

Available online at [www.sciencedirect.com](http://www.sciencedirect.com)**ScienceDirect**

Procedia Economics and Finance 28 (2015) 32 – 38

---

---

**Procedia**  
Economics and Finance

---

---

[www.elsevier.com/locate/procedia](http://www.elsevier.com/locate/procedia)

7th INTERNATIONAL CONFERENCE ON FINANCIAL CRIMINOLOGY 2015  
13-14 April 2015, Wadham College, Oxford, United Kingdom

## Examining the Adoption of Extensible Business Reporting Language among Public Listed Companies in Malaysia

Azleen Ilias<sup>a</sup>, Erlane K Ghani<sup>b\*</sup>

<sup>a</sup>Department of Accounting, Universiti Tenaga Nasional, Malaysia

<sup>b\*</sup>Faculty of Accountancy, Universiti Teknologi MARA, Malaysia

---

### Abstract

This study examines the adoption of an accounting information systems language known as Extensible Business Reporting Language (XBRL) among public listed companies in Malaysia. Using 100 top public listed companies as the sample study, this study examines whether these companies have adopted XBRL, consistent with the call made by the Companies Commission of Malaysia (CCM) for such adoption. Such call was made to encourage listed public companies to provide their annual reports via XBRL and ultimately improves harmonisation between companies and between countries. The result of this study shows that to this date, no public listed companies have adopted XBRL. Such scenario indicates that there could be issues and challenges that have deter the implementation of XBRL among these companies. The result in this study serves as a starting point for CCM and other Malaysian regulators to consider the issues and challenges as to why such scenario exists and subsequently, provide strategies to encourage these companies to adopt XBRL.

© 2015 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of ACCOUNTING RESEARCH INSTITUTE, UNIVERSITI TEKNOLOGI MARA

*Keywords:* XBRL, financial reporting, adoption, public listed companies, Malaysia

---

### 1. Introduction

Financial reporting is an important tool used to communicate the performance of a company to its stakeholders for decision making. Preparers of financial reports must ensure that the financial reports must be prepared in line with the qualitative characteristics of financial reporting information identified by International Accounting

---

\* Corresponding author. Tel.: +603-55442813; fax: +603-55444921.  
E-mail address: [erlanekg@salam.uitm.edu.my](mailto:erlanekg@salam.uitm.edu.my)

Standard Board (IASB). IASB defines qualitative characteristics of financial reports to include relevance, reliability, comparability and consistency, materiality, cost and benefits, decision usefulness and understandability (IASB, 2010). One of the technologies that assist financial preparers to achieve the qualitative characteristics of financial reporting purported by IASB is XBRL (Baldwin et al. 2010; Vasarhelyi et al. 2012). Baldwin et al. (2006) noted that XBRL provides potential improvements and challenges to information quality through well-defined standard taxonomies and hence achieve the qualitative characteristics of financial reporting.

Many countries have started to adopt XBRL. In Japan, Ito (2013) noted that the preparation and submission of annual securities reports, semi-annual securities reports, quarterly securities reports and securities registration statements has been handled in XBRL through Electronic Disclosure for Investors Network Systems (EDINET) and currently with Next Generation EDINET. The existence of Next Generation EDINET is for increasing the scope, search functionality, and analytical function. In UAE, the Securities and Commodities Authority (SCA) was granted a provisional XBRL jurisdiction status as at 2006 and became permanent jurisdiction in 2009. They have developed reporting platform using IFRS 2011 taxonomy for companies listed in the Dubai Financial Market (DFM) and on the Abu Dhabi Securities Exchange (ADX) which they have developed electronic filing platform for XBRL based filing (Gupta and Krishnaprasad, 2012). India has shown further development by Ministry of Corporate Affairs (MCA), the Reserve Bank of India (RBI), Securities Exchange Board of India (SEBI), the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE) for the regulatory filings. They currently work towards the implementing XBRL Global Ledger (GL) that can be used by various filings (Srivastava and Daga, 2012). Similar developments can be seen in other countries such as United Kingdom, United States, Korea, Turkey, Saudi Arabia, Japan, India, Italy, Germany, France, Australia, Belgium, Bermuda, Ireland, Israel, Luxemburg, Netherland, Poland, Singapore and Spain.

Malaysia is still in progress of preparing towards XBRL implementation. For example, CCM has taken the initiative in starting the progress to adopt XBRL in line with its Strategic Direction II (SDP II). The plan to start XBRL is in 2010 and the financial statement taxonomy has been released in 2014 known as SSM Taxonomy (SSMT). CCM is expecting to implement XBRL financial reporting format on a voluntarily. It will start with two phases for XBRL format for reporting involving listed companies, subsidiaries and non-listed companies. The second phase will continue with XBRL implementation for private limited companies (Nor Azimah, 2013). This study aims to examine whether the public listed companies have accepted the call in adopting XBRL. If the companies have implemented XBRL, such scenario would assist in achieving harmonisation within companies and within countries and of consequence, achieve the qualitative characteristics of financial reporting. If the companies have yet to adopt XBRL, then issues and challenges related to XBRL adoption needs to be identified. Other regulators could provide strategies to encourage public listed companies to adopt XBRL.

The remainder of this paper is organised as follows. Section 2 provides an overview of XBRL. This is followed by Section 3 that provides the literature review. Section 4 presents the research methodology and Section 5 presents the findings, discussion and implication of this study. The last section, Section 6 summaries and concludes this study.

## 2. Literature Review

XBRL was developed by Charles Hoffman in 1998 and started utilizing XML for the purpose of digitizing the financial information. In December 1998, the prototype of XFMRL (Extensible Financial Reporting Markup Language) was developed and this has led to the progress of XBRL development. In year 1999, the non-profit organisation known as XBRL.org has been established. On July 2000, the first XBRL 1.0 specification and taxonomy for financial reporting under US GAAP has been published. XBRL is important in current digital business reporting in order to improve transparency and by improving public interest and stakeholders. Based on XBRL.org, XBRL is known as “bar codes for reporting” which the data will be tagged by taxonomies and bring meaningful to the data will be more standardized and reporting chain will be more rapid, accurate, digitalised and fastest. The digitalised format is shifted from paper-based, PDF and HTML to the meaningful format that the data will be defined with the specific meanings as the output known as XBRL instance document.

XBRL is important in current digital business reporting in order to improve transparency and by improving public interest and stakeholders. Based on XBRL.org, XBRL is known as “bar codes for reporting” which the data will be tagged by taxonomies and bring meaningful to the data will be more standardized and reporting chain will be more rapid, accurate, digitalize and fastest. The digitalize format is shifted from paper-based, PDF and HTML to the

meaningful format that the data will be defined with the specific meanings as the output known as XBRL instance document. The XBRL instance documents will provide a lot of benefits such as transmitting data across multiple software and data can be easily extracted (XBRL.US, <http://xbrl.us/preparersguide/pages/section7.aspx>). This technology promotes many benefits such as reduction of reporting burdens to regulators, increased data quality and availability in digital form, increased comparability of information within Malaysia and with international entities and also use data for analyse decision making.

Studies on XBRL have started over a decade ago when this technology was initially introduced. These studies have examined XBRL from different perspectives which include awareness of XBRL (Pinsker, 2003; CFA 2009); understanding of XBRL (Nel and Steenkamp 2008), factors determining XBRL adoption (Doolin and Troshani, 2007), pre implementation of XBRL (Troshani and Doolin, 2005) and post implementation of XBRL (Baldwin et al. 2006; Premuroso and Bhattacharya, 2008). These studies were conducted using various settings and provide mixed findings. For example: Pinsker (2003) examined the awareness among internal and external auditors in US. Nel and Steenkamp (2008) on the other hand, assessed the level of awareness and understanding among certified accountants (CAs) in Australia. In Malaysia, Ghani and Muhammad (2014) carried out in Malaysian on focusing into perception and usage expectation on XBRL. These studies provide some understanding on the development of XBRL and the users' awareness on this technology. Most of these studies were either a concept based paper and descriptive in nature.

A group of studies have examined the factors that influence an organisation's decision to adopt a technology (Doolin and Troshani, 2007; Pinsker and Wheeler, 2009; Bonson et al. 2009; Gray and Miller, 2009; Felden, 2011; Steenkamp and Nel, 2012; Henderson et al., 2012). These studies have stressed on the factors that might impact the decision to adopt in various scope pertaining technology, organisation and environment. The results in these studies are mixed which could be attributed by the different objectives to adopt a technology. Few studies that focused on XBRL adoption were carried out using qualitative methodology such as Doolin and Troshani (2007) who have investigated XBRL adoption using semi-structured interview among 27 XBRL members. Troshani and Rao (2007) explored XBRL using in-depth interview and interviewed four business managers that known as early adopters. Other group of studies examined XBRL implementation using questionnaire survey (Bonson et al., 2009; Gray and Miller, 2009; Felden, 2011; Steenkamp and Nel, 2012; Henderson et al., 2012).

Another body of the XBRL literature have also examined the link between XBRL and users' performance (Hodge et al., 2004; Pinsker and Wheeler, 2009; Ghani and Juzoff, 2009; Ghani et al., 2009). Most of these studies are experimental based in nature examining factors of XBRL format usage on users' performance such as in facilitating investment decision (Hodge et al., 2004), decision making using XBRL format or paper-based (Pinsker and Wheeler, 2009), preferences of using HTML, XBRL and PDF might be influenced by work experience and familiarity (Ghani and Juzoff, 2009), investment decision making through usage of HTML, XBRL and PDF that might be linked with usefulness, ease of use and preferences (Ghani et al., 2009) and non-professional investors decision making with technology choice (Janvrin et al., 2011).

The results of these studies suggested that participants that preferred on XBRL are more preferable to choose footnote information in order to ensure better decision making (Hodge et al., 2004). In Pinsker and Wheeler (2009), they have provide evidence that investors that use XBRL format are more efficient and making more accurate decision compared with paper-based in analysing financial information. Similarly, in Ghani et al's (2009) study, they found XBRL is perceived to be a useful technology for decision making. However, other studies have shown contradictory findings. For example: Ghani and Juzoff (2009) found work experience or familiarity are important factors in preferences of financial reporting format. Similarly, Ghani et al. (2009) have provide evidence that proven participants in their experiments still preferred to use other format since participants perceived that every format is easy to use. These studies however, were conducted using individual level perspective and in a non-Malaysian context.

From the organisational level perspective, a group of studies have also examined the link between XBRL and organisational performance. Troshani and Doolin (2005) examined the driving factors and inhibitors that impact on technology adoption; for example relative advantage, management attitudes and external pressures. Doolin and Troshani (2007) focused into adoption factors for organisation which are similar to the studies conducted by Troshani and Rao (2007). Later studies have started to focus on standardised taxonomy such as by Bonson et al. (2009). Felden (2011) found social group and top management leadership influence the adoption of XBRL and Henderson et al. (2012) found that relative advantage, compatibility, complexity and learning from external sources are the factors that instigated the decision to adopt XBRL for internal-in house adoption although learning from

external sources and normative pressure impact the inter-organizational adoption. However, these studies did not examine the issues on adoption of XBRL.

In the information systems literature, studies have examined the issues on adoption and innovation towards technology, organisation and environmental. Among the studies implementation of Enterprise Resource Planning (Ugrin, 2009), electronically-enabled supply chains (Yao et al., 2007), internet-enabled enterprise digital transformation (Zhu et al., 2006), and factors that impact the successful of Enterprise Resource Planning implementation (Grabski et al., 2011). To this date, there has yet a study that has examined the issues of adoption in relation to XBRL. The factors and issues that have been examined in studies in the information systems literature provide opportunities for researchers to examine the issues on adoption of XBRL. Examining such issues could impact the decision to adopt XBRL.

### 3. Research Design

The objective of this study is to examine the adoption of XBRL among public listed companies in Malaysia. Specifically, this study examines:

- i. The current financial reporting format adopted by the public listed companies
- ii. The adoption of XBRL adopted by the public listed companies

These research objectives are achieved by way of content analysis and questionnaire survey.

#### 3.1. Sample Selection

The sample for this study is 100 top public listed companies in Malaysia. This sample is selected based on the market shareholding as at 14 March. One hundred top listed companies are selected because of their good performance and liquidity of shares. This study follows the method selection of Craven and Marston (1999) and Khalaj et al. (2013) that have emphasised on top companies. Out of the 100 companies, this study obtained response from 67 companies resulting in a response rate of 67 percent. This sample is considered sufficient since appropriate sample size for most research is larger than 30 and less than 500 (Sekaran and Bougie, 2013). Thus, it is believed 67 percent response rate is considered sufficient and appropriate size.

#### 3.2. Research Instrument and Data Collection

The objectives are achieved by way of a questionnaire survey. This study uses questionnaire survey on the public listed companies which comprise of types of industry, type of reporting format and current adoption on XBRL. The scale for the type of industry is from 1 to 9, type for reporting (0= PDF, 1 = HTML & Interactive) and current adoption (0 = non-adoption, 1 = adoption).

Data collection was conducted through two levels of data collection in examining the adoption of XBRL among the public listed companies. First, the data was collected by identifying the reporting format through companies' website and annual report. The purpose of reviewing the website is to determine whether the companies have communicated their financial information using XBRL. The websites of these companies were reviewed over a two week period from 1 December 2014 to 14 December 2014. This is done to identify the reporting format and any XBRL instance document matters through companies' website. It is believed that the period between two weeks was considered sufficient to obtain the data since it is only focused into the format of published the financial report.

Secondly, the researchers contacted the companies through phone call and it has taken about three weeks in order to have feedback from 67 companies out of 100 top listed companies. The reason for data collection at this level is to identify whether the public listed companies have adopted XBRL. This second level was conducted using questionnaire survey on companies that did not provide their annual reports via XBRL. The phone calls were made over a three week period from 14 December 2014 to 5 January 2015.

## 4. Result and Discussion

### 4.1. Profile

This section presents the descriptive statistics of the profile of the companies in terms of industry. In the current research, as based on top market capitalisation, most companies are from trading and services (35%), finance (13%), consumer (12%), plantation (11%), properties (9%), industrial product (8%), REITs (5%), infrastructure project (4%) and construction (3%).

Table 1. 100 top listed companies

Industry	Numbers of Companies
Construction	3
Consumer	12
Finance	13
Industrial Product	8
Infrastructure Project Company	4
Plantation	11
Properties	9
REITs	5
Trading and Services	35
	100

### 4.2. Current Financial Reporting Format

This section presents the results of the current financial reporting format by nine industries. The results in Table 2 show that most companies focused into the preparation of financial information using PDF. The results of the descriptive statistics show that most of the format has been prepared in Portable Document Format (PDF) and few of the companies prepared their annual reports using HyperText Markup Language (HTML) format and Online Interactive. Specifically, out of 100 companies, 24 companies have prepared the financial reporting with HTML and online interactive. However, the results show that none of the companies from the industrial product and infrastructure project company have provide HTML or online interactive. Most of these companies can be seen that still in traditional way of reporting format with the downloaded version and seems to be resistance to change their way of sharing information.

Table 2. Financial reporting format

Industry	PDF	HTML & Interactive
Construction	3	2
Consumer	12	4
Finance	13	4
Industrial Product	8	2
Infrastructure Project Company	4	0
Plantation	11	0
Properties	9	4
REITs	5	1
Trading and Services	35	7
Total	100	24

### 4.3. XBRL Adoption

This section presents the results on XBRL adoption among public listed companies. Table 3 presents the result. The result shows that out of the 67 companies, none of these companies have adopted their financial reports using XBRL. This finding is in line with the findings shown in Table 2 that no companies have yet to produce their financial information via XBRL.

Table 3: XBRL adoption among top listed companies

Industry	No.	Adopt	Non Adopt
Construction	3	0	3
Consumer	8	0	8
Finance	6	0	6
Industrial Product	6	0	6
Infrastructure Project Company	2	0	2
Plantation	8	0	8
Properties	8	0	8
REITs	5	0	5
Trading and Services	21	0	21
Total	67	0	67

This study found that none of the companies have prepared financial information via XBRL. Additionally, there is no information in relation to XBRL on all the companies' website. From the results shown in Table 2, it can be seen that the reporting technology and format preferred by the companies is still PDF.

## 5. Summary and Conclusion

This study examines the current adoption among public listed companies in Malaysia. This study found that the companies do prepare their financial information using instance document or excel. All 67 companies used PDF and only 24 companies prepared with HTML and online interactive. Despite the various benefits that have been hyped on XBRL, this study shows that none of the public listed companies have implemented XBRL. One of the characteristics on XBRL format is that it can make the data to become more meaningful and structured. The data itself can be comparable and meaningful to end-users. Besides the reporting format, this study found that none of the companies have adopted XBRL as per December 2014 to January 2015.

The findings in this study suggest that there could be reasons as to why these companies do not implement XBRL. The findings in this study show surprising indication as there is still none adoption of XBRL among the companies in Malaysia even though XBRL is a well-known and as a worldwide technology as being proven by other countries experienced as earlier adopters previously such as in China (Liu, et al, 2014) and US (Premuroso & Bhattacharya, 2008). The findings in this study indicate that they may be issues and challenges that led to the non-adoption of XBRL in Malaysia. Despite the effort made by CCM in developing XBRL taxonomy, the scenario seems to be not in line with the CCM's objective.

This study is not without limitations. This study was carried out on 67 top public listed companies in Malaysia. This study is descriptive in nature and is unable to discover the reasons of non-adoption and getting feedback and justification for non-adoption and reluctant to implement. Future research could extend this study to examine the reasons as why these companies do not adopt XBRL.

## References

- Baldwin, A. A., Brown, C.E., Trinkle, B.S., 2006. XBRL: An Impact Framework and Research Challenge. *Journal of Emerging Technologies in Accounting*, 3, 97-116.
- Bonson, E. Cortijo, V., Escobar, T., 2009. A Delphi Investigation to Explain the Voluntary Adoption of XBRL. *The International Journal of Digital Accounting Research*, 9, 193-205.
- Craven, B.M., Marston, C.L., 1999. Financial Reporting on the Internet by Leading UK Companies. *European Accounting Review*, 8 (2), 321-333.
- Doolin, B., Troshani, I., 2007. Organisational Adoption of XBRL. *Electronic Markets*, 17 (3), 199-209.
- Felden, C., 2011. Characteristics of XBRL Adoption in Germany. *Journal of Management Control*, 22, (2), 161-186.
- Ghani, E.K., Juzoff, K., 2009. Determinants of Preferred Financial Digital Format by New Zealand Accounting Practitioners. *International Education Studies*, 2 (1), 167-177.
- Ghani, E.K., Laswad, F., Tooley, S., 2009. Digital Reporting Formats: Users' Perceptions, Preferences and Performances. *The International Journal of Digital Accounting Research*, 9, 45-98.
- Ghani, E.K., Muhammad, K., 2014. Financial Reporting Preparers' Perception on Usage Expectation of Extensible of Business Reporting Language in Malaysia. *British Journal of Economic, Finance and Management Sciences*, 9 (1).
- Grabski, S. V., Leech, S.A., Schmidt, P.J., 2011. A Review of ERP Research: A Future Agenda for Accounting Information Systems. *Journal of Information Systems*, 25 (1), 37-78.
- Gray, G.L., Miller, D. M., 2009. XBRL: Solving Real-World Problems. *International Journal of Disclosure and Governance*, 6 (3), 207-223
- Gupta, S., Krishnaprasad, P., 2012. Focus on Emea UAE: Regional Leaders: SCA Establishes XBRL Taxonomy. *Interactive Business Reporting*, 2 (1), 38-42.
- Henderson, D., Sheetz, S.D., Trinkle, B.S., 2012. The Determinants of Inter-Organizational and Internal in-House Adoption of XBRL: A Structural Equation Model. *International Journal of Accounting Information Systems*, 13, 109-140.
- Hodge, F.D, Kennedy, J.J., Maines, L.A., 2004. Does Search-Facilitating Technology Improves the Transparency of Financial Reporting?. *The Accounting Review*, 79 (3), 687-703.
- IASB, 2010. Conceptual Framework for Financial Reporting 2010, <http://www.iasplus.com/en/standards/other/framework>
- Ito, A., 2013. Focus on Asia Japan: XBRL in Japan. *Interactive Business Reporting*, 3 (1), 56-58.
- Janvrin, D, Pinsker, R., Mascha, M.F., 2011. XBRL-Enabled, Excel, or PDF? The Effects of Exclusive Technology Choice on the Analysis of Financial Information. CAAA Annual Conference 2011. Available at SSRN: <http://ssrn.com/abstract=1740249> or <http://dx.doi.org/10.2139/ssrn.1740249>.
- Khalaj, B., Farsian, S., Karbalaee, S.M., 2013. Liquidity and Capital Structure: Case of Malaysian Top 100 Public Listed Companies. *Proceedings of 3rd Asia-Pacific Business Research Conference 25 - 26 February 2013, Kuala Lumpur, Malaysia*, 1-15.
- Nel, G.F., Steenkamp, L.P., 2008. An Exploratory Study of Chartered Accountants' Awareness and Understanding of XBRL, *Meditari Accountancy Research*, 16 (1), 79 – 93.
- Nor Azimah, A.A., 2013. 26<sup>th</sup> XBRL Conference, Ireland. The Companies Commission of Malaysia's XBRL Taxonomy for Financial Reporting. Director of Corporate Development And Policy Division, Companies Commission Of Malaysia.
- Pinsker, R., 2003. XBRL Awareness in Auditing: A Sleeping Giant?. *Managerial Auditing Journal*, 18(9), 732-736.
- Pinsker, R., Wheeler, P., 2009. Nonprofessional Investors' Perceptions of the Efficiency and Effectiveness of XBRL Enabled Financial Statement Analysis and of Firms Providing XBRL-Formatted Information. *International Journal of Disclosure and Governance*, 6 (3), 241-261.
- Steenkamp, L.P., Nel, G.F., 2012. The adoption of XBRL in South Africa: An Empirical Study. *The Electronic Library*, 30 (3), 409 – 425.
- Srivastava, P., Daga, N., 2012. Rolling out XBRL for India Reporting. *IBR*, 2 (1), 43-46.
- Troshani, I., Doolin, B., 2005. Drivers and Inhibitors Impacting Technology Adoption: A Qualitative Investigation into the Australian Experience with XBRL. 18th Bled E-Conference eIntegration in Action Bled, Slovenia, June 6 – 8. 1-16.
- Troshani, I., Rao, S., 2007. Drivers and Inhibitors to XBRL Adoption: A Qualitative Approach to Build a Theory in Under-Researched Areas. *International Journal of E-Business Research*, IGI Global, 3 (4), 98-111.
- Ugrin, J.C., 2009. The Effect of System Characteristics, Stage of Adoption, and Experience on Institutional Explanations for ERP Systems Choice. *Accounting Horizons*, 23 (4), 65-389.
- Vasarhelyi, M.A., Chan, D.Y., Krahel, J.P., 2012. Consequences of XBRL Standardization on Financial Statement Data. *Journal of Information Systems*, 26 (1), 155-167.
- Zhu, K., Dong, S., Xu, S.X., Kramer, K.L., 2006. Innovation Diffusion in Global Contexts: Determinants of Post-Adoption Digital Transformation of European Companies. *European Journal of Information Systems*, 15, 601-616.