'Connell et al., 2014) [15]. Essentially, ANT is an analytical framework that generates new knowledge resulting from identifying the roles humans and non-humans play in structuring networks among technology, people, and their ideas (Latour, 2005; Callon, 1986; Law, 2007). This theory pays significant attention to the transformation process and analyzes how innovation is gradually constructed or translated through a network of diverse actors (Latour, 2005). In the case of the present research, interest was directed toward the role of actors in the accounting automation process and how they contribute to this transformation, aiming to identify the impact on the profession. According to the study conducted by Latour (2005), an actor is represented by an individual or non-individual entity that affects another entity, giving meaning to a certain phenomenon that influences that entity. Every element of the network must cooperate and play its role to help the network remain stable, considering that actors depend on one another, regardless of their nature (human or non-human) (Law, 2007). Within the conducted research, the implementation and utilization of automation tools in accounting processes—which in turn

influence the accounting profession—are driven by networks of human and non-human actors, such as accounting employees, managers, tax authorities, clients, automation solution providers, technological tools, and the Covid-19 pandemic. ANT has been widely utilized in accounting research. For instance, Albu et al. (2020) [16] employed this approach to explain the transformation process generated by the implementation of costing tools in Romanian construction companies, while Murro și Beuren (2016) [17] utilized this theory to interpret the findings related to the investigation of the specialized accounting inspection process. Additionally, Alsharari N.M. (2016) [18] applied ANT to explain the diffusion of management accounting innovation in the public sector as a result of the influence of International Monetary Fund reforms.

4. Research findings

To offer a clearer perspective on the impact of automation on the accounting profession, the data are presented in chronological order, commencing with the existing impact of automation on the profession, the manner in which the Covid-19 pandemic contributed to this impact, and the principal obstacles encountered by outsourced accounting service firms during the automation processes. The second stage encompasses the level of automation, its management within the firms, its significance for accounting professionals, and the newly required competencies. The final stage pertains to the future of automation within the accounting industry, specifically focusing on the objectives of the firms, the new working models, and the emerging opportunities. These stages are illustrated in Figure 1, with each phase exerting consequences on the subsequent one(s).

Figure 1. Chronological stages of automating the accounting profession.



Source: Authors' elaboration.

4.1 The impact of automation and obstacles encountered

"Automation is not a topic of yesterday or today; it is as old as the world. Nowadays, because technology has become so cheap and accessible to everyone, everybody is thinking about how to automate." (I2 - Non-Big 4.2).

But how can the impact of automation on the accounting profession be quantified? More precisely, how can one discern whether the impact is positive or negative? For accounting firms, the impact might be positive, while for certain employees for whom change management represents a massive challenge, it could be negative. Overall, the interviewees consider that automation has positively affected the accounting profession at the level of companies providing accounting services, yet it simultaneously carries certain negative aspects. In this regard, one of the interviewees explained: "It has had a positive and far-reaching impact because automation, on the one hand, has simplified the work and theoretically reduces the risk of human error, but it affected us (the company) because everything is changing, and everyone is implementing automation. [...] We spent many months finding an Optical Character Recognition (OCR) provider that we could afford. OCR costs are high. Over time, the cost is recovered, but you need the initial investment. You pay now, but the results come over time. [...] Automation reduces human resource costs but adds costs associated with the systems utilized. Efficiency is seen not only in money but also in the time spent. The reduction in time leads to cost reduction and faster delivery of results to clients." (I1 - Non-Big 4.1).

As the aforementioned interviewee suggested, the positive impact of automation also involved costs at the company level. Although human resource costs decrease, costs related to automation tools increase, and the benefits materialize over time. From the paragraph above, it can be understood that the actors driving the change brought about by automation are accounting systems and market competitors. If a company on the market implements automation tools, ideally the others should implement them as well to keep pace, as the probability of losing clients is quite high. This finding is consistent with the results of the study conducted by Jylhä and Syynimaa (2019), which shows that accounting firms unwilling to invest in or utilize technology are at risk of disappearing. Regarding this issue, another interviewee expressed their opinion: "In 3 years, practices such as paperwork or organizations that have not adopted the new matter (automation) will disappear from the market because clients will no longer pay them. For the younger generation, the ideal cannot be shuffling papers. New generations no longer accept these things. And you, as an organization, will no longer have either people or clients." (I2 - Non-Big 4.2). Another actor, as mentioned above, is the young accountant belonging to the millennial generation (White et al., 2020), and what defines this generation is their affinity with the digital world (PwC, 2020). As the above interviewee suggested, the new generation no longer accepts working with paper, and this would lead to even more automated accounting. However, some of the interviewees consider that the impact of automation has not been so significant and that there is still room for automation in the accounting industry. "It affected it (the accounting profession) less than I would have liked, in the sense that, my vision remains that there is a

huge potential in utilizing automation in accounting and in processes generally. The benefits are significant, and the costs are low." (I2 - Non-Big 4.2). "I believe we are in the first stage of this transformation; there is no maturity in the market yet." (I8 – Big 4.3).

This first stage of transformation, as highlighted above, was amplified by the Covid-19 pandemic for certain companies, as accountants' work shifted from the office to remote work. In Romania, prior to the Covid-19 pandemic, clients used to bring the folder with printed documents to the accounting firm, and the accountant used that folder to record transactions in the accounting system. Today, this practice no longer exists, at least for large accounting firms. Regarding this topic, one of the study participants explained: "It (the Covid-19 pandemic) accelerated it drastically (automation). When we worked from the office, some clients sent documents physically, while others electronically. We couldn't believe that effectively starting from the second day of lockdown we worked remotely. [...] If the pandemic hadn't occurred, it would have taken much longer to convince the clients." (I8 – Big 4.3). The fact that the pandemic influenced the automation of accounting was approved by seven out of the ten interviewees. The Covid-19 pandemic and the measures imposed by the authorities drastically altered everyone's behavior in this industry. For this reason, the pandemic could be considered another actor that played a significant role in the automation of accounting for certain companies. However, some of the interviewees consider that the Covid-19 pandemic did not bring any change to the level of automation of the accounting profession because, in the companies they work for, things were already initiated prior to this period. "The Covid-19 pandemic increased clients' acceptance of the process, shifting to faster solutions. However, things were initiated beforehand. The Covid-19 pandemic facilitated client acceptance, giving us access to their platforms without them having to send documents via email anymore." (I10 – Big 4.4). "I couldn't say that (the Covid-19 pandemic) contributed to automation, but it helped flexibilize the way we work. Clients started scanning documents, but I wouldn't say automation was an impulse in this direction as a result of the Covid-19 pandemic." (I6 – Non-Big 4.4). The idea of client acceptance was supported by half of the respondents, as they consider that, before the Covid-19 pandemic, clients were very hard to convince to send documents electronically. This would lead us to understand that an obstacle in the automation process is considered to be the client, alongside job security, organizational resistance to change, the price of automation, uncertainty, and many others. As in any other project, in the accounting field too there are various obstacles in the automation process, but only by overcoming these obstacles can companies achieve success.

A portion of the interviewees consider that employees and their resistance to change represent the main obstacle in the automation process. Regarding this issue, one of the interviewees explained: "The main obstacle is the human, the organization's culture, which I do not think is a specific culture. [...] There are people for whom doing something else tomorrow is terrible. Resistance to change comes from the fact that we are human. Machines change easily, humans more difficultly. The problem comes from showing people that by accepting it (automation), they will step into a better world. If you do not show them these things, you have no chance. In reality, there is a fear that they become irrelevant. This

type of attitude delays the automation process, but it does not change it. The change happens, but at a lower speed." (I2 – Non-Big 4.2). While the client was somehow forced to change the old way of working in the context of the Covid-19 pandemic, for certain employees it is still difficult to do so. Companies should have a strong change management procedure to make people understand the benefits of automation, because otherwise, a lot of work is required from companies to convince their employees. Regarding this aspect, one of the interviewees mentioned: "People represent the main obstacle (for automation), because the pressure and the workload are high enough that people want to work with the tools and systems they already know. If I already know how to do it in Excel, I will do it in Excel instead of automating it, even though it takes me a lot of time. What if it doesn't work out and I won't have enough time to invest? They didn't understand the time-benefit ratio, but KPIs (key performance indicators) helped us make them use the automation tools." (I3 – Big 4.1). As the interviewees' answers show, the employee was one of the most important actors in the automation process, because without their acceptance, this process would not have been possible. Also, another important actor is the management who takes various measures to show people the benefits of using automation tools.

While some of the interviewees consider that the employees represented the main obstacle to the automation process, other interviewees would put the tax authorities in first place. In this regard, one of the respondents mentioned the following: "The main obstacle in the attempt to automate accounting processes, I believe, was the state which took late measures regarding the elimination of bureaucracy and the development of automation processes at the level of financial-administrative units. It took a pandemic to speed up the automation of systems used by administrative units and to adopt measures or procedures for remote work." (I5 – Non-Big 4.3). Nowadays, the Romanian tax authorities are much more digitalized and there is no longer a need for firms to present themselves with physical documents in their offices. Almost all aspects relating to tax authorities (such as tax returns, financial statements, various requests) are sent through their online platforms and via the single contact form. Currently, all companies are obliged to register in the Private Virtual Space (SPV) to communicate with the tax authorities, so the state itself is no longer considered an obstacle in the automation process, but can be considered an actor that participated in the change brought about by automation in the accounting industry. However, one of the interviewees considers that tax regulations still represent an obstacle. "[...] One of the obstacles I think was represented by tax regulations due to the lack of predictability and complex requirements" (I9 – Non-Big 4.6). Furthermore, for certain companies, the cost of automation tools represented an obstacle in the automation process, while for others the lack of dedicated resources or the systems utilized represented other impediments. Also, as stated by one of the Big 4 interviewees, the size of the company can be considered an obstacle. "I would say as my boss would say. This company is like a giant boat. Any movement happens with difficulty. A ship moves harder than a speedboat. The automation process is a long-term process [...] and an obstacle could be the size of the company, because there are many approval processes." (I10 - Big 4.4).

In short, the accounting profession has been positively influenced by automation, but not as much as professionals in this industry expected. As the interviewees explained, the main benefits of automating accounting processes have been cost reduction, higher delivery speed to clients, decreased document processing time, and the diminution of the risk of human error. Moreover, the Covid-19 pandemic played a significant role in the accounting automation process. The majority of respondents consider that, at the level of the accounting industry, things were accelerated by the pandemic, changing the clients' way of working and pushing the tax authorities to develop their own automation processes. As presented, the change in the accounting industry determined by automation processes encountered some difficulties at the company level. In this regard, a portion of the interviewees consider that the human was the main obstacle in the automation process (clients and employees), while other interviewees consider that other impediments were related to the initial cost of the investment in automation tools, tax authorities, legislation, the lack of dedicated resources, and the company size. Several actors have been identified as part of the change driven by automation up to the present: market competition, accounting systems, the young accountant, the Covid-19 pandemic, employees, company management, clients, and tax authorities.

4.2 The degree of automation and professionals' perspectives

Nowadays, a large part of accounting processes are performed automatically, but some of them are still performed manually by employees. To ascertain the level of automation in the accounting industry, the interviewees were asked to what extent accounting processes are automated within the companies they work for. Regarding the bookkeeping part (recording transactions in the accounting software), one of the interviewees provided the following answer: "The degree of automation depends on how structured the accounting firm is compared to the flexibility it offers its clients. We are flexible regarding the client's accounting software, the reporting format, the reporting language, the way they send us documents. It heavily depends on how flexible or rigid the accounting firm is and the missions it has in relation to its client." (I1 – Non-Big 4.1). As explained above, the level of automation cannot be measured with certainty by companies, because it depends on many factors like those highlighted. However, another interviewee estimated the level of automation as follows: "At the moment, accounting processes are somewhere around 20%-30% automated, and we hope to reach 50% in the future. We are talking about the part of processing payments, receipts, bank journals." (I6 – Non-Big 4.4). While for a Non-Big 4 company, accounting processes are 20-30% automated, for a Big 4 company, these processes are 80%-90% automated as explained below by one of the interviewees. "Being part of a multinational company and having technologization as a target, the processes are largely automated starting with data entry, payment uploads, OCR of invoices which are recorded automatically, [...], so we are about 80%-90% automated." (I10 – Big 4.4).

The OCR solution for purchase invoices is also utilized by other companies, as reported by the interviewees. In total, four respondents mentioned the use of OCR in the automation of accounting processes. Also, other solutions such as RPA or various automation tools are

utilized by accounting firms to record transactions in accounting systems, as presented by one of the interviewees. "[...] For the part of recording transactions in accounting systems we use specialized tools and RPA; we have designed robots to extract data from different files and in various formats and we prepare data for upload into various accounting systems/ERPs, just a click away." (I9 – Non-Big 4.6). As presented, OCR and RPA solutions are widely used at the level of accounting firms for the automation process of recording accounting documents. In addition, Excel import files or other automation tools are also widely used. Moreover, some of the interviewees mentioned that primary data already comes semi-automated from the client, when the client uses the same accounting system as the accounting firm, especially for the issued invoices part.

In relation to the tax bodies, the majority of the interviewees specified that reports can be extracted from the utilized accounting systems, which are mostly designed for the Romanian tax legislation, and employees merely verify the figures. Other interviewees stated that reporting to tax authorities is done through internally developed tools. Conversely, other companies still prepare these reports manually. In this regard, one of the respondents explained: "We are working on preparing the automated drafting of financial statements; we have a tool made through a pilot project that we are trying to optimize, but now it is mostly done manually. Tax returns are not yet automated; they will be automated in the second stage of this pilot project I was talking about. We are trying some automation for the SAF-T declaration as well." [I6 – Non-Big 4.4]. Regarding the new requirements in relation to tax authorities, such as SAF-T reporting and RO e-factura, one of the interviewees mentioned the following: "In the context of the new requirements, tax authorities compel companies to automate. We are talking about the new SAF-T reporting. Without a reporting system, it is almost impossible to do the declaration manually or it consumes a lot of time. In this field, almost all companies opt for automation. Only firms that have to issue the electronic invoice and have very few documents monthly have the option to do them manually. Otherwise, with the digitalization of the tax authorities' system, companies will be forced to automate all processes related to tax statements, because the volume is much higher than in the past." (I4 – Big 4.2). Currently, in Romania, only large and medium-sized companies have been required to submit the SAF-T declaration to the tax bodies, while small and micro companies reported starting with 2025. Also, the electronic invoice is mandatory only for certain companies at this moment. As presented by the interviewee above, the new requirements of the tax authorities will force all companies to automate at some point, because otherwise it will be almost impossible for them to prepare such reports manually, which requires a lot of time.

Outsourced accounting service firms also prepare ad-hoc reports for their clients upon request. Depending on the type of reporting, accountants can spend hours preparing the package. As with reporting to tax bodies, some of the interviewees mentioned that the reporting part to their clients is done automatically or semi-automatically. In this sense, one of the interviewees explained: "For standard reports we have semi-automated processes, some based on macros, others on Alteryx, others on machine learning software or Power BI, but it depends on the client and what can be automated. We try to automate as much as

possible on a case-by-case basis and depending on the benefit, but also on future cost recovery." (I4 – Big 4.2). On the other hand, some of the interviewees stated that reporting to clients is done manually. The degree of automation, as presented by the interviewee above, also depends on future cost recovery, and this could be one of the reasons why some companies do not invest in automation processes and still prepare reports manually.

Besides the initial investment costs and all other factors explained above, another important aspect is related to how automation is managed within companies, but more importantly, to the main actors involved in this process. The majority of the interviewees argued that the automation process is a mix, but the idea generally comes from the management, being perceived as the initiator of this process. In this direction, one of the respondents presented: "It is a mix between employees, a dedicated team, but it clearly starts from the management who established the strategy of accelerated digitalization of the company, who is also the sponsor. Management promotes and funds the digitalization strategy. We also have an automation department that works together with the IT department which analyzes the necessary resources, data security that goes through automation solutions. [...] Automation started with internal resources and punctually with external providers [...]. It also depends on the employees. It is useless to have an automation department if the employees do not use the solutions. So, everyone is involved, including employees, because it depends on them if the solutions work, they are the ones who provide feedback." (I1 – Non-Big 4.1). From what is presented above, it can be deduced that at least five actors are involved in the automation process. The first is the management who takes the necessary steps in achieving the automation goal. The second is represented by the dedicated team, more precisely the automation team that provides the automation solution. The third is the IT department which helps the automation team to analyze factors such as data security and necessary resources. The fourth actor could be represented by the external provider who offers certain solutions in case the automation department needs them. The last actor, but not necessarily the last, is the accounting employee who accepts the automation solutions, utilizes them, and provides feedback related to the solution's functionality. As the interviewed individuals presented, this process is similar in other eight companies as well.

Another factor that can initiate the automation process can be the way accounting professionals perceive automation. If automation is perceived as an opportunity, then accounting processes can become more automated. On the other hand, if automation is perceived as a threat, accounting processes will not be as automated, or the process occurs at a slower speed. Generally, the interviewees considered that automation represents an opportunity for everyone involved, as stated by one of the respondents: "It is always an opportunity, because the accountant's work itself is in continuous transformation; we are moving from data operator to analyst who can understand and interpret. This change brings satisfaction and an increased level of well-being that you are no longer a little mouse, but a consultant who analyzes whether certain indicators have increased or decreased. Automation goes hand in hand with the transformation of accounting jobs." (I10 – Big 4.4). The optimistic vision of the accounting professional will always say opportunity because automation can bring with it a certain level of satisfaction to the employees and of course,

to the company in general. This is because the work accountants did in the past is set aside and their role will become more relevant and valuable to clients. Although for some accounting professionals automation is certainly an opportunity, for others there is a certain level of hesitation. In this regard, one of the interviewees explained: "I think it depends on which boat you are on. It is obvious that people, old-school accountants, who still rely on debit-credit and document processing will be eliminated slowly, slowly. [...] For this type of accountant, it will be a challenge to continue. For companies like us, I see it as a great opportunity [...]." (I6 – Non-Big 4.4). A similar idea was also supported by other interviewees: "In any field, automation is both an opportunity and a threat. The opportunity is for those who embrace it and see its advantages, and the threat is for those who say: 'here I will die, I will change nothing'. For a mindset where you keep your energy stagnant, the game is a losing one. It depends on which side you are on. Automation in accounting makes no difference compared to other fields." (I2 – Non-Big 4.2). "I would say opportunity. I think for the accounting profession in general, digitalization is an opportunity to stop doing repetitive and boring things and to do things that truly bring value. On the other hand, I believe the skills you need must change, you have to go through a transformation process. From the feedback I have received, I see that 5 or 6 out of 10 people want to change, and the rest simply do not have the power or the desire to do it. That is why it could be a threat. If we get out of the shell, we are talking about opportunity." (I3 – Big 4.1). As accounting professionals have presented, automation can represent both an opportunity and a threat, depending on the accountant's personality and their desire for change. The opportunity is for those who embrace it and see its advantages, and the threat is for those who believe that change is a huge and difficult-to-overcome challenge.

From the last paragraph above, it can be observed that the changes brought about by automation in the accounting profession also require changes at the level of employee competencies. This is an essential element that companies request in present-day practice. Regarding this problem, the interviewees consider that skills such as digital ones, analytical thinking, the ability to ask questions, communication skills, presentation skills, synthesis power, foreign languages, openness, acceptance, and availability are just a small part of what new graduates should possess. Moreover, one of the interviewees added: "I think the right graduates for today's accounting practice should possess skills like patience, reaction speed, organization, responsibility, [...], attention to detail, observation, reliability." (I5 – Non-Big 4.3). On the other hand, because the new generation will no longer have as much contact with source documents, a part of the interviewees consider that more knowledge in the accounting area is necessary so that those new to the field can get to understand and interpret data. In this regard, one of the respondents explained: "I would say it is clear that if they want to work in accounting, they must have accounting knowledge. It will be more difficult to learn everything on the job without this knowledge. New employees want rapid growth, they no longer want to be juniors and then accounting knowledge is necessary." (I4 – Big 4.2). Regarding this aspect, universities should play an essential role in preparing students for practice, not only for knowledge in the accounting area, but also for digital and analytical knowledge in general. In relation to this aspect, one of the interviewees

explained: "I think we need much more digital knowledge, if not programming languages, at least data and analytics areas, SQL, Python. You cannot generalize to a large mass of people, but at least at certain faculties there should be more courses related to the technical area. In the soft skills area, there is a need for better communication, effective data presentation, negotiation courses, teamwork courses, collaboration in various environments, it is a suite of elements that makes us more adaptable to this change. There should be better collaboration between universities, employers and professional organizations that contribute with training [...]." (I3 – Big 4.1).

Automation can be successfully implemented if employees possess the necessary skills to work with the new tools. As presented, there are also other important actors who can contribute to the change brought about by automation in the accounting industry. Firstly, universities and professional organizations would play an important role by teaching students intensive accounting courses, digital and analytical courses. Another important actor is the employer who should organize different trainings to prepare their employees, especially the junior ones.

In brief, accounting processes are not completely automated by accounting firms in Romania, neither from the perspective of bookkeeping (recording accounting transactions) nor from the reporting perspective. As presented, Big 4 accounting firms have a higher potential to invest in automation tools, as they are part of multinational groups that target technologization, unlike smaller or local companies. Depending on the systems utilized and how automation is managed within companies, processes can be automated, semi-automated or performed manually. For automation tools, accounting firms in Romania use OCR, alongside RPA, AI or other automation tools developed internally or externally. Moreover, as the interviewees presented, automation is managed by approximately five main actors within the company: management, the automation department, the IT department, external providers of automation tools, and employees. Regarding the significance of accounting automation, the majority of the interviewed individuals consider that it represents an opportunity for the industry, because it drives people to achieve more valuable things. On the other hand, automation represents a threat for employees who accept changes with difficulty, and these changes are also related to the skills employees should possess. As the interviewees suggested, the most important skills are technical ones, but also soft ones. Regarding technical competencies, universities and professional organizations would play an important role in preparing students for contemporary accounting practice.

4.3 The future of the accounting profession

According to the World Economic Forum (2020) report, data entry, accounting, and payroll jobs rank first and second in the top ten categories of redundant jobs that could disappear due to or thanks to automation in the future. To see if this issue is also applicable at the level of Romanian accountants, the interviewees were asked if they consider that accounting practitioners will be replaced by robots in the near future and if their jobs will still exist due to or because of automation, especially for data entry. In this regard, one of the respondents

expressed their opinion as follows: "A large part of accountants' work will be taken over by robots, but to say that humans will be replaced by robots is an exaggeration. There must be a critical eye. Quantitatively speaking, accounting will be automated, but qualitatively speaking, accounting will still be done by humans." (I6 – Non-Big 4.4). As explained above, humans are still needed for qualitative tasks, even if quantitative tasks will be taken over by robots. Also, humans should work closely with robots to provide accurate data and necessary information for decision making. In relation to this aspect, another interviewee explained: "We shouldn't think about the replacement option, but rather the option of a good collaboration between accountants and robots regarding the division of work tasks. The robots' tasks should be validated by accountants." (I7 – Non-Big 4.5). The human accountant will still be the one who validates the robots' work, because robots do not yet have the capacity to analyze and interpret data.

If data entry jobs will be taken over by robots, people will have more time to focus on things that bring added value to the company and especially to the clients. Regarding this aspect, the interviewees consider that many other jobs will be available for accountants in the near future. For example, one of the respondents mentioned: "[...] Their jobs will transform, they will no longer be data processors; instead, they will do analysis, interpretation, consulting and recommendations, things that accountants do not have time to do now. The role of the accountant will consist of measurement, evaluation, management, knowledge and control." (I1 – Non-Big 4.1). Although accountants will no longer be the ones entering data into accounting, as presented above, many other opportunities will be available to them, so the accounting profession will not disappear. It will continue to exist, but under other roles or different positions within the company.

However, a significant aspect remains questionable. How can an entry-level accountant gain experience in data analysis and interpretation if they skip the data entry part and will no longer have contact with documents to understand the nature of a certain transaction? Regarding this problem, one of the interviewees answered: "[...] The data entry part will need to be known and will be a sort of 'multiplication table' for the accountant. If you do not know how to do it, you will have a problem. The role of the school will have to be stronger so that people come with the 'multiplication table' already learned and step into more difficult things. I think good people will have a future in this field." (I6 – Non Big 4.4). Professionals consider that accounting education should play an essential role in preparing students for what accounting means today and accounting in the future. A more solid theoretical foundation is needed so that those working in this field know how to analyze and interpret data. The idea that universities should provide students with a more solid theoretical foundation was also supported by two other interviewees. However, according to the respondents, there will be other ways of learning for young accountants. In this regard, one of the interviewees explained: "I know it is possible. Graduates will start to be more advanced than before. The way I see things, some very intense preparations must be made and for a much longer period. There should be capture and shadow programs where people who have had contact with primary documents can supervise the new ones in the field, so that they can adapt to this work." (I3 – Big 4.1). Employers will also play an

important role in preparing new employees in terms of ensuring more intensive training programs. In this way, but also through the contribution of universities, the transition from traditional accounting to more modern accounting will be possible, especially since firms target the highest level of automation possible. In relation to this problem, one of the interviewees concluded: "The objective is to give the machine everything it can do and leave to the human what they can do better. If something a human does could be done better by a machine, I will give the machine to do it. The goal is to increase the degree of process automation while surrounding myself with happier people, fulfilled with what they do. We work on this every day." (I2 – Non-Big 4.2).

In summary, the accounting profession will change in the future, so that accountants are more appreciated by clients. The role of accountants will change, but the change is seen as a good thing by professionals, because people will have more time to focus on relevant aspects, leaving mundane tasks to robots. Universities and employers will have a very important role in preparing new juniors through more intensive theoretical accounting courses, but also more intensive training programs. The goal of every company is to increase the level of automation in the future and to offer people the opportunity to assert themselves in relation to clients.

5. Discussions and conclusions

The conducted research examined the impact of automation on the financial-accounting profession within the ten largest outsourced accounting service firms in Romania, utilizing Actor-Network Theory (ANT) as a theoretical foundation (Callon M., 1986; Law J., 2007; and Latour B., 2005) to interpret the results, alongside a qualitative approach based on semi-structured interviews. In this regard, the present study examined the existing impact of automation on the accounting profession, the level of automation regarding data entry and reporting, its significance, the newly required competencies, and the future of the accounting profession concerning job losses, as well as the opportunities that will emerge as a result of the profession's automation. Throughout the transformation process, various actors were identified as exerting either a positive or a negative influence on this process. The initiator of the process, as presented by the interviewees, is the company's management, which identifies the problem and seeks solutions. Alongside the automation and IT departments, as well as external providers of automation tools, management works to achieve the solution for streamlining accountants' work. As the obtained results indicated, over time, a variety of obstacles were encountered. Automation solutions require rigorous rules from the clients of accounting firms because the information should already be in an electronic format, a matter that was not previously accepted by all clients. Additionally, the bureaucracy of the tax authorities represented another obstacle. During the Covid-19 pandemic, when office work shifted remotely, these two obstacles were overcome, yet other obstacles still persist. Some of the interviewees argued that employees have a significant impact on the transformation process, as it depends on them whether the automation solution is utilized or not. In this regard, management must find solutions to demonstrate the benefits of using new technologies to the personnel. Another portion of the interviewees

considers that the lack of dedicated human resources could be another impediment in the automation process. Moreover, the continuously changing tax legislation influences the automation process, as automation solutions are rule-based, and companies must frequently update their systems. Another issue relates to the level of costs, particularly concerning the initial investment, which presents uncertainties regarding future recovery; consequently, some companies refrain from investing precisely for this reason. Summarizing, the actor network related to process transformation is developed for the majority of companies, but for it to remain stable, each must play its role in this direction (Law, 2007).

In Romania, automation has positively influenced the accounting profession regarding the reduction of working time, the decrease of long-term costs, faster delivery of results to clients, and more accurate data with fewer errors; however, it has also involved costs at the company level. These costs are primarily related to the initial investment in automation tools. Nevertheless, the study participants consider that automation has affected the accounting profession but has not yet reached its maximum capacity. According to the interviewees, there are currently many activities in the accounting field that are not automated and are still performed manually by humans. For instance, the data entry part is automated only to a certain extent, especially for rule-based activities, such as recording and issuing invoices, and recording bank and cash transactions. For purchase invoices, some companies utilize OCR solutions to read data and RPA solutions or Excel files to process and import the data into the accounting system. Reports relating to tax authorities, such as tax returns or financial statements, are automatically generated by the accounting software used by some companies, while other companies still prepare these reports manually. Client reporting is performed manually by a portion of the participating companies, while others utilize AI tools such as Power BI or Alteryx. The degree of process automation depends to some extent on the company's size and its potential to invest in technology. However, according to the obtained results, to remain in the market, companies must invest in technology (Jylhä și Syynimaa, 2019).

The study participants consider that automation represents an opportunity for contemporary accountants, even though for some who are unwilling to accept certain changes and challenges, it might represent a threat. To succeed in this field, new accountants should possess skills that were not absolutely necessary until now. According to the results, regarding soft skills, accountants should be effective communicators and speakers; they should possess the ability to ask questions, synthesis power, acceptance, openness, availability, reaction speed, time management, attention to detail, observation, patience, and responsibility. Also, regarding technical skills, the interviewees consider that the new employee should possess more digital skills and advanced accounting knowledge, considering that the data entry part will largely be performed by robots. In this regard, universities and professional organizations will play an essential role in preparing students for contemporary accounting practice. Accountants must know how to interpret and analyze data, as they will no longer be mere data processors, but rather consultants and analysts (Mohammad et al., 2020) [19]. The interviewees believe that accountants' jobs will not disappear, and humans will not be replaced by robots. Instead, their tasks will be divided

between humans and robots. Humans should validate the robots' work, as well as analyze and interpret certain transactions—tasks that cannot be performed by robots. These findings are consistent with the results of previous studies asserting that accountants' jobs will transform, and humans will still be necessary for specific activities (Kokina și Blanchette, 2019; Holmes și Douglass, 2021) [1];[2]. The goal of all companies is to automate everything that can be automated and to leave humans with tasks that can bring added value for themselves, the company, and the clients.

The conclusions of the present study have several practical implications. Firstly, the results suggest that, to remain competitive, companies should invest in new technologies and automate as much as possible. As the results indicate, companies unwilling to achieve this will no longer exist in the market, because clients will no longer agree to pay them. Another aspect relates to the young generation of accountants whose affinity is the digital world (PwC, 2020), and practices such as paperwork do not define them. For this reason, companies unwilling to invest will no longer have either employees or clients. Secondly, the research findings suggest that universities and professional organizations should adapt their curriculum with new digital modules and offer more intensive accounting courses. This is due to the fact that future employees will no longer be in contact with source documents as before, and therefore, they must enter the workforce with very strong accounting skills and knowledge to understand, analyze, and interpret data.

This study contributes to the specialized accounting literature in the following ways. Firstly, while other studies focus their attention on the effects of digitalization on firms providing accounting services in various European countries (Jylhä și Syynimaa, 2019; Januszewski et al., 2021) [20], the aim of the present study is to identify the impact of digitalization, and especially automation, on accounting firms in Romania. The rationale for selecting this context is related to the DESI index ranking (EU Commission, 2022), where Romania ranked last even in 2023. In this regard, the intention was to observe the extent to which this ranking is applicable at the level of the accounting profession. As the results demonstrate, the largest accounting firms are largely digitalized and automated, but not to the extent that accounting professionals would have desired. Secondly, while other authors employ various approaches to identify the impact of digitalization on the accounting profession—such as literature reviews (Ciurea și Man, 2020; Gușe și Mangiuc, 2022) [21] or questionnaires—in researching the Romanian context, this paper utilizes a qualitative approach based on semi-structured interviews.

The findings of the study should be considered in light of certain limitations. Firstly, the number of interviewees is limited to ten, and the interviewed companies are the largest in Romania. To understand the difference between these companies and other smaller firms regarding the automation of accounting processes and their potential to invest in new technologies, future studies could invite participants from other accounting firms as well. Additionally, this study utilizes a qualitative approach based on semi-structured interviews and does not provide quantitative data. Future studies could identify the impact of

automation on the accounting profession by employing a quantitative approach based on questionnaires or other types of empirical investigations.

References

- [1] Kokina, J. și Blanchette, S. (2019). Early evidence of digital labour in accounting: Innovation with Robotic Process Automation, *International Journal of Accounting Information Systems*, 35, p. 100431.
- [2] Holmes, A. F., și Douglass, A. (2021). Artificial Intelligence: Reshaping the Accounting Profession and the Disruption to Accounting Education. *Journal of Emerging Technologies in Accounting*, 19(1), 53-68.
- [3] Dilla, W. N., și Raschke, R. L. (2015). Data visualization for fraud detection: Practice implications and a call for future research. *International Journal of Accounting Information Systems*, 16, 1-22.
- [4] Ma, D., Fisher, R., și Nesbit, T. (2021). Cloud-based client accounting and small and medium accounting practices: Adoption and impact. *International Journal of Accounting Information Systems*, 41, p. 100513.
- [5] Macovei, A. G., Cojocari, A., și DASCĂ, I. (2021). Generation Y And Z Perception Of Digitalization In The Accounting Field. *European Journal of Accounting, Finance & Business*, 16(26), 21-26.
- [6] Keenoy, C. L. (1958). The impact of automation on the field of accounting. *Accounting Review*, 230-236.
- [7] Kerremans, M., Theunisse, H., și Van Overloop, G. (1991). Impact of automation on cost accounting. *Accounting and Business Research*, 21(82), 147-155.
- [8] Wilson, R. A., și Sangster, A. (1992). The automation of accounting practice. *Journal of Information Technology*, 7(2), 65-75.
- [9] Dongre, N., Pandey, A. și Gupta, O., P. (2020). Artificial Intelligence in Accounting: Opportunities & Challenges. *Journal of Xi'an University of Architecture & Technology*. ISSN No: 1006- 7930 7(5).
- [10] Cohen, M., și Rozario, A. (2019). Exploring the use of robotic process automation (RPA) in substantive audit procedures. *The CPA Journal*, 89(7), 49-53
- [11] Albu, C. N., Albu, N., și Hoffmann, S. (2021). The Westernisation of a financial reporting enforcement system in an emerging economy. *Accounting and Business Research*, 51(3), 271-297.
- [12] Albu, N., Albu, C. N., Bunea, Ș., Calu, D. A., și Girbina, M. M. (2011). A story about IAS/IFRS implementation in Romania. *Journal of Accounting in Emerging Economies*.

- [13] Lowe A. (2004) Postsocial Relations: Toward a performative view of accounting knowledge. *Accounting, Auditing & Accountability Journal*, 17 (4): 604-08.
- [14] Hsieh, H. F., și Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative health research*, 15(9), 1277-1288.
- [15] O'Connell, B., Ciccotosto, S., și De Lange, P. (2014). Understanding the application of ActorNetwork Theory in the process of accounting change.
- [16] Albu, N., Albu, C. N., și Gray, S. J. (2020, July). Institutional factors and the impact of international financial reporting standards: the Central and Eastern European experience. In *Accounting Forum*. 44(3), 184-214. Routledge.
- [17] Murro, E. V. B., și Beuren, I. M. (2016). Actor networks in specialized accounting inspection: an analysis in the light of the Actor-Network Theory. *Revista Brasileira de Gestão de Negócios*, 18, 633-657.
- [18] Alsharari, N. M. (2016). The diffusion of accounting innovations in the new public sector as influenced by IMF reforms: actor-network theory. *International Journal of Actor-Network Theory and Technological Innovation (IJANTTI)*, 8(4), 26-51.
- [19] Mohammad, S. J., Hamad, A. K., Borgi, H., Thu, P. A., Sial, M. S., și Alhadidi, A. A. (2020). How Artificial Intelligence Changes the Future of Accounting Industry. *International Journal of Economics and Business Administration*, 8(3), 478-488.
- [20] Januszewski, A., Kujawski, J., și Buchalska-Sugajska, N. (2021). Benefits of and obstacles to RPA implementation in accounting firms. *Procedia Computer Science*, 192, 4672-4680.
- [21] Gușe, G. R., și Mangiuc, M. D. (2022). Digital transformation in Romanian accounting practice and education: Impact and perspectives. *Amfiteatru Economic*, 24(59), 252-267.

Bibliography

1. Bogasiu, I., și Ardeleanu, N. (2021). Advantages and disadvantages of digitalisation in accounting. *EIRP Proceedings*, 16(1).
2. Callon M. (1986). Some elements of a sociology of translation: domestication of the scallops and the fishermen of St. Brieuc Bay. In: Law J, editor. *Power, Action, and Belief: A New Sociology of Knowledge?* London: Routledge; p. 196-223.
3. Cobzaru, P. (2018), *Scurta istorie a contabilitatii*, Available at: <https://expertissimo.ro/scurtaistoriecontabilitatii/#:~:text=In%20Romania%20profesia%20contabila%20este%20puternic%20legiferata%20de,in%20cee%20ace%20priveste%20ra spunderea%20juridical%20a%20creditorilor%29> (Accessed: 14.03.2026).

4. Deloitte (2021). Raportarea SAF-T, obligatorie pentru marii contribuabili de la 1 ianuarie 2022. Ce presupune implementarea? Available at: <https://www2.deloitte.com/ro/ro/pages/tax/articles/raportarea-saf-t-obligatorie-pentru-marii-contribuabili-de-la-1-ianuarie2022-ce-presupune-implementarea.html> (Accessed: 19.04.2026).
5. Feleagă, L., și Feleagă, N. (2016). Romania. Shifting to IFRS: The Case of Romania. In: Bensadon, D., Praquin, N. (eds) IFRS in a Global World: International and Critical Perspectives on Accounting, Springer, Cham. 393-404
6. Jylhä, T., și Syynimaa, N. (2019). The Effects of Digitalisation on Accounting Service Companies. In International Conference on Enterprise Information Systems. SCITEPRESS Science And Technology Publications.
7. Law J. (2007). Actor Network Theory and the Material Semiotics. Editor: Bryan S. Turner
8. Latour B. (2005). Reassembling the Social: An Introduction to Actor Network Theory. Oxford: Oxford University Press.
9. Popa, A. F. și Sova, R., A. Is the Romanian Accountancy Profession Ready for the Future? Yes! Available at: <https://www.ifac.org/knowledge-gateway/developing-accountancyprofession/discussion/romanian-accountancy-profession-ready-future-yes> (Accessed: 14.02.2026).
10. PwC (2021). Depre SAF-T, Available at: <https://www.pwc.ro/ro/pwc-romania-digital/taxtechnology/saf-t.html> (Accessed: 14.03.2026).
11. Shidaganti, G., Salil, S., Anand, P., și Jadhav, V. (2021, August). Robotic Process Automation with AI and OCR to Improve Business Process. In 2021 Second International Conference on Electronics and Sustainable Communication Systems (ICESC) (pp. 1612-1618). IEEE.
12. World Economic Forum (2020). The Future of Jobs Report 2020. Available at: <https://www.weforum.org/reports/the-future-of-jobs-report-2020/in-full/country-andindustry-profiles> (Accessed: 05.12.2025). <https://www.weforum.org/focus/fourth-industrial-revolution>