CONTRIBUTION OF XBRL(the eXtensible Business Reporting Language) TO SHARING FINANCIAL AND ACCOUNTING INFORMATION

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Abstract

The business world has undergone significant changes in recent years as globalization, greater international investment, and new technologies have increased the speed and activity of commerce. Individuals and institutions which are capable of accessing, managing and using information in the shortest time with the least cost are at the forefronts of global competition in their respective fields. While information technology (IT) has introduced enormous complexity to the business environment and significantly increased the speed of business processes, it has also increased expectations among investors and creditors for more timely business reports to help with decision making. Accounting was developed in response to the demands of business and other organizations and users for relevant and reliable financial information for decision making. XBRL (the eXtensible Business Reporting Language) makes up radical changing in preparing and representing financial reports. This paper discusses XBRL, its impacts on users and on the characteristics of financial information,its application to financial information, its benefits and limitations and provides an impacts framework for XBRL.

Key words : Financial Reporting, Accounting Information, XBRL.
JEL Classificiation : M15, M41

1. INTRODUCTION

In the last decade or two, information technology (IT) has evolved remarkably as can be perceived by the fact that the Internet has become an indispensable part of our lives.With the advent of the Internet in almost every aspect of our lives, we are said to be living in the information and knowledge age(Sevdik,2004: 1).Today's business environment has been tougher than ever : Enterprises experience global competitions,customers demand

more on product features and services,corporate expenses are continuously increasing and so to survive in the harsh environment, high-level management needs business intelligent information to efficiently manage corporate operations and support their making of decisions(Cheng et al.,2008: 1). In this age, the way private sector businesses, government agencies, and other organizations communicate and exchange information among themselves and with the public is changing, as the Internet provides a universal link for data communication and exchange(Sevdik,2004: 1).

The Internet has forced two issues to the forefront in information delivery(Rasmussen et al., 2002: 103) :

1. The possibility of obtaining up-to-date information from nearly anywhere in the world, when you want it, and at a low cost, is a realistic possibility.
2. Vendors of business intelligence (BI) solutions and BI tools are pressured to provide real world information delivery mechanisms for the Internet.

Financial executives recognize the growing demand for efficient delivery in an interactive medium, such as the Internet. However, there is resistance in many quarters to using the Internet for gathering and disseminating financial information, largely reflecting a perception that the Internet technologies for this purpose are too complicated, too unwieldy and perhaps not worth the time, talent and money(FEI,2002:1). This study surveys an Internet technology called eXtensible Business Reporting Language (XBRL) and explains how financial executives can use XBRL to enhance communication with internal management and external stakeholders increase operating efficiencies.In this study we also discuss how XBRL works,what benefits and limititations of XBRL are.

2. WHAT IS XBRL?

Most documents on the Web are stored and transmitted in HTML (HyperText Markup Language), the Web's lingua franca. HTML is a simple language that was developed to provide hypertext and multimedia functions for the Internet. However, as documents on the Web have grown larger and more complex, information providers have begun to encounter limitations in the functionality of HTML attributable to its lack of extensibility, structure, and data checking. These limitations prevent HTML from being a universal information exchange method.HTML is based on SGML (Standard Generalized Markup Language), the international standard for defining descriptions of the structure and formatting of different types of electronic documents. SGML is complex, difficult, and costly to use. To overcome these limitations and to extend Web technology, XML (Extensible Markup Language) was developed, started by John Bosak in 1996, and established by the W3C (World Wide Web Consortium) as a standard in 1998(Bidgoli, 2004: 863). The XBRL initiative started under the auspices of the American Institute of Certified Public Accountants (AICPA).The potential of this project soon became clear,

and XBRL.org was formed to coordinate efforts in this area. XBRL.org is now an independent organization called XBRL International and supports XBRL standards in the international arena(Desmukh, 2006: 63).The task of XML is to describe the content of an electronic document. This means to clarify the meaning of name, address and so on and then to structure it in an appropriate format (the first row of a document is name, second row is street etc.). XML is a text-based meta-language to exchange, visualize and manipulate structured data to support heterogeneous applications (Debreceny et al., 2009: 17). Within XML development,XBRL is the accounting, financial reporting and investment communities' contribution.XBRL,an XML based language,is used to express business and financial reporting content. XBRL uses accepted financial reporting standards, and allows automatic exchange and reliable extraction of financial statements across all software and technologies.

However, XBRL represents even more than a standard. Depending on the situation, XBRL can be looked at as (Tittel, 2011: 3) :

1. A way to model what business information means in a form computer applications can use;

2. A method for providing "interactive data" that grants users quick access to information they want, in an easy-to-use format*(Interactive data is information that isn't locked into a single format on a piece of paper, in a word-processing document, or in a spreadsheet.XBRL is the tool you use to make your financial data interactive.)*;

3. A better approach to exchanging business and financial information.

Table-1: Definition of XBRL

• **XBRL IS**
XML based standard format for financial reporting
XBRL facilitates drill down of information
XBRL is extensible, users can increase its applicability
XBRL can be used transfer a single item of financial data or a financial database
XBRL standards are in the public domain
• **XBRL is NOT**
XBRL does not set new accounting standards
XBRL does not create a generic chart of accounts
XBRL does not translate GAAP (Generally Accepted Accounting Principles)
XBRL is not a privately owned standard
XBRL does not capture data at the transaction level

Source: Desmukh, 2006: 64.

Items of XBRL

XBRL consists of several items, which are related to each other.In XBRL, individual data items are called elements, which are combined into taxonomies (dictionaries) defined by schemas and relationships called linkbases. These XBRL items are explained as following (Ahrendt, 2009: 10-11) :

i. Instance Document
An XBRL document with actual data is called instance document: XBRL instance documents describe financial facts; it can be a single item such as Current Assets, or a complete Annual Report.

ii. Taxonomies
The second ingredient of the XBRL technology besides the instance document is the taxonomy file: Taxonomies, which provide the elements that will be used to describe information,and instances, which provide the real content of the elements defined, are the main ingredients of XBRL.There are a lot of taxonomies available, which describe rules and elements for different purposes, like different reporting standards like IFRS and GAAP.

iii. Schema
The Schema ensures that the taxonomy is complaining with a definite standard. XBRL taxonomies can be regarded as extensions of XML Schema.XBRL taxonomies are actually extension of XBRL Schema.

iv. Linkbase
After the schema documents give the taxonomy syntax, XBRL taxonomies need linkbases to express the meaning and relation between the items: Linkbases are link collections which enrich the syntax schema with semantics. There are five types of linkbases that can be associated with a schema: label, definition, reference, presentation and calculation.

3. HOW XBRL WORKS

XBRL is a data description language that enables the exchange of understandable,uniform business information and XBRL permits the automatic exchange and reliable extraction of financial information across all software formats and including the Internet. XBRL Working Model is shown as follows in Figure-1. :

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Figure-1: XBRL Working Model
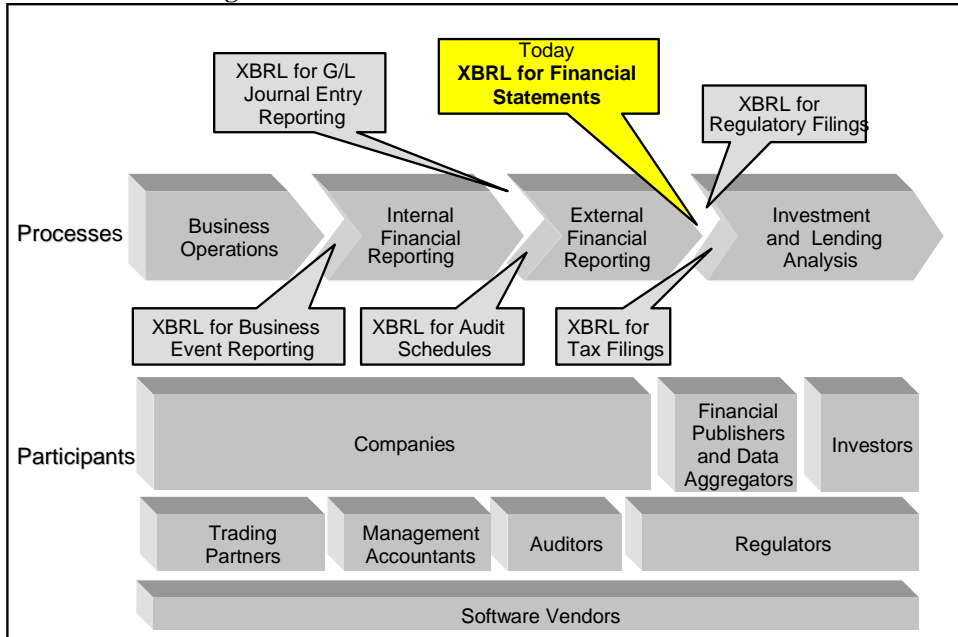
Source: Software AG, 2002: 5.

In order to make the financial statements available to analysts, the financial information must be prepared. This is usually done using the company's accounting package. A XBRL document is created and validated.Validation is checking if it is a well-formed XBRL. This document is then published on the company's Website or FTP server. The user (analyst) can then request the necessary information, returned in XBRL format, via the Internet. The user couldmake this request through a Web application interface. Since XBRL is not a format that is clear to the human reader, the document may be parsed and transformed into a suitable format, before being delivered to the user. This transformation is achieved through the use of style sheets, which may be part of the requesting user's application,or it may be a third party style sheet, made commonly available on the Internet. The user's application may alternatively import the XBRL data into another system for further processing(Blundell, 2007: 37).An illustration of "How XBRL Works" is shown as follows in Figure-2 :

Figure-2: How XBRL Works

ABC Inc.   User
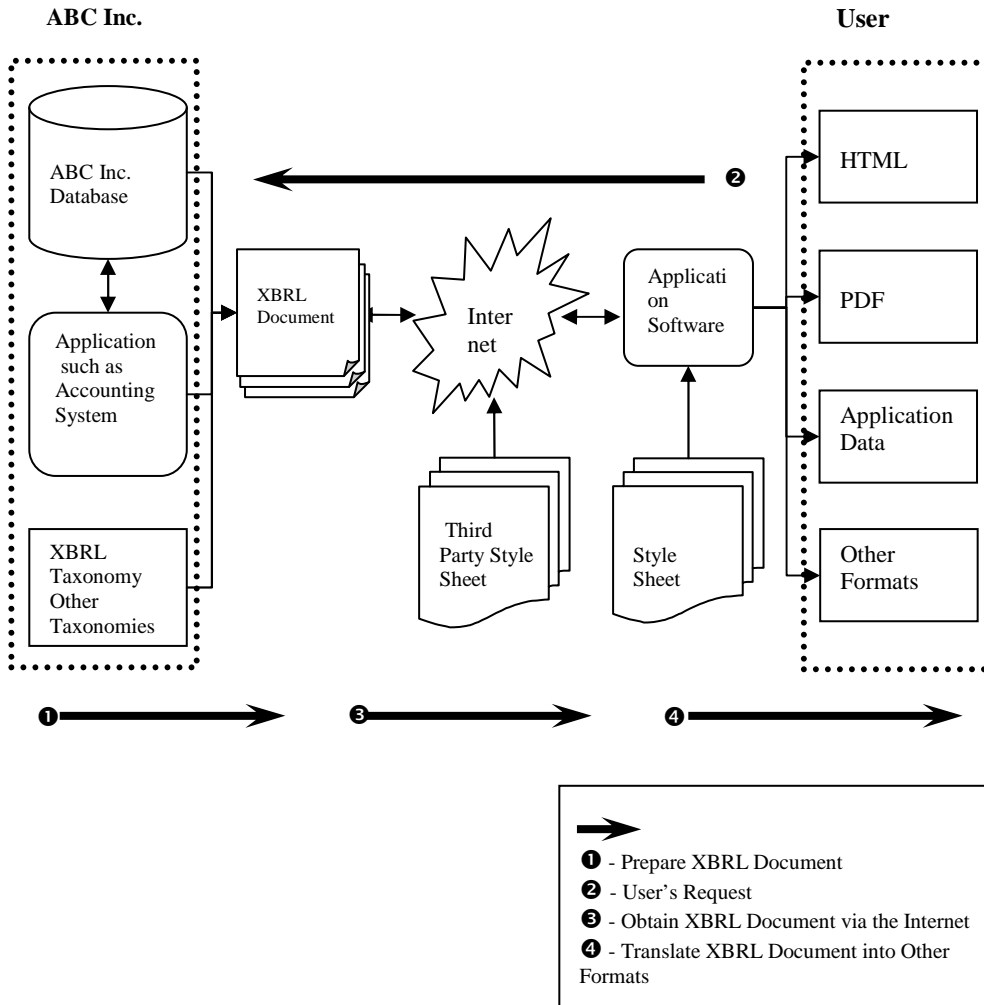
Source: This figure adapted from (Blundell, 2007: 37).

There are a number of ways to create financial statements in XBRL (MAIA Intelligence, 2006: 9) :

● XBRL-aware accounting software products are becoming available which will support the export of data in XBRL form. These tools allow users to map charts of accounts and other structures to XBRL tags.

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● Statements can be mapped into XBRL using XBRL software tools designed for this purpose.

● Data from accounting databases can be extracted in XBRL format. It is not strictly necessary for an accounting software vendor to use XBRL; third party products can achieve the transformation of the data to XBRL.

● Applications can transform data in particular formats into XBRL.

● The route which an individual company may take will depend on its requirements and the accounting software and systems it currently uses, among other factors.

An example of an XBRL document is as follows :

(This is a small example of XBRL-intended for reading by computers, not humans.)

```
<group>
<group type="currentAssets.cashandCashEquivalents">
<item period="2009-12-31">$545.000 </item>
<item period="2010-12-31">$675.000 </item>
</group>
```

The style sheets add the necessary presentation elements to the data in XBRL documents, and the results can then be presented in HTML, PDF or another preferred presentation format. Style sheets may be Cascading Style Sheet (CSS) files, Extensible Style Sheets (XSL), spreadsheets or another technology,which is used to produce the reports (Blundell, 2007: 35).

What the XBRL example represents :

(This is the same data in human readeble form.)

Balance Sheet
Company ABC

	Period Ending 12/31/2009	Period Ending 12/31/2010
Cash and Cash Equivalents	$545.000	$675.000

4. BENEFITS OF XBRL

XBRL is technology independent; thus, XBRL is relevant for all users of financial information,regardless of system or platform used(Bidgoli, 2004: 875). All users of financial information benefit from the XBRL use.The benefits from the XBRL use can be grouped on following types of users :

- Benefits for Companies Producing Financial Reports

- Benefits for Financial Report Users :

    - Benefits for Analysts and Advisors

    - Benefits for Accountants and Auditors

    - Benefits for Investors

    - Benefits for Banks and Credit Companies

    - Benefits for Regulatory Institutions

4.1. Benefits for Companies Producing Financial Reports

By using XBRL the companies producing financial reports can achieve the following important benefits (Florescu and Tudor, 2009: 131) :

• Cutting costs by preparing data in one form and automatically providing information in various forms, avoiding re-entering data and other manual tasks;

• The improvement of the divisions and subsidiaries results consolidation with a higher speed and greater consistency;

• The improvement of financial data accuracy and reliability;

• The effort focused to forecast analysis and decision-making, and not to collection,preparation and compilation of data;

• The efficiency of decision making (by the means of Business Intelligence tools and techniques); more effective communication with shareholders; institutions will be able to benefit from major Web sites as a means of communication;

• Improved relationships with shareholders, by providing more transparent and easier to use information;

• Process simplification and cost diminution for business and financial-accounting reporting;

• Faster responses from third parties, including banks and regulators.

4.2. Benefits for Financial Report Users

For financial report users, the cost of locating, accessing, inputting and finally analyzing information is high due largely to its manual nature. This high consumption cost limits the breadth, frequency and volume of information that can be processed. The value proposition for the financial report user is that information formatted in XBRL exponentially lowers consumption costs and provides for more efficient analysis.The manual processing of business reports also leads to errors in the transfer of information between preparers and users. Wrong information is simply a keystroke error away. Inaccuracies are also rife as information is transferred from providers and then distributed by aggregators who have "summarized" the original information provided by individual companies into "normal" classifications. The "summarizing" and "classification" process so common today often leads to distortion of information(FEI, 2002: 7-8).

4.2.1. Benefits for Analysts and Advisors

By using XBRL the analysts and advisors can achieve the following benefits(FEI, 2002: 7-8) :

• Less time and lower cost of accessing business report information;

• Enhanced ability to analyze business report information;

• Enhanced discovery capabilities for business reports.

4.2.2. Benefits for Accountants and Auditors

Through the use of XBRL in financial reporting, accountants and auditors are able to (XBRL International,2011: http://www.xbrl.org/Accountants/) :

• Obtain more rapid and reliable data on company financial performance ;

• Greatly reduce effort and costs in gathering and analysing data ;

• Simplify and automate tasks ;

• Focus effort on analysis and value-added work ;

• Make better use of software to improve efficiency and speed ;

• Improve accuracy and transparency of the audit process.

4.2.3. Benefits for Investors

XBRL facilitates comparisons of the results from multiple companies, side-by-side, without having to extract this information from each filing, or can support inter-period comparisons for single company or multiple companies(Ahrendt, 2009: 20-21). XBRL formatted reports enable investors to go straight to the source,rather than relying on potentially misleading aggregators and distributors and investors have a more efficient way to analyze companies.

4.2.4. Benefits for Banks and Credit Companies

Banks and credit companies use XBRL for (Florescu and Tudor, 2009: 131-132) :

• Rapid gathering of data through secured financial reporting;

• Cost reduction for data processing;

• Financial information analysis and comparison (under reliability, completion and efficiency conditions) using automated processes;

• Quick traceability of financial performance;

• More reliable decision taking and providing the answers towards customers.

4.2.5. Benefits for Regulatory Institutions

By recommending the use of XBRL regulatory institutions can (Florescu and Tudor, 2009: 131) :

• Benefit from a huge amount of data stored automatically in their information system (usually in Data Warehouses providing contributors financial statements information from different time periods), without re-collecting, re-formatting or other supplementary action;

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• Cut data processing costs, as a consequence of some routine task automation;

• Quickly identify problems in periodically received financial statements;

• Review and compare information faster, efficiently and securely (by using IT applications in the process of data validation and analysis);

• Focus efforts for analysis and knowledge management, controlling data and activities, and improving the complex process of decision making;

• Provide a quick response to third parties;

• Promote efficiency in tax returns collecting process.

5. LIMITATIONS OF XBRL

An important characteristic of interactive data is that the data itself is not changing. The data is being exchanged and carries with it a standardized meaning. XBRL does not change accounting principles or the interpretation of those principles. Further, the use of XBRL cannot be seen as a foolproof method to root out fraud in organizations. If business people manipulate data within a company, that misleading data may still be reported in XBRL. However, by contributing to a more transparent environment, XBRL can be part of the solution of rebuilding overall trust in business(Zegarowski, 2007: 5).

Although XBRL provides a number of important benefits,it also has limitations (Bidgoli, 2004: 876) :

1. It is important to note that XBRL provides tags for conventional financial statements and does not address other methods of displaying financial data, such as formulas, graphs, and charts. In fact, XBRL is not primarily designed for easy rendering of information for human consumption—its primary objective is to enhance efficiency of data transfer and archiving. Many accounting professionals and users have suggested that current financial statements do not fully live up to users' expectations because the conventional financial statement reporting format may not meet the needs of users who prefer various types of multimedia formats or multidimensional numerical and graphical presentations.XBRL does not provide a standardized format for such displays, focusing instead on conventional financial statement content.

2. XBRL does not currently address the quality of information, for example whether data coded in XBRL are reliable. A number of XBRL taxonomies are being developed, raising the possibility of errors in selecting and applying XBRL taxonomies and codes/tags. Also, information on the Web can be easily created and revised, and its source can be

disguised, raising questions about the trustworthiness of information disseminated via the Internet, including information in XBRL format.

3. XBRL currently views the accountant's report as part and parcel of the financial statement package as a whole. It does not provide for an assurance report on an individual financial statement or an individual item in a financial statement, or on the internal controls underlying the financial reports.

6.CONCLUSION

XBRL is a way to model what business information means in a form computer applications can use. XBRL uses accepted financial reporting standards, and allows automatic exchange and reliable extraction of financial statements across all software and technologies. XBRL is a data description language that enables the exchange of understandable,uniform business information and XBRL permits the automatic exchange and reliable extraction of financial information across all software formats and including the Internet.XBRL reduces mechanical data entry, eliminates entry errors, encourages more analysis of data, facilitates comparisons against external data, and provides greater transparency. XBRL benefits comparability by helping in identifying data which is genuinely alike and distinguishing Information which is not comparable. XBRL technology leads to more information exchanges that can be effectively automated by use.XBRL allows all of the stakeholders in the chain to more efficiently share and analyze information. XBRL,an XML based language, has the potential to effectively act as a positive agent for increasing the dynamism involved in financial reporting and in sharing financial and accounting information.

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