XBRL: Towards an Unified Taxonomy

Dirk Beerbaum*

University of Surrey, Guildford, Surrey Business School, UK

Abstract

This study identifies upcoming trends for XBRL (Extensible Business Reporting Language). While most of the articles focus on technological aspects such as ontology and software engineering this article relates to accounting-related aspects of the taxonomy. The taxonomy can be regarded as a main cornerstone of each XBRL financial reporting submission. As taxonomy do not develop standards, laws and regulations newly, they only derive standardized reporting elements the current landscape of taxonomy is still characterised by multiple heterogeneous taxonomies. Based on the harmonization requirements and requests from regulators for better comparison of financial reports among peers, it can be concluded that taxonomies will adapt and merge to each other. In an end-game scenario it is probable that only one taxonomy remains and prevails.

Keywords: XBRL; Taxonomy; IFRS; US GAAP; Harmonization

Introduction

XBRL is still a new technology, as its origin goes back to 1998, when XBRL was invented by a CPA named Charles Hoffman based on the Extensible Mark-up Language (XML). XBRL is an abbreviation of extensible Business Reporting Language [1]. In the last ten years it has evolved as the de-facto standard for the electronic exchange of business information. According to Debreceny, XBRL was based on the World Wide Web consortium's XMRL standard and is freely licensed by XBRL International Inc. (XII). XII is established as a not-for profit organization, which consists of a consortium of 550 companies and agencies worldwide. XBRL is defined by XII as "a language for the electronic communication of business and financial data, which is revolutionizing business reporting around the world. 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" [2]. XBRL taxonomy represents a huge collection of taxonomy schemas and linkbases. Link-bases are collections of links. An XBRL schema is used to store information about taxonomy elements, such as their names, IDs and various other characteristics. It can also be regarded as a container where a list of unrelated elements and references to linkbase files are described. From a technical point of view, the XBRL Schema represents an XML Schema tailored to particular business and financial reporting needs. The use of schema allows the definition of the instance [3]. Existing literature focus on these technical questions, however the taxonomy plays an important role for the comparison and transparency of financial reporting. The taxonomy reflects national, international rules as well as common practice and industry standards.

XBRL and the financial rporting supply-chain

XBRL has the potential to significantly enhance the efficiency of the financial supply chain [4], as it has the following advantages and positive impact: Investors can automatically retrieve information from financial reports, without the need to convert data (Figure 1).

- Auditors and regulators will also have direct access to financial reports and can easily compare with peers and even other industries, as companies not only provide financial reports but also explain how these financial reports relate to requirements and how the corporations interpret these requirements. With the help of XBRL, the SEC could, for instance, detect the scandal associated with options price backdating [5].

- Issuers of Financial Reports can provide assurance that the information is reliable.

- Reports can provide a true as well as fair view of the company's financial position, its financial performance and other additional disclosures.

As a conclusion, XBRL offers an advantage for several participants in the financial supply chain. This explains why: for instance in a recently issued paper from the European Commission [6] it is stated that "The fact that the same information is reported through multiple channels to differentregulators and governments creates an unnecessary administra-tive burden in terms of economic activity, inconsistency of data and confusion of markets. In order to provide greater efficiency we believe we have the answer: the answer to this is: XBRL" [6]. Although in many other countries XBRL was early introduced: 2004 in China, 2005 in USA 2010 in Japan, to name just a few, in Europe through the EU Transparency Directive Article 4 (2013) the intention was ruled out to implement XBRL. With effect from 1 January 2020 all annual financial reports shall be prepared in a single electronic reporting format.European Security Market Agency (ESMA) shall develop draft regulatory technical standards to specify the electronic reporting format [5] as laid down in the Directive " A harmonised electronic format for reporting would be very beneficial for issuers, investors and competent authorities, since it would make reporting easier and facilitate accessibility, analysis and comparability of annual financial reports. Therefore, the preparation of annual financial reports in a single electronic reporting format should be mandatory with effect from 1 January 2020, provided that a cost-benefit analysis has been undertaken by ESMA. ESMA should develop draft technical regulatory standards, for adoption by the Commission, to specify the electronic reporting format, with due reference to current and future technological options, such as extensible Business Reporting Language (XBRL)"[7].

*Corresponding author: Dirk Beerbaum, University of Surrey, Guildford, Surrey Business School, UK, Tel: 44- (0)-148-330; E-mail: d.beerbaum@surrey.ac.uk

Figure 1: XBRL and the Financial Rporting Supply-Chain
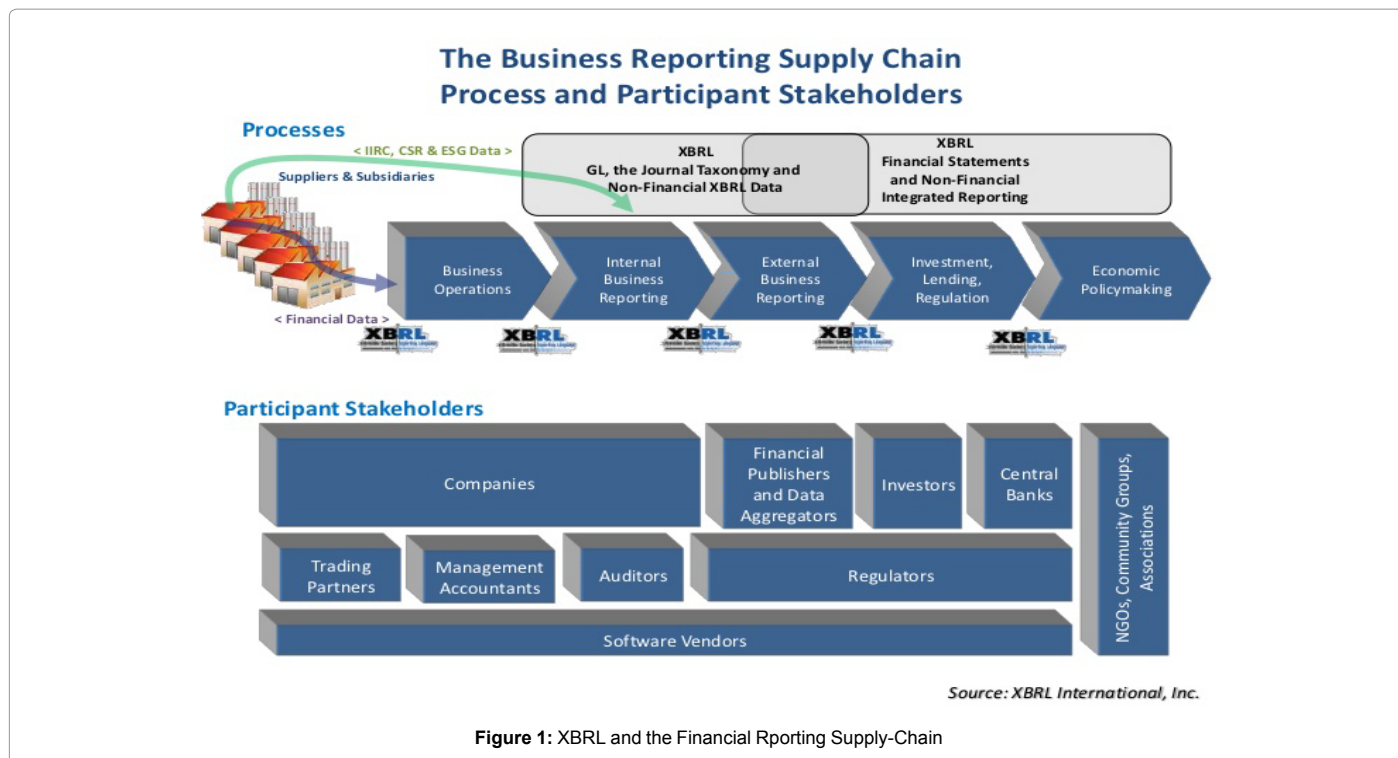
Literature Review

Several academic studies exist which conclude that XBRL improves market efficiency Peng et al. [8]. XBRL can help the non-professional investors to approximate to the playing field of the professionals, as information can be collected and used faster by non-professionals, with lower information search costs. A similar positive effect on the supply side of financial reporting is analysed and derived within the study, which mainly shows that transparency is enhanced after the implementation of XBRL. Peng and colleagues applied the indicator of accruals, which is commonly used, as the level of accruals decreased post-XBR. Their results are based on the Chinese market, which was the first to implement XBRL findings world-wide. An additional source for the conclusion that XBRL has significant positive impact on investors, corporations and capital markets is the research on SEC voluntary filings. In summary, XBRL provides material benefits on corporate disclosures (Figure 2).

Efendiet al.There are only a few empirical studies available which can provide proof of positive effects on Financial Reporting resulting from the implementation of XBRL due to the lack of available empirical data. However, starting in 2008, empirical studies began to proliferate, and the majority of findings draw positive conclusions from the implementation of XBRL. Most of the academic literature about XBRL between 2008 and 2012 refers to the Voluntary Filing Program of the SEC. The main result of the voluntary filing studies is that the following factors are believed to be significant in voluntary XBRL adoption in the US: innovative, larger size, high profitability, earnings quality, strong CG, high liquidity, and large analyst following.

A similar development can be noticed in Germany: since 2006, the electronic gazette, which all German listed companies need to use as a platform for filing their annual reports, has permitted XBRL on a voluntary basis instead of an XML conversion, but only five companies out of thousands have finally elected XBRL. The reasons for this are not clear, as studies show that voluntary early adoption of XBRL-based reporting signals superior CG and operating performance [9].

Taxonomy development

IFRS vs. US GAAP: Several studies try to identify common characteristics for the extension rate of XBRL filings and other macroeconomic factors. One paper focus on the development stage of country [10]. This paper concludes with the fact that there it is really a strong connection between XBRL and the development stage of a country.

Another article focuses on specific implementations of XBRL for specific countries. According to Valentinette XBRL is being applied in many countries, but according to different implementation schemas. In this study, the authors intend to verify if the IFRS Taxonomy released by the IFRS Foundation adequately reflects the reporting practices of the Italian listed companies for which XBRL is not yet required. The outcome of the study is that the authors can show that there is a general discrepancy between the financial items disclosed by the companies and the taxonomy tags (Figures 3 and 4).

The authors conclude that the rate of disaggregation of tags depends upon the sector and the size of the companies. Prior studies mainly explain deviations with the framework the taxonomy is based on: for U.S. GAAP it is a code law and for IFRS a principal-based accounting standards. Due to these immanent design U.S. GAAP taxonomy consist of merely 13000 elements, while the IFRS taxonomy comprise of 3800 [11].

Moreover, the U.S. GAAP taxonomy has developed industry specific taxonomies for Banking and Savings, Brokers and Dealers, Commercial and Industrial, Insurance and Real Estate. For IFRS the IASB really gave up the concept of industry-specific standards.

XBRL will not necessarily become the last technology. In the future

Focus	Main Findings	Sample/ Country	Author of Study
Mandatory XBRL Filings	Level of accruals decreased post-XBRL; information acquisition costs are lowered	Shanghai Stock Exchange and Shenzhen Stock Exchange China	Peng et al.
Voluntary XBRL Filings	Voluntary XBRL filings have incremental information content. 1.2% to 8.0% out of total information content in earnings disclosures is associated with these XBRL filings	Voluntary Filing Program SEC; Sample: 342 Filings from 2005 to June 30, 2008	Efendi, J., Park, J.D. Subramaniam, C., 2009
Corporate Governance	Voluntary filers with the SEC using the XBRL format are associated with superior corporate governance and operating performance relative to their peers.	Authors use a corporate governance index to rank 137 companies.	Bhattacharya (2008)

Figure 2: Several academic studies exist which conclude that XBRL improves market efficiency.
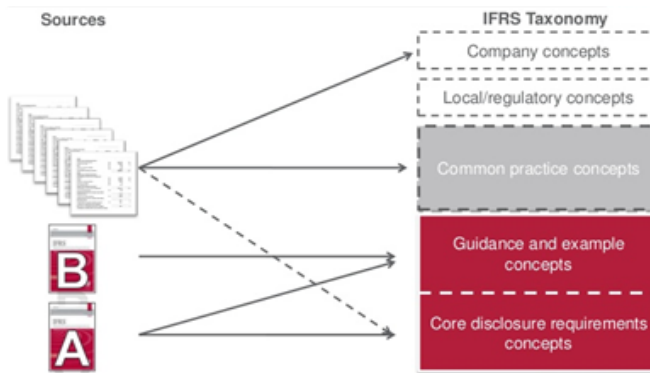
Source: IASB

Figure 3: IFRS Taxonomy
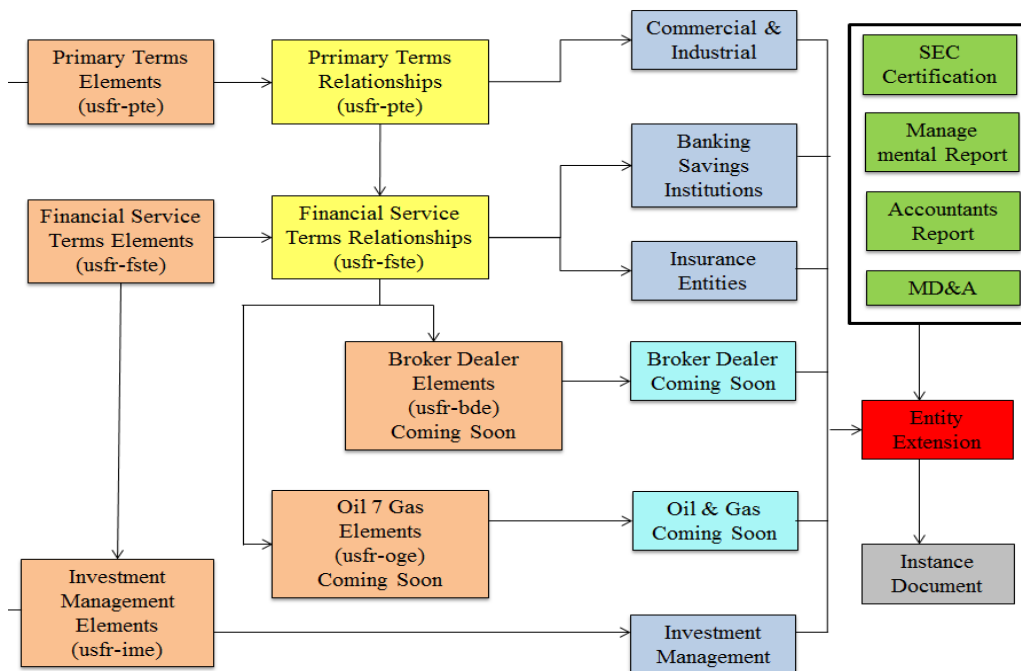
Source: FASB

Figure 4: US GAAP Taxonomy

Sample: Fortune 100 XBRL U.S. GAAP Filers				
Elements from Taxonomy 2014	Declared in Taxonomy	Reported in instance files	Declared in Taxonomy	Reported in instance files
Primary items	19441	4773	4100	3700
Members	1465	975	1100	821
Dimensions	363	201	363	201

Figure 5: U.S. GAAP and IFRS-Filers report for their external XBRL submission a comparable number of concepts.

signs are clear that regulators will push more on the granularity of data [12]. Currently, mainly aggregated data have to be reported, however compared to raw data aggregated data still have many disadvantages. To better compare the future raw data many regulators have started with data dictionary projects, which aim at the definition of raw data to ensure that all companies use the same type of data [13].

Unified taxonomy: U.S. GAAP and IFRS-Filers report for their external XBRL submission a comparable number of concepts (Figure 5).

Conclusion

This study explores the literature about definitions and concepts when a significant increase in credit risk is achieved. XBRL is the de-facto reporting standard of the future. Regulators need to further progress on a single standardized taxonomy. To reach the full potential XBRL will need further years of correct and regulated data.

References

1. Weber R (2003) XML, XBRL, and the future of business and business reporting. Trust and data assurances in capital markets: The role of technology solutions 4: 3-6.

2. Debreceny R, Felden C, Ochocki B, Piechocki M, Piechocki M (2009) Multidimensionality in XBRL. XBRL for Interactive Data. Springer 129-185.

3. Piechocki M (2007) XBRL financial reporting supply chain architecture. Freiberg Sachsen: TU Bergakademie Freiberg.

4. Müller-Wickop N, Schultz M, Nüttgens M (2013) XBRL: Impacts, Issues and Future Research Directions. Enterprise Applications and Services in the Finance Industry New York: Springer.

5. Alles M, Piechocki M (2012) Will XBRL improve corporate governance? A framework for enhancing governance decision making using interactive data. International Journal of Accounting Information Systems 13: 91-108.

6. Klinz W (2012) XBRL from the European Parliament's perspective.

7. IFRS (2015) Annual Conventiononline.

8. Amiraslani H, Iatridis GE, Pope PF (2013) Accounting for asset impairment. London: Cass Business School.

9. European Commission (2013) Financial report.

10. Peng EY, Shon J, Tan C (2011) XBRL and Accruals: Empirical Evidence from China. Accounting Perspectives 10: 109-138.

11. Efendi J, Smith LM, Wong J (2011) Longitudinal analysis of voluntary adoption of XBRL on financial reporting. International Journal of Economics and Accounting 2: 173-189.

12. Urdari C, Tudor AT, Econ BES (2011) 13 Years after: An XBRL literature review and overview. Proceedings of the International Conference Accounting and Management Information Systems 1: 720-731.

13. Servais O (2012) XBRL activities. International Financial Reporting Standards.