

THE ACCOUNTING PROFESSION IN THE DIGITAL AGE

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Abstract: The accounting profession is in a period of great challenges involving the development of new dimensions under the impact of a multitude of factors such as the reconfiguration of the business environment due to economic crises, geopolitical or geostrategic changes, and the implications of the digital age.

The factors most important in the transformation of the accounting profession in the next years will be the technological factors and, in their category, we believe that ICT will have the greatest impact. The use of these technologies in accounting implies certain advantages, but also issues that will need to be managed with responsibility.

In this article we will try to highlight some of the opportunities and challenges generated by the use of ICTs in front of the Romanian accounting profession, the digitization of accounting, so far, at the incipient stage.

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Key words: XBRL; ERP; cloud accounting

1. INTRODUCTION

Due to a multitude of factors, such as reconfiguration of the business environment due to economic crises, geopolitical or geostrategic changes, and the implications of the digital age, the accounting profession is in a period of great challenges involving the development of new dimensions.

In our opinion, the factors most important in the transformation of the accounting profession in the next years will be the technological factors and, in their category, we believe that ICT will have the greatest impact. The use of these technologies in accounting implies certain advantages, but also issues that will need to be managed with responsibility.

On the same lines, in a 2014 ACCA report on technological changes that will affect accounting, Andreia Stanciu, ACCA Director for Romania and Southeast Europe, spoke of a real "digital darwinism" in the accounting profession:

"The profession must shape its technological future, not let it be modeled by it. The profession must be pro-active; the predictable changes are an opportunity to

redefine the roles and the extent to which the profession is involved in short and long term technology decisions. Professionals need to adapt to survive." (ACCA, 2014, p. 20).

In this article we aim to highlight some of the opportunities and challenges generated by the use of ICTs in front of the accounting profession in Romania, the digitization of accounting, so far, at the incipient stage.

In the first part we intend to review, from the point of view of the main manifestations and theoretical implications, the most important informational technologies that are expected to transfigure the way of exercising the accounting profession. In the second part we will briefly highlight the premises and the main steps that have been taken in the accounting profession in Romania to implement these new technologies.

2. THEORETICAL CONSIDERATIONS

First, we believe that a definition of the concept of digital accounting is necessary. This "includes both the representation of electronic accounting information and its handling and transmission in the same format for all accounting cycles and processes in an enterprise" (Țugui and Georgescu, 2009, p. 2). Depending on the complexity of the information technologies used, several evolutionary stages in digital accounting can be distinguished.

A first finding that we make is that at CECCAR level the importance of these issues for the accounting profession was also understood at the last national congresses and special attention was paid. Thus, at the jubilee congress in 2014 (20th congress), focused on "Innovation and use of information technology in delivering quality professional services", there have been intense debates about ways in which information technologies can be implemented on a wider scale in the daily work of an accountant expert. New tools of this kind, programs and platforms that can store and process real-time data that can verify the accuracy of information, structure the processing methodologies, or facilitate the choice of the best accounting treatment in a situation or solution for optimal reporting. The professional accountant would thus have a wider scope for innovation, while operating with standardized regulations and norms to personalize through data collection, synthesis and interpretation. Each company has a specific activity, resulting in a significant number of peculiarities, depending on the field of activity. This requires the application of differentiated methodologies, assessment tools and decision making methods. The professional accountant should be able to choose from an ever-increasing range of technological and informational means in order to be able to interpret the economic transactions in a personal manner while respecting the normative framework.

The 21st Congress of the profession, held in September 2016 under the title "Accounting profession in the digital age. Challenges and Opportunities" resumed the themes addressed in the previous session and initiated new debates on the unification of digital signature providers, the Cloud for Europe project (the project aims to develop unitary applications at European level to obtain similar reports all over the world), "green accounting" or XBRL (eXtensible Business Reporting Language is an XML-based language, specialized in financial-accounting reporting, which will be able to "translate" the data produced by any accounting software and viewed through web browsers, spreadsheets, or various computer applications).

XBRL is a system that would allow the exchange of financial reporting worldwide, a universal language for financial-accounting information systems, which would easily translate information from country to country financial reporting with different reporting systems. The platform would facilitate the use of important information in the financial statements, with a high ability to synthesize and select relevant information. There are ways of "labeling" information that is considered to be performing for easy use in various processes, ensuring consistency and consistency of reported information (Buga, 2011). Unfortunately, although many professionals recognize the advantages of implementing such a system, neither in 2014 nor in 2016 (referring to the times of the congresses mentioned above), it has not even been possible to set up working groups to substantiate in Romanian the taxonomies XBRL.

There are a large number of users of financial reporting in general, each requesting information as relevant as possible. The legal rules in each country make the same information transposed differently in financial-accounting reports. Information technology has gradually occupied a very important place, it is unimaginable nowadays to organize the accounting without the support of a more or less efficient computer system (Grandlund and Mouritsen, 2003). Due to the rapid growth of these technologies, new types of activities have emerged, with the professional accountant not just a user of ICT systems, but becoming part of new information technologies implementation teams.

With the emergence of Enterprise Resource Planning (ERP) systems, where accounting information management is realized in real time, technology has become a key factor in achieving the company's objectives (Dechov et al., 2006). However, ERP systems are not very affordable, in terms of deployment costs, to small and medium-sized businesses. In Romania, this may also be the reason why no efforts have been made to promote the implementation of XBRL concepts and platforms, based on the use of an ERP system.

It is increasingly evident that this type of software will become mandatory for any company that will want not to be limited to operating only on national territory or pursuing a foreign investment. The exchange of information will have to be adapted to the requirements of all users, and this can only be achieved by implementing a system that can "translate" into any language the rules for the transposition of financial statements.

Another technology of the future is cloud computing. This is a way to share both different software/application platforms and databases/information. The software is no longer updated by the user, but by the vendor. Among the benefits of using such a system, we mention the ease of data synchronization across multiple devices, computing speed, ease of processing with shared web applications, less risk of data loss, or database destruction, as well as cost savings IT staff. Ionescu et al. (2014, p. 4) shows that the main determinants of cloud computing development are economic elements, large companies opting for these technologies to protect their cash flow, and small companies lacking financial resources for performing services. Among the disadvantages is the need for a permanent and stable Internet connection, but also the lack of confidence of users in data security, as the user often does not know the place/country where the data storage servers are located.

Cloud platforms are built on three types of services: IaaS (Infrastructure as a Service - "a provider leases a technology infrastructure (virtual remote servers) that can

replace the company's IT systems or can be used alongside their own systems" – ANSI, 2016, p. 5), PaaS (Platform as a Service - "a platform provides advanced development and application hosting solutions"), and SaaS (Software as a Service – "a provider offers through various web services applications and makes them available to end-users" – ANSSI, 2016, p. 5). Large companies have begun to develop for some time their expensive and complex applications under this concept, delivering them as online software (Service as a Software), much cheaper than an ERP.

The impact of developing cloud technologies will be similar to that of electricity grid development a century ago. In deciding how to implement such solutions, it need to look at the relationship between loss of control and cost reduction, but also efforts.

3. THE USE OF NEW ACCOUNTING TECHNOLOGIES IN ROMANIA

According to a Eurostat survey (2014), Romania of 2014 is the last in the European Union to use cloud computing technologies, with only 5% of Romanian companies accessing applications stored on external servers, unlike Finland, which reached 51% , or Italy 40%. It is also noted that most Romanian companies use this type of e-mail service only, and only about 36% resort to data base and / or application access services (Eurostat, 2014). At EU level 28, the main barriers to using cloud computing technologies were considered: security risks, the high cost of cloud computing services, and insufficient knowledge of cloud computing (Eurostat, 2014).

In April 2015 Government Decision No. 245 for the approval of the Digital Agenda for Romania 2020 is published. It defines the action directions regarding the digital services infrastructure. Among the development objectives are cloud computing, eGovernment, eCoommerce, ICT in education, etc. In 2020, citizens and SMEs are expected to use cloud services in a very high percentage, with reference to the use of public databases, which are supposed to be accessible after the implementation of the cloud infrastructure project for public institutions in Romania launched in April 2014. There is a need for medium-sized firms to start differentiating themselves by at least partially using this type of service.

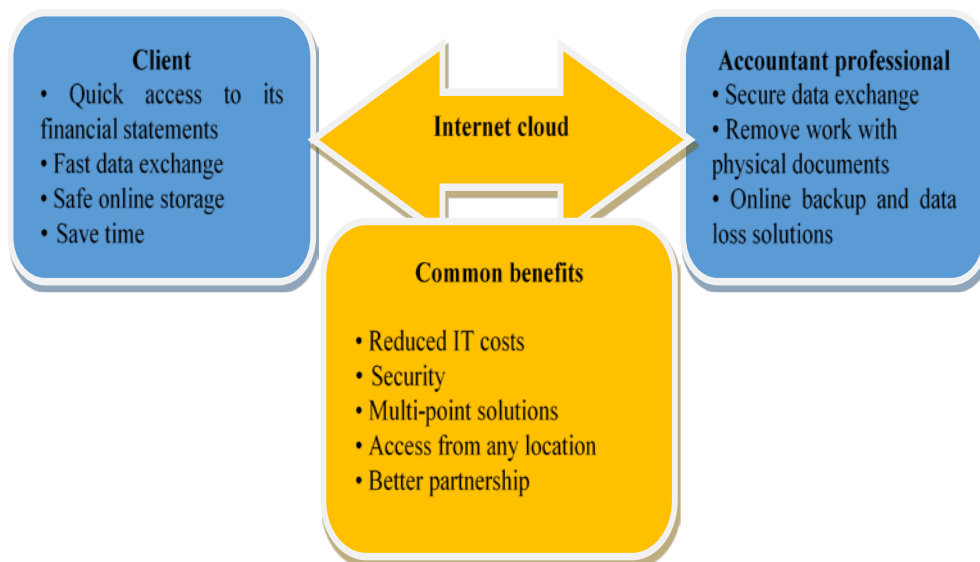
At EU level clusters have been set up to promote cloud computing. In September 2012, the European Strategy on cloud computing was also developed, with action being taken to smooth the road through the "jungle of standards" (ANSSI, 2016, p.8), contract clauses and partnerships for promotion.

The reluctance to adopt and implement is also due to the lack of a specific regulatory framework, even at European level. Lack of standardization makes it more difficult to extract data from a cloud provider to move to another, which becomes another barrier in implementation.

The publication of the background to Government Decision No. 174/2018 shows that steps are being taken to develop and implement cloud computing legislation in Romania. Referring strictly to the national context, we can talk about a few advantages that can be used in the process of increasing the number of users of such technologies: Romania has a very high internet infrastructure; 93.5% of people aged 16-34 use the internet (2017 - Zf.ro, 2017).

In the context of the evolution of cloud computing technologies, so-called cloud accounting has developed. This implies the use of an "accounting application that is accessed from wherever there is an Internet connection, without having to be

installed and managed on its own servers" (Ionescu et al., 2014, p. 4). In Figure 1 there are presented the main advantages of using cloud technologies in accounting for the client and for the professional accountant.



Source: Ionescu et al. (2014, p. 7)

Figure no. 1 Advantages of cloud accounting in professional accountant-client relationship

Cloud accounting also involves certain risks: unauthorized access to data, with potential repercussions on the professional accountant's reputation (Scheau, 2015); the impossibility of accessing data under a weak Internet connection (Ionescu et al., 2013); legislative blurring about the use of this type of apps; the danger of data loss and the difficulty of restoring them (Brandaş et al., 2015).

Studies on the implementation of cloud accounting in Romania are not very numerous. Ţugui and Gheorghe (2014) carry out such a study on a sample of 125 respondents, all professional accountants. But it is rather a study of intentions, attitudes towards cloud accounting. The results show that 91% of respondents are interested in permanent and everywhere access to accounting data, two of the cloud accounting features. Transforming intent into behavior involves many other determinants.

Mihai (2015, p. 65) analyzing SaaS cloud computing platforms for enterprise management (ERP applications and accounting applications) available in Romania notes that their use is quite low in the real economic environment despite the fact that in theory In recent years we have witnessed an abundance of works that highlight the need and benefits of using such technologies.

The supply of such applications is also reduced compared to demand. Many small businesses would be willing to move towards such a cloud computing solution, but performance solutions are too expensive, and those tailored to their budget are underdeveloped and tested. Under these circumstances, the market for cloud computing for enterprise management is dominated by 5 companies (SAP, ORACLE, Microsoft,

TotalSoft and Siveco), which account for about 60% of the market, generally having large business customers.

5. CONCLUSIONS

In our opinion, the accounting profession in Romania has long missed the start in moving to these technologies. Their implementation will soon become a sine qua non even for the competitiveness of domestic enterprises. Although we have the advantage of an ICT infrastructure that provides very good Internet speed, which theoretically should be an incentive for the transition to new technologies, we have problems regarding the mentality of accepting changes and deficiencies of professional education in the spirit of these new developments. Although the Bachelor's degree program that is generally followed by professional accountants is called "Accounting and Management Information Systems", the curriculum is not too much geared to presenting cutting-edge information and communication technologies. Nor does the professional organization provide adequate training or information material for this purpose. In a relatively recent article (2016) published in the magazine published by CECCAR, I found the following paragraph:

"Among the main challenges and opportunities offered by IT use we can mention: the use of emails, Excel spreadsheets for both accounting and financial reporting, word processing tools, accounting and auditing software . (...) Spreadsheets such as Excel, which are interactive computing tools, can be used for accounting tasks. Users, like professional accountants, are able to export and distribute financial statements to all stakeholders. The spreadsheets contain tools for creating charts and diagrams that provide a better insight into financial information" (Palade and Tănasă, 2016). This is the case where the latest foreign literature speaks of Audit 4.0 (Dai and Vasarhelyi, 2016), consistent with the Fourth Industrial Revolution or Industry 4.0.

We express our hope that, at least in this case, there will be no more talk in a few years about the Romanian accounting profession that shows great resistance to change, as long ago it has been talked about and still being spoken about the implementation of international accounting standards.

To achieve this goal, concerted efforts and actions are needed on behalf of all stakeholders in the Romanian accounting profession: managers and entrepreneurs who should understand the benefits of new technologies for their own business and which should be the main catalysts of introducing these technologies into their own business; professional accountants who need to change their mentality (a good part of them) and to be concerned about training in the use of these new technologies; organizations in the Romanian accounting profession who at various meetings, training courses should advocate for new technologies, reveal their advantages and encourage their use by professional accountants; Romanian researchers should address the issue in the light of the latest theoretical developments in the field; universities reconfigure the curriculum of accounting programs so that they contain more disciplines to familiarize students with the use of new information technologies; students must understand that the ability and the ease to use these new technologies will be a competitive advantage on the labor market of the future, as the accounting profession will change a lot; not least companies offering IT solutions for Romanian enterprises need to configure these solutions to the

specific information requirements and financial resources that can be allocated for this purpose by local firms, including small and medium enterprises.

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