

Quality of Financial Reporting System in India – An Analysis of Extensible Business Reporting Language

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ABSTRACT

The whole world is experiencing digital revolution. Everything is becoming digital. We read newspaper digitally and we do not use cash because we all have debit or credit cards. Likewise, every aspect of life day by day is becoming simpler with the help of digital revolution. But still not everything is digital today. Until today, many large corporations rely on paper, Excel or word documents during reporting process. If the reporting process digitalized, there are huge benefits to both preparers and users of business information. One such pathway in which the business information can be made digitally available is by using XBRL (extensible Business Reporting Language). The paper focuses on analysing the quality of financial reporting system through XBRL. And adopts secondary sources for the purpose of information, the collected data analysed by using data quality assessment model. The analysis revealed that the XBRL financial reporting is qualitative than the traditional reporting.

Keywords: Financial Reporting, XBRL, Quality of Financial Information.

INTRODUCTION:

The whole world is experiencing digital revolution. Everything is becoming digital. We read newspaper digitally and we do not use cash because we all have debit or credit cards. Likewise, every aspect of life day by day is becoming simpler with the help of digital revolution. Still not everything is digital today. Until today, many large corporations rely on paper, Excel or word documents during reporting process. If the reporting process is digitalized, there are huge benefits to both preparers and users of business information. One such pathway in which the business information can be made digitally available is by using XBRL (extensible Business Reporting Language). XBRL is a very innovative approach for exchange of financial and non-financial information in digital form. It can be called universally preferred digital dialect for transformation of financial information to the users. XBRL provides electronic format for business reporting. It can be rightly called as the language of accounting in a digital world. XBRL is the fundamental for all the business to maintain high quality of financial and non-financial information in their reports through internet.

Today, no business corporation is without a web site. All the important business information will be distributed through internet and web. It is known that web is ideal for the one – to – many relationships. The information reaches every stakeholder of business. Most of the corporations use internet for the distribution of business reports is equal to electronic paper. Financial reports of HTML, published in Microsoft Word Excel, Adobe Acrobat or Power Point or Excel etc. are some of the examples for electronic format of business reports. These electronic paper formats of business reports are not sufficiently reliable for information extraction and transformation, because these formats are not proper in their representation of metadata. Information about a set of data is called as metadata. This data allows us to understand the meaning of the facts and put them into a context. Otherwise, the facts become meaningless. XBRL resolves all these drawbacks of electronic paper formats of business reports. It provides high quality metadata about the facts in business reports on the internet

or on intranets. Overall, we can encounter number of benefits in adopting XBRL for business reporting for both the corporations and stakeholders of business.

XBRL IN INDIA- PRESENT SCENARIO:

In India there is a separate jurisdiction of XBRL International that is known as XBRL India. A distinct company established under section 25 of companies Act to look after the operations of XBRL India. This company is working with some objectives that are:

- To create awareness on XBRL in India
- To create and maintain Indian XBRL Taxonomies
- To support the companies in adopting and implementing XBRL.

Applicability of XBRL in India:

Reporting of business and financial information in India is compulsory for the following companies and which shall file their financial statements and other documents as per section 137 of the Act, with the Registrar of the companies through e-form AOC-4 XBRL as per Annexure-I :

- (i) Companies listed with stock exchanges in India and their Indian subsidiaries;
- (ii) Companies having paid up capital of 5 crore rupees or more;
- (iii) Companies having turnover of 100 crore rupees or more;
- (iv) All companies which are required to prepare their financial statements in accordance with companies Rules, 2015 as per Ind-As.

Non-applicability of XBRL in India:

For some of the group of companies XBRL still not applicable for the preparation of their financial statements these are as under:

Non-banking financial companies,
Housing finance companies
Companies engaged in the business of Banking
Insurance sector and
Companies are below the threshold limit.

Nature of XBRL taxonomies used in India:

For preparation of XBRL based financial statements there is a need of dictionary which defines each element of the financial statements in the XML language is needed that is known as taxonomy.

In India, taxonomies are prepared for Indian companies are as per the requirements of

1. Schedule III of Companies Act
2. Indian converged Accounting Standards with IFRSs, issued by ICAI
3. SEBI Listing requirements and other legal requirements specified by MCA.

XBRL Document:

It is a document which is based for the preparation of financial statements and which comprises of:

- a. Taxonomy - describes and classifies the business and financial terms.
- b. Instance document- contains the facts and figures to be included in annual reports

The next part of the paper consists of review of earlier studies, methodological issues, findings and conclusions.

REVIEW OF LITERATURE:

Review of past literature is the major aspect of research work. The review of literature will give the base for understanding the various aspects of the research problem and an idea about the research aspects which are not covered by the past researchers. The extensible business reporting language is an emerging arena for research and it is necessary to understand the conceptual framework, and to identify the research gap in the arena of XBRL various research articles were reviewed.

Tzu –Yi et al., (2016)emphasizes on the effect of XBRL adoption on information asymmetry in Taiwan’s stock market. For the study purpose authors have examined both pre- adoption and post- adoption periods data and have used Bid –ask spread, stock turnover ratio and earnings volatility as proxy variables. To analyse and interpret the data descriptive statistics, co-relation co-efficient analysis and multiple regression analysis have

been used. The findings reveal that the XBRL adoption has helped to reduce information asymmetry in Taiwan's stock market and enhanced information comparability by reducing the time and cost of processing the enterprises data. They have also opined that the XBRL enhances the search mechanisms, transparency and quality of information in the capital market.

Carsten Felden (2011) in his study "Characteristics of XBRL adoption in Germany" examined the adoption level and the impact parameters of the adoption of XBRL standards in Germany with the objective of supporting of an academic discussion about the adoption of standards as well as a practical discussion which will increase transparency in relevant factors influence on adoption of XBRL. To achieve the same the authors have developed a theoretical model based on institutional and technological acceptance model to derive at the valid findings. Finally the study has found that the developed model has significant applicable in explaining XBRL adoption so as compared with INT – model, TAM has gained more importance. It is further found that the international diffusion of the communication standards is based on obligation but the German projects are still voluntary and the study concludes that the XBRL is not a company driven topic but it is driven by regulatory obligations.

Yoon et al., (2011) the study have analysed whether XBRL adoption reduces the information asymmetry in Korean capital market on the fundamental change of technological environment affecting information asymmetry. The findings revealed that XBRL adoption reduces the information asymmetry in the Korean Stock market. The authors have emphasised on future research need on examining the additional benefits of XBRL adoption for various stakeholders.

Hongwei Zhu et al., (2010) conducted a study with the objective of developing the set of metrics to assess the data, to provide the data evaluation framework and founds that the metrics used for assessing data quality do not change even when more measurement samples are used, on the other hand, interoperability results indicates that the standard taxonomy did not make financial statements fully interoperability. The comparison of three financial statements on an average of the quarter of the elements is not directly comparable. This concludes that the quality of standard taxonomy is not very high. Study also suggests for future research on information quality of data.

Patric Wheeler et al., (2009) founds that non professional investors who use XBRL formatted information have higher positive perception on analytical effectiveness and efficiency of XBRL formatted information as compared against paper based. The findings also reveal that the investors have high positive perception regarding firms that provide XBRL formatted information. It is also opined in the study that XBRL's perceived efficiency and effectiveness advantages for both preparers and users of financial information.

Apostolos et al., (2009) the study focuses on the major issues related to the status of XBRL worldwide. The aim of the study is to throw light on the financial data flow, the effects of information asymmetry and the use of XBRL under IFRS. The study finds that with the help of XBRL as a technology, the flow of financial data will be at fast into the market at exact time. With high speed flow of financial data, information asymmetry can also be minimized with the use of XBRL during the publication of financial statements. The study also found that XBRL under IFRS can solve the issue of understanding the financial statements under a multinational economic environment. The study gives scope for further research on assessing the implementation practices in relation with certain company qualitative and quantitative characteristics.

James Gunn (2007) discusses the potential of XBRL in making the recognition and disclosure distinction more transparent by reducing errors or omissions in user's information search by making their search more targeted. It also reduces the cost of data processing, re entering, manual cut and paste exercises. Finally in the paper it is evidenced that XBRL reporting ensures the transparency of data and assures the quality of data.

RESEARCH GAP:

XBRL technology is still at infancy stage in India. From the earlier studies it was found that only few studies have been carried out on the empirical aspects of XBRL. The earlier studies have focused more on implementation related issues of XBRL and not much study is done on stakeholder's perspective of XBRL, taxonomy aspects and disclosure of non-financial information in XBRL financial reporting. Therefore, in order to fill the existing research gap and to study the empirical aspects, the present study focuses on the impact of XBRL reported information on both preparers and users of information and the quality of the information.

STATEMENT OF THE PROBLEM:

The extensible business reporting language (XBRL) is an important foundation for the high quality exchange of business and other reports on the internet. XBRL provides the opportunity to make significant changes in the distribution and use of information in a variety of information value chains. Countries across the world are gradually adopting XBRL as a financial reporting technology. Some of the countries are even mandating the adoption of XBRL. In 2011, Ministry of Corporate Affairs (MCA) India has mandated the adoption of XBRL for the selected group of companies. From the analysis of secondary sources (such as articles, business journals, few available research papers on XBRL) issues related to financial data quality in XBRL formatted reports, efficiency of XBRL reporting from the view point of preparers and users and quality of disclosure are to be addressed. However, little research has been conducted on empirical issues of XBRL reporting related to these areas. Therefore, this study focuses on the importance of XBRL financial reporting with respect to preparers and users of financial reports and disclosure related issues of XBRL.

RESEARCH QUESTIONS:

Based on the review of literature some research questions were framed they are:

1. Is XBRL financial reporting efficient from the perspective of preparers of financial reports than traditional reporting?
2. How would the adoption of XBRL impact on the users of financial information?
3. Do XBRL financial reports increase the quality of financial data than traditional financial reports?

NEED FOR THE STUDY:

XBRL is an internet based business reporting language which is rapidly becoming an international standard for financial reporting. It can be rightly called as the foundation for the high quality exchange of business and other information reports on the internet. The various regulatory authorities of Indian corporate sector also giving more importance for the reporting and disclosure of corporate information by the companies in XBRL format. Reporting and disclosure of corporate information through XBRL assures various benefits from the perspective of both preparers and users of XBRL annual reports.

The number of studies available with respect to the XBRL reporting is limited. There is a need to explore and discuss about the quality of information disclosed through XBRL and the impact of XBRL reporting on the preparers and users. Therefore, there is a necessity to study the quality of disclosure of financial and non-financial information through XBRL reporting and its impact on preparers and users of information, to assess the quality of disclosure of information through the XBRL.

OBJECTIVES OF THE STUDY:

On the basis of research questions following objectives are framed for the study:

- i. To study the usefulness of XBRL financial reporting from the preparers perspective.
- ii. To analyse the impact of XBRL on the users of reported information through XBRL.
- iii. To assess the quality of traditional financial information and XBRL reported financial information

RESEARCH METHODOLOGY:

The study is primarily an empirical analysis based on secondary data. The methodological aspects of the study include:

i) Sources of information:

For the purpose of data collection, the study adopted secondary sources of data gathered from the annual reports of the companies, from MCAs, ICAI, SEBI, BSE, XBRL India websites and published documents related to the XBRL reporting.

ii) Population and Sample design:

For secondary data the population consists of 5 BSE-SENSEX companies. The study considers all 5 companies for study and which were chosen on random sampling method.

The below mentioned companies are selected for content analysis of annual reports to analyse the quality of financial reports prepared based on XBRL taxonomy.

Table 01: The list of BSE Companies

Sl. No	Name of the companies
1.	Infosys ltd
2.	Tata Consultancy Services Ltd.
3.	Reliance Industries Ltd.
4.	Wipro Ltd.
5.	Bharti Airtel Ltd.

Source: BSE

METHODOLOGY:

For the purpose of assessing the quality of financial information the study used is content analysis technique and which was carried with the help of chartered accountants. Five chartered accountants were selected on convenience sampling method and each chartered accountant are given two annual reports consisting of both traditional and XBRL formatted to rank the financial reporting quality by reading the contents of each reports and rank that between 0-5. The rank 5 is having high quality. This process was based on the data quality assessment model developed by Strong, Lee, Wang in 1997. The marks were received through the financial reporting mark sheets enclosed in appendix.

Variables for the study:

For the purpose of the study variables are considered on the basis of data quality assessment model(Strong, Lee, Wang 1997).

Table 02: Data quality dimensions

Data Quality Category	Intrinsic	Accessibly	Contextual	Representational
Data Quality Dimensions	Accuracy Objectivity Believability Reputation	Accessibility AccessSecurity	Relevancy Value-Added Timeliness Completeness Amount of Data	Interpretability Ease of understanding Concise Representation Consistent Representation

Source: strong, Lee, Wang 1997

Data analysis and interpretation:

Usefulness of XBRL financial reporting from the preparers perspective:

From the analysis of secondary sources of information, we have observed the following benefits of XBRL financial reporting to the preparers of annual reports.

- XBRL reporting makes business information exchange better, faster, and cheaper.
- It makes financial reporting more transparent and discoverable.
- It Clearly expresses the business meaning and thus enables the exchange of that meaning between humans or between business systems.
- It improves data integrity by giving a platform for reporting both financial and non-financial information in annual reports. Now BSE is thinking to mandate the integrated reporting as per the GRI norms (Global reporting initiative) to bring all financial and non-financial information under one unified reports for this XBRL will directly supports with its dynamic feature.
- XBRL reporting enables to report the information as per particular domain knowledge such as IFRS or IND-AS principles through the specific taxonomies designed for specific GAAPs. This will help the preparers in maintaining the consistency in financial reporting in confirmation with respective GAAPs.
- It improves the information-supply chain.
- XBRL reporting helps to analyse the meta data because the Linked data connects one set of data with another set of data to make both data sets more useful.

- Just like internet and intranets, XBRL also builds an internal semantic web(i.e., private and limited access). A semantic web approach is that which makes information computer readable data base(also usable by humans). Besides creating internal semantic web, XBRL also creates an extranet-type semantic web which helps to work with business partners also.
- XBRL helps to check computations and reporting rules to provide correct information to the end-users.
- It helps to make business information interoperable. Rekeying of information is not a matter now with the help of XBRL technology.
- XBRL cleans the web of companies that may have been overlooked in the past. As more and more companies are reporting through XBRL, it is easier to look for good investments with the help of search engines.
- XBRL reporting avoids the reprocessing of reported financial information for further analysis because it enables automatic analysis of financial information through instance document.
- XBRL helps to make reporting taxonomies flexible(i.e., extensible) and which can be altered as per the nature of information to be reported by the specific business houses. (In India alteration of taxonomy is done by MCA as per reporting nature of different segments of business). This develops the specific business reporting language.
- XBRL reporting reduces the repetitive work because it allows the employees to reuse the instance documents and this is not possible in traditional formats.
- XBRL taxonomies contains the accounting rules and which will guide the preparers on the matters to be included in reports and thereby it reduces errors and omissions and miscommunications.
- In XBRL financial reports are prepared as per the taxonomies developed by particular regulating authority(ex: MCA in India), this will reduce compliance costs.
- XBRL reporting reduces audit costs.
- It enables the preparers to consolidate the results across divisions and subsidiaries with much greater speed and reliability.
- At last it is important to note that XBRL reporting helps the reporters in maintaining the consistency in reporting and which is beneficial for them for future comparisons.

Impact of XBRL on the users of reported information through XBRL:

To complete the accounting information process, the business house must communicate the results to the end-users. At the time of communicating information, the reporting entity must keep it in mind that the nature of information needed by different users more or less the XBRL formatted reports are very dynamic in fulfilling the needs of the users of information. By the analysis of secondary data, the study has identified some notable impact of XBRL on the users of financial information. Users of financial information are government, regulators, economic agencies, stock exchanges, lenders of credit, customers, employees etc. following are the notable effects on the users:

- XBRL reported information enables the users to take quicker and more efficient decisions on their different context.
- It enables the company to provide effective communication of information through internet by providing more transparent and user-friendly information. This increases the confidence of investors on the company affairs.
- XBRL reports helps to get quick responses from counterparties like banks and regulators(such as MCA, IRDA, CDBT etc.,)
- Government and regulatory authorities have a positive impact by XBRL through obtaining data which can be entered automatically to systems without any alterations, reformatting and other translation efforts because XBRL reporting taxonomy is totally based on the requirements of various regulatory authorities.
- XBRL reports enables the regulatory authorities to identify the problems with filings quickly.
- XBRL reports also positively impacts on stock exchanges by increasing the value and competitiveness of the information reported in the annual reports which they offer to institutions and private investors.
- For the investment analysts, XBRL reports provides the ability to handle and compare a wider range of company's and deeper set of information. It is also very easy to find specific company data. These data can be analysed, compared and benchmarked using more powerful software tools with the help of XBRL technology.

- It also positively impacts on the credit insurance and underwriting decisions taken by credit risk assessment companies and which depends largely on high-quality assessment of large quantities of up-to-date information. XBRL provides automated, robust assessment base for such information.
- Accountants are also positively impacted by XBRL in obtaining more rapid and reliable data on company's financial and operating performance and also it largely reduces the efforts and costs in collecting and processing data for analysis. Besides this it simplifies the analysis function with greater automated tasks. Finally, XBRL Reports increases the reliability in accounting and auditing tasks through the value-added tasks.
- By the analysis of secondary data, it also found that XBRL is also greatly impacting on software developers and IT systems providers because, it helps to develop the software to facilitate the preparation, publication and gathering of data in XBRL format. It also gives an opportunity to produce the software to select, compare and analyse financial data in XBRL (Infosysltd, Tally Inc. are the examples of software developers using XBRL).

Quality of traditional financial information and XBRL reported financial information:

The results of content analysis are as follows:

Table 03: Quality of financial information of Infosys limited

Data Quality Category	Data quality dimensions	XBRL	Overall Sore	Non-XBRL	Overall score2
Intrinsic	Accuracy	4		4	
	Objectivity	5		3	
	Believability	4		2	
	Reputation	5	4.5	3	3
Accessibility	Accessibility	4		3	
	Access security	5	4.5	4	3.5
Contextual	Relevance	5		4	
	value-added	4		3	
	Timeliness	5		3	
	Completeness	5		4	
	Amount of data	5	4.8	3	3.4
	Interpretability	5		4	
	Ease of understanding	5		3	
Representational	Concise Representation	4		5	
	Consistent Representation	5	4.75	4	4

Source: Content analysis

As per the financial reporting markings by the chartered accountant its observed that the table shows the average scores of both XBRL and Non-XBRL reports. In all the four major quality dimension the XBRL report of Infosys ltd is having more average score than non-XBRL reports, so we can say that XBRL formatted annual reports are more qualitative than Non-XBRL reports.

Table 04: Quality of financial information of Tata consultancy services limited

Data quality category	Data quality dimensions	XBRL	Overall Sore	Non- BRL	Overall score2
Intrinsic	Accuracy	5		4	
	Objectivity	5		5	
	Believability	4		3	
	Reputation	5	4.75	3	3.75
Accessibility	Accessibility	4		4	
	Access security	5	4.5	3	3.5

Data quality category	Data quality dimensions	XBRL	Overall Sore	Non- BRL	Overall score2
Contextual	Relevance	5		5	
	value-added	4		3	
	Timeliness	5		2	
	Completeness	5		4	
	Amount of data	5	4.8	3	3.4
Representational	Interpretability	5		3	
	Ease of understanding	5		3	
	Concise Representation	3		5	
	ConsistentRepresentation	5	4.5	3	3.5

Source: Content analysis

As per the financial reporting marking by the chartered accountant we can observe the average scores of both XBRL and Non-XBRL reports. In all the four major quality dimensions the XBRL report of TCS ltd is having more average score than non-XBRL reports, so we can say that XBRL formatted annual reports are more qualitative than Non-XBRL reports.

Table 05: Quality of financial information of Reliance Industries Ltd.

Data quality category	Data quality dimensions	XBRL	Overall Sore	Non- XBRL	Overall score2
Intrinsic	Accuracy	4		3	
	Objectivity	5		3	
	Believability	3		2	
	Reputation	5	4.25	3	2.75
Accessibility	Accessibility	4		3	
	Access security	5	4.5	4	3.5
Contextual	Relevance	5		3	
	value-added	4		4	
	Timeliness	5		3	
	Completeness	5		5	
	Amount of data	5	4.8	3	3.6
Representational	Interpretability	5		4	
	Ease of understanding	5		3	
	Concise Representation	3		5	
	Consistent Representation	5	4.5	4	4

Source: Content analysis

Financial report marking by the chartered accountant, the table depicts the average scores of both XBRL and Non-XBRL reports. Its observed that in all the four major quality dimensions of the XBRL report of Reliance Industries is having more average score than non-XBRL reports therefore its interpreted that XBRL formatted annual reports are more qualitative than Non-XBRL reports.

Table 05: Quality of financial information of WIPRO Ltd.

Data quality category	Data quality dimensions	XBRL	Overall Sore	Non- XBRL	Overall score2
Intrinsic	Accuracy	4		3	
	Objectivity	5		4	
	Believability	3		2	

Data quality category	Data quality dimensions	XBRL	Overall Sore	Non-XBRL	Overall score2
	Reputation	5	4.25	4	3.25
Accessibility	Accessibility	4		3	
	Access security	5	4.5	4	3.5
Contextual	Relevance	5		4	
	value-added	4		3	
	Timeliness	5		4	
	Completeness	5		4	
	Amount of data	5	4.8	3	3.6
Representational	Interpretability	5		4	
	Ease of understanding	5		4	
	Concise Representation	4		5	
	Consistent Representation	5	4.75	4	4.25

The table depicts the markings of financial reports by chartered Accountants. It shows the average scores of both XBRL and Non-XBRL reports. It can be interpreted that in all the four major quality dimensions of the XBRL report have more average score than non-XBRL reports. Thus its understood that XBRL formatted annual reports are more qualitative than Non-XBRL reports.

Table 05: Quality of financial information of Bharati Airtel limited

Data quality category	Data quality dimensions	XBRL	Overall Sore	Non-XBRL	Overall score2
Intrinsic	Accuracy	5		5	
	objectivity	5		3	
	Believability	4		2	
	Reputation	4	4.5	3	3.25
Accessibility	Accessibility	4		3	
	Access security	4	4	4	3.5
Contextual	Relevance	5		4	
	value-added	4		3	
	Timeliness	4		3	
	Completeness	5		4	
	Amount of data	5	4.6	3	3.4
Representational	Interpretability	5		4	
	Ease of understanding	4		3	
	Concise Representation	4		5	
	Consistent Representation	5	4.5	4	4

The table shows the markings of financial reports by chartered Accountant. It shows the average scores of XBRL and Non-XBRL reports. In all the four major quality dimensions XBRL report have more average score than non-XBRL reports. Thus it can be interpreted that XBRL formatted annual reports are more qualitative than Non-XBRL reports.

FINDINGS AND CONCLUSIONS:

From the analysis and interpretation of data the study reveals that XBRL financial reporting is most efficient than traditional reports such as pdf, excel and other formats from both preparers and user's perspective. The reporting of business affairs through XBRL helps exchange of information at low cost, error-free, and with less time. XBRL reporting is also favourable to report both financial and non -financial information. It's also found that XBRL formatted reports will work for harmonising of accounting standards. It's evident that XBRL

financial reports will obviously meet the needs of various regulatory authorities and other stakeholders of information. It is very concise and comprehensive through which financial information can be analysed with less efforts. From the content analysis of annual reports with the help of chartered accountants the study reveals that the quality of financial information is comparatively high in XBRL reports. Thus we can conclude that the reporting of financial information through XBRL in confirmation with accounting standards will give the greater transparency in information and fulfil the information needs of various stakeholders as per their distinct needs and wants. So the study considers XBRL reporting is one of the trends in reporting language prevailing in the Indian business scenario. We also suggest some of the areas for the further research and they are related comparison of cross-country XBRL taxonomies, reporting aspects of accounting and integrating reporting through XBRL.

LIMITATIONS AND SCOPE FOR FURTHER RESEARCH:

Every methodology used is having their own limitations that can affect the results of the research. And study considered less number of samples. The future studies can be made on the implementation issues and taxonomy issues by considering large samples.

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