



Extensible Business Reporting Language (XBRL) and XBRL Reporting Issue in Chemical Public Companies

Citra Utami¹, Ranti Utari², Iskandar Muda³

^{1,2,3}Universitas Sumatera Utara, Medan, Indonesia

iskandar1@usu.ac.id

Abstract. This study aims to examine the effect of adopting eXtensible Business Reporting Language (XBRL) and how it impacts chemical companies. The benefits of eXtensible Business Reporting Language (XBRL) for companies are, firstly, the implementation of eXtensible Business Reporting Language (XBRL) will promote standardization and reduce errors. Information presented in eXtensible Business Reporting Language (XBRL) format can be understood by eXtensible Business Reporting Language (XBRL) computers and is independent of computer platforms and software applications, so they can be transferred without being manually recaptured. There are five recipients of reporting before the extensible Business Reporting Language (XBRL), namely analysts, credit rating agencies, investors, lenders, and regulators. So it can be concluded that reporting before and after the implementation of the eXtensible Business Reporting Language (XBRL) has similarities in source and recipient but has differences in format. Because after implementing the eXtensible Business Reporting Language (XBRL) the reporting format has become more concise. So that XBRL can provide significant benefits to the chemical company's financial reporting process.

Keywords : XBRL, Reporting Issue, Chemical Public Companies.

INTRODUCTION

The twenty-first century has witnessed a changing world where people learn, live and work in new ways. New ways of teaching, learning, and evaluating are evolving and new insights from research and observations emerge all the time (Anupong et al., 2023). Twenty first century education standards are characterized by a focus on 21st century skills underlined by content knowledge and expertise, building understanding across and among core subjects as well as new interdisciplinary themes, emphasizing deep understanding rather than shallow knowledge, engaging students with the real world data, tools, and experts they will encounter in college, on the job, and in life, actively engaging students in solving meaningful problems, and allowing for multiple measures of mastery (Solomon, n.d.) The next step forward for twenty-first century business or accounting education is the move to educate on how to become entirely 'paperless' by removing paper from business workflows.

In recent years technology has shown rapid development as the internet offers a unique form of disclosure through which companies can provide immediate information to the wider public (Abdelsalam & El-Masry, 2008, Pelletti et al., 2022). The use of technology is considered indispensable in preparing a company's financial statements. Astria (2012) affirmed that the use of technology in the data input process could automatically reduce the potential for errors compared to carrying out an internal input process. The first data users often face various obstacles to obtain fast and accurate information (Muda et al., 2022). Therefore, an integrated solution in language standardization for reporting information is needed to resolve these conditions, namely the eXtensible Business Reporting Language (XBRL). XBRL can support the creation of facilities to implement business intelligence and provide convenience for investors and regulators in accessing and processing the data needed for decision making.

Ten years ago, only a few visionaries could predict the impact of the Internet on the entire world of business and information exchange communities. Today, a decade later, we are on the brink of an internet revolution that will reshape the business reporting paradigm. This revolution didn't take ten years to impact business communications. A new Internet technology, eXtensible Business Reporting Language (XBRL), is already in use and is used worldwide (Jones & Willis,

2003). In order to reduce information risk in financial reporting, the adoption of new information reporting technology is implemented through the use of the eXtensible Business Reporting Language (XBRL) (Tohang & Lan, 2017). eXtensible Business Reporting Language or commonly abbreviated as XBRL is an extension of eXtensible Markup Language (XML), which in turn is an evolution of Hyper Text Markup Language (HTML).

The eXtensible Business Reporting Language (XBRL) community has been testing the power of eXtensible Business Reporting Language (XBRL) and there are indeed some impressive benefits that a wide range of users can experience with the adoption of this technology. Previous studies regarding the effect of implementing eXtensible Business Reporting Language (XBRL) on investor response stated that there were positive and negative responses from implementing eXtensible Business Reporting Language (XBRL).

XBRL began to grow in early 1990, XBRL made since the discovery of the weakness of HTML that is not able to explain the contents of the data presented. XBRL is first used for the financial statements of commercial and industrial establishments were compiled based on United States GAAP. Before XBRL used at the company made eXtensible Markup Language (XML). XML is not enough to be a general purpose language in communicating financial information. Ability thing necessary is to not only identify each piece of data, but how the data is processed and how it relates to other data.

Since the introduction of the eXtensible Business Reporting Language (XBRL) in 1999, adoption and implementation of this technology has increased globally, as it is intended for use in financial reporting by many countries, including China (2009), India (2008), and the United States (2009) (Trites, 2010). XBRL began to grow in early 1990, XBRL made since the discovery of the weakness of HTML that is not able to explain the contents of the data presented. XBRL was first used for the financial statements of commercial and industrial establishments that were compiled based on United States GAAP. Before XBRL was used at the company made eXtensible Markup Language (XML). XML is not enough to be a general purpose language for communicating financial information. The necessary thing ability is to not only identify each piece of data, but how the data is processed and how it relates to other data.

In the world of accounting and business, financial reports is one measure that describes the extent to which the performance of a business. The financial statements can also be communicated to investors, creditors, management, and all those who use the financial statements about how the condition of a business. In addition, the financial statements are also an aspect to be considered for taking a good decision by the investors, creditors, and management. Thus, reporting of a financial statement is very important in the business world because it can communicate with any aspect of the business performance. In addition to financial reports, taxes reports are also one important aspect in the world of business and accounting. So between the financial statements and tax records is integral to the world of Accounting and Business.

In Indonesia, there are not many studies on eXtensible Business Reporting Language (XBRL), so there is an opportunity to research "The Effect of Implementing eXtensible Business Reporting Language (XBRL) on Investor Response (Studies in the Basic Industry and Chemical & Miscellaneous Industries)" considering the eXtensible Business Reporting Language (XBRL) is believed to provide benefits for investors.

Rashty (2013) stated that in an effort to improve and enhance the functionality of the Electronic Data Collection, Analysis, and Retrieval (Edgar) database, in 2019, the Securities and Exchange Commission (SEC) mandated the use of the XBRL format. Previously, America began voluntary adoption of the XBRL in 2005 and mandated its adoption in 2008. Countries in Asia such as China, Korea, and Singapore have made the implementation of XBRL mandatory in 2009. Apart from these Asian countries, other Asian countries such as Malaysia, Taiwan, and Thailand have also implemented XBRL, Wada (2013).

The purposes of this study are explaining the role of XBRL in the world of accounting and business, explaining the role of XBRL in generating accurate tax reporting, and mentioning the

benefits and usage of XBRL. Based on the description above, it can be seen that eXtensible Business Reporting Language (XBRL) is a factor that can affect company value in a company.

LITERATURE REVIEW

Efficient Market Hypothesis (EMH)

A market is said to be efficient if no one, both individual investors and institutional investors, will be able to obtain abnormal returns, after being adjusted for risk, by using existing trading strategies. Fama (1970) states that in an efficient market, prices will "fully reflect" existing information and as a result prices will react abruptly without any bias towards new information (Fama, 1970). Beaver et al. (1989) stated that market efficiency is the relationship between stock security prices and information availability (Beaver et al. 1989). The concept of an efficient market is closely related to the availability of information.

Quality of Financial Reporting

Financial statements can be likened to a picture of a company. Any events that occur within one year of the company's life will be represented in the painting, so that it can be said that the financial statements will contain a lot of information in them. By understanding how important financial reports are for company operations, there is a kind of invisible demand that company actors are able to present financial reports honestly and transparently. It can be concluded that financial reports are very useful in making decisions from various parties. The quality of financial reports is an important point in the company and to measure whether the financial reports published to the public are truly quality financial reports.

Furthermore, Wada (2013) also explained that the XBRL BI (Indonesian Bank Central) project was intended to prepare for the transition of financial supervision from BI to *Otoritas Jasa Keuangan (OJK)* (Financial Service Authority) in 2014. The BI XBRL project is part of efforts to develop a financial reporting system that will accommodate BI and OJK's information requirements, for example, in the form of a Monetary and Financial System Stability Report (LSMK). Thus, based on this information, this study focuses on financial reports prepared by banks.

Globally, the banking sector plays a vital role in every country's economic growth (Murti, 2021). The banking performance worldwide has raised concerns among professionals, especially in the banking sector (Pinto & Joseph, 2017). With respect to Bank Indonesia Regulation Number 14/14/PBI/2012 regarding transparency and financial reports publication, it is stated that to increase transparency, banks need to provide quantitative and qualitative information that is timely, accurate, relevant, and adequate to allow information users to assess the financial condition, performance, risk profile, and risk management practices of banks, as well as business activities including interest rate setting.

Extensible Business Reporting Language (XBRL)

XBRL stands for Extensible Business Reporting Language and is an extension of eXtensible Markup Language (XML), which in turn is an evolution of Hyper Text Markup Language (HTML). The eXtensible Business Reporting Language (XBRL) community has already applauded the benefits of eXtensible Business Reporting Language (XBRL) and acknowledged there are some impressive benefits that a wide variety of users can realize with the implementation of this technology.

XBRL was developed in 1998 by Charles Hoffman, and in 2002 XBRL International, Inc. was founded. XBRL technology does not only integrate complex financial information, but also helps in the analysis of financial and non-financial report data for investors, bondholders, or other users in the capital market (Chen et al., 2014). XBRL is recognized as an open international standard for digital business reporting, managed by a global non-profit consortium (XBRL International, 2021). It is an electronic communication language used universally for the

transmission and exchange of business information, which improves the preparation, analysis, and accuracy processes for the various parties that provide and use business information. It can communicate information between businesses and users of financial information, such as investors, analysts, and regulators. The XBRL format can be used to prepare an institution's information report (IDX, 2021).

Rupang et al. (2019) argue that there are several advantages for the companies using the XBRL format to report their finances. They can save costs through increased efficiency and processing capability and lower bookkeeping costs (Rupang et al., 2019). Furthermore, Rupang et al. (2019) stated that greater transparency and increased access to data could allow investors to dig into finances more efficiently. It can help reduce investors' perceptions of the risk and uncertainty of investing in companies and make them more likely to invest (Andriana & Arina Raspati, 2015).

The benefits of eXtensible Business Reporting Language (XBRL) for companies are, firstly, the implementation of eXtensible Business Reporting Language (XBRL) will promote standardization and reduce errors. Information presented in eXtensible Business Reporting Language (XBRL) format can be understood by eXtensible Business Reporting Language (XBRL) computers and is independent of computer platforms and software applications, so they can be transferred without being manually recaptured. This eliminates errors associated with manual data entry and improves data quality. Second, the eXtensible Business Reporting Language (XBRL) makes it easier for companies to compare themselves with companies in similar sectors. Third, the use of eXtensible Business Reporting Language (XBRL) will attract foreign investment into the company. Information presented in the eXtensible Business Reporting Language (XBRL) format will enable international investors to read and analyze financial reports regardless of language. A company's financial reports embedded in an extensible Business Reporting Language (XBRL) data tag are likely to receive the most attention from analysts. Fourth, eXtensible Business Reporting Language (XBRL) has the potential to reduce waste, costs so that it can be more efficient. Fifth, eXtensible Business Reporting Language (XBRL) ensures a lot of data usage. eXtensible Business Reporting Language (XBRL) enables companies to prepare various types of reports using various subsets of data.

The XBRL concept is underlined by the Extensible Markup Language (XML) which is an exciting new Internet technology that is already being used for the electronic exchange of transaction data in a wide range of companies, both internally and externally, and across supply chains enhancing the exchange of information, goods and services. The application of XML for accounting entries and business reporting information is called the "Extensible Business Reporting Language" or XBRL. XBRL is an interoperable information format that facilitates the exchange of business reporting data between disparate information systems. It provides a common way for disparate information systems to exchange business reporting data. With XBRL, extracts from the XBRL based electronic information can then be published as conventional human readable documents on Internet sites at the touch of a button when agreed labels have been added. This will allow both internal users and external users, via the Internet, to efficiently seek out, identify, select, and import such information directly into software on their own computers (Willis, 2003). XBRL is an open standard that uses data item tagging for financial reporting. All numerical information are tagged using standard taxonomies which make the actual format of the financial statements irrelevant. XBRL tagged documents can be combined with a 'style sheet' to produce statements similar to their hard-copy versions. With XBRL, there is no need for specialized software or infrastructure. Once information has been tagged, it can be manipulated by external parties and companies can embed details for external parties thus eliminating the need for different reports altogether.

Benefits and Uses in XBRL

1. to produce consolidated financial statements from all divisions and subsidiaries quickly and reliably.

2. Improve the accuracy and reliability of financial data.
3. Provide ease of analysis, forecasting, and decision making. And the ease in collecting, preparing, and storing data.
4. Helping business decisions more quickly and efficiently.
5. The financial data can be rendered more transparent and easier to use.
6. Simplify the process and reduce costs in the tax reporting rules and other authorities.
7. Can avoid software systems is difficult and paid

METHODS

This research was conducted using the library and internet research approach, which is a research method that is carried out by collecting various literature related to the topic being studied which is sourced from libraries and the internet as a reference source in determining the description of the Extensible Business Reporting Language (XBRL) in chemical companies. . In the context of this research, internet sources are the most important references in collecting various references from various previous studies that are relevant to the topics raised in this research which have been published in various international journals. By collecting previous literature reviews and connecting them with the theory that will be presented and explained in depth regarding how to implement Extensible Business Reporting Language (XBRL) in chemical companies.

RESULT & DISCUSSION

How it Works XBRL

XBRL reporting system involves two main parties, the sender and receiver of information. In implementation, the role of the recipient of the information is a standard set of information in the form of XBRL taxonomy. The receiving party information also process information in XBRL format received KPMG Siddharta advisory, 2013). On the other hand, the shipper information plays submit data reports in XBRL documents (XBRL instance document) based on predefined taxonomy. In the XBRL document creation, software affix tags to the XBRL data items company based on predefined taxonomy, such as standard taxonomy, taxonomy extension, enterprise data, tagging process, document. Manfaat eXtensible Business Reporting Language (XBRL) bagi perusahaan yang menggunakan eXtensible Business Reporting Language (XBRL) yaitu perkumpulan eXtensible Business Reporting Language (XBRL) secara rutin menerbitkan studi kasus XBRL untuk mengembangkan eXtensible Business Reporting Language (XBRL).

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eXtensible Business Reporting Language (XBRL) ensures a lot of data usage. eXtensible Business Reporting Language (XBRL) enables companies to prepare various types of reports that use various subsets of data. Examples include statutes, tax returns, and internal reports, all of which can be read on different computers and systems. Sixth, eXtensible Business Reporting Language (XBRL) enables internal reporting, for example in the case of consolidation. Seventh, eXtensible Business Reporting Language (XBRL) provides real-time preparation of financial information. Eighth, the eXtensible Business Reporting Language (XBRL) Taxonomy is available free of charge.

According to the Indonesia Stock Exchange (IDX), there were three sources of reporting prior to implementing the eXtensible Business Reporting Language (XBRL), namely the financial system, additional disclosures, and other information. The reporting format prior to implementing the eXtensible Business Reporting Language (XBRL) was in the form of Microsoft Excel, Microsoft Word, Portable Document Format (PDF), TEXT (TXT), and other formats. There were five recipients of reporting prior to implementing the extensible Business Reporting Language (XBRL), namely analysts, credit rating agencies, investors, lenders, and regulators. Meanwhile, there are three sources of reporting after the implementation of the eXtensible Business Reporting Language (XBRL), namely the financial system, additional disclosures, and other information. The reporting format after the implementation of the eXtensible Business Reporting Language (XBRL), namely eXtensible Business Reporting Language (XBRL) is able to generalize all reporting languages in one reporting standard.

The Effects of XBRL on Chemical Public Companies

The high practical relevance of XBRL (Extensible Business Reporting Language) is emphasized by several laws and a large number of regulatory requirements stipulating the use of XBRL for business and financial reporting. XBRL is a key element in addressing today's corporate communication and information processing failures. The broad implications are revolutionary: unprecedented levels of connectivity amongst individuals, companies, regulators, and other stakeholders resulting in enhanced and effective information exchanges. Corporate internal and external reporting have taken a turn for the best due to the XBRL enabled possibilities in the collection, consolidation, and publication of information. XBRL enables core data to be presented in more than one format or report and is therefore sufficiently flexible to accommodate new reports and additional content. How information is reported (format and presentation) has also been revolutionized because XBRL is platform independent. Based on research (David Lee, et al. 2012) the influence of XBRL already begun, with multinational companies set up a branch company in Indonesia. This can be seen in companies that already use XBRL then outstanding shares are purchased and hunted by investors. This proves that investors helped with XBRL system implemented by the company.

XBRL in Indonesia has been implemented by several state institutions in Indonesia, such as: Bank Indonesia, the Indonesia Stock Exchange and SKK Migas. The Directorate General of Taxation have a plan to use this XBRL system. XBRL in the world of taxation has not been operated, but the plan of XBRL will be used in the world of taxation at the beginning or the end of the year 2017. The Directorate General of Taxation is already using online tax return to allow companies in Indonesia to pay taxes. XBRL will be connected to the SPT online which has been run by the Directorate General of Taxation because XBRL will be associated with the reporting of tax to be paid and reported to the State.

Alles & Debreceeny (2012) state that investors, analysts, financial institutions, and regulators are financial data users. Given the report in XBRL format, the users will be able to receive, find, compare, and analyze data more quickly and efficiently. According to Chang & Jarvenpaa (2005), financial report information reported via the internet based on XBRL format is expected to be used

as global standard data. This statement is also in line with Wagenhofer (2007), suggesting that standardization of the format and content of financial information can be obtained if XBRL is widely applied. The development of the capital market industry can lead to a high need for information to be used by parties interested in these reports. If the information issued by a company or country is presented in the same language format, it can be processed quickly.

This XBRL will be more to the company rather than to individuals. Due to the Company in Indonesia has great risk in paying taxes. XBRL in the world of taxation would be helpful in tracking down tax authorities or companies that are not late in paying taxes. Besides being able to keep track of companies that missed or delayed paying taxes, XBRL also make it easier for the staff of Directorate General of Taxation to enter the data of the XBRL (eXtensible the Business Reporting Language) is an XML-based open standard that supports the modeling of information and company, which is the taxpayer. With the SPT online will make it easier for tax authorities to use this XBRL.

So, the use of XBRL in the world of taxation can go as desired later, the Tax Office should conduct socialization gradually into an existing company in Indonesia, providing training in the use of XBRL in taxation, as well as providing XBRL software free of charge to companies in Indonesia. It is expected to do things - things that have been mentioned above, XBRL will be run efficiently and will reduce the companies that missed or delayed in paying taxes.

Based on the submission above, this indicates that XBRL, with the benefits obtained by implementing it, will have a good impact on chemical companies, so XBRL has an important role in the sustainability of the company, inseparable from chemical companies.

CONCLUSION

Expression of semantic meaning which is usually required by business reporting. XBRL uses XML syntax and XML-based technologies to explain the semantics. From the above discussion, it can be concluded using XBRL in the world of taxation will bring convenience to the Directorate General of Taxation and other state institutions. That's because they can track companies that missed or delayed pay taxes to the State. XBRL will be implemented by the Directorate General of Taxation will be expected to go according to plan and XBRL are also expected will reduce companies that do not pay taxes or late. XBRL can be used to prepare tax reports in a format that can be operated in a variety of applications reduces the need to prepare tax reports in different formats. XBRL will be used by the Directorate General of Taxation and companies in Indonesia will benefit both parties. There are five recipients of reporting before the extensible Business Reporting Language (XBRL), namely analysts, credit rating agencies, investors, lenders, and regulators. So it can be concluded that reporting before and after the implementation of the eXtensible Business Reporting Language (XBRL) has similarities in source and recipient but has differences in format. Because after implementing the eXtensible Business Reporting Language (XBRL) the reporting format has become more concise. So that through previous studies and linking them to today's conditions XBRL is able to have a significant impact on the financial reporting process of chemical companies.

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