

## **DIGITALIZATION OF ACCOUNTING - TRENDS AND PERSPECTIVES**

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**Abstract:** *The business activity involves, through its nature, the production, collection and communication of different types of data and information. These are presented in various documents, which are largely generated by the accounting department. The production of documents may be the result of entrepreneurial needs, representing a valid support for a better management activity, or it may be expressly requested by law or even to meet the needs of other stakeholders. A very important feature of our age is certainly the accelerated evolution of the technological field, characterized by an avalanche of optimal solutions (computer programs) for economic activity. It is difficult to imagine areas such as accounting, marketing or other analysis and evaluation activities without digital tools. Due to the large flow of data, it is imperative to find effective solutions for data collection and analysis, so that they generate reliable and credible information to all economic factors. In this article, we aim to analyze the effects of digitization of accounting, mainly reflected on the quality of the data presented in the financial statements.*

**Keywords:** *digitization; innovation; accounting; ERP systems; financial situations*

**JEL Classifications:** **M40.**

### **I. Introduction**

The market circumstances and its evolutions emphasize a control management that is always ready to adapt the business to the external needs of the company, orienting the company's management towards achieving the established economic objectives.

In fact, top management must have all the information and data at their disposal in a short time to measure every aspect of the company's performance. The accounting is the one that ensures the management of the enterprise and the other interested parties with financial-accounting information. Thanks to modern technological knowledge, it is now possible to obtain reports of various types,

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indispensable for the ordinary and strategic decisions of the modern entrepreneur, reconciling a significant reduction in costs with a drastic reduction in time.

Companies have realized that the full exploitation of IT investments is only possible provided that the skills needed to oversee new methods of operational management of costs and production flows as a whole are developed. And it is here that the accountant must intervene with his own professional skills: his training will be used to assist in the digitization of the tax function or in the outsourced management of compliance and ongoing activities by using the most advanced technological solutions.

Accountants are increasingly immersed in the logic of the market and in comparison with new competitors with reference to some types of services. Digitization has opened the door to new competitors in addition to those who naturally and historically preside over some activities typical of the accounting profession and which, in fact, are now perceived as real threats. Amazon, for example, has offered electronic invoicing services, some national and international companies offer services and applications that favor the disintermediation of the accountant. Of course, technology increases the transparency of information, but on the other hand it is undeniable that it facilitates the disintermediation of the accountant by clients and tax authorities.

If we measured the reactivity of the accounting profession based on the percentage of increase in investments in digital technologies, we could not fail to notice that these investments are mainly aimed at recovering internal efficiency and regulatory adaptation of the company's management systems. In other words, there is a complete lack of a real and deeper renewal of the technologies and services provided in the digital environment.

In reality, the key to understanding what is happening must go through the evaluation of two aspects: on the one hand, the speed of change that takes place, on the other hand, its intensity within the profession.

Information management and work organization remain in a traditional dimension, despite the fact that there is a more or less intense awareness of the ongoing change process. It is necessary to create the conditions for digitization and artificial intelligence to create real opportunities for accountants, but, above all, for the latter to take advantage of these opportunities. Today, the emphasis is more on the concern that automation replaces, in the near future, the professional in carrying out low value-added activities, rather than the strategic management of this phenomenon.

## **II. The impact of accountability digitalization**

The process of continuous digitalization of the economy presents challenges and opportunities for accounting and for the professional accountant in general,

especially in the analysis of big data (Alles, 2015; Constantiou & Kallinikos, 2015; Syed, Gillela & Venugopal, 2013), artificial intelligence (AI) ( Nowak, Lukowicz, & Horodecki, 2018) and blockchain technology (White, 2017). For accounting to work to the maximum benefit of companies, it must adapt to changes affecting modern business, and the professional accountant must be prepared to use digital technology. According to Botea (2018) "the accounting profession takes place in an area where 97% of activities are suitable for digitization, requiring adaptation to the new reality and reconfiguration of the accounting activity."

The evolution of information technologies must be analyzed in the light of the opportunities it offers to the professional accountant and at the same time it must be seen what is the contribution of information technologies in streamlining the work of accountants and managers in decision making. Accounting is the main source of information for managers and investors, and providing complex data on the financial situation of the company can be done only with the help of software that allows the analysis of big data. Basically, information technology reduces the working time for data collection and at the same time reduces some costs for the company.

Cuc and Almaşi (2016), mention that the evolution that takes place at the level of information technology influences in an alert and unprecedented way the activity carried out by professional accountants, including everything that involves the audit process that must adapt to the concepts increasingly complex. Another author, Stolojan (2016) is of the opinion that "the accounting profession has a future insofar as it will really respond to the challenges and opportunities generated by the digital revolution". The accounting profession needs to adapt to the new challenges of digitizing the world's economies so that it can provide users with financial-accounting information, reliable and relevant information in the shortest possible time. The relevance and efficiency of the accounting profession will only increase if it makes a series of changes, converging towards digitalisation and innovation. (see Figure 1)

Digitization becomes a fundamental resource and a wealth of any organization, or rather of any field, if managed correctly. We have seen how the use of "new" technologies and, in particular, document management using IT technologies (e.g. electronic invoicing) has produced significant changes in the organization of work processes of professional firms. Digitization certainly causes fears and uncertainties; we realized that it is important to change the pace and move fast, but too often this confuses and leads to an attitude of waiting to understand how others will behave. The use of innovations in the accounting profession will increase operational efficiency, cost efficiency, control and information quality. These innovations will substantiate the decisions made by professionals, reducing errors (Botez & Melega, 2020).

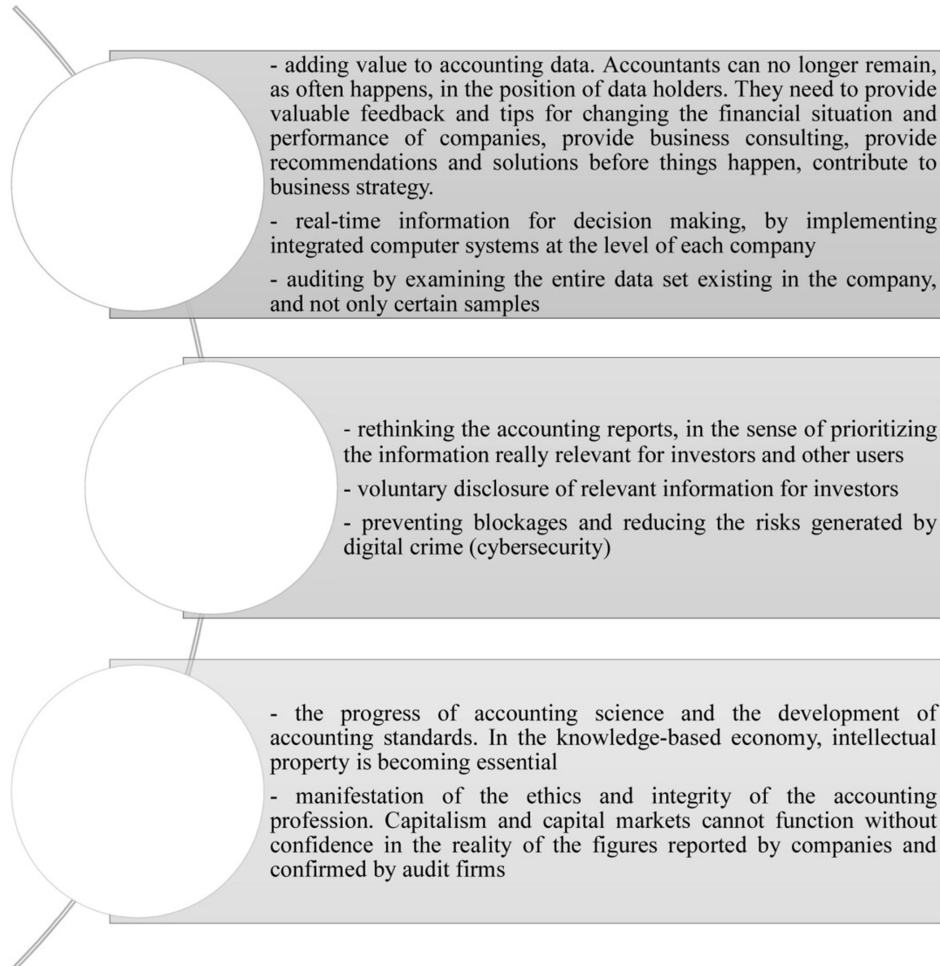


Figure 1. Adapting the accounting profession to the contemporary context  
Source: developed by the author after CECCAR (2019)

New information technologies come with a number of advantages for the professional accountant and especially for the users of financial-accounting information (see Figure 2). For example, ERP (Enterprise Resource Planning) systems provide the accountant with effective tools for data analysis, providing an overview of all financial operations that take place in the enterprise. A very essential advantage offered by ERP systems is the streamlining of the accountant's work and the reduction of costs associated with accounting management.

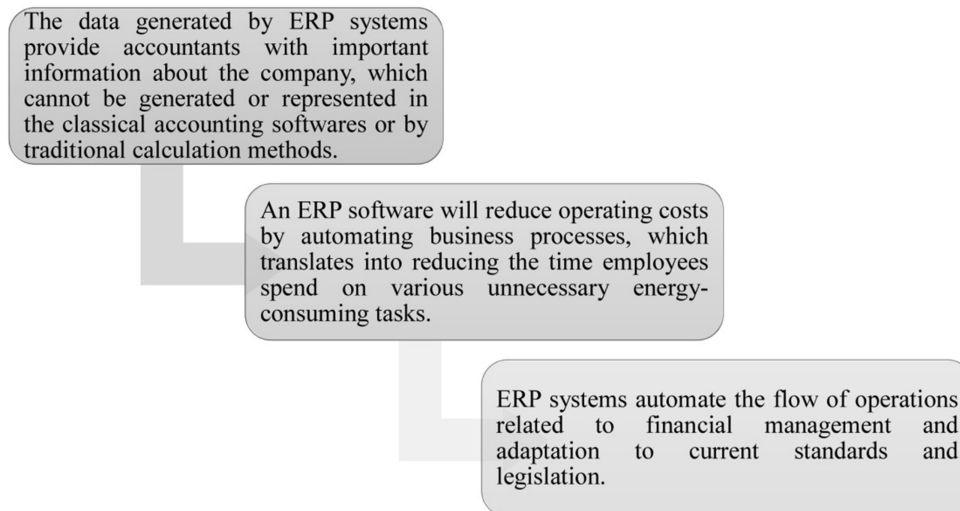


Figure 2. Advantages of ERP accounting systems

Source: elaborated by the author after: <https://www.softone.ro/blog/?p=13523>

Digitization of accounting is necessary to adapt it to the needs of the present. With the application of information technologies in accounting, it is imperative that the accountant has, in addition to accounting skills, also competencies in the field of new technologies. At the same time, the digitalization of accounting changes the purpose of the accountant in the person who registers and keeps records of the economic and financial operations of the enterprise in a financial consultant, who provides an interpretation of the data.

According to the opinions of several scientific researchers (Boomer, (2003); Prichi and Ionescu (2019); Țugui and Gheorghe (2016)), “the technology considered for the future is Cloud Computing, while the digitized accounting information system is a Cloud Accounting type”.

Accounting has evolved greatly, from a system of paper revenue and expenditure records to a general computer system embedded in the enterprise information system (see Table 1), which collects an enormous amount of data on the company's activities, analyzing them and giving information users a complex picture of the enterprise.

Table 1. Summary of the evolution of accounting processing techniques

Historical periods	Informing level	Technical possibilities	Accountability answer
Great civilizations	Knowledge of expenses and income	Paper, cuneiform writing	use of the simple entry
Beginnings of trade	Recording each movement of goods	Paper	The double entry emerges. The first accounting records appear.
Industrial Revolution	The importance of capital and knowing the benefits	Paper, emergence of printing	The double entry is perfected. Requests for information on financial results appear.
1960	More and more information is requested in less time	The first computers: more users at a single equipment	Automation of manual accounting systems
1981	Obtaining the financial information necessary to make decisions	Personal computers. Spreading informatics	Integrated accounting informational systems. Informing, reporting, charts
21st century	Real-time information. Electronical trade	Computer networks: Internet and communications technology	Automation of data collection. Electronic exchange of data and documents

*Source: Radu (n.d.)*

Information technologies give the data presented in the financial statements a greater credibility among users of financial-accounting information. Practically, by using ICT in the collection and elaboration of economic-financial documents, some risks of data omission are reduced, and the financial reports are more complex, offering an overview of the economic-financial situation of the enterprise.

Currently, most companies are investing in the purchase of software to facilitate the work of accountants, financial analysts and other participants in the business. To support businesses, the European Union has created a program of funds for digitization, offering grants of up to 100,000 euros for the acquisition and modernization of hardware, software, implementation and even training employees for using them.

### **III. Accounting informational system**

According to the authors Palade and Tanasă (2016), the accounting information system “is generally a computerized system used to perform accounting tasks within a company”. The information accounting system generates information in a timely manner for managers to make decisions, this being included in the information network of the enterprise (Ceran et al., 2016).

In other words, the accounting information system is a systemic set of basic data, processed accountably and statistically, which ensures the aggregation and decomposition of data, of various information. The accounting information system provides the company and users of financial-accounting information with support for:

- making appropriate investment decisions;
- risk management and rapid intervention in reducing them;
- determining and analyzing the results of the enterprise;
- preparation of financial statements and statements related to the activity of the company.

Naturally, in order to be able to achieve the above objectives, it is necessary to prepare not only a business and management plan that allows the coordination and transmission of all accounting information, but also an adequate control system.

Within an IT accounting system, there are several types of accounting that differ enormously both in terms of the objectives pursued and in terms of the methods used.

The first distinction that can be made is that between general and analytical or costs accounting; inventory accounting; personnel accounting; fixed assets accounting. The specific analysis of the types of accounting existing in the enterprise is a necessary condition to be able to understand both the needs and the ways of their integration in the accounting information system. For this purpose, the general accounts will be illustrated first, and among the special accounts, given the importance and scope of the information provided, the analytical accounting.

The informational accounting system consists of several components, which ensure its functionality, such as: hardware, software, communication, scientific and methodological basis, information base, users and organizational framework.

Components of the accounting information system:

- The hardware component consists of all the technical means of collecting, storing, transmitting and automatic processing of the data.
- The software component consists of all the programs and applications that perform the operation of the information system.

- The communication component consists of all the equipment and technologies used for data communication between the component parts of the computer system.
- The scientific and methodological basis consists of mathematical models of accounting processes, "methodologies, methods and techniques for creating information systems".
- The informational base consists of the totality of the informational flows and of the data to be processed.
- Users are the component consisting of all persons employed in the operation of the information system.
- The organizational framework is given by the internal regulations and by the legislative acts.

*Source: elaborated by authors after Vasilescu (2008)*

A very essential aspect of accounting information systems is the possibility of processing both financial and non-financial information. Accounting information systems can be adapted to the needs of companies, being practically a flexible system. The new information technologies reshape the activity of the accountant and of the entire economic-financial department.

The role of the accounting information system is the collection, processing and analysis of data, which are then transposed into the financial statements of the company. The financial statements are the main set of documents, which present the statement of the financial position and performance of the company. Most importantly, the accounting information system must generate relevant, intelligible, credible and comparable accounting information in the financial statements. Therefore, the accounting information system must be constantly updated with the legislation in force and with the new accounting standards.

#### **IV. Conclusions**

Digitization of accounting and its integration into the information system of the company is a need of the era in which we live. The information system comes to improve the company's performance, increasing its competitiveness and turning accounting into the art that "ensures the success" of the company. A very important aspect of the digitalization of accounting is the transposition of combative data into a unique information system, connected to reality.

The accounting information system contributes to the creation of organizational models aimed at creating value and meeting the needs of senior strategic management, mid-level managers and operational staff. At the same time, it should not be confused with the computer system, which is its material component, i.e. the set of hardware and software needed to collect and reprocess information.



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