APPLICATION OF XBRL-A IN THE FUNCTION
OF IMPROVEMENT OF QUALITY OF FINANCIAL REPORTING
IN MONTENEGRO

UDC 657.375(497.1)

Vladan Martić

University Mediterranean, Podgorica, Montenegro

Abstract. *After more than a century-long and successful history of providing accounting and audit services, the accounting profession is faced with numerous challenges and opportunities of the 21st century. In parallel with the development of new technologies, organizational solutions and establishment of financial reporting standards, a strong expansion of software tools for the exchange of business information has been evident in the last decade.*

*At the end of the nineties of the last century the e**X**tensible **B**usiness **R**eporting **L**anguage – XBRL appeared, which has been one of the most important technological innovations in financial reporting, collection and exchange of data since the invention of electronic spreadsheets.*

In this sense, the goal of this paper is to evaluate XBRL aimed at improving the quality of financial reporting, highlighting both positive and negative aspects of this standard for the exchange of business information.

However, although the XBRL standard is globally accepted, and it has proved to be a kind of evergreen – which, according to many, promises a revolution in financial reporting and exchange of business information - the fact is that the implementation of this standard has not yet become a reality in Montenegro and the region. Hence, one of the goals of this paper is to point out to the relationship of reciprocity between the application of the XBRL standard in accounting practice with the level of development of accounting regulations, training of professional accountants and the willingness of national standard establishers to accept the need for standardizing financial reporting with respect to the exchange of information.

Therefore, we have stated the above so that we could clearly indicate that it is a great scientific challenge to illuminate a new and still unexplored area for our conditions in terms of the application of modern methods of accounting theory and practice. In this context, it will be very interesting to focus on Montenegro, which is moving towards Euro-Atlantic integration, and which has so far had the opportunity to face a number of

institutional and regulatory problems which have raised doubts in a way about the use value of financial reporting.

Key words: *XBRL, financial reporting, Internet, company, accounting standards, regulations, stakeholders, globalization.*

INTRODUCTION

Dynamic changes personified by general globalization and development of information technologies, as well as the loss of confidence - caused by the global financial crisis – have a significant impact on the role and characteristics of the accounting profession and the accounting information system in general. On the one hand, the expectations of the market, that is the stakeholders' expectations for timely, more frequent, more transparent financial reporting appropriate to the requirements of today are increasing. There is no doubt that the transparent and quality financial reporting provides more secure access to investment funds, reduces uncertainty and risk, and enables the efficient allocation of capital. On the other hand, rapid changes in the information technology have led to a significant representation of e-business and so-called digital economy, which has also had an impact on the accounting profession and financial reporting. The conventional approach to financial reporting, which is mainly based on hard-paper copies of documents and a wide variety of incompatible formats for data exchange (*pdf, xls, html, doc*, ...), had been designed long before the emergence of the Web and new technologies for the exchange of business information (*Cloud computing, XBRL etc.*).

In this sense, XBRL - the international standard for the exchange of business information and data in an electronic form represents one of the innovations and challenges of a modern company. Otherwise, efforts to establish the standard for the preparation and exchange of business information, sponsored by the *American Institute of Certified Public Accountants - AICPA*, date from 1999 when the first meeting of the Steering Committee of XBRL organization was held. Although not the first, but certainly one of the key implementations of XBRL as a global standard is the adoption of the standard by the *Security and Exchange Commission - SEC*, which will undoubtedly represent a significant impulse and will greatly change the world of financial reporting.

In this sense, the intention of the author of this paper was to point out the contemporary trends of the development of corporate business reporting through detailed elaboration of this issue and to show the necessities, characteristics and possibilities of the application of the XBRL standard, with special reference to the possibility of implementation in Montenegro with the aim of improving the quality of financial reporting.

In the context of what was mentioned above, we are going to implement the set objectives by dividing the paper in two parts, in addition to the introduction and concluding remarks. The first part of the paper will deal with the definition of a conceptual framework for XBRL, where the basic features, benefits, application, and components of this standard will be explained in order to create the fundamental preconditions for pointing out the need and usefulness of its introduction. The second part of the paper, which is a logical continuation of the first, deals with the practical dimension of the elaborated theoretical issues, where the guidelines will be provided in the domain of implementation of the XBRL model in the function of the improvement of quality of financial reporting in Montenegro, with emphasis on the analysis of legal and professional accounting regulations as a precondition for successful application of the XBRL standard.

1. Background on XBRL

Although the term business reporting is encountered in the very name of **XBRL**, which is undoubtedly one of the main aspects of its function, it is clear that it has a much wider application. If reporting is viewed as a subset of the business information exchange, XBRL can be defined as:

- The standard based on an open code, independent of any software manufacturer - which offers a wide range of advantages in storing, handling and analysis of data;
- The extension of *XML* intended for the electronic exchange of business information;
- One of the most successful formats for metadata;
- International non-profit consortium of more than 600 members - professional federations, companies, regulatory agencies gathered on the jobs of creation, maintenance and promotion of a uniform standard for the exchange of information (XBRL.org);
- The global agreement on the concept of exchange of business information and rules;
- The mandate by the regulatory agencies worldwide;
- A new way of distributing and modeling of business information in a form understandable for computer applications, which completely relocates business reporting onto the Internet.

It is obvious that these definitions explain XBRL from different aspects, including inevitably its technical side. However, for the purposes of this paper we will only deal with the business aspect of this standard, without ignoring the fact that this has been one of the most important technological innovations in financial reporting, collection and exchange of data since the invention of electronic spreadsheets. Various resources that provide more technical details on XBRL are available (Bergeon 2003; Hoffman, C., R. Egmond, 2012; www.XBRL.org).

In this sense, XBRL can be defined as an open international standard, independent of the information platform, for timely, accurate, and efficient electronic data collection and storage, manipulation and exchange of financial and business statements and data. Although it is primarily used in financial reporting today, it can equally be used in non-financial reporting and exchange of reporting and information contents on the broader, social and environmental aspect of company's operations. In fact, the XBRL standard is also used in the new stage of the evolution of corporate reporting - integrated reporting, which, in addition to financial reporting, includes a specific form of non-financial reporting on sustainable development, sustainable business and corporate social responsibility (Malinić, 2013).

Basically, the idea on which XBRL is based is very simple. Instead of treating the data as the blocks of text, every single position in the statement receives an appropriate label (tag) that adds meaning and context to the data, which enables more effective manipulation, storage and sharing of computer applications through the *Web*. Tags are often compared and identified with bar codes on products which once completely redefined the trade process. Namely, the XBRL is based on the mapping of each position in the financial document which is called the XBRL *Instance* and which represents a unique form for various forms of digital accounting reports. The positions marked in such a way are precisely defined in the dictionaries, called the *Taxonomy* (Hoffman, 2010, 18). It is important to emphasize that taxonomies do not represent an integral part of the digital financial statement, but are databases on the basis of which multiple statements are created. They can be located on the *Web* or within the company's intranet. In addition,

any business user can customize the taxonomy to their own needs by adding specific concepts and positions, or develop a new taxonomy on the basis of the existing one. It is known that the possibility of modifying and adapting taxonomies is one of the unique features of XBRL which is called scalability.

This type of standardization and exchange of data significantly increases the flexibility and speed of data manipulation, and reduces the need to re-enter the data (*rekeying*) while preparing the statements for each user in the chain of reporting. Just create one statement in XBRL, which can then be distributed via the *Web* for multiple use (press statement, web site, submission to regulatory and tax authorities).

2. BENEFITS AND RISKS ASSOCIATED WITH XBRL

Before we look at individual benefits, which are reflected on all actors in the chain of business information exchange, if we would like to show the key benefits of XBRL in only one graph which recommend it for the implementation in a specific organization, it would look like this:
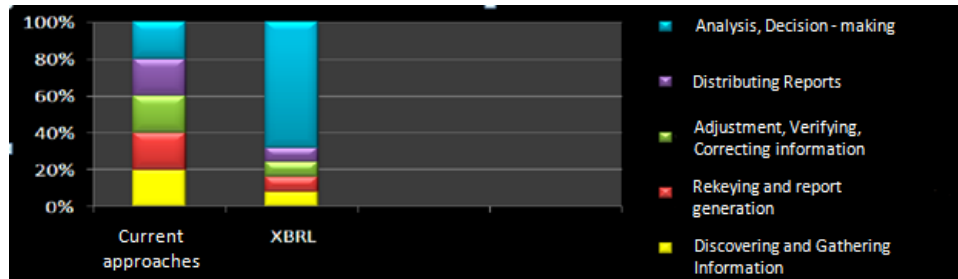
Graph 1 Current versus XBRL-based information exchange model

Therefore, a comparative review points out the significant advantages of XBRL, which are reflected in the savings in costs and time through the automation of the processes that generate a lower added value and which are more susceptible to errors of human intervention (collection and re-entry of data, preparation of statements), compared to the processes of high added value. The application of XBRL completely redefines the accounting practice where a high level of analyses and consultancy services is increasingly required with the aim of providing adequate information support in decision-making, instead of the past fee-for-service approach.

Finally, XBRL has the potential to upgrade the *one-size-fits-all* approach in financial reporting with the *á la carte* choice of financial information. Some of the benefits, as pointed out in various sources, are briefly reviewed below (see Ales, 2008; Barton, 2003; Bergeon, 2003; Watson, 2010; Hawes, 2013; Hoffman, 2010, Malinić, 2013; Martic, 2013).

2.1. Benefits for users of information

In the accounting literature, it is a common view that only the users of information enjoy the benefits of application of XBRL. In support of this view it is stated that opposed to the creators of information who perform demanding tasks of tagging or labeling XBRL information, the users enjoy the benefits of an easy access and manipulation with this

information. While we are going to try to supplement the aforementioned positions on the following pages and to point out to the fact that XBRL offers advantages in the preparation of financial information and statements, there is no doubt that XBRL generates a range of benefits for the users (Hoffman, 2010, Bergeon, 2003; Martić, 2013), including:

- **Faster access to information**. Thanks to the differentiation of information from the applications offered by XBRL within its modular infrastructure, numerous processes are automated, so the access to information is faster. This is one of the reasons why the regulators and stock exchanges around the world are leaders in the implementation of XBRL.
- **Information collection (breakdown)**. If you have ever collected information from two or more people who present that information in tables, then you have a very good understanding of the problems of data collection. Different presentation formats make data collection very complex. Even if we have the same software versions and use standardized tabular formats, unintentional errors and inconsistencies in communication may create problems during the exchange. On the other hand, the XBRL standard changes the options for the exchange offering a unique standard that provides efficient exchange of consistent information.
- **Flexible information format**. When you get a certain set of information, how many times have you wished to receive that information in another format? With XBRL, the reformatting of information is very easy. Information can be automatically retrieved from the databases and taxonomies, exchanged in XBRL and then exported to another format of your choice.
- **Information is not locked in one presentation format**. This benefit actually stems from the previous one. Namely, the flexibility, scalability and dynamism are basic characteristics of business information exchange through the XBRL standard.
- **The possibility of automated search of information.** Thanks to XBRL, the search of financial information can be much easier, because it uses a standard format in which structured information is presented. Moreover, the application of XBRL includes standardized metadata so that analysts can analyze and compare companies more easily.

2.2. Benefits from the aspect of information creators

We have already emphasized that the advantages provided by XBRL to the users of information are more explicit compared to the advantages that this standard offers to the creators of information. Considering the fact that the process of tagging of XBRL data is a labor-intensive task, however, we can point out a whole range of benefits (Bergeon, 2003; Watson, 2010; Hawes, 2013; Hoffman, 2010) regarding the creators of information:

- **Lower costs of information production**. Essentially, preparation of financial statements through XBRL is based on the identification-tagging of each position in the statement, making in this way savings in costs and time through the automation of processes that are more susceptible to errors of human intervention and the need for the re-entry of data.
- **Communication with customers on a constant basis**. By using XBRL, the communication with users takes place virtually in real time on a constant basis, bearing in mind that the data are precisely defined within the taxonomies while labelling and presented in the standard based on open code available to all users.
- **Enhanced functionality** - connecting the relevant sources to the documents ensures better preparation to the environment. Policies, resources and other relevant contents are contextually available through a XBRL document.

- **Flexibility** – XBRL greatly increases the flexibility and speed of data manipulation in its original form. Thanks to the separation of the information from the presentation format, the creators of information are provided with significant flexibility regarding the manner in which the information will be presented.
- **Built-in validators and standards** - One of the key advantages when creating information. The information is retreated from taxonomies that represent the standardized vocabularies of accounting principles. They also include built-in validators, which enable detecting the errors before they enter the system, which significantly increases the quality of data.
- **Multi-language support**. As the global standard, the XBRL neutralizes the language barriers enabling the expression of definitions in the language of your choice. Therefore it is possible to display a series of statements in a language different from the language in which the statements have been prepared without any additional intervention. The XBRL community largely uses this possibility because in this way data consistency is ensured and invisible boundary represented by language barriers, which interferes with the free flow of information, is neutralized.

Stakeholders' analysis

It is well known that the pluralism of interests and intertwining of the influence of stakeholders in the functioning of a company causes the existence of different company goals (Malinić, 2008). Without going deeper into the issue of relations between stakeholders, which is very complex and subtle, the analysis that we are going to conduct shows in which way the movement from a proprietary - paper format to an electronic format affects them.

First, the stakeholders adversely affected by this change are:

- Manufacturers and suppliers of paper;
- Software manufacturers (except for XBRL), since the XBRL standard is globally accepted and has quickly taken a dominant role in an era of software tools and techniques which we are constantly bombarded with by consulting companies and manufacturers of accounting software.
- IT departments can provide resistance to ensure the infrastructure and support to the system, which basically relies on the Internet. This is primarily evident in organizations that have a policy of preventing the access to the Internet. The main challenges are security issues and possible abuse by employees;
- Smaller accounting firms that do not have the staff trained in electronic reporting and IT can also be adversely affected by the transition to XBRL.

In contrast to the short list of stakeholders, the list of those who gain benefits from the application of XBRL is extensive. It includes various manufacturers of software, hardware and telecommunications equipment, then, state agencies, banks, end users, analysts, etc.

- State agencies have more reasons to support the XBRL initiative, given the amount of data processed and the time necessary for processing. As we have mentioned several times, the application of XBRL increases the flexibility of data processing, and shortens the time needed for data collection.
- Large companies. As a result of the Enron scandal, financial regulators have shortened the deadlines for submission of financial statements. In this regard, companies are under pressure to prepare reports with fewer errors as soon as possible. Employees are required to devote more time to the analysis of data, rather than to its preparation.

- Small businesses are becoming more visible in the market, and therefore can offer new services. Once companies publish their statements in XBRL they become more visible on the Web.
- Auditors - an old joke among auditors says that the acronym *CPA* actually means *Cut, Paste and Attach*. Even in the era of computerization, auditors spend excessive time transferring data from the field in their own statements and estimates. Moreover, auditors are faced with increasing regulatory burdens. Therefore, they tend to spend less time on the manipulation and preparation of data than on the analyses.
- When it comes to individual organizations, the degree of benefits obtained by XBRL depends to a large extent on their technological status. Namely, computerized companies, which provide their employees with free internet access, and which have the staff trained in IT, will make a more painless transition to the new reporting system.

2.4. Risks associated with XBRL

In addition to numerous advantages, we have to be aware of certain challenges that we face when adopting a new technology – standard, such as XBRL:

Early adoption of XBRL as a global standard has led to a lack of preparation and inadequacy in its application. The need and the necessity to meet the demands of the regulator as soon as possible, at a time when many of the XBRL software applications were not available, prevented the identification of appropriate adaptation solutions of the entire accounting information system. Another feature is derived from the previous one, that is, a lot of regulators obliged the regulatory entities to use XBRL, while not providing any assistance in its implementation. It initially resulted in significant costs for business organizations, bearing in mind the need to engage consultants who would generate the XBRL filings for them.

The fact that the standard is relatively "immature", as well as the software support on which it relies may cause certain problems in the compatibility of software applications, especially compared to earlier versions of the program. For example, if two different software manufacturers support XBRL with their applications, those applications may not be fully compatible (Bergeon, 2003). Customization of taxonomies so as to meet the specific demands of stakeholders, makes the problem of compatibility even greater. Namely, the XBRL Taxonomies are expandable and therefore can be too flexible, which may significantly jeopardize the transparency and compatibility of statements, and eliminate the many advantages that this standard offers (Burnett, 2006).

The existence of a number of "competing" standards and the fact that XBRL, like any other standard, has a limited life cycle and is likely to undergo numerous changes in the future. Experience tells us that most of the new software tools, methods and techniques are just "fashionable topics" which gain but also immediately afterwards lose relevance. A whole range of factors, which are very difficult to predict, contribute to its relevance.

Since it is based on XML, it is considered that the implementation of XBRL is somewhat complicated and difficult, especially for accountants, regulators and business users. While the implementation of XBRL can be made in a relatively short period of time, it will probably be necessary for some time to maintain the previous accounting information system, which will undoubtedly require additional costs and lead to errors in submitting financial statements.

Given that XBRL completely relocates the financial reporting onto the Internet, the issues of security and protection of information are raised; although these issues are not in the domain of the standard itself.

Finally, the considerations made clearly show the advantages that the application of the XBRL standard brings to all participants in the chain of financial reporting and business organization, both in terms of preparation and use of information. It is perhaps justifiable to underline that perhaps the most important benefit of the implementation of XBRL is that it permanently eliminates the need to re-enter data when preparing the statement for each user in the chain of reporting. Moreover, it is important to emphasize once again that XBRL is not a new accounting standard and that it does not require changes in existing accounting standards, nor does it require businesses to disclose additional information.

But the practice shows that there are certain risks associated with the adoption and integration of XBRL, but the risks of ignoring the information revolution that has transformed virtually every form of business on the planet, are potentially greater.

3. MAJOR XBRL PROJECTS AT THE GLOBAL LEVEL

The previously made considerations have shown that XBRL is globally present (especially in the practice of market-developed countries), and that it represents a new phase in the evolution of financial reporting. The implementation of XBRL is likely to follow the direction as in the case of *XML* and *HTML* – that is, the standards are firstly adopted by supervisory and regulatory bodies, and then they are rapidly accepted by an increasing number of business users. In the context of a more current and deeper consideration, we will examine below in more detail some of the most important projects of the implementation of the XBRL standard - which will allow us to look at how this standard is implemented and used, with a special emphasis on quantifying the potential benefits and savings.

▪ **U.S. Security Exchange Commission.** Although not the first, but certainly one of the key implementations at the global level, is the adoption of the XBRL standard by the SEC, which had closely monitored the past projects of the implementation of this standard and began with the introduction in 2005, when an experimental program was launched in which each company could test the standard. After the successful implementation of the pilot testing, the *SEC* obliged all public companies to submit financial statements in the XBRL format. In June 2009, more than 500 major companies started with the submission of the statements in this format, followed by about 1,800 companies the next year and about 12,000 companies in the third year (Securities and Exchange Commission, 2009). Finally, in 2012, the *SEC* obliged all public companies to submit financial statements in the XBRL format.

▪ **Federal Financial Institutions Examination Council -** In 2003 **FFIEC** launched the project of modernization of the system for data collection and management. The new system, known as the *Central Data Repository – CDR* represents one of the first and largest implementation of the XBRL standard. In this respect, the survey results (Federal Financial Institutions Examination Council, 2003), in terms of savings brought by the application of the XBRL standard, can be synthesized as shown in the following way:

   – Savings of about 60% are achieved in the costs of data collecting and processing;
   – The data processing time has been significantly reduced (the processing time has been reduced from 60 to 2 days);

- Productivity has been increased in the range of 10 to 33%;
- Data errors are completely eliminated (the previous system identified 18,000 errors annually);

It can be noted that the results of the application of the XBRL standard through an open, collaborative approach have been impressive. The implementation of XBRL has had a positive impact on the increase of productivity, efficiency, accuracy and quality of data. The statements are available much more quickly, with the more efficient and more accurate process of data collection and validation. The new data collection system allowed the banks to identify and correct the errors before filing their financial statements. All this will undoubtedly encourage other regulatory agencies to implement this standard.

- **Standard Business Reporting - SBR**. In 2007, in its project of the Standard Business Reporting, the Australian Government funded the first phase of implementation of XBRL as a standard means of communication between the government and companies, as well as between government agencies. This project aims to simplify and automate the process of information exchange, i.e. by functioning in a way that companies do not have to submit the same information several times to different agencies. It is expected that this project will reduce the costs of companies by 25%, or more than one billion dollars per year (Standard Business Reporting, 2012).

How successful the Standard Business Reporting project is, is best illustrated by the fact that it is gradually becoming a global approach in the implementation of XBRL at the level of state administration, and that similar projects have already been launched in many countries, such as the Netherlands, New Zealand and Singapore. Moreover, we believe that this project provides useful guidelines for the application of this standard at the level of state administration in Montenegro and the region.

- **Accounting and Corporate Regulatory Authority** as the national regulator seeks to provide a reliable regulatory environment for companies and public accountants. To successfully respond to the goals presented in this way, new demands and challenges of economic operations, the ACRA adopted the XBRL standard for corporate financial reporting in 2007. In the beginning, the most important goals of the project of implementation of XBRL focused on the improvement of financial reporting through value enhancement of information flow with the local and international business community. In order to facilitate the implementation of XBRL, the ACRA has created the *of-line BizFinx* application for electronic processing and recording of data, which allows users to prepare financial statements free of charge in accordance with changing regulatory requirements. In order to minimize the time required for data entry, the tool includes a feature that automatically maps the information in the financial statement. Finally, from the end of October 2013, in accordance with the revised regulatory requirements, the ACRA obliged the companies to submit a complete set of financial statements in the XBRL format (Accounting and Corporate Regulatory Authority, 2013).

Although the project of the XBRL standard implementation in Singapore cannot be considered as one of the most significant in global terms, both in terms of its relevance and scope, we believe that it provides useful guidelines for the application of this standard at the national level. This is primarily so, given the negligible costs for users in terms of compliance with regulatory requirements during the preparation, creation and validation of the XBRL statements. Moreover, we believe that this project is an example

of the best practice of involving the public in decision-making and active approach of interested users when reviewing the regulatory requirements and introducing the new accounting and information solutions in the financial reporting system.

3.1. Common features of XBRL projects

We have seen that the first implementations of the XBRL standard were achieved in the field of financial arena, led by regulatory agencies, such as securities commissions, stock exchanges, tax and customs authorities, banking regulators, i.e., organizations that deal with large quantities of financial statements and information. Today, the standard has been accepted by different business organizations, auditing and accounting firms, manufacturers of software for accounting and business reporting, as well as individual investors and analysts. Although these are heterogeneous groups, it is possible to identify some basic trends in the development and implementation of XBRL:

- With respect to the projects at the state level, each state has appropriate functions - agencies that enable and encourage the implementation of XBRL within that state, such as the regulators of stock exchanges and securities, bank regulators, business registries, tax agencies and national statistical organizations;
- The implementation of XBRL follows the direction as in the case of *XML* and *HTML* – that is, the standards are firstly adopted by supervisory and regulatory bodies, and then are rapidly accepted by an increasing number of business users. In this regard, the supervisory and regulatory agencies play an important role in the introduction and implementation of XBRL, given the huge number of businesses they control. When adopted by one regulator, the number of businesses which have implemented the standard exponentially increases;
- At least one non-profit organization (*Microfinance Information Exchange-MIX, 2003*) has implemented the XBRL standard;
- Any significant shortcomings in the implementation of XBRL have not been observed so far;
- Stock exchanges and bank regulators are the two largest groups that have implemented XBRL;
- The regions in the world where XBRL is growing fastest are the USA, Japan, Europe, China and Australia. However, looking at the current situation and trends in the development of XBRL, we can see significant differences in the models of implementation of this standard in specified regions:

In Asia and the USA, XBRL is predominantly used in the capital markets. However, given the significant role of regulatory agencies, there is no doubt that the implementation of this standard will spread to private or unlisted companies, mutual funds, non-profit organizations, etc. While the capital markets in Asia have adapted to the new reporting standards very quickly and with minimal costs, the sophisticated XBRL taxonomies and business rules are mainly developed in the United States.

The United States implements a progressive and carefully documented approach in the implementation of XBRL. This is understandable, given that from the perspective of capital markets, the USA has much more technical and legal challenges to overcome than smaller countries. Moreover, the financial and reporting concepts based on *US GAAP* taxonomies are further aggregated by specific activities-industries, in contrast to the *IFRS* taxonomies that are more generic in terms of organization. While in the United States and Asia the

focus is more on the use of the XBRL standards in capital markets, Europe is focused on the development of cross-border projects and applications that enable a consistent exchange of structured XBRL data for public and private enterprises (Gilles, 2012).

Although the implementation of XBRL in South America is mostly on a voluntary basis for now, the increasing use of standards in the banking sectors and the capital markets will undoubtedly result in an increasing application.

4. IMPLEMENTATION OF XBRL IN MONTENEGRO– CHALLENGES AND OPPORTUNITIES

The implementation of quality financial reporting, as well as the possibility of implementing the XBRL standard for the exchange of business information include the review and assessment of the entire accounting profession, especially when it comes to the regulatory environment and financial reporting, as well as the competence of accountants and their organizations for the implementation of global standards for the exchange of business information. The base created by such analysis is unavoidable when testing the hypotheses set at the beginning of the research, as it clearly presents our current position and all the strengths, weaknesses, opportunities and risks.

Therefore, the institutional framework of financial reporting in Montenegro consists of legal, professional and internal accounting regulations.

4.2. Statutory accounting regulations in the context of the implementation of XBRL

There are several laws that adequately regulate the legal aspect of companies' accounting. Accordingly, the current legislative accounting regulations in Montenegro consist of the Company Law, the Law on Securities, the Law on Accounting and Auditing and the by-laws adopted on the basis thereof, different regulations, rulebooks and the like. The financial statements of companies and other entities in Montenegro would have to be standardized, internationally comparable and understandable to all the interested users.

However, we will leave these issues aside for now in order to analyze the aforementioned legal solutions in a generic sense, in terms of whether they recognize and define the global trends in terms of standardization of transfer and exchange of business information. In other words, the question is raised of whether the existing law on accounting and auditing and by-laws created on the basis of thereof provide a favorable regulatory framework in this regard, or represent a limiting factor in the context of implementation of the XBRL standard.

Bearing in mind that the emphasis is on the analysis of the legislative accounting regulations regarding the submission, publication and exchange of financial statements, in the following lines we will give an overview of the legal basis for these elements of financial reporting. Namely, the existing Law on Accounting and Auditing which regulates the issues of preparation and submission of financial statements provides that:

Legal entities are obliged to submit financial statements in paper and electronic form, no later than 31 March of the current year for the previous year.

Although it requires the submission of statements in an electronic form, it does not specify the format they are submitted in. As a result, information is "locked" into one-dimensional presentation formats (*Excel, Word, Web* forms, scanned documents, hard copies, etc.), which prevents their effective exchange and leads to inconsistency.

Moreover, the Draft Law on Accounting has not brought novelties with respect to the submission of financial statements. In this sense, it is proposed, as well as in the existing law, that:

The legal entity is obliged to submit the financial statements and the management report in paper and electronic form to the administrative body in charge of determination and collection of taxes (hereinafter: the Tax Administration) no later than 31 March of the current year for the previous year.

To sum up, after reviewing the law on accounting and auditing and the proposed amendments, in the part referring to electronic reporting and submission of statements, it is obvious that the legislator and national standard establishers did not recognize the need for the standardization of financial reporting in terms of exchange of information. Since a standardized means of communication between regulators and companies, as well as between regulatory agencies has not been established, the companies must submit the same information and statements several times to different agencies, which not only requires additional resources but also diverts time and resources away from primary business activities. Although the appropriate regulatory agencies have launched a number of new approaches in electronic reporting with the aim of simplifying and automating the process of information exchange (Tax Administration of Montenegro, 2014, the Securities Commission, 2012), it should be noted that there is still no uniform approach to the development of infrastructure including software systems and uniform databases that would be available to different agencies, reducing the total costs at the state level.

Finally, there is no doubt that the harmonization of the law on accounting and auditing with the European Union Directives is expected in the coming period. It is also an occasion to improve the conditions for the application of new digital standards in new legal regulations and achieve some positive developments concerning the adoption and implementation of XBRL. The conducted analysis of legal accounting regulations regarding the electronic reporting represents only an initial step, but at the same time provides a framework which is very important because of the use of other rights provided by these legal regulations. Specifically, as the first step it should be anticipated and incorporated in legislation a possibility of submitting financial statements in a paper and electronic form or in prescribed forms or patterns that are formed through electronic messages, according to the XBRL standard, signed by a digital signature.

4.2. Professional accounting regulations in the context of the implementation of XBRL

Professional accounting regulatory framework consists of a set of national and international accounting principles, standards and codes of ethics. The fact is that more and more countries and their regulatory authorities opt for a consistent application of international professional regulations in the area of financial reporting. Hence, the commitments in the new legal accounting regulations of Montenegro are based on the mandatory application of International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS). This will certainly make it possible to move closer to the preparation of our accounting practice for the application, preparation and presentation of better quality financial statements, and contribute to a faster integration of our economy, creation of a more favorable investment environment and increasing business confidence.

However, quality standards are not sufficient on their own. A major problem of their application remains. In this regard, numerous obstacles should be overcome, such as: the overcoming of different accounting traditions, improvement of the manner of the interpretation of standards, raising the level of education of professional accountants and their organizations.

Furthermore, in terms of professional accounting regulations in the context of implementation of XBRL in Montenegro, it is necessary to point out to a few additional, also relevant requirements and moments.

In the first place it is definitely the fact that, following the example of the world practice, the professional organizations would have a key role in the implementation of XBRL in Montenegro, such as the state has an important role by adopting the relevant and quality statutory accounting regulations. However, it seems that a number of measures should be undertaken by the legislator regarding the development of institutional environment for the implementation of professional regulations, as well as the division of responsibilities of the bodies for its implementation. Namely, the legislator has not made clear, nor has it clearly designated a professional organization - member of the International Federation of Accountants, whose right and duty is to implement the international professional regulations, adopt the national regulations and monitor their implementation. This is the reason for the lack of a comprehensive professional supervision and control of professional accountants.

Moreover, the lack of application of software and information standards is evident which hinders the implementation of advanced technological solutions. In a sense, the current legal arrangements represent a step backwards in terms of standardization of accounting software that are designed and produced for the purposes of bookkeeping, compilation and exchange of financial statements. It has already been pointed out that the first Yugoslav accounting standard dealing with accounting software was developed in early 1993, under the authority of Article 4 of the Law on Accounting (Official Gazette, FRY, no. 18/93), in relation to Article 12 of the same Law. On the basis of this law, the activities of standardization of accounting software were initiated, which led to a huge success in the process of design, production, application and quality of accounting software for the purposes of accounting coverage of data of different entities.

All this indicates that the previous legal regulations were reformist regarding these issues, as the valid solutions do not recognize the need for standardization of accounting software, which is important in the further process of standardization of accounting and information system and implementation of the XBRL standard. Hence, we believe that professional accounting organizations and regulatory bodies must undertake a number of activities in order to determine the framework for electronic bookkeeping and preparation of financial statements, regardless of the fact that the law makes no reference to it. After all, such solutions are increasingly represented in the countries with a developed information role of accounting.

Finally, it is also important to point out to the necessity of deregulation of legislative in favor of professional regulation, that is, the need to assign an important role to professional regulations in the regulation, which is not the case in Montenegro, at least when it comes to standardization of accounting information systems. Only in this way the legislative and administrative initiative is relieved and the professional solutions are enabled, without the influence of the current state economic policy. In this regard, one of the goals of this paper is focused on the direction of emphasizing the need for a clear commitment of the state that our financial reporting system moves towards the

standardization of financial reporting in terms of the exchange of business information, which would facilitate and improve financial reporting and also make a step forward towards global trends in the accounting industry.

In addition to the aforementioned, for a fuller understanding of the perspective of the implementation of XBRL in Montenegro, it is necessary to focus attention on a few additional issues, such as:

▪ sluggishness of the accounting profession in terms of accepting positive innovations in accounting, beyond the official "principal" accounting;

▪ readiness of national standard establishers to accept the need for standardizing financial reporting with respect to the exchange of information

▪ perhaps the issues of the general level of required specialist, accounting and broader knowledge in the field of information technology,

▪ undeveloped management in our companies,

▪ most of the companies in Montenegro are small companies, to which XBRL will "remain invisible" for some time. However, we believe that there is a need for the implementation of this standard even in small systems, which includes adequate argumentation that would result in additional research in this regard.

▪ and finally, the lack of awareness of the importance of XBRL.

Although the responses to the challenges focused in such a way cannot be easy, this paper could serve as a reference document, which is not only intended for professional creators of accounting information and regulators responsible for the adoption and implementation of standards, but also for other professional readers who are trying to understand the characteristics of this global standard that has completely redefined the accounting profession.

CONCLUSION

The considerations made about the possibility of implementation of the XBRL standard, aimed at improving the quality of financial reporting, leave a possibility to draw the following conclusions:

1. Development of communication and information technologies has enabled the relocation of financial reporting onto the Internet. As a result, today business information is available to everyone, in any place and at any time. For this purpose the international standard for the exchange of business information - XBRL is predominantly used today. This paper clearly indicates the advantages brought by the application of this standard to all participants in the chain of financial reporting.

2. The introduction of XBRL as a future standard of the exchange of business information in Montenegro would result in a number of business and social benefits, which have already been discussed. Moreover, the implementation of the XBRL standard at the level of state administration, modeled on the *SBR project,* would provide a more efficient exchange of business information and statements, and would significantly prevent "locking" and dependence of the state administration bodies (and other users) on a single product or software manufacturer. However, when designing the research study, we encountered various challenges given that XBRL has not been implemented in Montenegro so far. In this regard, we have looked at some of the most important implementations of XBRL globally, and clearly pointed to doubtless benefits brought by the application of this

standard. By generalizing the data obtained by the historical - comparative method, we pointed out the basic trends in the development and implementation of XBRL.

3. The conducted analysis of the institutional and regulatory framework has shown that the quality and availability of data are below the level of developed financial systems. Our current legal provisions do not provide for the need for standardization of accounting software that are designed and produced for bookkeeping, preparation and exchange of financial statements. Moreover, as regards the national level, it seems that one of the main challenges is the existence of more regulators with different levels of development and different standards regarding the submission of financial statements. In addition, our theoretical and technical literature in the field of accounting information system was not preoccupied with the issues of modern accounting information systems. However, as the implementation of XBRL becomes an unavoidable option, it is necessary to identify the critical factors - resources at the national level that are available and which may represent a starting point for the introduction of the XBRL standard. The changes in the philosophy of management and accountants are necessary, as well as new knowledge and skills. This is especially so considering that we have indicated that the application of the latest accounting - IT developments necessitate developed institutional and human resources capacity, and adequate preparation of accounting and governance structures.

4. Recognizing the mentioned limitations, we believe that XBRL can be successfully implemented in Montenegro. To support this statement, we pointed out to numerous assumptions, including: the consolidation of the financial sector (particularly banking), establishment of macroeconomic stability, computerization, and so on. In the last few years much has been done in the field of computerization and directing the state administration towards e-business and *Web* services.

In this sense, as regards the micro level, a large number of business organizations today use some form of information system that can underpin the introduction of XBRL. Namely, today all major systems for business planning, such as *SAP, Navision* and others, have a built-in possibility of reporting through XBRL, which leads us to the conclusion that all major business systems in Montenegro, which use some of the ERPs have a foundation for the implementation of XBRL at the level of business organization. Understandably, it immediately raises the issue of small legal entities, which make up, just to remind ourselves, 98.70% in Montenegro, (Monstat, 2012), and which clearly have some specific features that affect the process of implementation. This applies in particular to differences regarding: the available resources (human and material), the speed of the implementation process, the system of project planning and management, information requirements in relation to the system and so on. However, the answer to this question is, as in the previous case, very easy. Namely, different software manufacturers now offer very simple solutions that are based on the XBRL add-ons for the Microsoft Excel and Word, which are now used by most businesses. Understandably, in both cases these processes are preceded by the adoption and adaptation of relevant legal and professional accounting regulations in Montenegro.

All this leads to the conclusion that, taking into account the above restrictions, there is a basis for the introduction of the XBRL standard, both at the level of regulatory agencies and business organizations, while the possibility and speed of implementation largely depend on their technological status. Namely, computerized companies, which enable free internet access to their employees, and which have the staff trained in IT will make a more painless transition to the new reporting system. Based on the results of research initiated

by the Securities Commission (http://www.monstat.org/userfiles/file/registri.pdf), it can be concluded that there will be a lot of work in this regard, since 30.70 % of the surveyed companies do not have a website, while out of those businesses that have a website only 42.30% post their documents on it. The fact that the surveyed companies pay little attention to communication via the Internet is confirmed by the data relating to the existence and updating of the Web pages. Namely, 34.5% of companies have a bilingual site (our and a version in English), while, on the other hand, 32.5% have no version in English.

5. Finally, it is necessary to add that, paradoxically, we find ourselves now in a fairly favourable situation because the underdeveloped systems can be adapted almost immediately to the latest standards and trends. The same is the case with the training of the personnel.

REFERENCES

1. Accounting and Corporate Regulatory Authority, (2013), available at www.acra.gov.sg/uploadedImages/Content/Statistics/ACRA, (accessed 14. September 2015.).
2. Alles M. Special issue: *XBRL and the future of disclosure*. Academic Search Complete, Ipswich, MA, 2008.
3. Barton, K.E. (2003), „XBRL" available at: www.nysscpa.org/committees/emergingtech/xbrl_2003.htm (accessed 14. September 2015.).
4. *Bergeon B. (2003) Essentials of XBRL, Hoboken, New Jersey, WILEY.*
5. Burnet, R.D., Friedman, M. And Murthy, U. (2006.), „Financial reports: why you need XBRL", The Journal of Corporate Accounting and Finance, Vol. 17, No. 5, pp. 33-40.
6. Gilles Maguet – SECretary General XBRL Europe, *"The progress of XBRL in Europe"*, 10th XBRL Europe day – Deutsche Bundesbank, Frankfurt – 2012.
7. Federal Financial Institutions Examination Council (2003.),Improved Business Process through XBRL, available at www.ffiec.gov/ Improved Business Process through XBRL, (accessed 25. September 2015.).
8. Hawes T. The XBRL Exhibit: *A Checklist of Things Not to Miss [e-book].* [Florham Park, N.J.]: Financial Executives Research Foundation; 2009. Available from: eBook, MA. 2013.
9. *Hoffman C., Watson L. (2010) XBRL for Dummies, Indianapolis, WILEY publishing, Inc.*
10. *Hoffman C., Egmond R. (2012) Digital Financial Reporting Using an XBRL-based Model.*
11. Komisija za hartije od vrijednosti, 2012, Javna informaciona knjiga, available at www.scmn.me/index, (accessed 26. September 2015.).
12. Malinić, S.: Upravljačko računovodstvo i obračun troškova, Ekonomski fakultet - Kragujevac, 2008.
13. Malinić, S., „Računovodstveno integrisano izveštavanje u kontekstu teorije i prakse Evropske Unije.", Zbornik radova sa VIII.Kongera računovođa i revizora Crne Gore, Bečići, 2013. godina, str. 374-396.
14. Martić, V.- XBRL kao pretpostavka unaprijeđenja kvaliteta finansijskog izvještavanja, 44. Simpozijum „Računovodstveno regulatorno okruženje: podsticaj ili ograničenje privrednog rasta, Savez RR Srbije, 2013.
15. Microfinance Information Exchange (2003), Case Study, available at www.themix.org/sites/default/files/MIX-XBRL/CaseStudy/2003. (Accessed03.October 2015.).
16. Monstat, (201), available at: www.monstat.org/userfiles/file/registri.pdf(accessed 03.October 2015.).
17. Novićević, B., Finansijsko izvještavanje i privredni rast, *Računovodstveno regulatorno okruženje: podsticaj ili ograničenje privrednog rasta*, 44. simpozijum SRRS, Zlatibor, 2013., str. 7-20.
18. Poreska uprava, 2014, ePrijava Portal, Korisničko uputstvo verzija 1.0.0, available at www.tax.gov.me/TaxisPortal, (accessed 22. September 2015.).
19. Predlog zakona o računovodstvu, član 8, available at www.mf.gov.me/rubrike/javnerasprave, accessed 22. September 2015.).
20. Roohani S, Furusho Y, Koizumi M. *XBRL: Improving transparency and monitoring functions of corporate governance*. International Journal of Disclosure & Governance.
21. Securities and Exchange Commission (2009), available at www.sec.gov/rules/final/2009/33-9002, (accessed 15. September 2015.).
22. Standard Business Reporting, (2012), Options paper: use of standard business reporting (SBR) for financial report, available at www.pc.gov.au/inquiries/completed/coag-reporting/r,(accessed 10. September 2015.).

23. *Zakon o računovodstvu i reviziji*, -"Sl. list RCG", br. 69/05, "Sl. list Crne Gore", br. 80/08, 32/11, (član 6b. stav 1. i 4).
24. Zakon o računovodstvu *Sl. list. SRJ,* br. 18/93.
25. Zakon o privrednim društvima ("Sl. list RCG" br. 06/02, 17/07, 80/08… 40/11).
26. XBRL International (2007), Financial reporting taxonomies" available at: *www.XBRL.org/Taxonomies, (accessed 26. September 2015.).*

PRIMJENA XBRL-A U FUNKCIJI UNAPREĐENJA KVALITETA FINANSIJSKOG IZVEŠTAVANJA U CRNOJ GORI

Računovodstvena profesija, nakon više od vijeka duge i uspješne istorije pružanja računovodstvenih i revizorskih usluga, suočava se sa mnogobrojnim izazovima i mogućnostima u XXI vijeku. Paralelno sa razvojem novih tehnologija, organizacionih rješenja i uspostavljanjem standarda finansijskog izvještavanja, u poslednjoj deceniji evidentna je snažna ekspanzija softverskih alata za razmjenu poslovnih informacija.

*Krajem devedesetih godina prošlog vijeka, pojavio se e*X*tensible* B*usiness* R*eporting* L*anguage – XBRL, koji predstavlja jednu od najznačajnijih tehnoloških inovacija u finansijskom izvještavanju, prikupljanju i razmjeni podataka još od pojave elektronskih tabelarnih prikaza.*

U tom smislu, cilj ovoga rada jeste da izvrši procjenu XBRL-a u funkciji unapređenja kvaliteta finansijskog izvještavanja, ističući kako pozitivne tako i negativne aspekte ovog standarda za razmjenu poslovnih informacija.

No, iako je XBRL standard globalno prihvaćen, te se dokazao kao svojevrsni evergrin - koji po mnogima obećava revoluciju u finansijskom izvještavanju i razmjeni poslovnih informacija - činjenica je da implementacija ovog standarda još uvijek nije zaživjela u Crnoj Gori i u regionu. Otuda, jedan od ciljeva ovog rada jeste i da ukaže na odnos uzajamnosti između primjene XBRL standarda u računovodstvenoj praksi sa nivoom razvijenosti računovodstvene regulative, edukacijom profesionalnih računovođa i spremnošću nacionalnih uspostavljača standarda da prihvate potrebu za standardizovanjem finansijskog izveštavanja u pogledu razmjene informacija.

Dakle, sve ovo smo naveli kako bismo jasno ukazali da se radi o velikom naučnom izazovu da se jedno novo i za naše uslove još uvijek neistraženo područje osvijetli sa aspekta primjene savremenih metoda računovodstvene teorije i prakse. U tom kontekstu će biti veoma interesantno fokusirati se na Crnu Goru, koja ide u pravcu evroatlanskih integracija, i koja je do sada imala prilike da se sretne sa brojnim institucionalnim i regulatornim problemima koji su na određeni način dovodili u sumnju upotrebnu vrijednost finansijskog izvještavanja.

Ključne riječi: *XBRL, finansijsko izvještavanje, Internet, preduzeće, računovodstveni standardi, regulativa, stejkholderi, globalizacija.*