eXtensible Business Reporting Language (XBRL)

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Introduction

XBRL is a language for the electronic communication of business and financial data which is revolutionising business reporting around the world. The word XBRL is short form of e**X**tensible **B**usiness **R**eporting **L**anguage. It provides major benefits in the preparation, analysis and communication of business information. It offers cost savings, greater efficiency and improved accuracy and reliability to all those involved in supplying or using financial data. It is an **open standard, free of licence fees**, being developed by a non-profit making international consortium. XBRL International is a not-for-profit consortium of approximately 550 companies and agencies worldwide working together to build the XBRL language and promote and support its adoption.

This collaborative effort began in 1998 and has produced a variety of specifications and taxonomies to support the goal of providing a standard, XML-based language for digitizing business reports in accordance with the rules of accounting in each country or with other reporting regimes such as banking regulation or performance benchmarking.

All of us know that HTML (Hypertext Markup Language) is a standard way of marking up a document so it can be published on the World Wide Web and viewed in a browser. It provides a set of pre-defined tags describe on how content appears in a browser. For example, it describes the font and color of text. It gives little information on meaning or context. XML (Extensible Markup Language) uses tags to identify the meaning, context and structure of data. XML is a standard language which is maintained by the World Wide Web Consortium (W3C). XML does not replace HTML; it is a complementary format that is platform independent, allowing XML data to be rendered on any device such as a computer, cell phone, PDA or tablet device. It enables rich, structured data to be delivered in a standard, consistent way. Whereas HTML offers a fixed, pre-defined number of tags, XML neither

defines nor limits tags. Instead, XML provides a framework for defining tags (i.e. taxonomy) and the relationship between them (i.e. schema). Extensible Markup Language (XML) is a universally preferred data description language used to describe the data we store, manipulate, and exchange via the web. The basis for this technology is a "tagging" process by which each value, item, and descriptor, etc. in the exchanged information can be given a unique set of tags with which to describe it. Using these tags, computer programs can read the data without human intervention. In short, XML is a language designed to develop other languages, such as XBRL.

Thus XBRL is an XML-based schema that focuses specifically on the requirements of business reporting. XBRL builds upon XML, allowing accountants and regulatory bodies to identify items that are unique to the business reporting environment. The XBRL schema defines how to create XBRL documents and XBRL taxonomies, providing users with a set of business information tags that allows users to identify business information in a consistent way. XBRL is also extensible in that users are able to create their own XBRL taxonomies that define and describe tags unique to a given environment.

How XBRL Works

As seen XBRL is a member of the family of languages based on XML, or Extensible Markup Language, which is a standard for the electronic exchange of data between businesses and on the internet. XBRL is a powerful and flexible version of XML which has been defined specifically to meet the requirements of business and financial information. It enables unique identifying tags to be applied to items of financial data, such as 'net profit'. However, these are more than simple identifiers. They provide a range of information about the item, such as whether it is a monetary item, percentage or fraction. XBRL allows labels in any language to be applied to items, as well as accounting references or other subsidiary information. XBRL has the ability to "tag" or code each element on a financial or business report with information such as description, units, currency, etc., so that it is easy to identify and understand for users of the information. XBRL can show how items are related to one another. It can thus represent how they are calculated. It can also identify whether they fall into particular

groupings for organisational or presentational purposes. All the elements are grouped together into a collection of financial and business reporting terms called "taxonomy". XBRL is extensible, meaning that the terms available for use can be customized so that companies using XBRL can create their own elements – called "extensions" – to describe a unique reporting situation.

The rich and powerful structure of XBRL allows very efficient handling of business data by computer software. It supports all the standard tasks involved in compiling, storing and using business data. Such information can be converted into XBRL by suitable mapping processes or generated in XBRL by software. It can then be searched, selected, exchanged or analysed by computer, or published for ordinary viewing.

XBRL **Taxonomies**, are the vocabularies or dictionaries which the language uses. These are the categorisation schemes which define the specific tags for individual items of data (such as "net profit"). National jurisdictions have different accounting regulations, so each may have its own taxonomy for financial reporting. Many different organisations, including regulators, specific industries or even companies, may also require taxonomies to cover their own business reporting needs. A special taxonomy has also been designed to support collation of data and internal reporting within organisations. This is the GL taxonomy

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Ordinary users of XBRL may be largely or totally unaware of the technical infrastructure which underpins the language. However, software companies, such as accountancy software providers, need to take account of XBRL and its features when producing their products.

XBRL is not an accounting standard and will not change what is reported, only how it's reported. The XML tagging means that the information in a business report is computer-readable and can be more easily extracted, searched and analyzed by users of that information.

XBRL is like a bar code for the financial statements. In XBRL, financial data is tagged so that it can be easily understood by machines. Example **‹Sales**

>500</Sales>. The word Sales together with brackets ‹and› is known as a tag. XML distinguishes opening and closing tags by providing a ‹/› for a closing tag. In between the tags there is a value. XBRL allows each element of a financial statement to carry certain properties with it so that when the reader of the financial statement reads an XBRL compliant financial statement he can read along with the properties. The genesis of XBRL goes back to XML with which we are familiar, because of the hyper texts and the hyper links. XBRL is also XML-based, it's an XML (Extensible mark-up Language) dialect developed for business reporting purposes.

An illustrative example to understand XBRL

ABC Limited is required to file the following returns:
▪ Annual Financial Statements
▪ Tax Returns
▪ Returns to the Registrar of Companies

All these returns have some elements which are common example Sales, Administrative expenses etc. If these elements could be tagged and kept in a database, a mere re-arrangement of such elements could facilitate generation of different reports on a concurrent basis. XBRL facilitates financial data elements to be stored in a database and data from live financial statements can be linked to those elements to obtain an XBRL compliant instance document. This document can also be easily queried, retrieved sorted for financial analysis and research.

Advantages of XBRL

The idea behind XBRL, eXtensible Business Reporting Language, is **simple**. Instead of treating financial information as a block of text - as in a standard internet page or a printed document - it provides an identifying tag for each individual item of data. This is computer readable. For example, company net profit has its own unique tag.

The introduction of XBRL tags enables automated processing of business information by computer software, cutting out laborious and costly processes of manual re-entry and comparison. Computers can treat XBRL

data "intelligently": they can recognise the information in a XBRL document, select it, analyse it, store it, exchange it with other computers and present it automatically in a variety of ways for users. XBRL greatly increases the speed of handling of financial data, reduces the chance of error and permits automatic checking of information.

Companies can use XBRL to **save costs** and streamline their processes for collecting and reporting financial information. Consumers of financial data, including investors, analysts, financial institutions and regulators, can receive, find, compare and analyse data much more rapidly and efficiently if it is in XBRL format.

XBRL can handle data in different languages and accounting standards. It can flexibly be **adapted to meet different requirements** and uses. Data can be transformed into XBRL by suitable mapping tools or it can be generated in XBRL by appropriate software.

Benefits to a company from putting its financial statements into XBRL

XBRL **increases the usability of financial statement information**. The need to re-key financial data for analytical and other purposes can be eliminated. By presenting its statements in XBRL, a company can **benefit investors** and raise its profile. It will also meet the requirements of regulators, lenders and others consumers of financial information, who are increasingly demanding reporting in XBRL. This will improve business relations and lead to a range of benefits. With full adoption of XBRL, companies can automate data collection. For example, data from different company divisions with different accounting systems can be assembled quickly, cheaply and efficiently. Once data is gathered in XBRL, different types of reports using varying subsets of the data can be produced with minimum effort. A company finance division, for example, could quickly and reliably generate internal management reports, financial statements for publication, tax and other regulatory filings, as well as credit reports for

lenders. Not only can data handling be automated, removing time-consuming, error-prone processes, but the data can be checked by software for accuracy.

XBRL facilitates the communication of entire reports, avoiding 'template reporting', which can be misleading and inaccurate. Where aspects of a particular business demand unique tags, report owners can create them, communicating the definition of a concept as well as its relationship to other parts of a report. In other words, there is no need to force a reporting concept into an ill-fitting box. XBRL is not a standard chart of accounts. It allows the standardization of common business reporting concepts while providing flexibility to extend the vocabulary to meet individual circumstances.

Because XBRL is based on core internet technologies, it is possible to search across XBRL documents and extract individual concepts that might be needed for particular types of analysis. It is also possible to transform XBRL reports into any other format, including those more commonly used such as HTML and PDF.

Potential uses of XBRL

XBRL can be applied to a very wide range of business and financial data. Among other things, it can handle:

- Company internal and external financial reporting.
- Business reporting to all types of regulators, including tax and financial authorities, central banks and goverments.
- Filing of loan reports and applications; credit risk assessments.
- Exchange of information between government departments or between other institutions, such as central banks.
- Authorative accounting literature - providing a standard way of describing accounting documents provided by authoritative bodies.

- A wide range of other financial and statistical data which needs to be stored, exchanged and analysed.

Database used with XBRL

XBRL is a format for exchanging information between applications. Therefore each application will store data in whatever form is most effective for its own requirements and import and export information in XBRL format so that it can be readily imported or exported in turn by other applications. In some applications, for example, the XBRL formatted information being used may be mostly tabular numeric information, hence easily manipulated in a relational database. In other applications, the XBRL information may consist of narrative document-like structures with a lot of text, so that a native XML database may be more appropriate. There is no mandatory relationship between XBRL and any particular database or other processing or storage architecture.

International Scenario

More than 40 countries have started using XBRL for collection of the information. Many regulators have started making mandatory filing of documents and collect information in XBRL . Few to name are Australian Tax Office, National Bank of Belgium, China Securities Regulatory Commission (CSRC), European System of Central Banks (ESCB), In Japan National Tax Agency (NTA), Financial Services Agency, Bank of Japan, Tokyo Stock Exchange,Lietuvos Bankes (Bank of Lithuania), National Bank of Romania, Accounting and Corporate Regulatory Authority (Singapore), Spanish Bank Association (AEB), Bank of Spain, UK Revenue and Customs

The US (SEC) has adopted a phased wise approach for mandatory filings in XBRL. During its first phase beginning in 2009, the 500 largest U.S. public companies and foreign private issuers listed with the SEC would be required to provide financial information using XBRL, beginning with quarterly filings after June 15, 2009. Smaller companies, depending on their size and filing status, begin reporting in XBRL in 2010 or would be in 2011, with all public companies filing in XBRL within three years. The SEC will provide filers with limited liability for their XBRL financial statements for a period that will

phase out over two years; the limited liability provision would terminate completely on October 31, 2014.

Usage in Accounting Institutes

A core purpose of Accounting Institutes around the world is to enhance the access, quality and breadth of financial information available to the investing public. XBRL will help achieve this. Institutes also believe that the development of XBRL will help position their members as valued knowledge providers for their clients. Businesses, large and small, are undergoing fundamental change. Accountants, as the managers of the underlying language of business, can help organisations fit into the new digital world, solve business issues and capitilise on opportunities

The IASB is developing a taxonomy which reflects International Financial Reporting Standards (IFRS). National XBRL jurisidictions will extend this taxonomy to reflect their particular local implementation of IFRS. Taxonomies will thus be available to enable those reporting under IFRS in different countries to use XBRL, enhancing efficiency and comparability as adoption of IFRS expands around the world.

ICAI and XBRL

While many countries were exploring XBRL and benefiting from its use, India has not far behind. In 2007, ICAI, being the National Standards setter had constituted a Group for promotion and development of XBRL in India for undertaking the development and promotion of XBRL in India. The Group comprised representatives from Securities and Exchange Board of India (SEBI), Ministry of Corporate Affairs (MCA), Reserve Bank of India (RBI), Insurance Regulatory and Development Authority (IRDA), National Stock Exchange (NSE), Bombay Stock Exchange (BSE), Infosys and others who are supporting ICAI in its XBRL endeavours. In December 2008, spearheaded by the Institute of Chartered Accountants of India (ICAI), the Indian XBRL Jurisdiction, i.e., XBRL India of XBRL International (XII) has been constituted. It was thought that XBRL India, facilitated and established by ICAI would help in building a formal forum for encouraging

the adoption of XBRL in India as the standard for electronic business reporting in India, shall develop and manage XBRL taxonomies, and facilitate education and training of XBRL. To govern XBRL India Jurisdiction, a Steering Committee out of the members of the XBRL Group had also been constituted, as per the requirements of XII. The XBRL Group continued as a General Body of members of XBRL India Jurisdiction. Now a section 25 company has been floated for managing the affairs of XBRL India jurisdiction. The company also has support from all the regulators. Moving one step further XBRL, India has also applied for the status of Permanent Jurisdiction to XBRL, International. The Institute of Chartered Accountants of India (ICAI) had been keeping track of the developments in the area of XBRL particularly formulation of taxonomies which form the basis for XBRL reporting.

As mentioned earlier, Taxonomies are dictionaries used by XBRL. These taxonomies are based on accounting standards and other pronouncements on accounting including those contained in relevant legislations. The taxonomies are developed by the standard-setters. For instance, the International Accounting Standard Board (IASB), which issues International Financial Reporting Standards (IFRS), develops taxonomy based on IFRS.

As of now in India, two taxonomies have been developed by ICAI,viz., the C&I Taxonomy and the Banking Taxonomy. Taxonomy on NBFCs is also under development.

The Commercial & Industrial (C&I) Taxonomy is general purpose taxonomy (core taxonomy) and can be used by the entire Commercial & Industrial companies. This taxonomy has been developed to enable companies prepare their financial statements, viz., Profit and Loss statement, Balance Sheet and Cash Flow statement in XBRL format, based on the requirements of the Accounting Standards and Indian company law while adopting the architectural features of the IFRS general purpose Taxonomy 2006. This taxonomy had been exposed for public comments and upon the suggestion of the Reserve Bank of India, had been revised to include the requirements under Clause 41 of the Listing Agreement. This taxonomy has also been acknowledged by XBRL International.

Banking Taxonomy is an extension to the core Indian XBRL C&I taxonomy. The banking specific elements have been added to the core schema. The schema file contains all the element declarations along with there XBRL properties (including the elements of C&I taxonomy). The references for authorative texts for the banking elements are maintained separately. Around 1200 elements (including abstract elements) have been additionally defined for banks. An Expert Group under the convenorship of the member from RBI on the Steering Committee was constituted to develop and review the taxonomy for Banks.

The XBRL International has acknowledged XBRL banking taxonomy. This taxonomy also covers the Financial Statements, viz., Balance Sheet, Statement of Profit and Loss, Cash Flow Statement, accounting policies and disclosure requirements. The taxonomy has been developed conforming to Indian Accounting Standards, requirements of Clause 41 of Listing Agreement, Banking Regulation Act and other RBI Circulars.

Extended links (logical groups of information elements) have been defined separately for banks, to meet the reporting structure of banks. For Balance Sheet itself there are four different extended links for defining the calculation relationships. The first extended link defines the overall calculation relationship, while the other three model the alternative calculations of certain elements. (These are the areas wherein 'dimensions' as a data model approach could have been used, but have been currently handled using extended links). For statement of profit and loss and Cash Flow Statement there is only one extended link each. There is a separate extended link for the Quarterly reporting adhering to the requirements of Clause 41 of Listing Agreement.

In case of non-GAAP elements, there are two extended links. One extended link describes the general accounting policies and disclosures required as per accounting standards or other statute. For the disclosure as particularly specified by Banking Regulation Act and other RBI circulars, a separate extended link has been defined as well.

In order to provide access to the industry specific requirements, an entry point is created in the taxonomy. This enables the user to access to the points which are relevant to ones area. For example, for SMC's a specific

entry point is has been created in C&I Taxonomy. This means that the user shall go through the elements applicable to SMC's only rather than going through the whole taxonomy.

The role of ICAI as a neutral facilitator of XBRL India Jurisdiction in India shall be to assist the regulators and users of the financial statements by:

- Developments of XBRL taxonomies.
- Maintenance and updation of the XBRL Taxonomies from time to time as per the requirements and any revisions in the Accounting Standards.
- Ensure Compliance of taxonomies with Companies Act 1956.
- ICAI shall also update the existing taxonomies as per the requirements of the IFRSs on implementation of IFRSs in India. Now since India is moving towards convergence to IFRS from the year 2011.

XBRL in India

The XBRL Indian Jurisdiction:

At present the status of the XBRL India Jurisdiction is provisional. It has already applied for an established jurisdiction on December 15, 2010. The established status would enable India to have a seat on the International Steering Committee of XII.

The **main objectives** of the XBRL India jurisdiction are:

- Promote and encourage the adoption of XBRL as the standard for electronic business reporting in India.
- Facilitate education and marketing of XBRL.
- Develop, manage and maintain XBRL taxonomies.
- Represent Indian interests within XBRL International.
- Contribute to the international development of XBRL.

A separate website dedicated to the XBRL India Jurisdiction to keep members and other users aware about the Indian XBRL Jurisdiction has also been set up by the ICAI with its URL as www.xbrl.org/in.

National Scenario

As relates the Scenario of implementation of XBRL in India is concerned, financial reporting using XBRL along the lines of filing with the SEC is yet to come up into effect. However a few of the regulators have initiated with the XBRL filings.

The Reserve Bank of India **(RBI)** is the Central Bank of India, established on 1 April 1935 in accordance with the provisions of the RBI Act, 1934. As a part of online filing of returns, the RBI also felt the need for adoption of best international technology solution, such as XBRL, which attempts standardization of business reporting especially financial reporting. The RBI embarked on a plan to migrate the entire bank regulatory reporting into an XBRL framework in a phased manner. The capital adequacy returns based on Basel II norms was the first return to be XBRLised. With the aim of keeping the reporting simpler for banks and at the same time leveraging the benefits of XBRL reporting, it was decided to develop a user friendly software (that does not expose the XBRL tags), which would be supplied by RBI itself, and used by the banks to file information. On October 6, 2008, RBI launched the XBRL based reporting system for Capital Adequacy returns.

The XBRL reporting framework is now steadily being extended to encompass other returns. Some of the forms which are XBRLised are Form-RCA 2 (Liquidity Returns) and GPB Return (Gap Position and Balances).

As per the RBI press release dated August 14, 2008 and December 17, 2008, the RBI stated that it could bring down the number of returns from 291 to 225 with the use of XBRL. The taxonomies used for these returns have the core taxonomy as C&I developed by ICAI, which has been extended appropriately. Further the RCA – 2 taxonomy is broadly based on Co rep taxonomy of the European Union and is also in line with C&I taxonomy.

Both the leading stock exchanges of India, **BSE and NSE** have migrated to XBRL from paper based model and offer a unified electronic platform, popularly known as 'Corpfiling' system, which enables the Companies listed in either or both of the exchanges to electronically file their disclosures. The system helps the investors get real-time access.

SEBI is putting in place a unified regulatory filing system for all listed companies and market entities in a standardised format to enable dissection of bulky documents for relevant information without any delay. Besides disseminating the information on real-time basis to investors and others, the XBRL technology-based new system will also help SEBI itself as also other regulatory and investigative agencies in monitoring any irregularities in the affairs of companies and market intermediaries. In addition to mandatory regulatory filings to be made under listing agreements and other regulations, the entities would have to use the new XBRL-based platform for all their reporting purposes to the regulator. It is currently in the process of finalizing the technology provider for the system. It is also in the process of developing taxonomy for Mutual Funds.

On 1 April 2011, the **Ministry of Corporate Affairs (MCA)** in India posted a circular on its website requiring certain class of companies (Phase 1) to file balance sheets and profit and loss accounts for the year 2010-11 onwards by using XBRL. The financial statements required to be filed in XBRL format will be based upon the taxonomy on XBRL developed for the existing Schedule VI and non-converged accounting standards notified under the Companies (Accounting Standards) Rules, 2006.

As per the circular, the following class of companies will be considered as Phase 1 and will have to file their Financial Statements in XBRL from the year 2010-11:-

i. All companies listed in India and their subsidiaries, including overseas subsidiaries

ii. All companies having a paid up capital of Rs. 5 Crore and above or a turnover of Rs. 100 crore or above

This represents a significant change in the manner in which companies are

required to share financial information with regulatory authorities. XBRL will facilitate the transmission of data in electronic form between companies and different regulatory agencies in India, and has the potential to increase comparability and transparency of financial information.

The versatility of the XBRL framework provides significant opportunities in the area of regulatory filings. In India, in particular, there is a considerable scope for reducing overlaps in filing information, which today is span a number of regulatory agencies viz the ROC, Stock Market Regulators, RBI, Stock Exchange, IT department, Excise, Custom & Sales Tax department, etc.

Regulators are taking steps to make entities under their domain to get XBRL compliant. The aim is to make data about fund movements within available at a single place in electronic format so as to make multiple analysis and forecast. This kind of information pool would also come in handy for regularities in making market forecast and taking presumptive measures in case of any unfavorable trend.

Role of a Preparer of XBRL Financial Statements

We as accountants need to understand how to interpret the taxonomy, which does not necessarily include understanding the XSD language and its semantics. As an accountant we should be able to appropriately link each element of the financial statements to the relevant element in the taxonomy. In case suitable taxonomy elements are not available company specific extensions have to be created within the taxonomy customized for the company. Generally softwares are available for facilitating the linking of financial statement items to the relevant elements in the taxonomy, which alleviates the need of hard coding by accountants. After tagging the financial statement items, the file is validated against a set of predefined XBRL validation rules and a XSD document is generated with a help of tagging software.

Conclusion

XBRL is set to become the standard way of recording, storing and transmitting business financial information. It is capable of use throughout the world, whatever the language of the country concerned, for a wide variety of business purposes. It will deliver major cost savings and gains in efficiency, improving processes in companies, governments and other organisations.