BUSINESS REPORTING LANGUAGE – A SURVEY WITH THE ALBANIAN COMPANIES AND INSTITUTIONS

Rezarta Shkurti (Perri)¹ Dionisa Allko²

Abstract

Financial reporting is a crucial element in providing long term success to a business or an institution. As the need for faster, safer, more accurate and reliable information is increasing with rapid pace, the companies are exploring innovative technological tools to provide such kind of information. One of the newest concepts which have already gained credibility amongst business environment is the Extensible Business Reporting Language, XBRL. This is a tool that allows a certain company a multi-platform reporting and that may overcome the much debated problems of information format compatibility among different companies or different industries. XBRL is already endorsed in a lot of countries worldwide and, the International Financial Accounting Federation has for several years now, included this concept in its agenda. Through this paper we try to analyze the current status of XBRL in Albania, and to give an overview of how much this concept is known by the accountants and auditors in our country. We conduct a survey to collect their opinions and we find that they mostly get information about new concept in accounting and/or auditing from after graduating studies than from professional trainings offered by the accounting/auditing associations. We also find that the respondents consider XBRL to have a lot of potential benefits but they also know it may be too costly to be implemented by the companies they work with. Regarding the current status of XBRL in Albania, we find that none of the companies, organizations or institutions has started to implement or plan to do it in the near future.

Keywords: XBRL, financial reporting

JEL Classification: M41

Introduction

Extensible Business Reporting Language (XBRL) is a language pertaining in the XML-Extensible Markup Language family. XBRL is defined as a standard which simplifies the exchange of the financial statements, performance reporting and accounting data. Even though XBRL is derived from XML, it is easily usable software and it does not require previous knowledge about XML or Information Technology (IT). Virtually, any entity is free to use XBRL to communicate its financial information and financial statement, because it codes the data of these statements and tags the items of the reports in a way that they can be read automatically by different programs and applications. Simply stating, the XBRL is a tool which increases the benefits of the financial statements users.

For more than 15 years, since its first introduction in year 1999, the XBRL is revolutionizing the business reporting features. It facilitates the communication, transportation and information access with a cost-effective manner with no need for intervention by a user and regardless the type of operating system or platform in use. It also minimizes the human errors coming by manual entering or coping the information, thus making the information sharing, processing and the decision making process itself, faster and more reliable.

The XBRL is said to have revolutionized the business information reporting through internet and other digital media the same way as the Hypertext Transfer Markup Language (HTML) did for internet use many years ago. HTML is developed for formatting and showing the information substance, whereas XBRL, a XML derivate, is being developed not only to show the information, but also to keep and preserve the information context by tagging it with

¹ Prof. Asoc., Ph. D., University of Tirana, Department of Accounting, Rruga e Elbasanit, Tirana, Albania, rezartaperri@feut.edu.al, rezartaperri@gmail.com

² MSc. in Accounting and Auditing, Personal Banker Raiffeisen Bank, Berat, Albania, dionisa allko@hotmail.com

special tags, part of XBRL taxonomy. This is a very important feature about the XBRL, because even though internet research facilitates obtaining inflation, without the appropriate context this information is note readily used and requires a lot of time and resources to process it and to prepare it to be used for special analyses.

Charles Hoffman, CPA is the person who first introduced the XBRL concept. He has worked with the XBRL project in AICPA (the Association of International Certified Public Accountants) since its inception in 1998. In 2006, he was honored by AICPA, for his important contribution for XBRL project advancement. Raynier van Egmond is another distinguished researcher with a great contribution for the XBRL project. He is an IT specialist having more than 25 years of experience in ICT and who is an expert in the financial and production industries projecting and researching. Since the beginning, he has been part of XBRL project.

While it may seem that the concept of using XBRL for business reporting purposes is widely covered in international empirical and theoretical studies, there are only a few references in Albania Lamani D; Cepani L, 2011. Shkurti R, Demiraj R, 2013. Gruda S, 2014. Zyberi I, Rova L, 2014.) Nevertheless, the above mentioned papers do no specifically address the XBRL concept (except for the last paper), but just mention the concept somewhere in the article body. The introduction of XBRL to the Albanian accountants and auditors may come, not only from academic papers but also through other sources, such as academic textbooks, professional trainings or individual research. Therefore, the main purpose of this study is to investigate about the current status of XBRL application in Albania and to research the level of information that the accountants and auditors in Albania have about the XBR language.

The rest of the paper is organized as follows: In the first part we will present a brief literature review on the concept of XBRL. The literature review is exclusively based on international publications only, as Albanian authors have not touched upon this new concept yet. In the second part of the paper we lay out the methodology we have used to conduct the research. Next we present and discuss the detailed results of the analysis and in the end we summarize our main findings and conclusions.

I – Literature Review

Along the last fifteen years there are a lot of papers that touch upon the concept of XBRL. The first study is Cohen et.al, (1999) who suggests that XML offers a lot of potential benefits for accountants. In the same year, we find a lot of studies regarding XML in the Journal of Accountancy (Anonymous 1999; Anonymous 1999; Fleming 1999; Harding 1999; Hoffman, et al. 1999), The CPA Journal (Anonymous 1999; Honig 1999; Kepczyk 1999; Schmidt and Cohen 1999), Practical Accountant (Anonymous 1999; Anonymous 1999; Anonymous 1999; Anonymous 2000), Business Wire (Business 1999; Business and High Tech 1999; Business Editors 1999; Business/Technology 1999), and Computerworld (Hoffman 1999).

The first journal that published about XBRL was the International Journal of Digital Accounting Research which. In 2001 it was published the research of Bonson Ponte "The role of XBRL in Europe", where the author argues that XBRL is the answer of the needs for information in the new century and that XBRL will facilitate the communication of information in a homogeneous way. Since that time there have been a lot of publications in a variety of academic journals what suggest that, the academia (at least) is completely committed to develop and manage a new technology for business reporting that will affect the way the financial statements are prepared, presented and delivered to potential investor in a real time manner.

Roohani et.al (2010) in an analysis about the XBRL literature during the decade report that from 1998 up to 2008 there have been published more than 53 papers about the XBRL

language with an increasing trend during the latest years. We may only imply that the same trend is still going on after 2008. During this time frame different authors attest the significant theoretical and practical development of XBRL. Baldwin et.al, (2006) in their study argue that XBRL will both simplify disclosure and ease the communication of financial information to users, analysts, and regulators via the Internet. But Boritz and No (2005) state that the development of XBRL until that phase was not sufficient to guarantee information integrity and security. Still, XBRL allows such diversity that few other schemes have considered before (Williams, Scifleet and Hardy, 2006). Yet, internet reporting can help companies to move far from traditional reporting towards a sustainable and advanced communication of information (Isenmann, Bey and Welter, 2007).

In 2007 the International Federation of Accountants performed a survey with the accountants, auditors, as well as with standard setting and regulatory bodies. The results revealed that during the last five years the participants perceived that the corporate governance mechanisms, the financial statement preparation and the financial statement auditing processes had been significantly improved, but that the financial reports themselves have not become more useful to them. The same survey also pinpointed a great support from the academics and accountants all over the world toward XBRL, especially from the European and Asian academics and accountants. In the same year the study of Gunn, (American Accounting Association, 2007) discusses about the benefits and opportunities in relation to the use of XBRL. One year later, in 2008, a study from Premuroso and Bhattacharya found that the decision to use XBRL format to report financial information is positively correlated with its corporate governance.

In 2009 Ristenpart et.al descripted XBRL as "a free kingdom, open for software using XML to describe financial information for public and private companies". This description confirms the similarity of XBRL with XML in that it can be used to describe financial information based on data tagging. Another important fact from this description is that XBRL is an open and free standard in that there is no license to be paid in order to make use of it. Often XBRL is also referred to as "interactive data" (Garbellotto, 2009a, pg. 56). This means that the data is used under a new and innovative way and that using XBRL, the data exchange and processing is improved.

Pinsker and Li (2008, pg. 47-48) included the non-financial information in their description of XBRL by stating that XBRL is a web-based XML derivate, used to tag and add meaning to the financial and non-financial information. But, the web-based part is probably wrong, because being a XML derivate; the XBRL does not depend on web to storage and manipulate the data.

In the same year (2008), Dzinkowski compared the XBRL technology with the barcoding regime (the Universal Product Code) concluding that the XBRL is an information technology language; it is not a barcoding regime specifically designed for a better financial information management. XBRL is similar with UPC, in that it represents a form of standardization which in turn enhances the necessary efficiency during the process. UPC facilitates a better inventory management, thus reducing its overall costs, whereas XBRL facilitates a better information management for company.

There are several difficulties and even threats regarding the long term survival and application of XBRL. The unsafe internet environment and the opposing accountants and auditors are just a few of these threats. The studies in the future may want to focus on finding out how to enhance the security during XBRL application projects, or even how XBRL taxonomy may be adopted in different jurisdictions, helping the worldwide financial reporting environment.

II – Methodology of the study

The main purpose of this paper is to collect information in order to asses the level of information and knowledge that the Albanian accountants and auditors have, regarding the XBRL concept. To achieve this objective we have used a survey through which we aim to answer questions related to XBRL, such as the source/s of information regarding this concept, possible implementation in Albania, the institutions which may be held responsible to introduce and implement the XBRL taxonomy, the impact it may have on the accounting and financial reporting standards, the types of companies that might use and benefit from it and the possible reasons it is not yet implemented.

In order to perform this study through the survey tool we first defined what would be the population of the study. We decided to include in the population the chartered accountants, the certified auditors, the accounting academics and professors, the accounting and financial officers, as well as master level accounting and auditing students who had part-time or fulltime jobs. Next, out of this population, we identified a random sample of 300 individuals and sent the survey to them using electronic way of delivering. We assume that studying the selected sample will reveal the level of knowing the XBRL concept by the population.

The survey was electronically sent to all the certified auditors of Albania registered in the registrar of the Institute of Certified Auditors in Albania, by the time of the study; to the professors of accounting, auditing and finance of the University of Tirana and of some other non-public universities; to some internal auditors working in several banks in Albania; to some auditors working for the big four auditing companies in Albania; to some accounting and financial officers working for several Albanian companies in the cervices sector and to some of the master in accounting and auditing students who are also working in profession. We got back 75 completed questionnaires out of 300 sent out which represents a response rate of about 25 %. According to Nulty (2008) on line and electronic questionnaires usually have a lower response rate (from 20% to 30%) compared to paper-based questionnaires, but this does not imply that they are to be considered less accurate, only that they have been completed by the individuals who really are attracted to the subject of the survey. Therefore we consider a response rate of 25 % to be an acceptable and reliable statistics to perform the analysis of the collected data.

The questionnaire consists of ten questions, each of them short and concise because we believe that long electronic questionnaires with ambiguous questions are overlooked by the respondents, therefore not yielding reliable conclusions. In average it took three minutes to the respondents to complete the questionnaire. We used the Survey Monkey website to compile and process the questionnaire. The survey was conducted for a period of five weeks.

We encountered several difficulties during the phase of completing the survey such as, choosing the most reliable way to deliver and complete the questionnaires, defining and expressing the simple and direct questions, the definition of the population of the study, the selection of the sample, delivering and then gathering and finally processing and analyzing the completed questionnaires. We relied exclusively on the Survey Monkey tools and Excel to conduct the analysis of the questionnaire.

III – Results of analysis

We start the questionnaire by asking the participants in the study whether they have ever heard about the XBRL during their professional career or not. Based on their answers we can categorize the respondents in two preliminary groups. In graph 1 we see that 56 % of the respondents have some level of knowledge about the XBRL concept, whereas 44 % of them have never heard about XBRL before. Because more than half of the sample has some sort of knowledge with this concept we continue asking and gathering some other information from them.

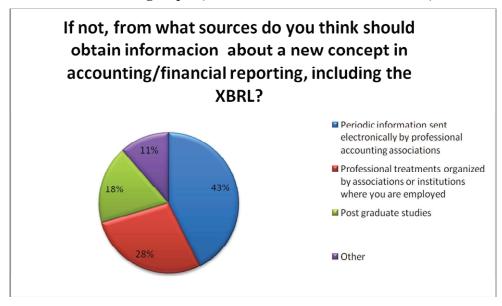
Have you heard about XBRL (Extensible Business Reporting Language)?

45
40
35
30
25
20
15
10
5
0
Yes
No
Series2
56%
44%

Graph 1: Familiarity with the XBRL concept

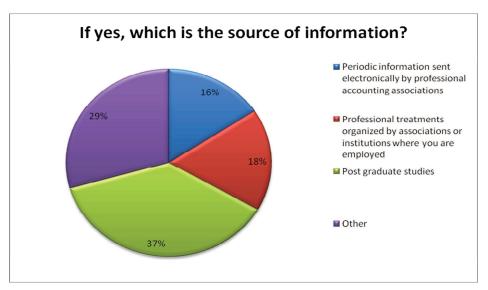
We ask the respondents who had never before heard about the XBRL, which is the primary source, they think they should obtain information about a new concept in accounting/financial reporting. This is a multiple question with several options such as: periodic information electronically sent from accounting professional associations, professional trainings organized by the affiliation institutions, post graduating studies, or another option left blank so that the respondents could answer. With a result of 43 % we find that periodic information electronically sent from accounting professional associations is considered the most important source of information. This may be due to the exceedingly high expectations that the accounting professionals have from the association/s they are affiliated to. The second most important source, getting 28 % of the answers, is the institutions were the respondents currently work in, whereas the third comes the post graduating studies, with 18 %. Graph 2 represents the results of this question.

Graph 2: The primary sources to obtain information about new concepts in accounting / finance; subgroup 1 (did never hear about XBRL before).



The same question was made to individuals who had knowledge and information about XBRL. The results are represented in graph 3. We found that this group regarded as primary source of information the post graduating studies with 37%. Next come the other sources with 29 % of the answers; third, with 18 % comes the professional trainings organized by the institutions were the respondents currently work in, and 16 % is represented by periodical information sent electronically by accounting professional bodies. We may see a difference exist between the two subgroups of the sample. The individuals who have never heard about XBRL before are more focused to obtain new information from periodical information sent electronically by accounting professional bodies, whereas the individuals who had some level of knowledge about XBRL (no matter how deep this knowledge is), are more prone to look for updates in post graduating studies. An important conclusion we may draw is that the XBRL concept is well defined and explained in academic curricula, but not well presented in the professional trainings delivered by professional accounting bodies in Albania.

Graph 3: The primary sources to obtain information about new concepts in accounting / finance; subgroup 2 (have some level of information about XBRL).



After the first three questions which are presented and analyzed in the above paragraphs, we have continued the survey counting on the answers of the second subgroup only (the individuals we had some degree of information about XBRL). It is obvious that we cannot analyze information and answers coming from respondents for whom XBRL was a totally new concept.

The fourth question focuses on the implementation of XBRL taxonomy in Albania, whether it may be possible or even necessary. 93 % if the respondents have answered positively stating that they saw a lot of potential implementing this new technological tool in Albania. Only 7 % think XBRL is not yet necessary to be presented and implemented. We may argue that the professionals who have answered positively may notice the need to prepare financial information in the same standards as their foreign counterparts and colleagues do. Therefore they consider it very important to unify and standardize the information flow in order to guarantee integration and cooperation across all levels of financial administration.

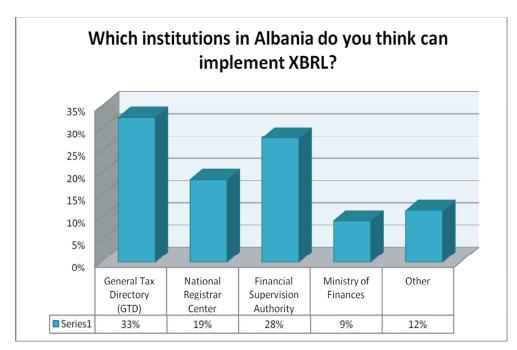
¹ This represent sources that may come across an individual during his everyday job or study and the respondents have stated several such as internet research, foreign clients of the company the individual is currently working, IASB website, etc.

Is XBRL implementation necessary or possible in Albania?

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
9%
Yes
No
No
Series1
93%
No

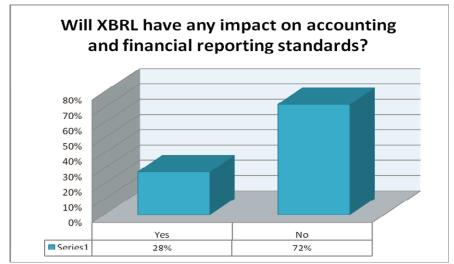
Graph 4: Is XBRL implementation necessary or possible in Albania?

As a considerable majority of the sample has responded positively that XBRL implementation is possible and necessary in Albania we try to reveal who they perceive is the right institution(s) to undertake such a project. We depict their answers in graph 5. 33 % of the respondents think this the General Tax Directory (GTD) is the structure that should take the initiative to first implement the XBRL taxonomy in Albania. 28 % of the respondents think it should be the Financial Supervision Authority, 19 % have selected the National Registrar Center, and 9 % are for the Ministry of Finances, while 12 % have chosen the Institute of Statistics and National Council of Accounting. We may notice that GTD is considered a possible institution by many of the respondents because they view the tax information as very important and therefore it should be gathered and processed with an innovative platform such as XBRL which facilitates better controls and real time reporting.



Graph 5: Albanian Institutions that may implement XBRL

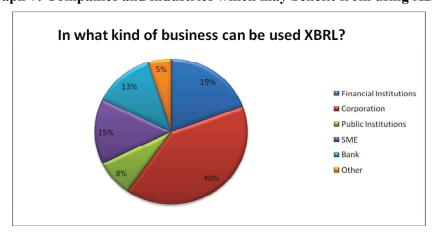
Graph 6: Will XBRL have any impact on accounting and financial reporting standards?



In the sixth question of the survey we turn to ask the respondents if they perceive that XBRL taxonomy will impact the accounting and financial reporting standards. In graph 6 we may see that 72 % of the respondents have answered negatively, stating that they do not expect XBRL to have any impact on financial reporting standards. Struggling to rationalize on their answer, we turn to the literature review conclusions where we may see that several authors report that XBRL, as much as it transforms and revolutionize the financial information reporting does not, impact any of the local or international accounting standards.

The seventh question in the survey was an open ended one because we tried to gather the respondents' opinions on which may be the industries and companies that might benefit from using the XBRL platform and taxonomy. 40 % of the respondents say that the big public companies may benefit from implementing XBRL, and they argue their opinion stating that these companies need timely and transparent reporting. 19 % of the respondents say that the financial institutions would greatly benefit from using XBRL because these companies need to prepare their financial reports in an efficient manner and because they need to report to many parties (local supervision authorities, tax authorities, parent companies, etc.) probably XBRL would facilitate the multi-fold reporting process. We may see in graph 7 that 8 % of the respondents think that the public institutions could also benefit from implementing XBRL and they base their opinion in the need to improve efficiency, cost savings and timely communication of the information.

Graph 7: Companies and industries which may benefit from using XBRL



We also try to collect information on the perceived benefits from implementing XBRL. This question is designed with several listed benefits from which the respondents could choose through a five level Likert scale. The listed benefits included as options in the questions were: (1) more reliable and accurate data; (2) enhancing information quality for decision making; (3) greater automatization; (4) cost savings and (5) faster processing. In graph 8 we may see that more than half of the respondents think that faster processing of data is one of the greatest benefits from XBRL implementation, probably because of the importance of exchanging information on a timely manner in order to gain competitive advantage. More than half of the respondents have regarded automatization an important benefit as well. Cost savings is not regarded a major benefit, probably because of the huge initial investment in such an advanced technology.

Select alternatives in order of importances that brings those benefits (1- Not at all important, 5-Very important ■ Series1 ■ Series2 ■ Series3 ■ Series4 ■ Series5 28.17 34.25 37.50 54.17 55.56 26.76 30.56 38.36 16.67 28.17 25.00 13.89 13.70 18.06 More reliable Enhancing Greater Cost savings Faster and accurate information automatization processing data quality for decision making

Graph 8: Benefits from XBRL implementation

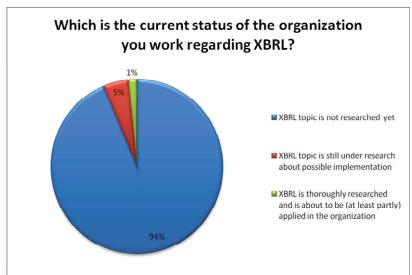
It is interesting to witness so many benefits of XBRL tool and to not have it implemented yet. Therefore the next question in the survey asks the respondents why they think XBRL is not yet applied in Albania, in the institutions that they think would benefit from using this tool. Several options have been provided for which the respondents would answer whether positively or negatively: (1) it would not work for the specific company; (2) XBRL is not mandatory; (3) XBRL does not add value; (4) its implementation is extremely complex and beyond the organization's capacities; (5) its implementation is too expensive; and (6) other reasons. From results in graph 9 we may see that most of the respondents think that XBRL is not yet implemented because it is not mandatory by law. (Also, other reasons as presented in this graph.)

Give your opinion for any reason that is not yet applied XBRL answering yes or not. 40 35 30 25 20 15 10 5 It would not XBRL is not XBRL does Its work for the implementat mplementa reasons specific ion is ion is too company extremely expensive complex ■ Jo 39.01 4 96 37.59 7.8 7.09 3.55 ■ Po 1.12 30.73 3.35 29.05 29.61 6.15

Graph 9: Reasons why XBRL may not be implemented yet

The last question in the survey, addresses the current status of XBRL in Albania, in the respective organizations where the respondents are currently working. They are asked if in their organization the XBRL is: (1) XBRL topic is not researched yet; (2) XBRL topic is still under research about possible implementation, or (3) XBRL is thoroughly researched and is about to be (at least partly) applied in the organization.

As expected, 94 % of the respondents have answered that the organizations they work with have not yet started to research the topic of XBRL. Only 5 % of the respondents answer that their organizations have already started to research about the possibility to apply XBRL. We may further add that the latter part of the respondents are mainly employees of the big four auditing companies operating in Albania. Only one of the respondents has stated that his organization has already applied the XBRL tool. (We further researched who this answer came from and we found that this individual was working for a company which provides accounting and financial software for the Albanian market. To avoid any confusion we contacted the company offices and further investigated about the XBRL feature. As a conclusion we were confirmed that the company was actually offering an accounting software which possessed the XBRL feature, but currently this feature was not activated or in use by none of its Albanian clients, because of its high cost and because none of the companies saw it as a necessary tool).



Graph 10: The status of your organization regarding XBRL application

IV – Main findings and conclusions

XBRL is a very important tool for efficient and fast information reporting. It is being used in many countries and by many institutions and companies to unify the reporting platforms and to convert multi-reporting platforms in a unique reporting language. A lot of benefits are often associated with this reporting language, but it is also costly to be implemented, as any other advanced technological innovation. Despite its considerable costs, the XBRL has already gained a lot of supporters and is endorsed by a lot of countries. As it is not expected to require changes or adaptation in the financial reporting standards it has also attracted attention on behalf of the IFAC, and for some years now, the Federation has included the XBRL in its agenda.

In this paper we try to collect information on the current status of XBRL in Albania. Whether this is a new concept for the accounting and auditing professionals or they already have any information about it. How do they perceive this new tool, regarding its benefits and costs? We also try to analyze if there are any companies or institutions in Albania, which, by the opinion of the respondents may benefit from implementing the XBRL.

We use a survey to control for the above research questions. The survey was electronically sent and processed and each of the ten questions of the questionnaire is analyzed in details in this study. We found that most of the accounting and auditing professionals in Albania have already some degree of information about XBRL. Nevertheless we also found that a good part of the sample had never heard before about this tool. The most important source of information is the post graduating studies, whereas the professional trainings offered for the respondents never even mentioned the concept. Therefore we conclude that it is time that the training programs of the accounting association include this new concept as well as other concepts in what they offer for their participants.

We also find that the professionals perceive that XBRL potential implementation is characterized by a high cost and a lot of benefits. The respondents consider it a possible business reporting language to be used by the General Tax Directory, National Registrar Center, or even by big companies and financial institutions in Albania, because of the rich and wide information they have to process and archive. We also tried to study the current status of XBRL in Albania, and we found that none of the companies, organizations or institutions has started to implement or plan to do it in the near future. Therefore, this concept is still under discussion only in a theoretical level.

References

- 1. Baldwin A, Brown C, Trinkle B. "XBRL: An Impacts Framework and Research Challenge". *Journal of Emerging Technologies in Accounting*, December 2006, Volume 3, Issue 1.
- 2. Bonson Ponte. "The Role of XBRL in Europe". *The International Journal of Digital Accounting Research*, ISSN 1577-8517, Vol. 1, N°. 2, 2001, 101-110.
- 3. Boritz JE, No WG, "Security in XML-Based Financial Reporting Services on the Internet". *Journal of Accounting and Public Policy*, 2005.
- 4. Cohen, S. Kanza, Y, Kogan, Y. Nutty, W. Sagiv, Y. Serebrenik, A. "EquiX Easy Querying in XML Databases". *WebDB*, 1999.
- 5. Dzinkowski R. "Do you speak XBRL?" *CA Magazine*, December 2008. Available at http://www.camagazine.com/archives/printedition/2008/dec/features/camagazine4118.aspx
- 6. Garbelloto G. "XBRL Implementation Strategies: The Deeply Embedded Approach". *Strategic Finance* 91.5 (Nov. 2009): 56 57, 61.
- 7. Gruda S. "Accounting Web Reporting in Albania". *Mediterranean Journal of Social Sciences*, Vol 5, No 13, 2014.
- 8. Gunn J. "XBRL: Opportunities and Challenges in Enhancing Financial Reporting and Assurance Processes". *Current Issues in Auditing* December 2007, Vol. 1, No. 1, A36-A43.

- 9. International Federation of Accountants, 2007 survey and publishing. www.ifrs.org.
- 10. Isenmann R, Bey C, Welter M. "Online Reporting for Sustainability Issues". *Business Strategy and the Environment*, 2007.
- 11. Lamani D, Cepani L. "Internet Financial Reporting by banks and insurance companies in Albania". *The Romanian Economic Journal*, Year 2011, XIV, 159-174.
- 12. Nulty D. "The adequacy of response rates to online and paper surveys: what can be done?" *Assessment & Evaluation in Higher Education*, Vol. 33, No. 3, June 2008, 301 314.
- 13. Pinsker R, Li Sh. "Costs and Benefits of XBRL adoption: early evidence". *Magazine Communications of the ACM Urban sensing: out of the woods*. Volume 51, Issue 3, March 2008, 47 50.
- 14. Premuroso R, Bhattacharya S. "Do early and voluntary filers of financial information in XBRL format signal superior corporate governance and operating performance"? *International Journal of Accounting Information Systems*, Volume 9, Issue 1, March 2008, 1 20.
- 15. R.Shkurti,R.Demiraj. "Accounting and Financial Web Reporting in Albania". *Journal of Public Administration, Finance and Law*, Issue: 4 / 2013, 148-158.
- 16. Ristenpart Th, Tromer E, Shacham H, Savage S. "Hey, you, get off my cloud: exploring information leakage in third-party compute clouds". *CCS '09 proceedings of the 16th ACM Conference on Computer and Communications Security*, 2009, 199 212.
- 17. Roohani S, Xianming Z, Capozzoli EA, Lamberton B. "Analysis of XBRL Literature: A decade of progress and puzzle". *The International Journal of Digital Accounting Research*, V.10, 2010.
- 18. Williams SP, Scifleet PA, Hardy CA. "Online Business Reporting: An Information Management Perspective". *International Journal of Information Systems*, 2006
- 19. Zyberi I, Rova L. "The Role of the Accountants in the Framework of the Modern Technological Developments and Digital Accounting Systems". *European Scientific Journal*. 2014.