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## **XBRL Implementation in the Banking Sector in Montenegro**

**Abstract:** The EXtensible Business Reporting Language – XBRL appeared in the beginning of the 21<sup>st</sup> century and it represents one of the most important technological innovations in financial reporting, collecting and exchanging data since the introduction of electronic spreadsheets. However, although the XBRL standard is globally accepted, and it has been proved to be a standard sui generis, the implementation of the standard has not yet become a reality in Montenegro and the region. In this context, the goal of this article is to evaluate a new and, for our conditions unexplored, area from the point of application of modern methods of accounting theory and practice, highlighting both positive and negative aspects. This research is getting prominence having in mind that the EU integration process which Montenegro has already started would affect all areas of socioeconomic life and development, especially in terms of accounting practices harmonization.

**Keywords:** XBRL, financial reporting, digitalization, Internet, accounting standards, management, company, stakeholders, globalization.

**JEL Classification:** E58, M41

### **Introduction**

The development of new technologies, digitization, and establishing standards of financial reporting in the new century has been followed by a strong expansion of software tools for the exchange of business information. Without a standard for

the exchange of information, the accounting profession had long been plagued by inefficient reporting processes based on a number of different software applications. As a result, financial statements were produced in different formats, which was an essential problem since identical data existed in different formats (*pdf, xls, html, doc* and others) that were mostly mutually incompatible. The exchange of information is still done over the human-computer-human interface, that is, with human participation which is subject to errors and the need to re-key data.

At the end of the 1990s, the *Extensible Business Reporting Language - XBRL* appeared for the exchange of structured business information via the Web and was widely accepted by the international accounting community. Basically, the application of XBRL, which is often called the bar code for financial reporting - is a sort of a solution to a pre-formulated problem, since this standard allows different operating systems to effectively bridge the gap in the exchange of business information, with a significant reduction in professional engagement.

Efforts toward establishing a standard for the preparation and exchange of business information, sponsored by the American Institute of Certified Public Accountants - AICPA date back to 1999 when the first meeting of the Steering Committee of the XBRL organization was held. Although not the first, certainly one of the key implementations of XBRL as a global standard was the adoption of standards by the Security Exchange Commission - SEC. In June 2009, more than 500 companies started submitting financial reports in this format, and this number was only to grow in the following year to about 1800, and subsequently to as many as 12,000 companies (XBRL International Inc., 2008). *Debreceňy* (2010) describes it as the most significant change in financial reporting in the last two decades.

The professional literature but also the state of the market suggest that the XBRL standard has been accepted on a global scale and that it has very quickly assumed a dominant role in many economies. However, despite this being an era of software tools and techniques that we are constantly bombarded with by consulting companies and accounting software manufacturers, it is a fact that, unfortunately, the implementation of this standard has not yet come to life in Montenegro and that there is a low level of knowledge in general about this standard.

The Central Bank of Montenegro (CBCG) is the regulator of the banking system and, in accordance with that function, it adopts secondary legislation and initiates the adoption of laws governing the banking industry (Vučinić, 2015, p.67). Given the importance of the CBCG, the authors think that the topic very interesting and current.

The remainder of the article is organized as follows: in the next section a brief overview of XBRL is provided. Description of benefits of the XBRL and a comparative review of XBRL implementation on a global level - with the analysis of *possibility implementation of the XBRL in the banking sector in Montenegro* - results in the subsequent section. This is followed by a description of the research methodology, with the results in the subsequent section. Finally, the last section concludes the article with a discussion of the results, conclusions, and further remarks.

## 1. Overview of XBRL

Although the term business reporting is encountered in the very name of the 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 exchange of business information, the XBRL can be defined as (XBRL, 2008):

- A standard based on an open code, independent of any software manufacturer - which offers a wide range of advantages in the storing, handling and analysis of data;
- The extension of XML intended for the electronic exchange of business information;
- An international non-profit consortium of more than 600 members - professional federations, companies, regulatory agencies gathered for the tasks of the creation, maintenance and promotion of a uniform standard for the exchange of information;
- A global agreement on the concept of the exchange of business information and rules;
- A new way of distributing and modelling business information, which completely relocates business reporting onto the Internet.

It is obvious that these definitions explain the XBRL from different aspects, including inevitably of its technical elements. 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, and the collection and exchange of data since the invention of electronic spreadsheets.

In this sense, the XBRL can be defined as an open international standard, independent of the information platform, for timely, accurate, and efficient electronic data collection and storage, and for the manipulation and exchange of finan-

cial and business statements and data. Although it is primarily used in financial reporting today, it can equally be used in non-financial reporting. In fact, the XBRL is also used in the new stage of evolution of corporate reporting - integrated reporting, which, in addition to financial reporting, includes a specific form of non-financial reporting on sustainable development, and corporate social responsibility (Malinić, 2013).

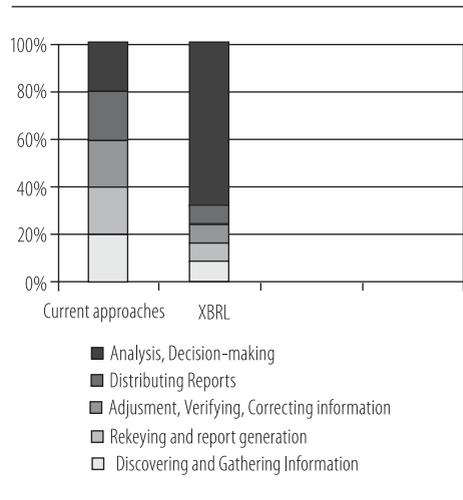
Basically, the idea on which the XBRL is based is very simple. Instead of treating data as the blocks of text, every single position in the statement receives an appropriate label (*tag*) that adds meaning and context to data, which enables the more effective manipulation, storage, and sharing of computer applications via the Web. Tags are often compared to, and identified with, bar codes on products which once completely redefined the trade process. To be specific, 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 type for various forms of digital accounting reports. The positions marked in such a way are precisely defined in dictionaries, referred to as *Taxonomy*. It is important to emphasize that taxonomy does not represent an integral part of the digital financial statement, but is a database on the basis of which multiple statements are created. Taxonomies can be located on the Web or within a company's intranet. This type of standardization and exchange of data significantly increases the flexibility and speed of data manipulation, and reduces the need for data re-entry (re-keying) while preparing the statements for each user in the chain of reporting. It is simply enough to create one statement in the XBRL, which can then be distributed via the Web for multiple use (*a press statement, website, submission to regulatory and/or tax authorities, and the like*).

## 2. XBRL Benefits

Even though it offers benefits, which are reflected for all actors in the chain of business information exchange, if we would like to present the key benefits of XBRL in only one figure - which would thus recommend it for the implementation in a specific organization - it would look as shown in figure 1 [Hoffman 2010]:

Therefore, a comparative review points out significant advantages of the XBRL, which are reflected in the savings in costs and time through the automation of processes that generate a lower added value and which are more susceptible to errors of human intervention (for example, *the collection and re-entry of data, or the preparation of statements*), compared to those processes of high added value. The XBRL application completely redefines 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.

**Figure 1: Current versus XBRL-based information exchange model**



The American Institute of CPAs (AICPA) indicates benefits and potential uses of XBRL (<https://www.aicpa.org/InterestAreas/FRC/AccountingFinancialReporting/XBRL/Pages/BenefitsandPotentialUsesofXBRL.aspx> (downloaded on 23.02.2017):

- business reporting and exchange of information within all types of regulators, including tax and financial authorities, central banks, and governments;
- filing of loan reports and applications;
- credit risk assessments;
- authoritative accounting literature, providing a standard way of describing accounting documents provided by authoritative bodies.

Finally, the XBRL has the potential to upgrade the *one-size-fits-all* approach in financial reporting through the *à la carte* choice of financial information.

### 3. XBRL implementation on a global level - comparative review

After we presented the conceptual framework of XBRL and its main features, components and benefits, in the context of more topical and deeper consideration, below we will examine in more detail some of the most important projects

of the XBRL standard implementation. The XBRL implementation is likely to follow the path of *XML* and *HTML* - so standards are firstly adopted by supervisory and regulatory bodies, and then they are quickly accepted by an increasing number of business users. Through the comparative method we will point out the situation and perspectives with regard to the adoption of the XBRL standard at the global and national levels, which will allow us to see how to implement and use this standard.

Although not the first, but certainly one of the key implementation of XBRL as a global standard, is the adoption of standards by the U.S. **Securities and Exchange Commission**. After the successful implementation and pilot testing, the SEC obliged all public companies to submit financial reports in the XBRL format (SEC, 2009). There is no doubt that this will be a significant impulse and will greatly change the world of financial reporting, and lead to the complete digitization and relocation of financial reporting on the Web.

**Standard Business Reporting - SBR.** In 2007, in its project of a Standard Business Reporting, the Australian Government funded the first phase of XBRL implementation as a standard way of communication between the government and companies, as well as between government agencies. It is expected that this project will reduce the cost of companies up to 25%, or more than one billion dollars annually (*Standard Business Reporting, 2012*). How successful is a project of the Standard Business Reporting is best illustrated by the fact that it gradually becomes a global approach to the XBRL implementation at the level of state administration, and that similar projects are already in progress in many countries, like the Netherlands, New Zealand, and Singapore.

**Accounting and Corporate Regulatory Authority** as the national regulator seeks to provide a reliable regulatory environment for businesses and public accountants in Singapore. In order to successfully respond to thus presented objectives, new demands and challenges of doing business, the ACRA has, starting from 2007, adopted the XBRL standard for corporate financial reporting (ACRA, 2016). Although the project of XBRL implementation in Australia and Singapore cannot be classified among the most significant in global terms, not in importance or scope, we believe that it provides useful guidelines for the application of this standard at the national level. This is primarily considering small costs for users in terms of compliance with regulatory requirements when creating and validating XBRL reports.

*Finally*, there are currently more than 150 projects around the world that promote or require the use of XBRL, including projects in the USA, China, Europe,

and Australia. It is expected that the adoption of this standard and general digitization of financial reporting will spread in the coming period as a result of rapid development of the Internet technology and software tools that enable the creation of data and taxonomies in the XBRL.

### **3.1. Project implementation of XBRL by the Committee of European banking supervisors**

The Committee of European Banking Supervisors (CEBS 2015) is an independent body composed of senior representatives of central banks and supervisory authorities of the European Union founded by the European Commission in 2004 with the aim of:

- *consultation and coordination on banking regulation and supervision in the EU,*
- *Consistent implementation of EU Directives and convergence of financial*
- *control practice by issuing non-binding guidelines, recommendations and standards,*
- *Improving cooperation, including information exchange and training programs.*

After 2004, the European Commission formally called on its members to register under the XBRL taxonomy of the Consortium and to work together to promote the standard; the CEBS has also recommended the adoption of XBRL standard. As a result, in late 2005, the Committee of European Banking Supervisors integrated the XBRL standard in the financial reporting framework. The main idea and purpose of this project is to enable comparability of financial statements and reporting to simplify cross-border credit institutions in order to integrate the European financial markets. In parallel with this project, the CEBS has started developing COREP / FINREP taxonomy that will be freely available to national regulators and institutions under supervision. Currently, taxonomies are made for both COREP (Basel II) and FINREP (Financial Reporting - IFRS) areas, which will enable further implementation of the XBRL. While this is not intended to prejudice the national decisions on the technical processes for the transfer of data to the supervisors - as the project is based on a voluntary basis - we have seen that the XBRL is already in use for financial and other reporting in most EU countries.

Moreover, it is expected that the successful outcome of this project is to encourage the adoption of XBRL standards and result in a whole range of benefits (CEBS, 2015). The first is certainly the fact that XBRL enables the achievement of compliance on a uniform format for the exchange of business information while significantly reducing human involvement. In this way, the transfer of information to the regulator - supervisor significantly simplified compared to the use of different data streams and reporting standards, since they use a common reporting framework with a unique standard for data exchange.

In addition, the expected benefits of the project, including:

- *Reducing costs, especially for smaller banks, taking into account the lower costs of implementation thanks to the drafting of the financial statements on the basis of taxonomy that have been developed by the CEBS;*
- *Increased cost-effectiveness of supervisory activities of the supervisor and more effective monitoring;*
- *Optimization of data quality;*
- *Reducing the mismatch between supervisory practices and national regulations and removing obstacles to financial integration with market at the EU level.*

In short, the compatibility of the format, content, and IT systems that support XBRL allows supervisors decentralized data collection; while on the other hand, it offers all the functionality of using a centralized database. Bearing in mind the objectives and expected benefits, appropriate criteria for evaluating achievements in connection with the project were defined during the initial stages. The initial phase was completed in late 2007, presenting the most important findings, conclusions and recommendations regarding the organization of the remaining part of the project (Annual Report, CEBS 2017).

It was concluded that the first step has been made to increase the comparability of financial statements to reach the convergence with information requirements of the EU member states. Although the convergence is achieved to a large extent, especially in the context of FINREP project, however, it was shown that significant differences remain within the COREP project. The current results are carefully evaluated in order to possibly further refine the program of work within the project.

In the second phase of the project, CEBS recommended the adoption of XBRL for financial reporting purposes, albeit still on a voluntary basis, where a project is revised in order to achieve greater progress in the convergence of financial

reporting by banks. Furthermore, the project will be aimed at upgrading existing taxonomy, where the primary role of CEBS is to provide its members any help for their adaptation to the specific reporting needs. In addition, special support will be focused on vocational training and skills development in the direction of strengthening the capacity for integrating XBRL standard.

As can be noted, it can be used to uniform data transmission in both business companies and with financial institutions. The CEBS have created two XBRL frameworks. The first called COREP (Common Solvency Ratio Reporting Framework) is designed for credit institutions and investment firms to report their solvency ratio according to the Capital Requirements Directives (CRD) 2006/48/EC and 2006/49/EC. The second called FINREP (Financial Reporting) is designed for credit institutions that use the International Accounting Standards (IAS)/International Financial Reporting Standards (IFRS) for their published financial statements. As we can see in literature, bank expects that by using XBRL it will be able to take advantage of clearly defined data definitions, strong validation rules, and clear visualisation structures to obtain high-quality reusable data.

However, regardless of the distinctions established, the results of the presented projects will undoubtedly encourage the application of this standard, both in banking and in other sectors. In support of this claim, we can cite the example of the World Bank, which published its annual sustainability report in the XBRL format, which will allow users to gain a clearer picture of the social, environmental, and economic aspects of its business. The World Bank is already using XBRL for the preparation of financial reports and analysis documents for the International Bank for Reconstruction and Development (IBRD).

#### **4. The CBCG through the prism of accounting regulations**

The Monetary Council governed the National Bank of Montenegro from the moment the German Mark was adopted until the establishment of the Central Bank of Montenegro. This body enacted numerous regulations which enabled the German Mark to be fully accepted as the means for payments, accounting, and hoarding (Fabris, 2015, p.15).

The Central Bank of Montenegro (CBCG) is currently the only central bank that has identified the financial stability as its primary objective. This objective is defined in the Constitution of Montenegro and the Central Bank of Montenegro Law. It is established under the Law on the Central Bank of Montenegro in November 2000 and it started operating on 15 March 2001. The Constitution of

Montenegro defines it as “an independent organization, responsible for monetary and financial stability and banking system” (CBCG Statute, 2013).

With the use of euro, the Central Bank does not have the issuing function. Pursuant to Article 5 of the CBCG Law, the Central Bank shall have the exclusive right to issue banknotes and coins in the event Montenegro decides to introduce a national currency (Vučinić, 2015, p.67).

In fulfilling the responsibilities assigned by the Constitution, the Bank, inter alia:

- *supervises the banking system;*
- *performs and supervises the interbank payment system in the country and abroad;*
- *acts as the fiscal agent, banker and adviser to the state; and*
- *performs regular macroeconomic analysis and provides economic policy recommendations to the Government.*

However, the *Report on the Observance of Standards and Codes - ROSC* pointed to some limitations in the regulatory framework of Montenegro.

*This framework is not always consistent and limited human resources contribute to institutional weaknesses in some areas. This especially applies to the disposal of a government decision which the government body entrusted with regulatory jurisdiction.*

On the other hand, Montenegro’s progress when it comes to financial reporting of banks was commended in the given report:

*The financial statements of banks that were reviewed were generally of good quality. This can largely be attributed to intensive direct (on-site) and indirect (off-site) control carried out by the Central Bank of Montenegro and the possible influence of foreign banks that own local banks. The quality of financial statements of several Montenegrin banks is comparable to the financial statements of banks of equivalent size in the European Union.*

Furthermore, activities of the CBCG in improving accounting and auditing practices and the implementation of the Strategy and Action Plan for the improvement of the quality of financial reporting in Montenegro are aimed at stimulat-

ing the mechanisms of control in the area of financial reporting, organizing and improving the quality of internal audit in banks, as well as in the area of external audit. It has already been pointed out that, in accordance with Article 17 of the Accounting Act (OGM 052/16 as of 08.09.2016), which regulates the delivery of financial reports, banks must, in written and electronic form, compile and submit annual and quarterly financial statements to the relevant authorities, including the CBCG. The same article further states that the CBCG is obliged to publish financial statements on its website. More detailed content, deadlines, and manner of compiling and submitting reports under this article is to be specified in the Central Bank regulations.

Hence, the CBCG announced a decision on the content, deadlines and manner of compiling and submitting financial statements of banks (“Official Gazette of Montenegro”, no. 15/12 and 18/13). The decision stipulates that banks are required to compile and submit financial reports to the Central Bank in electronic format, using the FIB form which is attached to this Decision as its integral part. Following the submission of financial statements, they are available on the website of the Central Bank, usually in Excel and PDF format.

Bearing in mind the basic features, it seems that in the case of the Central Bank, filing and disclosure of financial statements lack an active relationship with the global trends in terms of standardization of the transfer and exchange of business information. Attention is more or less focused on the presentation of data and not on their effective exchange. Negative implications of this attitude are generally known.

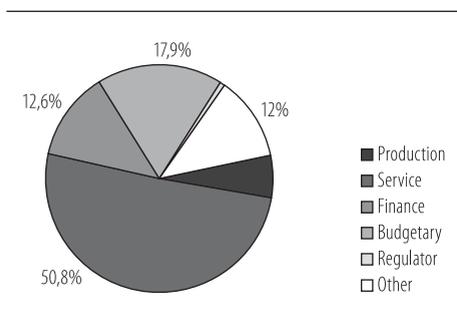
## 5. Research Methodology

The aim of this study was to examine the *preparedness of the accounting profession for the implementation of XBRL*. The study used primary data source. The strategy for data collection was a structured Web survey, which was distributed electronically. All the professional accounting institutes in Montenegro helped with the survey distribution (*the Institute of Certified Accountants of Montenegro - ICAM, the Institute of Accountants and Auditors of Montenegro IAAM, and the Institute of Internal Auditors of Montenegro - IIAM*). The survey was sent to 904 e-mail addresses of accountants and auditors, members of all professional accounting associations in Montenegro. Since the XBRL standard focuses on financial reporting, accountants and auditors were chosen as the target group since they are, *inter alia*, primarily responsible for the implementation of a digital standard for financial reporting in their organizations.

Some 302 of the respondents answered the survey and thus the total response rate was 33%. We believe that the size of the sample is sufficient for carrying out a study, taking into account a comparative analysis of similar research at the international level. To support the claim that the response greatly exceeds international standards when it comes to the percentage of the collected responses with similar Web surveys, we can mention the fact that the rate of collected responses in relevant surveys was 2.2% *Steenkamp and Nel*, 2.9% *Nel and Steenkamp* or in the case of research in the region - 4.4%.

## RESULTS

**Figure 1: Company activity, independent analysis by the authors**

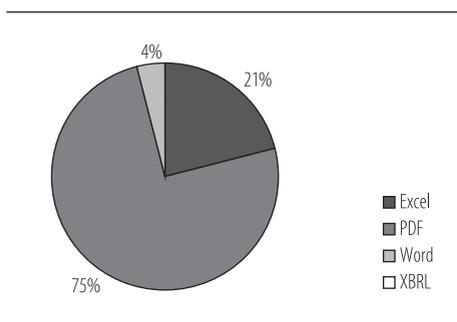


### A. Profile of the respondents

The highest number of the respondents came from the service industries (50.8%), while the number of respondents coming from budgetary institutions (17.9%), production (12%) and finance (12.6%) is roughly the same. The smallest number of the respondents works in regulatory institutions (Figure 1).

### B. Current financial reporting format

**Figure 2: Formats in which the financial reports are published on the websites**



This section presents the results of the current financial reporting format. The analysis shows that the largest number of listed companies publishes financial reports in PDF format (75%), more than 20% in Excel, while the lowest number of companies (4%) publishes their financial reports in Word.

Also, the format of the financial reports' publication may be presented according to the market segment to which the listed companies belong.

No doubt the presented views offer detailed information about the formats in which financial reports are submitted and published, at the general level and at the level of individual market segments. Without going into more details on this issue, it seems that it is necessary to underline two key facts at this point.

*In the first place*, the financial reports are practically “locked” in the context of static formats such as *PDF, Excel or Word*, which prevents their effective exchange and causes a number of problems that occur during the collection and processing of data and reports, and about which we have detailed talk.

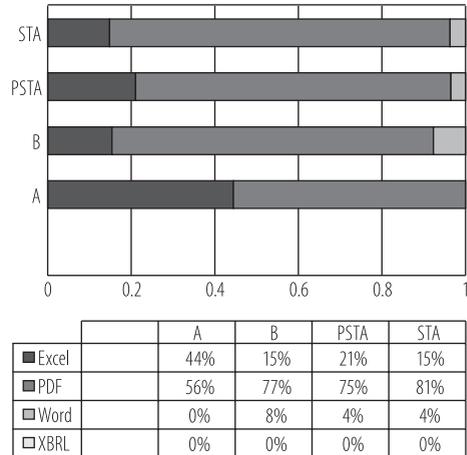
*On the other hand*, in spite of convincing arguments that the benefits of using XBRL reflect on all stakeholders in the chain of business information exchange - both at the level of business organizations and the level of regulatory institutions - this study shows that none of the listed companies has implemented XBRL. Also, there is not any information on the adoption of this standard on websites of the analysed companies.

### C. The level of knowledge of XBRL among accountants in Montenegro

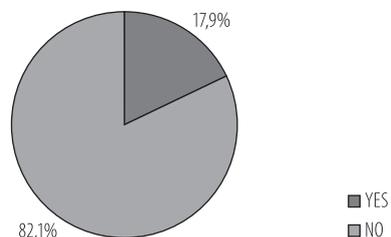
As regards the general knowledge of XBRL and the benefits it provides, slightly more than 80% of the respondents (247) answered negatively to the question *Are you familiar with the substance and the effect of XBRL*, while only 17.9% (54 respondents) had adequate knowledge of this standard.

Furthermore, out of the total number of those respondents who have knowledge of XBRL, only 1 respondent (1.7%) assessed their skills as being at a professional level. On the other hand, more than half of the respondents (54.2%) estimate their knowledge as average to poor or very poor.

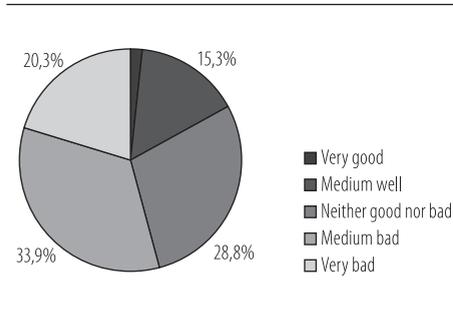
**Figure 3: Formats of the financial reports' publication by market segment**



**Figure 4: Are you familiar with the substance and effect of XBRL?**



**Figure 5: Assess the level of your knowledge of XBRL**



By comparison, 49.3% of the respondents in the *Nel and Steenkamp survey* [7] state that they have never heard of XBRL, 45% assess their knowledge as minimal, while only 5.7% claim to possess professional knowledge of this standard.

In addition, the cross-tabulation shows the extent to which the industry that the respondents work in influences their understanding of the substance and effects of the implementation.

**Table 1 - @9 \* @21 Cross-tabulation**

		Are you familiar with the substance and the effect of implementation of XBRL@21		Total	
		YES	NO		
Industry of the company@10	Budgetary	Count	10	55	65
		% within @10	15.38%	84.62%	100.00%
		% within @21	18.52%	22.27%	21.52%
	Finance	Count	14	26	40
		% within @10	35.00%	65.00%	100.00%
		% within @21	25.93%	10.12%	13.25%
	Others	Count	1	3	4
		% within @10	25.00%	75.00%	100.00%
		% within @21	1.85%	1.21%	1.32%
	Production	Count	4	17	21
		% within @10	19.05%	80.95%	100.00%
		% within @21	7.41%	6.88%	6.95%
	Regulator	Count	0	6	6
		% within @10	0.00%	100.00%	100.00%
		% within @21	0.00%	2.43%	1.99%
	Service	Count	25	141	166
		% within @10	15.06%	84.94%	100.00%
		% within @21	46.30%	57.09%	54.97%
Total	Count	54	248	302	
	% within @10	17.88%	82.12%	100.00%	
	% within @21	100.00%	100.00%	100.00%	

It is observed that the number of respondents who have knowledge of XBRL is greatest among the group who work in the service industries (46.30%). However, the respondents in this group outnumber by a huge margin those in other groups, which may represent a limitation to the results we have obtained. Therefore, we

should further enhance the analysis so that it comprises the level of knowledge of XBRL within each group. These data are precisely what changes the picture since 84.94% of the respondents in this group have no knowledge of XBRL.

However, in contrast to the previous example, not only do the respondents working in finance have a high level of knowledge of XBRL in comparison to the other groups, but also within the very group itself. This is mainly due to the fact that the financial sector is one of the leaders in the implementation of XBRL at the global level, since we noted that the first implementation of XBRL was made in the field of finances.

### **Instead of a conclusion**

Finally, the analysis of the institutional and regulatory framework has enabled us to get an idea of the main characteristics of the existing systems for reporting and data collection prescribed by the regulatory body, which will serve as the basis for adequate consideration of the XBRL standard application.

Currently, the existence of multiple regulators with different levels of development and different standards when submitting financial statements seems to be one of the main challenges at the national level. It has already been pointed out that during the formation of a company's accounting documents, accounting data is entered into a database, where they are further processed. Then upon their manual or electronic submission, the forms of financial statements are submitted to the relevant regulatory agencies, usually in paper form since there is basically no direct communication between their accounting applications. Even if the reports are exchanged electronically, recipients rarely use them immediately. The reason for this is quite simple and well known, in fact, different accounting applications produce financial reports in a variety of presentation formats that are not generally compatible with each other.

The regulatory agencies usually manually transcribe the information from the completed forms and enter it in various reports and accounting applications, which is not only labour intensive process, but leaves room for the occurrence of errors. Hence, due to possible mistakes that often occur during re-entry, data must be compared again with paper forms - a costly, unproductive and time-consuming process.

Thus, the data are currently available in several formats, which prevent their effective exchange and leads to inconsistencies. Since a standardized way of com-

munication between regulators and companies, as well as between regulatory agencies, has not been established, companies must submit the same information and reports from different agencies several times, which not only requires additional resources but also diverts time and resources away from the primary business activity. Although the appropriate regulatory agencies have launched a number of new approaches in the electronic reporting with the aim of simplifying and automating the process of information exchange, it should be noted that there is still no unified approach to infrastructure development, including software systems and a unified database that would be available to different agencies, that would reduce the total cost of at the state level.

Thus, the ease in supply of financial information to different or the same institution is of special importance and it is necessary to provide as soon as possible. This means that information should be provided only once (only-once principle). Application of this principle in the field of accounting means that, during the same accounting period, the company does not have to provide the same financial information to state regulators more than once.

Finally, the problems revealed in the paper confirm that the basic condition of data exchange and information between different information systems is to impose reaching an agreement on the compatibility of communications protocols.

Therefore, XBRL offers a sort of pre-formulated solution to the problem since the implementation of this standard in the first place provides the possibility of reaching an agreement on how information will be exchanged.

Recognizing the mentioned limitations, we believe that the 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.

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 staff.

## REFERENCES

1. Accounting and Corporate Regulatory Authority (ACRA), <http://www.acra.gov.sg> (accessed on 22 May 2016)
2. Bergeon B. (2003) *Essentials of XBRL*, Hoboken, New Jersey, WILEY.
3. Carolyn J. Cordery, Carolyn J. Fowler and Khairil Mustafa, *A solution looking for a problem: factors associated with the non-adoption of XBRL*, Pacific Accounting Review, Vol.23 No.1, 2011, Emerald Group Publishing Limited.
4. Committee of European Banking Supervisors, *Annual Report*, 2007. The report is available at: <http://www.eba.europa.eu/cebs-archive> (accessed on 19.02.2015)
5. Debreceeny, R., Farewell, S., Piechocki, M., Felden, C. and Graning, A., *Does it ad up? Early evidence on the data quality of XBRL filings to the SEC*, Journal of Accounting & Public Policy, Vol. 29, 2010, pp. 296-306.
6. Fabris, N., *The History of Money in Montenegro*, *Journal of Central Banking Theory and Practice*, 2015, 1, pp. 5-18
7. Hoffman C., Watson L. (2010) *XBRL for Dummies*, Indianapolis, WILEY publishing, Inc.
8. <http://www.eba.europa.eu/cebs-archive> (downloaded on 4.10.2015).
9. <https://www.aicpa.org/InterestAreas/FRC/AccountingFinancialReporting/XBRL/Pages/BenefitsandPotentialUsesofXBRL.aspx> (accessed on 23.02.2017.)
10. [https://www.centralbank.ie/regulation/industry-sectors/credit-institutions/Documents/CRD\\_returns\\_to\\_CBI\\_in\\_xbrl.pdf](https://www.centralbank.ie/regulation/industry-sectors/credit-institutions/Documents/CRD_returns_to_CBI_in_xbrl.pdf) (accessed on 23.02.2017)
11. *Report on the Observance of Standards and Codes (ROSC)*, page 16 The report is available at: <http://crinfo.worldbank.org/wbcrinfo/node/45>, (accessed on 06.10.2015)
12. Malinić, S., *Integrisano izveštavanje preduzeća*, Zbornik radova sa XLIV. Simpozijuma Saveza računovođa i revizora Srbije: Računovodstveno regulatorno okruženje: podsticaj ili ograničenje privrednog rasta, Zlatibor, 2013, str. 21-42.
13. Martić, V., *XBRL kao pretpostavka unaprijeđenja kvaliteta finansijskog izveštavanja*, Zbornik radova sa XLIV Simpozijuma Saveza računovođa i revizora Srbije, Zlatibor, 2013, str.106-131.
14. Nel, G.F., Steenkamp, L.P., 2008, *An exploratory Study of Chartered Accountants' awareness and Understanding of XBRL*, *Meditari Accountancy Research*, 16 (1), 79-93.
15. Standard Business Reporting (SBR), Australia, COAG-reporting, 2012 (accessed on 1 June 2016.)

16. Central Bank of Montenegro Statute (OGM 66/10, 24/13).
17. Steenkamp and G.F. Nel, *The adoption of XBRL in South Africa: an empirical study*, *The Electronic Library*, Emerald Group, Vol 30, No.3, 2012.
18. Vučinić, M., "Financial Stability – Comparative Analysis: Montenegro, Serbia and the Netherlands", *Journal of Central Banking Theory and Practice*, 2015, 1, pp. 63-93
19. XBRL International Inc., 2008, *Welcome to XBRL: a history*, available at: [www.xbrl.org/history-print.aspx/](http://www.xbrl.org/history-print.aspx/) (06.06. 2016).
20. XBRL International Inc., 2008, *Welcome to XBRL: a history*, available at: [www.xbrl.org/history-print.aspx/](http://www.xbrl.org/history-print.aspx/) (06.06, 2016).
21. *Accounting Act* (OGM 052/16 as of 09.08.2016)
22. Žugić, R., Fabris, N., "Framework for Preserving Financial Stability in Montenegro", *Journal of Central Banking Theory and Practice*, 2014, Vol.3 No.1, pp. 27-41