THE EXPECTATION OF PERCEIVED BENEFIT OF EXTENSIBLE BUSINESS REPORTING LANGUAGE (XBRL): A CASE IN MALAYSIA

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Abstract

The current research had explored the perceived benefits of adopting the advanced reporting technology program known as eXtensible Business Reporting Language (XBRL). The current research is a continuous research on the awareness of XBRL in Malaysia that focuses on various stakeholders from a financial reporting perspective. This research is considered significant and important to Malaysia’s future development of reporting technology, which emphasizes on the expectation of perceived benefits, compatibility and perceived difficulty. The current research has adopted two models, namely the Technology Organization Environment (TOE) and Diffusion of Innovation (DOI), in order to identify the expectation of perceived benefits, compatibility and perceived difficulty particularly from the technological context. The findings of this research have suggested that a few future adopters understand the positive impact of XBRL adoption by the organization pertaining to matters such as financial reporting, audits, users, corporation and compliance. Furthermore, few future adopters had perceived XBRL to be compatible with the current systems. In terms of complexity, a few of future adopters had agreed with the difficulty posed by XBRL adoption. The understanding of perceived benefits from a technological aspect can be improved if the regulators play their role by creating more awareness on XBRL adoption based on various success stories.

Keywords: XBRL, financial reporting, adoption, Technology Organization Environment (TOE) and Diffusion of Innovation (DOI).

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INTRODUCTION
The financial and non-financial information is usually distributed and disseminated by digital reporting formats. The well-known digital reporting formats are the Portable Document Formats (PDFs) and Hypertext Mark-up Language (HTML), which are exactly the same as the printed version. Currently, there is a new development in reporting format technology, which is known as eXtensible Business Reporting Language (XBRL). XBRL is an advanced technology and an extension to communicate corporate reporting in a structured manner in order to be understood and received across borders. The XBRL is a more effective reporting technology format compared to PDF and HTML. Cox (2006) from the U.S. Securities and Exchange Commission had agreed that the interactive data would be provided by a new reporting technology, which has the capability of real-time reporting and real-time analysis.

The eXtensible Business Reporting Language (XBRL)

Charles Hoffman is the founder of XBRL and started it in 1998. He has been called ‘the father of the digital language of business’. Extensible Business Reporting Language (XBRL) is a global standard for business reporting. Charles Hoffman had started the XBRL after he found that the eXtensible Markup Language (XML) could be used for presenting financial statements and auditing purposes. During that time, the AICPA (American Institute of Certified Public Accountants) was the key organization for developing the XBRL international standard, particularly for business reporting (Hoffman, 2006). Based on XBRL, the International standards have been described as:

“XBRL is the extension of XML language that is used to communicate tagged data on the internet. XBRL stands for eXtensible Business Reporting Language. It is a language for electronic communication of business information, providing major benefits in the preparation, analysis and communication of business information. It offers savings in costs, greater efficiency and improved accuracy and reliability to all those involved in supplying or using business information. An international non-profit consortium of over 600 major companies, organizations and government agencies is developing XBRL, which is an open standard and free of license fees. It is already being put to practical use in a number of countries and implementations of XBRL are growing rapidly around the world.” (http://www.xbrl.org).

XBRL can be difficult to understand because it seems similar to a technically sound and based on Bergeron (2003), XBRL can be defined from a business perspective as:

“An open independent platform, international standard for a timely, accurate, efficient and cost effective electronic storage, manipulative, repurposing, and communication of financial and business reporting data. XBRL is fundamentally about a standard language for reporting financial data”.

Based on Bergeron (2003), XBRL is an extension of Extensible Markup Language (XML), which is a language that has been extended to business reporting standards. XBRL exists because of the challenge in reporting, since there few problems in reporting based on electronic data interchange (EDI). Electronic reporting was developed to overcome the disadvantages of communicating corporate information in the paper-based version, which ensures a lower cost of communication and transaction. However, there are also challenges of using the electronic data interchange (EDI) since there are several standards involved in exchanging electronic documents and EDI systems used by companies that are not compatible with each other. Thus, the challenges of EDI have been resolved by the existence of the internet and the use of static web pages via Hypertext Mark-up Language (HTML) to transmit and distribute general communications, email and e-commerce. Since HTML is a static web page that is difficult to share transactions and reports in real-time, several languages were developed such as Extensible Mark-up Language (XML). XML is a language compatible with the internet and for communications. Bergeron (2003) also mentioned that XML is known to be extensible or easily modified and the language is able to provide extended vocabulary for text and images in all fields and areas. XML owns unique characteristics that enable corporate information to be translated, transmitted and communicated between different systems. Since XML is an attractive and freely available language, the new evolutions and extensions for XML have been developed and is known as eXtensible Business Reporting Language (XBRL). A standards committee established
XBRL vocabulary while XML is a language with a standard mode for referring and reporting all business transactions.

Reports using the XBRL will be comprehensive compared to HTML, which is in plain text. XBRL is extensible and more specific than XML, which makes data more identifiable by the system. In XBRL, the amount will be very comprehensive whenever the numbers have been tagged by taxonomy or vocabulary that has been communicated via several systems. For example, it's as useful as a bar code on a product that is scanned during payment, such as <Product series>1234562342</Product Series>. The numbers attached to the products will appear meaningful and indicate the product category. For example, to report the amount of “Dollars 20,000 for Account Receivable” with Microsoft Excel, the amount will appear as plain text. However, reports in XBRL, are different because the tag or taxonomy will be attached to the amount of Dollars 20,000. It will be tagged and appear as: <Account Receivable currency="Dollars">20,000</Account Receivable>.

XBRL will make the life of business documents, reports and exchanges easier and effective when the data become more meaningful. The report can be utilized and used by every stakeholder and organization from various countries although under different jurisdictions, regulations and accounting standards. With one single information supply chain, organizations only need to create one report for every user instead of different reports for different users. In this study, researchers will discuss the awareness of users and preparers on the benefits of using XBRL standard formats based on other previous researchers and adopters. The concept of benefits needs to be understood in order for awareness, adoption and acceptance of XBRL by organizations and users. Cox (2006) in a speech had mentioned, “far too many people think XBRL might be a new car model or maybe a newly discovered medical condition”. The statement indicates that there are some challenges for users and preparers in understanding the implementation and implication of XBRL. Thus, the government needs to educate users on the concept of XBRL and how future adopters will benefit from its implementation. The full understanding of the concepts will improve the level of awareness of all parties involved in formulating future digital reports. The first challenge faced by every country pertains to awareness. In the U.S, as mentioned by Cox (2006), more than 10,000 public companies were not aware of the possibilities of XBRL. The awareness of the possibilities might be developed by improving the general knowledge of users on XBRL. As mentioned by Hoffman in a conversation with Tie (2005), he stated that the lack of general knowledge of XBRL is an important challenge faced by certified public accountants.

Besides awareness and understanding of benefits, the important terminology needs to be introduced to potential users or adopters. The understanding of the terminology and jargons will ensure that it is easier to understand the way XBRL works on reporting. In this study, a few important jargons will be highlighted based on experts such as Hoffman (2006), Bergeron (2003) and XBRL International. Firstly, the meaning of the word ‘concept’, also known as the “financial reporting concept, has been defined in an XBRL taxonomy as an XML Schema element” Second, the meaning of Context, which is known as “important information about the values” Third, the meaning of XBRL Specification is known as “the XBRL syntax or technical rules” Fourth, the meaning of XBRL Taxonomies is known as “concepts that are expressed within a dictionary” Fifth, the meaning of XBRL Instant Documents is known as “business reporting in a special way and published in a special format”

In this research, it is important to understand the concept of a new reporting technology and the way XBRL will provide an interactive data. The awareness and intention to adopt the XBRL will be resumed effectively once users, preparers and regulators are able to understand the whole concept of XBRL. This research is considered significant in order to explore the readiness and awareness of new reporting technology in Asia, particularly in Malaysia. The readiness of stakeholders can be substantiated by understanding the concepts and benefits of XBRL. Since XBRL is still new in Malaysia, more research needs to be done on the user’s present and potential awareness,
understanding and interest in XBRL. In addition, research also needs to be done on future impact of XBRL adoption among various stakeholders. As mentioned by Francis (2012), XBRL can be very useful to accountants, auditors, chief executive officer, chief finance officer, investors, financial advisors and regulators. Thus, this current study will explore the adoption of XBRL among various stakeholders. Furthermore, the impact of the benefits on users, organization and preparers might be different according to the various cultures, countries or financial regulations. Thus, this current research will be valuable in the Malaysian context since Malaysia is multicultural. As mentioned by Liu (2013), different cultural and financial regulatory factors will influence the decision to adopt XBRL. Thus, the current authors believe that their study will discover exploratory results in order to ensure the adoption of XBRL in the future.

Information Technology (IT) adoption

The framework of the Technology Organization Environment (TOE) developed by Tornatzky & Fleischer (1990) and Diffusion of Innovation (DOI) developed by Rogers (1983) has been adopted as it is similar to the study on XBRL adoption based on research done by Henderson, et al. (2012), Baldwin & Trinkle (2011), Troshani & Rao (2007), and Baldwin, Brown & Trinkle (2006). According to Oliveira & Martins (2011), the TOE and DOI are two models that have been adopted in research done for information technology (IT) adoption. For TOE, Tornatzky & Fleischer (1990) have developed three aspects from the context of enterprise, namely the technological context, organizational context and environmental context. The technological context will “describe the internal and external technologies that are relevant to a firm’s IT adoption”. The organizational context refers to the “descriptive measurement about the organization” and the environmental context is “the arena in which a firm conducts its business” Oliveira & Martins (2011).

According to Rogers (1995), DOI is “a theory of how, why and what rates new ideas and technology spread through cultures and operating at the individual or firm level (Oliveira & Martins, 2011). Rogers (1983) had said that diffusion is the “process by which an innovation is communicated through certain channels over time between the members of a social system”. Oliveira & Martins (2011) had mentioned that the development of the TOE framework is in line with DOI because the characteristics of the organization are factors that affect organizational innovativeness. The main elements of the diffusion of new ideas are innovative, communicated through certain channels, and the social system. Rogers (1983) has identified the innovative characteristics of technology that determine the rate of IT adoption in firms, which comprises of relative advantage, compatibility, complexity, trialability and observability. This current research has been developed based on research by Henderson, et al. (2012), which only focuses on the technological contexts comprised of relative advantage, compatibility and complexity. Relative advantage is the “degree to which innovation is perceived as being better than the idea it supersedes” Rogers (1983) had related with the way IT adoption would provide benefits. Thus, compatibility is the “degree to which an innovation is perceived as consistent with the existing values, past experiences and needs of potential adopters”. Rogers (1983) had stated that compatibility would improve the confidence of the adopters Rogers (1983) had defined complexity as the “degree to which an innovation is perceived as relatively difficult to understand and use”. In addition, Rogers (1983) had developed a model of innovation of the innovation-decision process; knowledge, persuasion, decision, implementation and confirmation stage. In line with Rogers (1983), the research focuses on knowledge and persuasion since XBRL is a new technology related to reporting in Malaysia.

The Benefits of The eXtensible Business Reporting Language (XBRL)

Based on Hoffman & Watson (2010), people are always getting confused about the real world of XBRL. The common confusion involves the following issues:
I. The perception that XBRL is one of the standard accounting charts. This error in perceiving the concept by most users occurs because users always think that the format used for reporting is always fixed. XBRL has the taxonomy that represents meaningful values for each amount; therefore, this reporting format is not fixed.

II. The perception that XBRL requires the disclosure of additional financial information when reporting. The XBRL format involves reporting meaningful information that is exchangeable worldwide. All reported information using any form of system would be converted by the XBRL software into a readable format.

III. The perception that XBRL is only about financial reporting. In fact, XBRL is not only about financial information, but also involves non-financial reporting. The use of XBRL is not only for regulators because regulators receive the annual returns and reports. XBRL needs to be understood by every user involved in business reporting, such as accountants, auditors, analysts, bankers and tax practitioners.

According to the financial reporting, analysis based on Hoffman & Watson (2010), the analyst, investor or lender will look through some advantages such as:
I. Time spent to analyze financial information will be reduced. Previously, analysts took long hours to compare the financial performance of each company through the manual ratio analysis whenever they intended to compare the trend for overall performance. Nowadays, analysis of performance can be done more conveniently.

II. Availability of financial information on a worldwide scale. Different countries have different jurisdictions; hence, by adopting XBRL, the reporting information can be read and understood by each user whenever the standards and regulations are harmonized among countries. For examples, the investor from China can conveniently read the reported information from Malaysian companies that have complied with Malaysian Financial Reporting Standards (MFRS) and the Company Act.

III. The analysis can be done in real-time. Since the company has adopted the XBRL software, the data that are analyzed by investors or users actually reflect the real performance with no adjustment made by the accountant. Moreover, it is difficult to maximize profits because the losses for each month cannot be absorbed by subsequent months. However, this is a disadvantage for some companies that depend on seasonal performance or are experiencing a bad performance.

IV. They can get the overall picture of the company’s performance quickly and easily. This can happen when the information can be obtained on a real-time basis. Thus, investors or analysts will get a real picture of the overall performance and will be able to anticipate future performance and easily make accurate decisions.

V. The reduced cost of translating information across jurisdictions. With traditional reporting, there are difficulties in comparing information between countries. The report needs to be translated each time it is compared between countries. Thus, all information that has been reported and converted using the XBRL software is easy to understand, compare and analyze.

VI. Improving the accessibility of financial information. Users such as bankers and analysts can easily access all the reported information when they really need it without requesting it from any intermediaries. The improvement in accessibility will also improve the accuracy of the information, timeliness in reporting and the decision-making process.

VII. Improving the data quality and validity during the exchange of information. Information that has been converted into XBRL will be more accurate whenever XBRL is acting as an intelligent agent to detect errors and problems while exchanging information.

VIII. Able to improve overall productivity because no re-key-in data is required. There is no key-in data when using XBRL software. The data will be converted into instant documents, representing all information pertaining to companies, which can be read by users around the world. Thus, the errors will be avoided and reduced with no re-key-in data required and improved productivity.

Besides Hoffman & Watson (2010), other researchers have proven its benefits. Baldwin, Brown & Trinkle (2006) had discussed the impact of XBRL on users and characteristics of financial information and its impact on frameworks for XBRL. Researchers have reported on the possible challenges and improvements on the quality of information related to consistency and comparability, reliability and accessibility, relevance, decision usefulness and transparency.
Baldwin & Trinkle (2011) had extended the research to address future impacts of XBRL on financial reporting by employing the Delphi technique. The Delphi panel had suggested that XBRL could possibly affect corporations, financial reporting, users of financial reporting and auditing. In addition, the most likely impact predicted by the expert panel is the provision of more accessible financial reports to users, easier regulatory compliance, improve the efficiency of investment decisions, to ease the continuous reporting and auditing, improving the availability of financial reports and to enhance the efficiency of business decision-making. The results from this study have been useful in developing a framework of the likely XBRL impact.

XBRL adoption will provide benefits on cost-of-capital through increasing information disclosure and transparency by using real-time business reporting technology (RBRT) as mentioned by Li & Pinsker (2005). Researchers believe that the decision to adopt RBRT could be influenced by the cost of capital savings, risks and the speed of adjustment after adoption. Li & Pinsker (2005) had successfully developed a model for RBRT adoption to lower the cost of capital.

A lot of research has been done on the benefits of XBRL. Hodge, Kennedy & Maines (2004) had suggested that XBRL, being a search-facilitating technology, would improve the transparency of the firm’s financial statement information, manager’s choice of reporting format, better acquisition and integration of information in making decisions on investments. Premuroso & Bhattacharya (2008) said that a good corporate governance and firm performance was associated with the firm’s decision to be an early and voluntary adopter of reporting financial information using the XBRL format. In addition, Premuroso & Bhattacharya (2008) also suggested that early and voluntary adoption would indicate greater corporate transparency, which is related to corporate governance. Jones & Willis (2003) had discovered the impact of XBRL on leading financial services companies based on the experience of Morgan Stanley. Morgan Stanley’s experience showed that in order to improve investment product quality, fund managers and analysts had used information direct from the company’s report, thereby enabling more value added analysis to be initiated. These analyses could be carried out since several resources can be taken from companies, consolidators, regulators and industry related organizations; a clear description of reported data and improved level of confidence towards the information that has been provided.

Cox (2006) also mentioned the benefits of interactive data found in XBRL formats in the United States. The benefits might be useful to investors since he has mentioned that it will promote global capital formation and it will be easier for foreign companies to access America’s capital market and to be listed in the U.S. In addition, it will be useful from a reporting aspect if a set of global accounting standards can be developed and the SEC is able to reduce the accounting complexity. From an auditing process aspect, six of the world’s top accounting firms, believes that XBRL will be able to reduce internal and external audit costs. Besides audit costs, the clear interactive data will be able to improve audit quality since the SEC’s Deputy Chief Accountant had mentioned that were only 5% of re-statements because of errors or fraud, therefore he believes that automation of technology will assist in avoiding errors and unintentional mistakes. The implementation of XBRL is not only to reduce errors, but the technology can also detect mistakes that could occur in the future.

Ragothaman (2012) had mentioned that financial reporting, disclosure by using the XBRL format would be able to mitigate the issues of information asymmetry. This can be proved by results that found liquidity, size and auditor type to be associated with corporate governance rating for voluntary adopters of XBRL. Research by Liu, Wang & Yao (2013) had investigated the potential benefits of mandatory adoption of XBRL in the U.S. The findings had indicated that mandatory adoption might have the potential to improve the accessibility and usability of financial reporting information in order to make forecast decisions.

The understanding of its benefits will ensure the awareness, adoption and the acceptance of XBRL. Thus, it is important for regulators to share the findings on the benefits and success stories
experienced by early adopters. This current research is a continuation from researchers’ research which explored the awareness, understanding, and intention to use XBRL. Researchers have done the research simultaneously with exploring the expectation of benefits, relative advantage, compatibility, and complexity of XBRL. From the early stage of research, researchers have found low of awareness and understanding from few researchers; for examples Pinsker (2003), Nel & Steenkamp (2008), Dune, Helliar, Lymer & Mousa (2009), Venkatesh & Armitage (2012), Steenkamp & Nel (2012).

LITERATURE REVIEW

The Adoption of the eXtensible Business Reporting Language (XBRL)
In order to adopt XBRL as a continuous disclosure reporting technology, Pinsker (2007) had developed a theoretical framework, which is based on Li et al. (2004) IT model (Computer Mediated Communication Apprehension-neighborhood effect) and Fichman’s (1992) IT adoption (applying Technology Acceptance Model and Absorptive Capacity). Pinsker (2007) had used the framework to develop seven propositions from the relevant theories, which consist of factors (level of computer mediated communication apprehension, perceived usefulness, attitude, absorptive capacity, level of education, perceived technological market leadership and external pressures) that affect the decision to adopt XBRL.

Thus, Pinsker (2008) had extended his research based on the theoretical development of his previous work (Pinsker, 2007). The purpose of his research was to provide a better understanding of XBRL adoption intentions of mid-level managers in large U.S firms. Pinsker (2008) focused on managers who had little or no previous XBRL knowledge and included MBA students enrolled in the accounting course. The study found that the Technology Acceptance Model and Absorptive Capacity represented appropriate theories for research on XBRL adoption. The research found that XBRL was perceived to be useful in their jobs. However, favorable attitudes by decision makers did not have an influence on XBRL technology. For Absorptive Capacity, Pinsker (2008) had found that the convenience to learn is positively related to the decision to adopt XBRL.

Troshani & Doolin (2005) had carried out qualitative research on XBRL in Australia, which explored the driving factors and their inhibitions that affected technology adoption. This research data were collected through semi-structured interviews that involved eleven interviewees from large accounting firms, software developers and vendors, regulatory agencies, XBRL Australia Ltd and tertiary accounting educators. The research was done in order to determine the driving factors and their inhibitions in the context of environmental, organizational and innovation factors.

In the environmental contexts, they found a few issues from the interviewees. The first category was the local adoption strategy, which found that the lack of effectiveness, flexibility and responsiveness in the local adoption strategy. The second category referred to the limited local XBRL success stories. The local success of XBRL adoption will actually reveal the benefits experienced by adopters and this might be easier for decision makers to decide whether to adopt or not. The third category is the design of the accounting standards, where the priority lies with the International Accounting Standard (IAS). In XBRL adoption, the successful adoption of IAS is a prerequisite that facilitates the creation of Australia’s single taxonomy. In an organizational context, researchers found two important categories. Firstly, employees needs to be educated on the basic understanding of the functionality and benefits of XBRL. They also need to be fluent in using the applications on XBRL. Secondly, interviewees had raised the issue of limited resources, which involved time, expertise and funding that was required for developmental efforts. The last context is innovation factors, which involved limited software tool support and the instability of the XBRL specification. Firstly, interviewees touched on the issue of limited software tools on XBRL, which were in dire need by potential adopters. Secondly, the interviewees were of the view that XBRL specifications need to be stable with no changes, in order to ensure the stability and smooth running of the software.
Doolin & Troshani (2007) had found the issues and factors on organizational adoption, which were in line with the Technology-Organization-Environment (TOE) model. They carried out exploratory research through qualitative evidence that was in line with the technology-organization-environment model. In their study, the first context involved technology. Based on relative advantage, they found that XBRL was beneficial to software vendors and professional accounting firms. Complexity was the second context the researchers had found. Researchers found that specialized tasks and knowledge were required in order to develop specific taxonomies and tagging of financial data. Thirdly, researchers had found trialability, which is one way to reduce uncertainty when trying out a new application. Potential adopters have the ability to observe and experience the benefits of XBRL, which can be a factor in XBRL adoption. Observability means that potential adopters will be interested in knowing about XBRL application and to determine whether XBRL is suitable according to the needs of the organization when they observe the readily available software. The last element that can influence the decision to adopt under the first context is stability. Here, potential adopters had mentioned about the stability of software tools and applications, especially the changes of specification and functionality. Another context is organization. They found that innovation and organizational readiness were able to influence the decision to adopt XBRL. The third context is an environment. The first element in this context is market conditions, whereby the market size will have an influence on XBRL. Second is the influence of trading partners. Researchers found that business partners were perceived to be part of a potential influence on organizations in relation to XBRL adoption. Third, the available information about XBRL and its benefits are crucial in increasing the awareness of new reporting technology in potential adopters. Active communication of information will attract potential adopter’s interest towards XBRL development. Fourth, researchers found that one of the reasons why there were limited XBRL adoptions in Australia was because of the lack of critical mass of XBRL applications, software tools and users. Interviewees claimed that software vendors were reluctant to invest time and resources into developing XBRL exporting facilities until there was a demand. The last element in the environment context is available support. The development of taxonomies depends on the accounting standards and format used. The taxonomies will change if the accounting standards keep changing. The development of XBRL must be in line with the harmonization of accounting standards. The study done by Doolin & Troshani (2007) was in line with Troshani & Rao (2007), in which Troshani & Rao (2007) had conducted convergent interviews and found that environmental, organizational and innovation related factors had an influence on XBRL adoption.

Besides awareness, Nel & Steenkamp (2008) had also explored the future implementation and adoption of XBRL in organizations. They found that approximately 31% of the chartered accountants had perceived that their organization would implement XBRL in the coming future and 5% had perceived that their organization had already implemented XBRL. The study also looked into how accountants understood XBRL concepts and they found that 55% of overall respondents were actually aware and understood the basic concepts of XBRL, however 45% were aware but did not understand the basic concepts.

Pinsker & Li (2008) have done a study on XBRL adoption for financial reporting to look into the costs and benefits. Pinsker, Gara & Karim (2005) had mentioned in Pinsker & Li (2008) that due to a variety of information on business and financial reporting across countries worldwide, reporting has become more challenging, compared to traditional reporting that did not have a standard format and needed to be manually assembled from incompatible information systems in order to prepare a financial report.

Pinsker & Li (2008) had carried out interviews with four business managers from Canada, Germany, South Africa and the U.S pertaining to XBRL adoption. The purpose of the study was to improve the knowledge and understanding pertaining costs and benefits of XBRL adoption. The study found that the benefits accrued to XBRL adoption were the diversification of international corporate cultures, increased processing capability, reduced data redundancy, improved operation efficiency, reduced costs of book-keeping, reduced time needed for generating financial statements, increased company
efficiency due to lower operating costs, reduction in cost of adoption resulting from substantive technological capabilities and reduction in perceived risks of capital provision due to lower costs. Besides that, XBRL adoption is a key marketing tool used by companies to reach potential investors. In post adoption, respondents would view the risks and costs as low and a reflection of them as being technically savvy early adopters. Besides, the study also mentioned that transparency in financial reporting increases the level of transparency in the organization. Finally, respondents believed that XBRL adoption would give companies the competitive advantage compared to non-adoption of XBRL technology. Pinsker & Li (2008) also emphasized that respondents had taken cognizance of the key emergence of financial reporting technology and expect to obtain the first mover advantage in the market.

Dune, Helliar, Lymer & Mousa (2009) had explored the regulations pertaining to adoption and the government’s involvement in XBRL implementation, which focused on five categories of reports such as financial reports, company’s house filing, non-financial reports, stock-exchange listing announcements and tax filing. Regarding financial reports, most of the respondents believed that the XBRL should be voluntary, with no government involvement; however, auditors preferred XBRL to be mandatory within 2 years. In the company’s house filing, XBRL should be on a voluntary adoption basis and with no government involvement. In reference to non-financial reports, tax filing and stock exchange listing announcements, XBRL should be voluntary with no involvement of regulators or the government.

Dune, Helliar, Lymer & Mousa (2009) explored the requirement to have enough IT expertise or IT personnel if the organization wishes to adopt XBRL. The results showed that more than 50% did not agree that the organization needed to have IT expertise and knowledge. The study also investigated the respondents training experience on XBRL and found only four respondents had experienced in-house training and CPD requirements. Thus, training provided to stakeholders is relevant in improving their level of awareness, understanding and knowledge.

Bonson, Cortijo & Escobar (2009) did a research using the Delphi Technique to identify the factors that could affect companies that had volunteered to submit their information through XBRL. The study found three factors that played an important role in imparting an impact on voluntary adoption such as gaining deeper knowledge of XBRL, acquiring a company image as a pioneer in new technology adoption and the improvement of the firm’s reputation in the capital market.

Steenkamp & Nel (2012) had explored the factors influencing the adoption of XBRL. They found that the most common reason why their organization or clients did not implement XBRL was that XBRL was not yet mandatory (24.5%), followed by the reason that they did not perceive any benefits by implementing XBRL (18.6%). The study also found other reasons such as potential adopters not having the necessary technical knowledge (14.2%), management itself did not know what actually XBRL was (14.2%), respondents perceived that XBRL was not relevant to the organization (9.3%), the high cost involved in XBRL preparation prior to implementing XBRL (6.9%), respondents thought that management did not have the motivation or vision to adopt XBRL in their organization (2.9%), respondents believed that their current system was too old to adopt and implement XBRL (2.0%) and some believed the poor economic condition as one of the reasons (2.0%).

Steenkamp & Nel (2012) also discovered the level of perceived relevance of XBRL adoption in an organization. The study found that approximately 73.9% had perceived the adoption and implementation of XBRL as not relevant to their organization. The study concluded that preparers of financial reporting are supposed to believe that XBRL adoption is relevant to the organization because they are the people who are involved with financial information and XBRILs’ key focus is in that same area. Besides perceiving relevance, the study investigated whether economic circumstances would influence the decision to adopt XBRL and found that a majority (87%) believed that economic circumstances would not have any impact in deciding whether to adopt XBRL in their organization. About 12% of respondents stated that XBRL implementation will be delayed or postponed due to
economic circumstances and 1% felt that economic circumstances would part an impact on the
decision on whether to adopt and implement XBRL.

Henderson, et al. (2012) did a study on the adoption of XBRL with the purpose of investigating the
driving force behind internal and inter-organizational XBRL adoption. This study was carried out
based on the Technological-Organizational-Environmental (TOE) framework. Researchers had found
that the factors for internal adoption were different compared to factors for inter-organizational XBRL
adoption. This study, carried out a survey comprising 65 organizations that had not adopted XBRL.
The study found that relative advantage, compatibility, complexity and learning from external sources
were factors that instigated the decision to adopt XBRL in an internal organization. However, learning
from external sources and normative pressure had shown a significant effect on inter-organizational
adoption. Thus, the study had concluded that relative advantage, compatibility and complexity had a
stronger influence on internal XBRL adoption compared in inter-organizations.

Most of the research had come out with a few factors that might influence XBRL adoption. Thus, it is
important to ensure which factors that might significantly influence XBRL adoption. In a recent study
by Liu (2013), the researchers had encouraged more research be carried out on the role of
environmental factors pertaining to national cultures and financial regulatory environments in XBRL
diffusion. The study had also motivated other researchers to carry out research on contingent factors
such as organizational, cultural or financial regulatory factors that could influence value realization
due to XBRL adoption.

The Perception of the eXtensible Business Reporting Language (XBRL)

Pinsker (2003) had also tested perceived benefits, which focused on accuracy, efficiency and
effectiveness; perceived level of use if XBRL was made available, training was provided and the
opportunity to hire analyst; and perceived usefulness that’s related to their job performance such as
increased speed, job performance, increased productivity, enhanced effectiveness and overall
usefulness. The last part of the survey questioned the ease of learning XBRL. From these results, the
study found that respondents did not perceive benefits, job performance or usefulness pertaining to the
adoption of XBRL.

Institute of Certified Financial Analyst (CFA) had investigated the importance of XBRL tagged data
for financial reporting and disclosures in accessing and analyzing the companies’ financial data (CFA,
February 2008; November 2009). The research looked into ways to create XBRL data tags or
taxonomy for financial reporting, the way to ensure that proper XBRL tags have been assigned to the
reported amounts according to GAAP defined tags, the importance of global convergence of XBRL
taxonomies for analyzing and comparing company performance, the way analyst had obtained
company’s financial information for decision-making, the importance of source documents and the
importance of data attributes in performing analyses and evaluation. A varied result was found from
both surveys done in year 2007 and 2009. They found that an independent auditor for integrated
audits was needed to ensure that the proper XBRL tags had been assigned to the reported amounts and
according to GAAP definition. More than 50% (70%) of respondents had perceived the importance of
global convergence of XBRL taxonomies in performing analyses and comparing company
performance.

Nel & Steenkamp (2008) had evaluated the perception of relevance, impact, the perceived ease of use,
benefits and risks of XBRL instead of measuring accountants’ understanding because of the low level
of implementation and understanding. Firstly, 33% of accountants perceived XBRL as extremely
relevant to the organization, 43% as either not relevant at all or only somewhat relevant and 24%
perceived “do not know” about XBRL. Then, the study looked into how they perceived the impact of
XBRL on the organization, with 33% perceiving a major impact due to XBRL adoption, 31% rated
none or a minor impact from XBRL adoption towards their organization and about 36% felt they did
not know how big the impact would be on their organization. Next, the study also found low levels of
perceived ‘ease of use’, which showed 60% of respondents did not know what to perceive or expect
from the ease of use of XBRL. These results were due to the lack of knowledge and understanding
among accountants on the ease of use of XBRL. Only 16% had perceived that XBRL was difficult to use and 24% perceived that the XBRL was easy or moderately easy to use. Then, the study investigated how respondents understood and knew about the benefits of XBRL. They found 36% were either fully knowledgeable or had knowledge of the benefits, 62% either had no knowledge or little knowledge and 2% had no knowledge on the benefits of all. The last issue that they had investigated was perceived risk and they found 57% had perceived no risk involved in XBRL implementation.

Venkatesh & Armitage (2012) had investigated the perception of the importance of assurance criteria on XBRL financial statements such as assurance on the accuracy, completeness, existence, proper taxonomies, proper extensions, valid extensions and validity and being well formed. Researchers had found that there was importance of assurance and provided some clear understanding of the criteria in order to provide assurance.

The perception is the stage of acceptance where stakeholders perceived the importance and relevance to accept and implement. In this phase, the researchers focused on the impact on stakeholders whenever the XBRL had been adopted by an organization.

**RESEARCH METHODOLOGY**

**Samples and Data Collection**

Since XBRL was still in the beginning phase in Malaysia, it was difficult to obtain information on adoption and perception because in this phase the stakeholders had not experienced much on XBRL formats. Researchers began by contacting the relevant regulatory authorities involved in implementing XBRL in Malaysia for examining the early stages of XBRL adoption. In the beginning, researchers had done a short semi-structured interview focusing on the relevance of implementing XBRL in Malaysia and the respondents were also required to provide feedback via a set of questionnaires. The researchers believed that all stakeholders were relevant and should be respondents in the research.

In order to use the method in this research, the researchers had called on all firms and relevant respondents involved in using and preparing business reports, especially in the Kuala Lumpur and Selangor area. The information on the firms was obtained from the representative of the Malaysian Institute of Accountants (MIA), Malaysian Yellow Pages and by approaching the attendees of MIA courses and conferences. The researchers found about 1200 potential respondents and eventually 650 potential respondents had agreed to provide some feedback. Thus, about 650 potential respondents were identified and had received a set of questionnaires; however, only 350 respondents from various job descriptions had successfully completed the questionnaires and returned them. Thus, the samples represented a response rate of approximately 54%.

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>22 – 30 years</td>
<td>193</td>
<td>55.1</td>
</tr>
<tr>
<td>31 – 40 years</td>
<td>109</td>
<td>31.1</td>
</tr>
<tr>
<td>41 – 50 years</td>
<td>38</td>
<td>10.9</td>
</tr>
<tr>
<td>51 – 60 years</td>
<td>7</td>
<td>2.0</td>
</tr>
<tr>
<td>61 – 70 years</td>
<td>3</td>
<td>.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>225</td>
<td>64.3</td>
</tr>
<tr>
<td>Male</td>
<td>125</td>
<td>35.7</td>
</tr>
</tbody>
</table>

Table 1: Respondents’ Profile
Highest level of Education.

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate</td>
<td>7</td>
<td>2.0</td>
</tr>
<tr>
<td>Professional certificate</td>
<td>49</td>
<td>14.0</td>
</tr>
<tr>
<td>Diploma</td>
<td>42</td>
<td>12.0</td>
</tr>
<tr>
<td>Degree</td>
<td>228</td>
<td>65.1</td>
</tr>
<tr>
<td>Master Degree</td>
<td>23</td>
<td>6.6</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>0.3</td>
</tr>
</tbody>
</table>

Job Descriptions

<table>
<thead>
<tr>
<th>Job Description</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior management</td>
<td>9</td>
<td>2.6</td>
</tr>
<tr>
<td>Accountants</td>
<td>81</td>
<td>23.1</td>
</tr>
<tr>
<td>Auditors</td>
<td>147</td>
<td>42.0</td>
</tr>
<tr>
<td>Tax practitioners</td>
<td>36</td>
<td>10.3</td>
</tr>
<tr>
<td>Consultants</td>
<td>5</td>
<td>1.4</td>
</tr>
<tr>
<td>Other director</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Financial director</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Bankers</td>
<td>11</td>
<td>3.1</td>
</tr>
<tr>
<td>Regulators</td>
<td>5</td>
<td>1.4</td>
</tr>
<tr>
<td>Academician</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT / Systems Manager</td>
<td>4</td>
<td>1.1</td>
</tr>
<tr>
<td>Other</td>
<td>49</td>
<td>14.0</td>
</tr>
</tbody>
</table>

Organization

<table>
<thead>
<tr>
<th>Organization Type</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Listed Company (PLC)</td>
<td>71</td>
<td>20.3</td>
</tr>
<tr>
<td>Non Public Listed Company</td>
<td>35</td>
<td>10.0</td>
</tr>
<tr>
<td>Big Four Audit Firm</td>
<td>17</td>
<td>4.9</td>
</tr>
<tr>
<td>Medium-sized Audit Firm</td>
<td>72</td>
<td>20.6</td>
</tr>
<tr>
<td>Small-sized Audit Firm</td>
<td>83</td>
<td>23.7</td>
</tr>
<tr>
<td>Accounting Firm</td>
<td>23</td>
<td>6.6</td>
</tr>
<tr>
<td>Tax Firm</td>
<td>7</td>
<td>2.0</td>
</tr>
<tr>
<td>Other</td>
<td>42</td>
<td>12.0</td>
</tr>
</tbody>
</table>

In Pinsker’s study (2003), the respondents consisted of 17 internal auditors. Nel & Steenkamp (2008) had approximately 208 respondents from the overall number of chartered accountants in South Africa. In other research by Steenkamp & Nel (2012), some 337 chartered accountants were involved. Based on research done by the Institute of Certified Financial Analyst (CFA), it showed the lowest response rate of 9.03% from a total of 9,992 respondents in 2007 and 6.1% from a total 23,894 in 2009 (CFA, February 2008; November 2009). Henderson, et al. (2012) had 65 respondents involved in their research from various job functions. Dune, Heiliar, Lymer & Mousa (2009) had approximately 153 respondents from various groups involved. Whereas, for interviews done by Pinsker & Li (2008), the respondents involved were four representatives from four companies that had adopted XBRL. Troshani & Doolin (2005) had carried out semi-structured interviews with 11 key representatives from organizational members of XBRL user-groups.

In addition, most of the previous research had used the qualitative and quantitative research methodology. As mentioned by Liu (2013), looking at the summary of XBRL research methods, about 65% of the research applied qualitative analysis; 20% used archival data analysis, 6% of interviews, 4% of case studies, 3% did experiments and 2% used the survey method. Thus, there were many researches done on XBRL using several methodologies in order to find significant and relevant results.

**Instruments**

The instrument for this research was divided into several parts that were pertinent to XBRL such as expectation of the relative advantage, expectation of the compatibility, the expectation of the
complexity. The relative advantage, compatibility and complexity were measured by a 7-points Likert scale (1=Strongly Disagree, 2=Disagree, 3=Somewhat Disagree, 4=I Do Not Know, 5=Somewhat Agree, 6=Agree and 7=Strongly Agree). The questionnaire was developed through adoption and modification based on the suitability of the XBRL development in Malaysia. The items on this questionnaire was mainly developed based on Nel & Steenkamp (2008), Henderson, et al. (2012), Baldwin & Trinkle (2011), Baldwin, Brown & Trinkle (2006), Pinsker & Li (2008) and Troshani & Rao (2009). For the interview questions, the issues referred were based on Pinsker & Li (2008). Hence, for the purpose of ensuring the sufficiency and suitability of the questions, the instruments were reviewed and pre-tested by researchers who were experts on XBRL and questionnaire survey.

ANALYSIS OF THE NEW FINANCIAL REPORTING FORMAT (XBRL)

As mentioned early on in this paper, the current research is continuing and concurrently carried by researchers. Researchers intent to inform that only 3.1% of respondents were fully aware of XBRL, 12.6% have a basic understanding, 53.7% have heard of it, but do not know the concept and 30.6% have never heard of it. In addition to the continuous research, current researchers also intent to explore the awareness of respondents on the specific perceived benefits, compatibility and complexity of XBRL implementation. Besides that, researchers also discuss on current XBRL development in Malaysia.

XBRL development in Malaysia

The discussion process in Malaysia was led by the Companies Commission of Malaysia (CCM) and it is still developing the taxonomy with the experts. The XBRL project is one of CCM’s Strategic Direction Plan II that commenced in 2010 and is expected to be completed in 2014. The operational phase of the XBRL format is expected to be implemented by 2014, starting on a voluntarily basis. As of April 2013, the CCM had issued their consultative documents on XBRL Taxonomy Elements for Financial Reporting in order to obtain feedback from potential users.

Bank Negara Malaysia had introduced XBRL reporting to the financial industry in June 2012, as part of its enterprise-wide initiative to transform and upgrade data management and system architecture in the Bank. The reporting is aligned to the International Financial Reporting Standard (IFRS) and Malaysian Financial Reporting Standard (MFRS). The reporting coverage related mainly to Financial Statements, Regulatory Compliance Data and Industry Specific Reports, which includes data on financing and credit card business. The XBRL awareness program in Malaysia is still in progress, not only for regulators, but also for all users from Public Listed Companies (PLCs), Small Medium Enterprises (SMEs), Auditors, Accountants, Academician. The reason being that financial reporting preparers needs to be aware of all changes to reporting formats and new technology as they are needed and required to submit an annual report to regulators. The awareness program will be essential to all parties involved, especially to those who had volunteered to submit annual reports or returns to regulators by using XBRL. CCM and the Malaysian Institute of Accountants (MIA) have initiated extensive awareness seminars in order to attract users and preparers to adopt XBRL.

Through short interviews with auditors and accountants pertaining to XBRL adoption, the researchers found that the crucial problem was the lack of awareness on the evolution of news reporting. Most of the accountants and auditors had perceived XBRL to be more about new technology that required them to understand the technicality of usage. They seemed very worried when they heard the word “reporting technology” and truly felt that the reporting nowadays, especially the PDF and hard copy versions, were good enough and sufficient to use. Furthermore, they felt there was no need for more research on XBRL and to shift into new reporting technology. This may be due to insufficient promotion of XBRL pertaining to the benefits of XBRL adoption as experienced by previous adopters from all over the world.

The Companies Commission of Malaysia (CCM) perception towards the benefits of eXtensible Business Reporting Language (XBRL)
CCM believes that there are benefits in adopting XBRL in the coming future based on their view that:

1. XBRL implementation will enhance the corporate compliance process for company accounts. Companies will need to comply and none of them can avoid the regulation requiring submission of reports. They need to file their reports and submit it to the regulators, according to the file given.

2. XBRL is able to provide automated submission and exchange. Regulators will receive the submission and exchange the automated information through the system with ease and can simply read, view and understand.

3. The data that will be transferred in the system will be entered automatically since the data has been tagged using the XBRL taxonomy or also known as the accounting dictionary. The XBRL taxonomies include three important elements for validating data, which are calculations, formulas and contexts.

4. The data from business reporting can be viewed and analyzed in real-time, whereby every computer software, application and hardware is able to receive it on time. Since XBRL uses an independent platform, the data can be re-used and transferred as required by regulators.

5. XBRL is region independent and allows translation of business reports in various languages with multiple currencies and it can be transferred and communicated globally.

6. The XBRL platform allows interaction with other parties, for example, among various government agencies, which are able to compare the financial data quickly, efficiently and reliably.

7. XBRL is able to produce reports and analyses efficiently, especially for analyses such as company analysis and comparative analysis.

8. XBRL is known as ‘open source language’ and is not tied up to any software, platform or hardware, thus enabling the data to be read and viewed anywhere.

9. The data can be transmitted efficiently for a broad range of applications all around the world and is able to streamline the business information process with the adoption of XBRL.

10. XBRL is able to prepare data according to users’ requirements and needs since the system application that will collect information can be modified based on the requirement and regulation.

**Accountant’s and Auditor’s Perception towards eXtensible Business Reporting Language (XBRL)**

There were some feedback from the open questions pertaining to XBRL in Malaysia. Some of the examples are shown below.

Interviewee 1: “Frankly, I do not know what XBRL is”

Interviewee 2: “Do not know the concepts of XBRL”

Interviewee 3: “I am working with a group of companies that has a holding company in Singapore and that’s why I do not know or have heard about XBRL since Singapore has adopted the XBRL”

Interviewee 4: “I would like to know more about the concept of XBRL”

Interviewee 5: “I would like to know more on the purpose of XBRL implementation”

Interviewee 6: “I would like to know how XBRL works”

Interviewee 7: “I would like to know how XBRL helps the working environment”

Interviewee 8: “I am a consultant in IT and XBRL but I am afraid of users and preparers because they are really resistant and skeptical about to change.”

Interviewee 9: “I believed that XBRL is not relevant to my firm since we are only doing accounting, taxation and auditing”

Interviewee 10: “I know that XBRL can ease reporting in future, so I do not need to ask different formats of reporting from different regulators”

Interviewee 11: “The preparation for adopting a new technology can be very costly in terms of taxonomy, system and infrastructure. On the other hand, I believe that the benefits will be more than the cost since the high cost will only be faced by potential adopters at the early stage”.

**Expectation of Technological Constructs on XBRL**

This part will explain the expectation of four possible factors of XBRL that includes relative advantage, compatibility, complexity and intention to use. This result is based on the respondents’ expectations from the awareness and understanding of XBRL.
Expectation of Relative Advantage
Relative advantage focuses on the benefits attainable when using XBRL in the future. When promoting XBRL, the responsible parties should promote the benefits that are expected by preparers and users. They need to understand the basic concepts and the benefits of implementing XBRL. As shown in the table, this is the expected relative advantage when adopting XBRL in the future. Since most of them, mentioned “I Do Not Know”, researchers assumed that respondents did not really understand the concept of the items under relative advantage.

The relative advantage item was developed and categorized based on Baldwin & Trinkle (2011), Baldwin, Brown & Trinkle (2006) and Pinsker & Li (2008). Whereas, compatibility and complexity were based in Henderson, et al. (2012) and Troshani & Rao (2007).

Relative Advantage of Audits
The adoption of XBRL will benefit auditing matters whenever the data has been tagged by taxonomy. Thus, it will reduce the responsibilities of verifying and checking the data. The respondents involved in this research can be considered as being able to understand the concept related to auditing.

The first benefit or relative advantage discussed here is related to the auditing process. About 37.43% of respondents agreed that using XBRL would facilitate continuous auditing and 36.57% believed that the cost of auditing financial statements would be reduced. This benefit can be expected in the future since there are tagging and validation rules in XBRL Taxonomies for preparing financial statement information. The data needs to be presented in the report according to proper XBRL Taxonomies and accounting standards. The process of verification and validating data will be done by the system instead of being checked by the auditors. Besides that, about 38.86% of respondents understood the concept of improvement in internal controls when adopting XBRL. The continuous auditing will also ensure the performance of internal control in ensuring validity and completeness of financial reporting.

Table 11: Relative Advantage on Audit

<table>
<thead>
<tr>
<th>No</th>
<th>Statement</th>
<th>Considered as Knowing the concept and Agree</th>
<th>Considered as Knowing the concept and Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Using XBRL will facilitate continuous auditing.</td>
<td>3.14%</td>
<td>37.43%</td>
</tr>
<tr>
<td>2.</td>
<td>Using XBRL will reduce financial statement audit costs</td>
<td>4%</td>
<td>36.57%</td>
</tr>
<tr>
<td>3.</td>
<td>Using XBRL will lead to improvements in internal controls.</td>
<td>2.85%</td>
<td>38.86%</td>
</tr>
</tbody>
</table>

Relative Advantage on Corporations and Compliance

The adoption of XBRL will provide benefits to corporations and regulators through involvement in the process of disseminating useful information, cost, capital, decision-making process and attracting investors. In terms of regulators, corporations will be at ease to comply with regulations. In Malaysia, corporations need to comply with regulations from the Malaysian Bursar, Companies Commission of Malaysia (CCM), Inland Revenue Board (IRB), Securities Commission (SC) and other related regulators that are involved with corporations and financial reporting.

With the adoption of XBRL, it will improve the regulatory compliance of corporations. The result shows that about 39.14% agree that XBRL allows for easier regulatory compliance. This
improvement will occur when the regulators have their own web base, whereby corporations can fill in the form online and eliminate manual submission of forms.

XBRL adoption will also lower the cost of capital, as when the information published by the corporations will be more transparent to the potential capital providers. It will then reduce any uncertainty and directly reduce the risk of providing capital. The results show that approximately 36% understood the concept of cost of capital.

Moreover, the more transparent the corporation is in reporting its information; the more it will improve the company’s position in the public equity market, where future investors perceive the reliability towards information that has been provided to them. Thus, it can be seen that 33.71% understood the concept of acquiring new capital.

In addition, using XBRL technology will also improve the decision-making process. XBRL technology will be able to produce data in the appropriate format, be accurate, relevant, timely, reliable, consistent, comparable and useful. This is because XBRL technology will tag the data with a standard definition to be meaningful across different software, hardware, and web-base. When the information is readily available, it can be perceived as the decision is useful, as shown in the results (40%).

<table>
<thead>
<tr>
<th>No</th>
<th>Statement</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Using XBRL will lower the organization's cost of capital</td>
<td>36%</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Using XBRL will make it easier for the organization to get new capital.</td>
<td>33.71%</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Using XBRL will improve decision making</td>
<td>40%</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Using XBRL will allow data from disparate accounting information systems to be reconciled more efficiently</td>
<td>38.86%</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Using XBRL will show potential investors that the organization is an innovator in financial reporting.</td>
<td>38.57%</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Using XBRL will allow for easier regulatory compliance.</td>
<td>39.14%</td>
<td></td>
</tr>
</tbody>
</table>

Relative Advantage on Financial Reporting

XBRL is one of the easier search tools and technology for future users and adopters. In future, regulators should do more publicity campaigns to entice future adopters or users in order to provide more understanding towards the financial reporting process. The findings had shown that more than 50% did not understand the concept of benefit related to financial reporting gained from adopting XBRL.

Firstly, the XBRL has a tagging system for financial information that will be disclosed during financial reporting. The tagging system will be able to standardize the information among different forms of financial reporting standards. Thus, the study showed that approximately 39.71% understood the concept of the tagging system. Financial reports published for the public will be in line with the important qualities characteristic of information for users. Respondents (40.29%) who agreed with the statement that XBRL would increase consistency and comparability of financial information across the firms indicated that they understood the concept of quality of financial information that will be published across firms. This showed that they understood how XBRL taxonomy played a crucial role in reducing the terminology issues in financial reporting. Companies will use common and similar taxonomies in order to improve the consistency and comparability.

Another benefit of the financial reporting process pertains to the reliability and accuracy of financial information. The result indicated that fewer respondents understood that with XBRL adoption, companies would be able to provide reliable and accurate information to users through web-bases. Since there is a usage of common standard XBRL taxonomy in tagging the data; the information will be more reliable and accurate.
In addition, about 40.57% respondents also agreed that XBRL would reduce the cost of generating financial reports. This is because XBRL would be able to generate financial information through the XBRL software that contains common taxonomies without re-keying in the data into the system; which enables the generation of information in a single and integrated format. The cost of generating financial reports within internal organizations will be reduced whenever the data is capable of being read, viewed and understood easily although their systems are different. Consequently, XBRL technology will improve the efficiency of generating financial reports as there is no re-keying in and less errors during the exchange of data. Hence, the existence of validation rules in the XBRL system will be able to reduce errors in financial reporting and reduce the audit process. The efficiency of auditing will also lead to continuous reporting, which would eliminate paper-based reports.

In this part, respondents also agreed (39.14%) that XBRL would make financial information more transparent, which makes it easier to use all the information provided. The presence of the element of transparency is one of the purposes of early adoption of XBRL because XBRL has a tagging system that standardizes the information and is easier for users and adopters to seek information in financial statements and notes to the financial statements.

In reference to the financial reporting process, respondents agreed (36.86%) that the XBRL taxonomy plays an important role in avoiding any misleading financial information. This can be done by tagging the data using standardized XBRL taxonomy.

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
<th>Considered as Knowing the concept and Disagree</th>
<th>Considered as Knowing the concept and Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.</td>
<td>Using XBRL will make it easier to convert financial data among different forms of financial reporting standards.</td>
<td>2.86%</td>
<td>39.71%</td>
</tr>
<tr>
<td>11.</td>
<td>Using XBRL will increase the consistency of financial information across firms.</td>
<td>1.71%</td>
<td>40.29%</td>
</tr>
<tr>
<td>12.</td>
<td>Using XBRL will increase the comparability of financial information across firms.</td>
<td>2%</td>
<td>40.29%</td>
</tr>
<tr>
<td>13.</td>
<td>Using XBRL will reduce the cost of generating financial reports.</td>
<td>3.71%</td>
<td>40.57%</td>
</tr>
<tr>
<td>14.</td>
<td>Using XBRL will improve the efficiency of the financial reporting process.</td>
<td>2.3%</td>
<td>42.29%</td>
</tr>
<tr>
<td>15.</td>
<td>Using XBRL will facilitate continuous reporting.</td>
<td>2%</td>
<td>43.43%</td>
</tr>
<tr>
<td>16.</td>
<td>Using XBRL will increase the reliability of financial information.</td>
<td>3.71%</td>
<td>40%</td>
</tr>
<tr>
<td>17.</td>
<td>Using XBRL will improve the accuracy of financial information.</td>
<td>3.43%</td>
<td>38%</td>
</tr>
<tr>
<td>18.</td>
<td>Using XBRL will make financial information more transparent.</td>
<td>2.57%</td>
<td>39.14%</td>
</tr>
<tr>
<td>19.</td>
<td>Using XBRL will make it more difficult to issue misleading financial statements.</td>
<td>2.57%</td>
<td>36.86%</td>
</tr>
</tbody>
</table>

**Relative Advantage for Users of Financial Reports**

XBRL technology provides benefits to users of financial information. Approximately 39.71% of respondents agreed that XBRL will make it easier to analyze and 37.14% of them felt that financial reporting would become easier for stakeholders. The use of standardized XBRL taxonomies will make it easier for analysts and users understand the financial information between companies and in a specific industry.

<table>
<thead>
<tr>
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<td>40.29%</td>
</tr>
<tr>
<td>13.</td>
<td>Using XBRL will reduce the cost of generating financial reports.</td>
<td>3.71%</td>
<td>40.57%</td>
</tr>
<tr>
<td>14.</td>
<td>Using XBRL will improve the efficiency of the financial reporting process.</td>
<td>2.3%</td>
<td>42.29%</td>
</tr>
<tr>
<td>15.</td>
<td>Using XBRL will facilitate continuous reporting.</td>
<td>2%</td>
<td>43.43%</td>
</tr>
<tr>
<td>16.</td>
<td>Using XBRL will increase the reliability of financial information.</td>
<td>3.71%</td>
<td>40%</td>
</tr>
<tr>
<td>17.</td>
<td>Using XBRL will improve the accuracy of financial information.</td>
<td>3.43%</td>
<td>38%</td>
</tr>
<tr>
<td>18.</td>
<td>Using XBRL will make financial information more transparent.</td>
<td>2.57%</td>
<td>39.14%</td>
</tr>
<tr>
<td>19.</td>
<td>Using XBRL will make it more difficult to issue misleading financial statements.</td>
<td>2.57%</td>
<td>36.86%</td>
</tr>
</tbody>
</table>
Proceedings of the Australian Academy of Business and Social Sciences Conference 2014  
(in partnership with The Journal of Developing Areas)  

No | Statement | Considered as Knowing the concept and Agree | Considered as Knowing the concept and Disagree |
---|-----------|--------------------------------------------|---------------------------------------------|
20. | Using XBRL will make financial information easier to analyze. | 3.14% | 39.71% |
21. | Using XBRL will make financial reporting to external stakeholders easier | 2.57% | 37.14% |

In conclusion, respondents were found to have low (less than 40%) publicity, awareness and understanding of XBRL from the perspective of corporations, compliance, financial reporting process and users of financial reports.

**Expectation of Compatibility**
The parties responsible need to educate potential users and adopters regarding the benefits of XBRL compatibility with the current system and information technology infrastructure. Not many respondents understand how the concept of XBRL is implemented with the existing accounting system and infrastructure.

Previously, many of the large adopters had integrated XBRL taxonomy with the accounting system and the existing information technology infrastructure. This can be done when the XBRL taxonomy has been embedded and integrated in the accounting software. The general ledger is produced by the accounting system and will be integrated by the XBRL Global Ledger taxonomy. XBRL GL will integrate all the information from the existing system and run it on a different hardware. This standard integration format is for creating journal entries that would be imported or exported to or from a general ledger system. At the end, all data processing by existing accounting systems can be transferred, exchanged and summarized between business systems. One example is the accounting system at the Wacoal Corporation in Japan.

In Malaysia, the anticipated XBRL process started with the preparation of financial reports in spreadsheets and word-processing documents and generating the XBRL document as being implemented by the Accounting and Corporate Regulatory Authority (ACRA).

<table>
<thead>
<tr>
<th>No</th>
<th>Statement</th>
<th>Considered as Knowing the concept and Agree</th>
<th>Considered as Knowing the concept and Disagree</th>
</tr>
</thead>
</table>
22. | XBRL will be compatible with the organization's existing accounting systems | 3.71% | 35.71% |
23. | XBRL will be compatible with the organization's existing Information Technology infrastructure. | 2% | 36.57% |

**Expectation of Complexity**
The study also looked into how respondents understood the difficulty that will be faced by organizations when adopting XBRL. An innovation seems to benefit the user, but in reality, it can be complex.

Respondents who really understand the concept of XBRL innovation and how it can be implemented will be able to perceive how difficult the implementation is. About 26.86% of the respondents felt that XBRL will be difficult to be used, however, about 10.29% disagreed on the difficulty. Thus, respondents need to understand the concept of the overall advantage in order to avoid the difficulty that can hinder the advantages of XBRL adoption.

Respondents also agreed that the organization would face obstacles such as the high cost of XBRL software (28.86%), which can be an incremental burden to the organization and involve high supporting costs. Then, respondents (28.29%) agreed about the limited software tools and support, which future adopters would attempt to access and experiment with the capabilities of the software application and accounting packages. Moreover, some respondents agreed (28.86%) that there is a lack of standardization on requirement, system, process and data. Furthermore, respondents also...
agreed (29.43%) that the organization would face the instability of XBRL specifications, whereby normally an organization would make some frequent changes to the XBRL specifications and XBRL software tools until it stabilizes.

Overall, the respondents agreed (31.14%) with the complexity involved in XBRL implementation and the need to understand the concept of XBRL implementation in an organization. They (36.71%) also felt that the difficulty occurred whenever there was a lack of awareness about XBRL and its advantages.

It was found that the highest complexity is because respondents need some effort in being educated on XBRL and its advantages. This can improve their level of understanding of the whole concept of XBRL implementation and thus how seriously future adopters believed in the difficulties.

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
<th>Considered as Knowing the Concept and Agree</th>
<th>Considered as Knowing the Concept and Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>XBRL will be difficult for the organization to use.</td>
<td>10.29%</td>
<td>26.86%</td>
</tr>
<tr>
<td>25</td>
<td>Organization will face high cost of XBRL software</td>
<td>8.29%</td>
<td>28.86%</td>
</tr>
<tr>
<td>26</td>
<td>Organization will face limited software tools and support</td>
<td>9.14%</td>
<td>28.29%</td>
</tr>
<tr>
<td>27</td>
<td>Lack of standardization in the way XBRL instance documents (XML file that contains financial facts and report) are produced and consumed</td>
<td>8.86%</td>
<td>28.86%</td>
</tr>
<tr>
<td>28</td>
<td>Organization will face the problem of instability of XBRL specification</td>
<td>10%</td>
<td>29.43%</td>
</tr>
<tr>
<td>29</td>
<td>Organization will face the complexity of XBRL implementation</td>
<td>9.43%</td>
<td>31.14%</td>
</tr>
<tr>
<td>30</td>
<td>Lack of awareness about XBRL and its advantages</td>
<td>7.14%</td>
<td>30.71%</td>
</tr>
</tbody>
</table>

**CONCLUSION AND DISCUSSION**

XBRL is a new technology for communicating business reporting for the purpose of disseminating information to stakeholders. The XBRL is important not only to Information Technology personnel, but to accountants, external auditor, internal auditors, financial managers, analysts, regulators and every relevant party that is involved in preparing and using business reports. This study was considered an exploratory study as it discovered the beginning phase of XBRL in Malaysia by focusing on the expectation of the relative advantage, expectation of the compatibility and expectation of the complexity. In Malaysia, XBRL is still in the beginning phase as Bank Negara Malaysia (Malaysia’s National Bank) introduced XBRL reports to the financial industry in June 2012 and The Companies Commission of Malaysia (CCM) was in the stage of developing XBRL Taxonomy Elements for Financial Reporting, which was expected to be completed in 2014. The Companies Commission of Malaysia (CCM) believes that XBRL will provide more benefits in the future.

Moreover, this study had found few respondents who were fully aware of XBRL and a high percentage who were unaware of XBRL. This research is in tandem with Pinsker (2003) in the USA and the research done by the Institute of Certified Financial Analyst (CFA) in 2007 and 2009, Nel & Steenkamp (2008) in South Africa, Dune, Helliar, Lymer & Mousa (2009) in the UK, Venkatesh & Armitage (2012) and Steenkamp & Nel (2012). Based on a survey done by Grant Thornton LLP (2006), about 46.30% of 381 senior finance executives were not aware of XBRL and the new standard of tagging business information. Another research done by Grant Thornton LLP (2007), found that approximately 59.70% of chief financial officers and senior controllers were not aware of XBRL.

Beside awareness, the study found that there were about 67.2% of respondents who were likely to investigate further about XBRL, which indicated that there was a possibility the XBRL would be more valuable and be accepted by stakeholders. Furthermore, about 192 of respondents (54.85%) did not know the concept of XBRL and would probably investigate further about XBRL. This result is in tandem with Nel & Steenkamp (2008).

The study also looked into whether respondents believed their organization would adopt XBRL in the future. Unfortunately, 72.9% perceived they did not know and did not have any idea pertaining to
adoption and about 18.9% believed that their organization should adopt XBRL in the future. This result indicated that respondents would have ideas on the adoption if they were aware and understood everything about XBRL. The result from the current study had shown higher “do not know” than Nel & Steenkamp (2008). Based on Grant Thornton LLP (2006), about 52.45% of senior finance executives believed that XBRL would become a mandatory format that every organization would need to adopt. Compared with Grant Thornton LLP (2007), 50.75% of chief financial officers and senior controllers believed should be mandatory formats for SEC filings.

The current study questioned how respondents understood XBRL in relation to its concept and benefits. The findings showed that approximately 3.1% fully understood fully XBRL and 18% understood the basic concepts. Nel & Steenkamp (2008) found that 37% understood the basic concepts and 18% fully understood what XBRL is all about. Understanding was always related to the way respondents understood the benefits of XBRL. In 2007, Grant Thornton LLP had found that more respondents (2007: 13.43%, 2006: 8.60) believed that the accounting industry had adequately communicated the benefits of XBRL concerning internal and external reporting. The early adopter’s understanding of the benefits was paramount in communicating it to potential stakeholders in order to develop their intention to adopt in the future.

Hence, in order to ensure their understanding of the benefits, the current research had posed the question regarding the courses attended prior to the XBRL survey. Not surprisingly, only 9.4% had attended any related course on XBRL. This indicates that more courses and training related to XBRL should be held in the near future, particularly in Malaysia. Currently, CCM and MIA have initiated efforts by conducting a short course on XBRL in order to improve the awareness and understanding of the benefits of XBRL adoption. Nel & Steenkamp (2008) found that respondents believed that they needed to attend more courses.

In this study, researchers had explored the respondent’s expectation on several concepts pertaining to relative advantage, compatibility, complexity and intention to use. This result was based on the respondents’ expectation from awareness and understanding. The criteria of benefits based on relative advantage were based on Baldwin & Trinkle (2011), Baldwin, Brown & Trinkle (2006) and Pinsker & Li (2008).

The adoption of XBRL will also provide benefits for audit practices, which in this study, respondents who understood the concept had agreed with the statements. As mentioned by Cox (2006), XBRL formats would reduce internal and external costs, improve audit quality and reduce errors. Baldwin & Trinkle (2011) had mentioned that XBRL would ease continuous auditing. Other benefits might accrue to corporations and regulators and some respondents would understand how XBRL is able to work. XBRL would be able to lower the cost of capital, which was agreed by some respondents and is in accordance with Pinsker & Li (2008) and Li & Pinsker (2005). Two other statements that were related to benefits received by organizations included improved decision-making and efficient reconciliation of data that was agreed with respondents and were in accordance with Baldwin, Brown & Trinkle (2006) and Hoffman & Watson (2010). XBRL will also provide the benefits as an innovator in financial reporting (Pinsker & Li, 2008). Baldwin & Trinkle (2011) and Pinsker & Li (2008) had mentioned that respondents agreed that XBRL would improve regulatory compliance.

The current research also found that respondents who wished to understand the concepts also agreed that XBRL technology would provide benefits in financial reporting, especially improving the quality of information that focuses on consistency, comparability, reliability, relevance and decision usefulness (Baldwin, Brown & Trinkle, 2006). In addition, respondents also agreed that XBRL technology would easily convert financial data among different standards, improve the financial reporting process and reduce any misleading financial statements (Baldwin & Trinkle, 2011); Cox, 2006; and Liu, Wang & Yao, 2013). Potential users and stakeholders would also receive the benefits since the respondents had agreed that financial information is easier to analyze and is always available to users (Baldwin & Trinkle, 2011 and Hoffman & Watson, 2010).
Respondents were also asked to provide feedback on the benefits of XBRL compatibility with current systems and infrastructures. Not many respondents understood the concept of XBRL implementation coinciding alongside the existing accounting system and infrastructure. In Malaysia, the anticipated XBRL process starts by preparing financial reports in spreadsheets and word-processing documents and generating the XBRL document as implemented by the Accounting and Corporate Regulatory Authority (ACRA). The study also looked into the respondents’ understanding of the difficulties that might be faced by organizations when adopting XBRL. An innovation seems beneficial, but in reality, it could be complex when implemented in the future. Respondents seemed to know less and agreed with the complexity of XBRL technology. Nel & Steenkamp (2008) found that 60% of respondents did not know what they were supposed to expect on the ease of using the XBRL, 16% perceived difficult to use and 24% believed it to be easy or moderately easy. Meanwhile, 36% of respondents were knowledgeable of the benefits of XBRL, 62% had either none or little knowledge and 2% believed there were no benefits at all. Hence, 57% believed there were no risks and some foresaw risks on tagging, standardization and taxonomy.

In the final part, the research found that 59% did not know whether they had the intention to use or not to use, while only 34% would consider using it in the future. Whereas, 35% of respondents had the intention to use XBRL for the purpose of decision-making and 31% of respondents would probably use XBRL.

From the overall research, it showed a lack of knowledge and understanding of XBRL among potential stakeholders in Malaysia. There is a need for more training, courses, workshops and seminars in order to improve the awareness and understanding of various job descriptions, which act as users, decision makers, regulators and preparers. In a positive note, there are ways to improve and encourage stakeholders to have the intention to use since most of the respondents had shown an interest to investigate XBRL.

**LIMITATIONS AND FUTURE RESEARCH**

This current study had limitations whereby respondents were from various job descriptions from numerous parties involved in reporting instead of just focusing on each job description only. The small group of respondents in this study will not represent the whole issue of XBRL adoption in the future; however, it is still in accordance with other studies done for this study is a preliminary study of XBRL in Malaysia. It was very difficult to gain cooperation and feedback from respondents since XBRL was not really familiar to everyone. There is also a limitation on disclosing information pertaining XBRL process and feedback from some regulators, which researchers were unable to disclose because of privacy and confidential terms. Thus, researchers have only disclosed part of information gained through interviews.

In future, more research should be carried out by applying other research methodologies such as case studies and experimental studies and obtaining feedback regarding the initial process of the adoption.

**ACKNOWLEDGEMENT**

I would like to express my heartfelt appreciation to Prof. Dr Noor Azizi Ismail (UUM) and Prof. Dr Ramayah (USM) for their invaluable and constructive suggestions during the planning and development of this research as part of their advisory. My special thanks is also extended to Universiti Tenaga Nasional for the grant provided for this research work.

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