

CLOUD ACCOUNTING CURRENT FORM OF MANIFESTATION OF DIGITAL ACCOUNTING

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Abstract

Accounting and the accounting profession are in a period of great challenges, which involves the development of new dimensions under the impact of digitalization. The persuasiveness of information technology in companies has changed the nature of accounting activities and the role of the accounting profession. In particular, as a result of the emergence in recent years of cloud accounting technology that has transformed the way companies report financial performance and make strategic decisions related to the future activity of the economic entity. As a result, there is an increase in the demand for advanced IT skills among professional accountants. The objective of this paper is to bring to the fore a new side on accounting, seen through the prism of technology and also to present the challenges and opportunities of the accounting profession in the digital age.

Key words: *the accounting profession; digital accounting; globalization; cloud accounting.*

JEL Classification: *M41.*

I. INTRODUCTION

The evolution of accounting has been synchronized with the evolution of the economy and society as a whole, as well as with the development of the complexity of the business environment. Accounting has known many stages throughout its evolution, moving from a paper accounting to one based on high-performance digital systems, being characterized by much more rigor and accuracy. Throughout this period, the accounting profession was one that had to adapt to all these changes, and professional accountants to always have the availability to learn something new and to accept the concept of evolution through technology.

The new digital accounting, currently used by some, possibly in the future by others, puts first the time, the speed of data processing and obtaining information, as well as the reasoning of professional accountants which clearly cannot be replaced by any digital accounting system.

Technological developments and globalization in recent years have completely changed the architecture and organizational processes. The development of mobile technologies has led to high expectations, thus rapidly developing the possibility to access anywhere and anytime, on any device (including mobile), information and financial reports related to organizational activities.

So, based on cloud computing technology, cloud accounting has developed and is starting to spread in organizations, with a different speed from one country to another. A December 2012 study by KPMG on global cloud trends reveals that more and more managers are ready and opting to migrate financial-accounting operations to the Cloud. The study "Cloud Adoption 2012", conducted by Consult Blue at the request of the CIO Council (Association of Directors of Information and Communication Technology in Romania), shows that 55% of large companies in Romania use, in various forms, technologies in the category of Cloud Computing (Ionescu, Prichichi & Tudoran, 2014).

These innovative technologies will help the accounting profession, eliminating some time-consuming tasks, giving greater importance and relevance to consulting and data analysis, which can only be achieved through the experience of professional accountants (Cosmulese, 2019).

II. PARTICULARITIES REGARDING CLOUD ACCOUNTING TECHNOLOGY

By Cloud Accounting we mean an accounting software product that can be accessed anytime and from anywhere with an internet connection, which does not require the installation or previous administration of its own servers. This characterization resembles the definition given by Ionescu, Prichichi & Tudoran (2014: 5), namely: Cloud Accounting is a style of using computers that provides services that allow the user to access through the Internet the opportunity to work and/or view financial reports or other documents without knowledge, expertise or control over the technological infrastructure supporting these services.

If we look at what is happening now, most entities, for the smooth running of the business, purchase more expensive accounting software, but which involves many other costs.

Thus, companies have to use the services of an IT specialist to install the application and in addition they have to bear other costs of updating the application when necessary.

Cloud Computing technology, and therefore Cloud Accounting technology, unlike current methods of keeping records, leads to (see <https://www.pras.ro>):

- Reducing company costs;
- Decreasing workload;
- Reduce maintenance costs and upgrades.

Thus, such a technology requires minimal investment in hardware, and maintenance, such as: backup, troubleshooting and installation of upgrades is provided by the supplier.

Such an online accounting software offers both managers and employees the opportunity to access, update and use data globally, from any location, the only condition being the existence of an internet source.

Figure 1 shows the main features of Cloud Accounting technology:

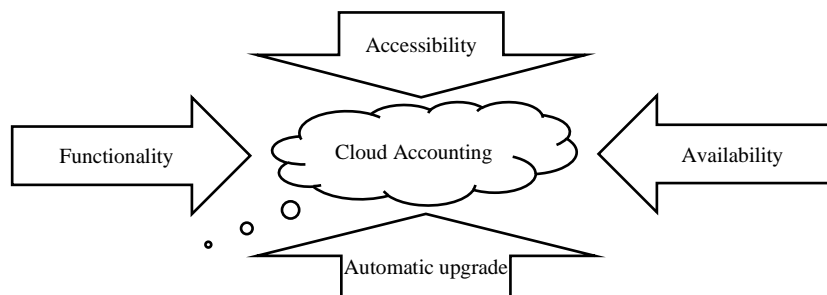


Figure 1 – Characteristics of Cloud Accounting technology

Source: Adapted from Ionescu, Prichici & Tudoran (2014)

Cloud technology is a recent but promising field, being a solution for companies that want more efficiency and lower costs. The main Cloud models currently on the market are as follows (Guțulov & Moga, n.d; Dumitrache, 2014:42):

- „Software as a Service (SaaS)” - applications made for end users and distributed on the Internet;
- „Platform as a Service (PaaS)” - forms a set of services and tools that allow the creation and implementation of applications efficiently and quickly;
- „Infrastructure as a Service (IaaS)” - it is the software and hardware part that powers the network, servers, and operating systems (Mavru, 2014).

Figure 2 shows the cloud architecture: "Stack Cloud Computing", highlighting each of the Cloud models:

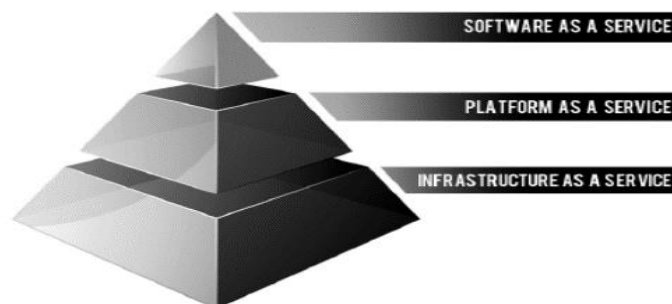


Figure 2 – "Stack Cloud Computing"

Source: Adapted from: <http://www.sistemis.ro/ro/blog/item/7-stiva-saas-paas-iaas>

All three Cloud models are interconnected, their operation depending on each other and thus, the Cloud is outlined as a model that "allows access to a common fund of configurable computing resources such as networks, servers, storage, applications and services that can be used with minimal effort" (see <http://www.sistemis.ro/ro/blog/item/7-stiva-saas-paas-iaas>).

"The notion of Cloud Computing is a relatively recent one on the Romanian IT market, and cloud services are currently little exploited due to reluctance or ignorance. In the face of fierce competition between companies in all fields, its advantages can be the key to the success of a business" (see <http://contabilitate-cloud.ro/index.php/cloud-computing-cloud-accounting/despre-cloud-computing-si-cloud-accounting>).

We consider that the Cloud Accounting technology will have a remarkable impact on the Romanian economic market, only that the process of assimilating this technology will be a slow one, unlike that of other countries. The benefits of using Cloud technology were also presented by the European Commission, which,

following a survey, concluded that using this system will reduce costs by 10-20% and productivity will be higher (41%), labor mobility more high (46%), new business opportunities will appear (33%) that will be able to expand into new markets (32%) (European Commission, 2012).

As for the benefits of using Cloud Accounting, they can be Greavu-Şerban, 2015):

- *World-class security* - cloud technology is one of the safest ways to store information. With a traditional accounting system, in the event of a computer theft, all accounting data could be accessed. However, with cloud accounting, no one can access data unless there is cloud authentication.
- *Real-time updates* - Not only do Cloud users constantly perform real-time security updates for the software they use, but these systems also provide real-time updates to customer data. With an up-to-date financial situation, much better decisions can be made about the financial future of a business.
- *Paperless* - Archiving documents is a challenge and anyone can access a company's data. With a cloud-based system, the risk of errors and unauthorized access to information and documents can be minimized.
- *Personalized business* - It is difficult to have access to a traditional accounting system that delivers everything a business needs. Cloud-based accounting solutions allow the integration of related programs for a good business. It allows the personalization of the accounting system, so that there is always access to information.
- *Relationships with employees* - Maintaining a good relationship with suppliers, distributors and other employees is essential. With Cloud Accounting, a clear record of invoices is kept, without the risk of omitting certain payments or receipts. These IT systems allow company administrators to constantly work with the accountant to ensure that all financial information is up to date.
- *Organization* - A great advantage of cloud-based accounting systems is the way in which items containing essential information for companies are managed, positioned and highlighted. This not only makes it easier to find data, but also allows every department in a company to manage their resources carefully and efficiently (Pribanic, 2018).

Cloud Accounting provides the professional accountant with something more than traditional accounting can offer, this system can make the transition from simple records to advanced data analysis necessary for a business (Ionescu, Prichici & Tudoran, 2014). The transition from the traditional accounting system to the Cloud can be seen in Figure 3.

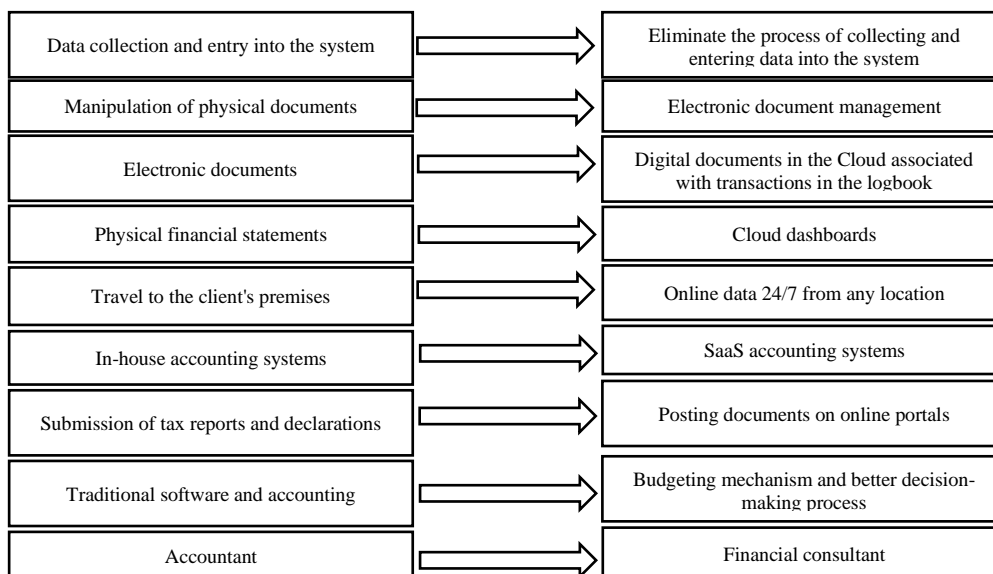


Figure 3 – Changes induced by traditional accounting by the Cloud system

Source: Ionescu, Prichici & Tudoran, 2014

In the activity of the professional accountant, an increasingly important role is played by these computer systems that manage to transform his activity into something more than that of a simple accountant or economist.

With the help of these cloud-based accounting technologies, the company's software will be constantly updated, the data will always reflect the current information, in real time, and the problems that may arise are quickly addressed by the provider of cloud services.

III. CHALLENGES AND THREATS OF CLOUD ACCOUNTING

New technologies bring innovative ideas, but at the same time come with many challenges on digital accounting and intellectual property rights.

The financial sector recognizes the benefits of this digital Cloud Accounting technology, but at the same time, the need for security and confidentiality of information puts barriers in the adoption of this system by companies (see <https://cert.ro/vezi/document/securitatea-in-cloud>).

The difficulties that users of the Cloud Accounting service may encounter can be seen in Figure 4.

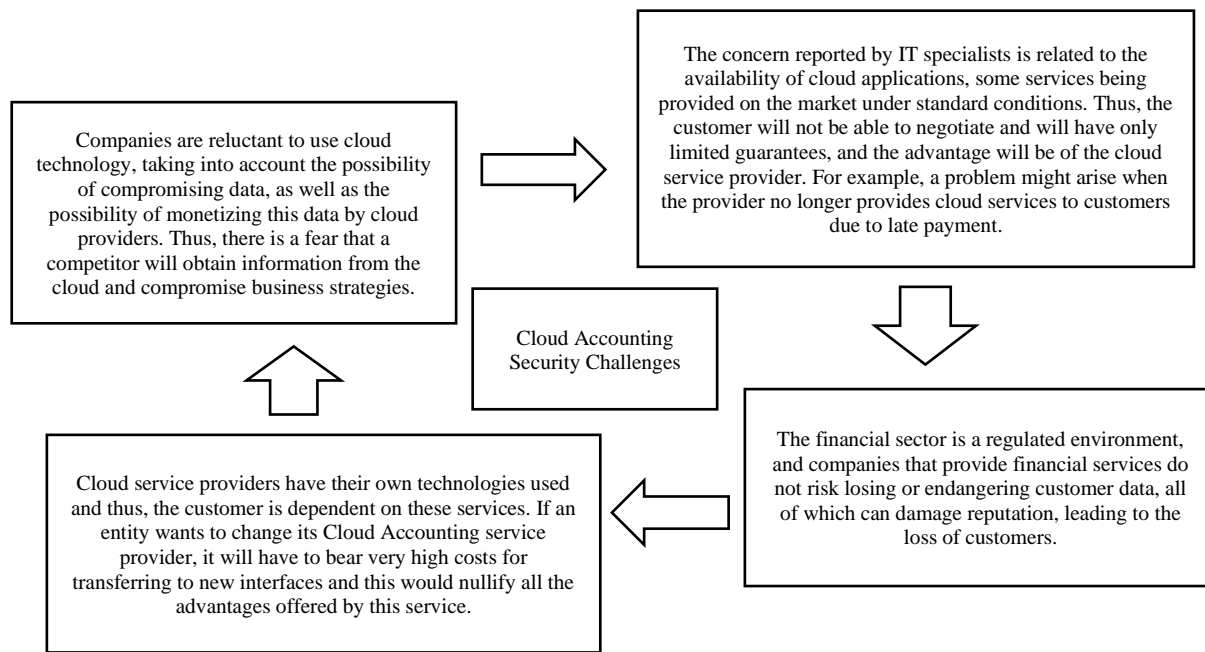


Figure 4 – Cloud Accounting Security Challenges

Source: <https://cert.ro/vezi/document/securitatea-in-cloud>

The biggest problem for users or future users of Cloud Accounting technology is related to security, privacy and trust, these issues are always discussed in connection with these digital systems (Ionescu, Prichici & Tudoran, 2014).

In companies that use Cloud Computing services, situations have been observed in which various people have accessed unauthorized data that were under the incidence of intellectual property. What is outrageous is that such situations are becoming more widespread and it is expected that in the future, unauthorized access to these resources will be on the rise, with many companies finding "advanced persistent attacks (APTs) - Advanced Persistent Threats) . Such an attack would greatly affect the reputation of companies as well as intellectual property.

In addition to hacker attacks on intellectual property, there is a high probability that the attack was one inside the company, either that the employees had no malicious intent, but were ignorant, or that everything was intentional and planned, the data under the incidence intellectual property may reach third parties, including competition (see <https://cert.ro/vezi/document/securitatea-in-cloud>).

All these are enormous costs for the company, because "intellectual property is a gold mine" for both the company and the hackers.

We consider that these challenges that come with a series of problems are those that hinder the development and implementation of this technology in many companies in Romania that still want to evolve and advance technologically..

IV. CONCLUSIONS

Digitization covers all universal economic fields, from production, marketing, distribution to research and innovation. This phenomenon of digitalization is an irreversible and continuous reality, which works in the interest of the international community, through emerging theories and results, in which information and knowledge occupy top positions.

Digital accounting, respectively Cloud applications involve providing services to end consumers, they store huge amounts of information. The success or, as the case may be, the failure of Cloud technologies is related to data protection and how to solve data privacy issues.

In general, the use of Cloud Computing is the main technological solution, which helps companies achieve digital transformation. At the same time, Cloud has several technologies, such as artificial intelligence, analysis of large volumes of data, automation, through which there is the possibility that the software can be produced faster and made available to the end user.

I believe that any decision related to the transition from a traditional accounting model to one based on the Cloud Accounting system must be based on a rigorous analysis, because information security and good business are essential for any business and will define it in the future.

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