

## **THE ROLE OF THE ACCOUNTANTS IN THE FRAMEWORK OF THE MODERN TECHNOLOGICAL DEVELOPMENTS AND DIGITAL ACCOUNTING SYSTEMS**

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### **Introduction:**

Since the mid-90s, economic entities in our country have been increasingly using technology in the accounting information system. Accounting information system is a set of resources, people and equipment, designed to transform financial or non financial data into information, which is communicated to a wide range of users. The accounting information system that accomplishes this transformation can be manual or computerized. Information technology is seen as increasingly favorable for obtaining qualitative and timely information.

Accountants today are expected to recognize the changes that accompany the evolution of technology and use them to prepare accurate financial reports in a short time. The use of computerized accounting systems makes it easier to collect and process information, thus creating the opportunity for accountants to provide information needed for management of the company whenever necessary.

In this paper we give a general picture on the computerized accounting systems, the advantages and problems faced during during their use by economic entities.

**Key words:** information, informatization information systems, computerized systems, XBRLsystems.

## **1. Information as a Resource and Necessity For Business Decision - Making**

*“Information is the fuel that makes the direction move “*

Leaders of the entities in order to make decisions should have information regarding the limited resources of labor or materials, competitors, prices, customers and their requirements, financial markets, etc.

The information on economic units is obtained from different sources, such as the statistics, the marketing, the banks, the stock exchanges, accounting, etc. This information taken from various sources and arranged in a certain way to be used on different levels constitutes what is called *“the informative system of management”* .

In the management information system the information provided by the accounting, occupies an important place because of the following reasons:

1. For its special nature (information of financial nature) and large specific weight it occupies in the total information.
2. It is information strictly based on informing documents (reliable) that expresses economical events and actions.
3. The information is realized in a chronological registering of the events, which increases its quality level and also enhances its credibility.

Parallel to the development of society, the need for financial information has also improved, considering the accounting information not a purpose in itself but as indispensable to managers. Dictated and influenced by the evolution of societies with regard to ways and means of benefiting economic and financial information, the accounting has undergone changes in time, in the way of providing information that it processes.

Until the 1940-s the accounting was defined as “the art of recording, classifying and summarizing in a meaningful way and in monetary value, the actions that are at least of a financial nature and the interpretation of these results,” while after the 1970-s the accounting information system is defined as an information system. Its primary function is to supply quantitative information,

primarily of financial nature about the economical entities, in order to make reasonable choices between different ways of taking an action. Currently, thanks also to the further development of accounting and information obtained by it in order to assist decision-making, traditional accounting information is processed and combined with methods of mathematical statistics giving so indications that facilitate rapid and effective decision making.

## **2. The Lack, redundancy and adequacy of management**

The quality and efficiency of decision making is related to and influenced by the amount of information made available to managers. Long ago managers were suffering from lack of information; executives today are under the effect of redundant information. This abundance of information is related to the importance of information in decision-making, global developments and increasing competition, but also with the endless possibilities offered by information technology. Effective decision making is related to the adequacy of information, which allows strategy makers to support their decisions on optimal information, without confusion, fatigue and loss of time, without bypassing the costs of its preparation.

Thus it is necessary that for every single economic entity in accordance with its features and specifications, an “information system of management” be determined, which evolves along with the development of the separate economic unit and the competitive environment in which it conducts its economic activity.

## **3. The Quality Of Information**

Information comes in a variety of dimensions of quantitative and qualitative aspects provided within and outside the entity. The quality of information is of great importance, being so necessary to the entity and its source, and not an aim in itself. The quality of decision making is related directly to the quality of information. In this context, managers should seek and use qualitative information, the preparation of which is a complex problem related to the work of lower levels specialists and managers. Two indicators of the quality

of management information are its accuracy and speed. Managers wonder which is more valuable “information which is accurate and delayed, or a quick information although not very accurate“.

Given the high levels of competitive environment and an ever growing globalization of society in general, managers require faster information, with a higher level of accuracy and with greater frequency. Speed of information has advantages even in cases where the degree of its accuracy is not very high.

#### **4. Levels Of Use Of Information**

Within the unit managers need relatively broad information, for problem solving and decision making at different levels, of an importance that depends on managerial positions. High-level executives use the information for strategic planning, while executives of middle and low level use it on operational aspects in the implementation of the plans.

For the unquestioned value of information in management we refer to P. Drucker, that emphasizes “... a winning strategy requires information on events within the institution and conditions outside the institution...” (P. Drucker, 1997)

In terms of current developments for the implementation of information and attributes associated with it computers are of great importance. Today there is an information system established on the basis of using the computer. We live in the era of technology development.

George Freedman in “The next 100 years, page 112” on the use of computer in the future writes “the computer treats logic as an instrument to achieve things, not for thinking. It narrows tremendously what we intend and mean by logic. But within this narrow area the computer can do extraordinary things...”. With the assistance of computer technology MIS are developed nowadays which represents an integrated approach that provides interpretation and relevant data to assist managers in making decisions.

PERT, CPM systems represent some of the earliest computer applications in operational decisions, while strategic MIS is focused on decisions affecting the long-term objectives. The internet network, www, email, intranet, extranet, e-business etc are some of the main uses of technology in economic units today.

## **5. The Electronic Document**

In terms of technology development, the classical form of presenting documents in general and accounting in particular, has evolved, and in addition to paper documents, today we have electronic documentation. These contemporary developments have made the legal support to them a necessity. Such is the Law dated 29.04.2010 Nr.10273 for “electronic documentation”.

The electronic document is any information created with documentary qualities, sent, received or stored electronically by a computer system or a similar mechanism and fulfills the requisites for its validity. The content of electronic document includes all forms of data, reflected in letters, numbers, symbols, voice and image.

## **6. Accountants Facing The Use Of Digital Technology**

The widespread computerization made businesses face new transformations. The Microsoft company uses a system called Fin Web (Financial Information Network) which can be viewed as a digital nervous system. It is an intranet that connects all the company's financial groups in a single, coherent system, which makes it possible for accountants to get information in real time, to elaborate and present reports on the Internet. Company employees, using the Web Fin, may send reports on their travel expenses, receipts or to transfer capital directly from their computers. The use of Fin Web has significantly reduced work with letters, and the time of transactions and reports. The technology used by Microsoft is not unreachable for normal businesses in the world today. Such a financial system needs to be built on an infrastructure that includes network and intranet. Users should have common desktop applications. In companies using the Fin Web, users can enter the

relevant web site and search for the desired information and reports there. By choosing different icons, they can open Excel pages from the network. Employees of the company can use this internet site to send their data. These data (eg travel expenses) will be exported directly to the relevant document in Excel. This document could be opened and processed by accountants in the network. Today, all these changes represent a challenge for accountants worldwide.

Accountants should recognize these changes and exploit them to prepare accurate financial reports and in short time. The use of digital technology makes it easier to collect information and process it, giving them the opportunity to provide information for company managers when necessary. In this way the accountants will become indispensable for the success of a business. Accountants should also recognize some of the problems brought by the use of new technologies, if they are used without appropriate frameworks and legal arrangements. The rapid development of technology often creates ambiguous spaces, still unregulated by law or standards. One of the cases where this phenomenon is shown is the online financial reporting.

## **7. Financial Reporting In Internet And Problems The Use Of New Technologies Can Bring**

In countries with developed capital markets, almost all big companies have their web sites and most of them involve in the financial reports. Even a short exploration of websites on the Internet shows that the reports vary widely from company to company in terms of style, manner of presentation and quantity of information involved. Part of these changes can be detrimental for investors, especially for those investors who base their investment on the information they receive through the Internet. Often, changes are so big that the one who reads them may create the impression that the reporting on the Internet has no rules. Although in many countries of the world, including the U.S., rules and standards that apply to written reports should also apply to Internet reports. On the other

hand there are laws under which websites are simply means presenting information and not documents.

Today it is believed that companies should be more careful with the information they provide on the Internet. Why?

-In most of the cases the reports listed in Internet are just summaries of official reports. During the selection of materials in preparing summaries it happens that the companies delete materials and positive ratios and leave negative ones aside. Today there are more and more investors using the internet for their investment and the fact mentioned above may affect their decision.

-When preparing the report on the Internet they may have in mind a particular audience, e.g. financial analysts. As long as the web pages do not have passwords anyone can use the information provided by them. What would happen if a non-sophisticated investor to use the information on the Internet to make an investment that will result in wrong? Can a company that has submitted such information justify by saying that those reports on the Internet were not for non-sophisticated investors?

The reliability of financial reporting and auditing is a matter that relates directly to one of the main goals of IFAC: increased reliability and financial reporting in all sectors of the economy-public and private, profit making and non-profit, listed or not in the stock exchange.

Since by definition everything in the Web is in digital form, then Web pages can be considered as a giant data warehouse in which obtaining information and analyzing financial data should be relatively easy, at least easier than manual using of data. All those who have tried to locate and extract specific information from the Internet, especially financial information, know that this is a difficult task. The problem lies in the fact that there is no common language to allow computers to identify the elements of financial reporting.

## **8. XBRL, Financial Reporting Language In Internet**

Among the latest suggestions is the use of XBRL language. Knowledge and use of this language is very interesting for those who use the Internet to research information regarding various financial companies or to generate statistics of this nature.

### ***What is XBRL?***

XBRL (Extensible Business Reporting Language) is conceived to be a language of financial reporting on the Internet.

The use of this language makes possible:

1. Finding quick information in financial reports submitted to the Internet
2. Easily extracting the values of sales, expenses, marxheve, assets, liabilities, etc.;
3. Inform the user about the currency and exchange rate as well as the reporting period.

As such, XBRL is a step forward towards the concept that considers the Internet as a data warehouse. XBRL makes financial information presented on the Internet by companies, more transparent and available to a global community of users. It should be emphasized that XBRL does not set standards for the amount of information that can be included in financial reports on the Internet. Companies will decide what information to present, while XBRL improves the visibility of this information to those who seek it. XBRL has the unparalleled value in the standardization of financial reporting and automation of the financial reporting process. XBRL facilitates the exchange of information and increases the transparency of reported information. Public confidence is essential for global investments and economic development. There are two specific areas in which XBRL can give its contribution:

1. Providing an international platform for a global economy
2. Significantly increases the reliability of financial statements by improving the transparency of reported information.

## **9. Computerized Accounting Systems And The Role Of Accountants For The Effectiveness Of Their Use**

Accounting is an information system that performs several processes. It analyzes data on economic activities performed by business, refines them and profits useful information for a wide range of users, reports and distributes it through financial statements and other reports. Information prepared by the accounting helps the user to take economic decisions based on credible business figures.

The extensive information given by accounting on the functioning of the business unit is processed by the internal users of the unit, ie the function of marketing, manufacturing, human resources, finance, management etc. and by external users, customers, suppliers, investors etc.

Accounting can be held in two ways, either manually or by computer. Usually small businesses keep accounting records by hand. Big and medium Businesses use computer accounting. Preparing the accounting information by computer for the user means using information technology. Accounting systems based on computers are recognized as *accounting information systems* and *computerized accounting systems*.

## **10. Computerized Information Systems**

A computerized information system is a set of hardware's and software's, designed to transform the data in useful information. Most common types of computerized information systems are:

- Systems of electronic data processing.
- Systems Management Information.
- Systems that help specific decision making.
- Expert Systems.
- Information systems which provide high levels of management.
- Accounting Information Systems.
- Computerized accounting systems.

Computerized accounting systems, have collected their early data on economic events, and processed them to obtain information of financial nature. While today, accounting information systems along with financial information, prepare information of non-financial nature as well as process data related to business events. Besides the main financial statements, they prepare specific financial reports, detailed analysis and various predictions. The objective of a computerized accounting system is to communicate updated information to decision makers which is close to real time.

The term “computerized accounting system”, nowadays, has a wider content than before. It summarizes the accounting cycle and the cycles of business events or business processes, use of information technology and information systems development.

Cycle accounting or financial reporting cycle takes data from business processes, which it refines using accounting procedures and prepares financial statements. To realize the objective of financial reporting, a series of actions are carried out in accounting cycle to feature only as evaluative actions, regulatory actions and the closing ones, which aim to build the financial statements in accordance with accounting standards and other legal requirements. Integral part of the accounting cycle, and each business process, is the internal control, which includes all security measures and practices that aim to guarantee the performance of accounting procedures and business processes in accordance with the policies and plans developed by management.

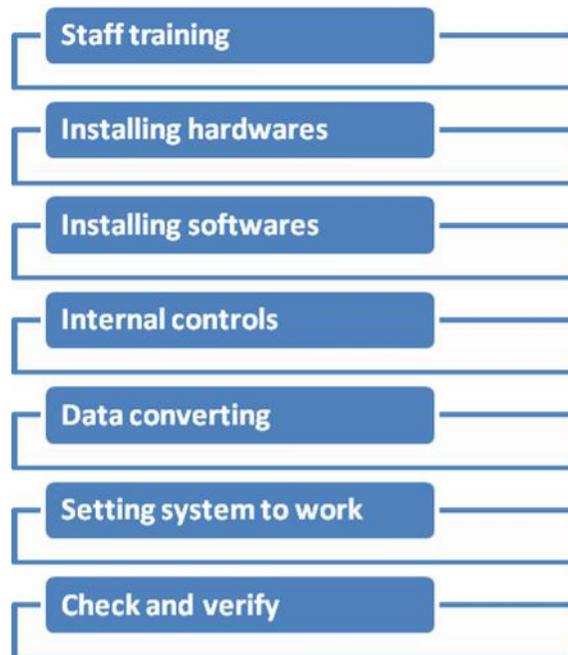
The computerized accounting systems rely heavily on information technology. The information technology includes hardware's and software's used to process information. The Information Technology is related to the functional organization of the information system, the terminal calculation user, the rapid response technology, electronic trade, electronic exchange of data, the extensive language of business reporting (XBRL), electronic payment systems, etc.

To create new national accounting information systems is needed an analysis of the current system of accounting information, modeling the new system, its implementation in application, as well as the maintenance and control

of the new system during operation. Usually, activities for the creation of new information systems are initiated by accountants of business units, by their consulting firms or auditors. The creation of computerized accounting systems is quite complex and requires full knowledge of these systems separately. As a rule, businesses begin remodeling the computerized accounting system, if the system they have in use does not provide adequate accounting information for decision making.

The remodeling process begins with the creation of a group of professionals who study analyzes the current system to determine its strong and weak points, their impact in meeting the objectives of the unit and provides recommendations for selecting the new system. The new system to be selected should not only be qualitative but also secure better completion of several indicators related to the cost / benefit, with the possibility of system maintenance, with its compatibility with other systems etc. The implementation of the new system requires the training of personnel, to install hardware's and software's, to establish internal controls, to convert the data and to set the system to work. Once used for a period of time the new system is checked to verify if operated according to the expectancy or if it needs correction.

Schematically the process of making the new system work is as follows:



*Scheme1. The process of implementing the new system.*

As a rule, only one part of businesses, those with greater financial opportunities undertake to create new systems of accounting information. Activities of creating new information systems require considerable investments. Other businesses that do not have these opportunities find a more economical solution. Instead of creating by themselves the model of information system needed, they use the standard model of the branch where they belong. By using such models they make less investment.

## **11. ERP Systems**

ERP Systems (Enterprise Resource Planning) are integrated information systems, complex and very advanced. They stem from the early information systems, which served to specific functions of the business unit, like accounting, marketing and personnel, etc. Integrated systems were developed in response to increasing requests for information to all business units' functions and their need

to exploit the information collected in the database of all functions. Integrated systems became a reality thanks to the great progress in information technology.

ERP systems of our time, integrate all major business processes of a unit. Thanks to this integration, all functions of the unit, the marketing function, production function, the function of purchasing, human resources and accounting may use without limitation all information submitted by each of them in the database system, to perform their duties with efficiency and coordinate efforts to fulfill the objectives of the unit.

## **12. The Impacts Of Accounting Integrated Systems On Accounting And Accounting As Occupation**

The expansion of functions performed by the integrated accounting systems, which now produce and distribute information of financial and nonfinancial nature, has rendered accounting operational and has set its output not only in service to business unit leaders, but also to all its functions. Development of integrated accounting systems has increased the role of accounting professionals in performing their duties for the preparation, checking and reporting of information on business units and has led to the emergence of new specialties closely related to those systems. Of these specialties, the consultants for computerized information systems and these systems auditors are of the greatest importance to businesses.

According to a study of the American Institute of Credited Public Accountants (AICPA), the main objectives of accounting professionals for the 21-century to advancing the profession are training and ongoing studies in order to be able to adapt to the ever changing environment and business problems, specialization as a necessity for survival and development of the profession in the future, orientation towards the security services, to information technology, to financial planning and advice and perfection of skills to interpret information.

### 13. The Results Of The Survey

For a clearer picture of the situation regarding the information we have conducted a survey in 20 subjects of which two entities are VIP, 8 large business entities and 10 are small business units.

Their organization is:

	AE	LOE	LE	Person
VIP	-	2	-	-
Big Business	-	8	-	-
Small Business	-	-	-	10

The answers are as follows.

Do you use the 'information system' in management?			
	Wholly	Fully	Never
VIP	2	-	-
Big Business	1	2	5
Small Business	-	2	8

How do you make your managerial decisions in your unit?			
	Based on managerial system	Based on administrators decisions	based on random decisions
VIP	2	-	-
Big Business	-	8	-
Small Business	-	-	10

Do you prepare your financial statements?		
	Wholly	Fully
VIP	2	-
Big Business	8	-
Small Business	-	10

Do you keep two types of accounts in your unit (one for your information and one for the state)?			
	Yes	No	Do not keep at all
VIP	2	-	-
Big Business	8	-	-
Small Business	-	-	10

How do you realize accounting services?			
	Unit Accountant	Public Accountant	Do not use
VIP	2	-	-
Big Business	3	5	-
Small Business	-	-	10

How do you organize accounting?			
	Computerized	Manual	Do not keep at all
VIP	2	-	-
Big Business	5	3	-
Small Business	-	-	10

Do you apply integrated accounting systems such as ERP system?			
	Yes	No	Not familiar with
VIP	1	1	-
Big Business	-	-	8
Small Business	-	-	10

Do you report financial statements on the Internet (XBRL system)?		
	Yes	No
VIP	-	2
Big Business	-	8
Small Business	-	10

Do you have an interest in the computerization of accounting?		
	Yes	No
VIP	2	-
Big Business	5	3
Small Business	-	10

Do you state the tax data electronically?		
	Yes	No
VIP	2	-
Big Business	8	-
Small Business	-	10

## **Conclusions And Recommendations**

The management information system, results more and more as a necessity in making decisions for the development of economic activity in terms of increasing competition. It is an increasing factor for the performance of the economic unit. The study of the economic entities experience in our country shows that despite the results achieved during these 20 years in the activity of economic units, the management information system in decision making is felt less. This situation has changed recently in economic units with great activity and by participation of foreign capital, while in other entities particularly in the small business, the situation has not been very positive which has caused an increasing rate of their bankruptcy.

The quality of management decisions at any level of management is closely connected with the quality of information. Qualitative, sufficient and fast information, among other things guarantees effective management decisions. It is necessary for economic units to define and organize the management information system, providing this way information inside and outside the economic entity, by using for this purpose the most qualified human resources. Information technology provides opportunities to achieve an accurate, fast and qualitative information. Therefore, entities must not only recognize the changes occurring in this area but also take measures for its implementation being based on cost-benefit principle. The use of digital technologies such as Fin-Web, etc, makes easier the collection, processing and transmitting information to its users. Entities, along with applicative programs must use the integrated information systems to provide an information increasingly broad, qualitative and in a very short time.

For the transmission of information in electronic form, XBRL system is considered as an ideal tool for drafting and communicating financial reports on the Internet. This will simplify the procedures of submitting financial statements to the tax authorities, further improving the relations between economic units and tax authorities and will also create numerous opportunities to inform all users of publishable financial statements.

In the context of these contemporary developments, nowadays accountants and financiers are not simple data registrators, but an important part of managerial staffs with significant impact on their decision making.

On the other hand, these developments also represent a challenge for accountants, who not only must recognize these changes, and acquire them, but also exploit them to prepare accurate financial reports and in short time. Universities and associations of accounting professionals in the context of rapid developments in information technologies have the task of continuing the training of accountants and financiers in accordance with relevant developments. In the framework of their programs they should bear in mind that, in the context of an increasingly global economy, the data infrastructure is a necessity.

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