HOW TO INTEGRATE XBRL INTO ACCOUNTING CURRICULUM AT BANJARMASIN STATE POLYTECHNIC

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Abstract

The purpose of this research is to develop accounting curriculums for Banjarmasin State Polytechnic (POLIBAN). The curriculums integrate the XBRL (eXtensible Business Reporting Language) materials into their course designs. The ideal XBRL related curriculum was developed based on the course designs recommended by Debreceny and Farewell (2011). In the recommended course design, the coverage of XBRL builds in the accounting curriculum the same way that the breadth and depth of accounting concepts increases.

However, when it comes to the implementation, there are some main barriers that should be taken into account i.e. (1) Not all lecturers understand well about XBRL as the XBRL is relatively new ‘topic’ to most of the accounting lecturers. (2) As Indonesia GAAP Taxonomy has not been developed, it means that there will be no real case studies related to this taxonomy that can be developed. (3) Developing a good XBRL related syllabus should take time.

Based on those impediments, the applicable accounting curriculums that integrate the XBRL were then designed for academic year 2011/2012 via curriculum development workshop. In the Computerized Accounting Study Program, the subjects that cover the XBRL materials are Management Information System, Accounting Information System II, and Internet/Web-based Programming. In the Regular accounting Study Program, the subjects that cover the XBRL materials are “Current Issue in Accounting”.

The subsequent academic years (after 2011/2012), the XBRL related course design in previous academic years has to be evaluated and enhance. The accounting Department has better apply the suggestions discussed in the last chapter, so the XBRL related course design recommended by Debreceny and Farewell (2011) will be eventually achieved.

Keyword: integrate the XBRL, accounting curriculums

1. INTRODUCTION

Background

XBRL stands for eXtensible Business Reporting Language. XBRL is one of a family of “XML” languages that focuses particularly on the financial reporting arena. It has been a widely accepted standard and implemented worldwide including US, China, and Australia. All publics companies in those countries will be required to prepare their financial statements in XBRL format to government agencies such as Central Bank, Tax Office, and Securities Coms.

Troshani and Doolin (2005) justify that the adoption of the International Accounting Standards (IAS) as one main reason for the slow XBRL adoption in Australia. Similarly, Indonesian Financial Accounting Standards Board of Indonesian Institute of Accountants (DSA-K-IAI) has also started the IFRS convergence process since 2009 and was determined to finish in 2012.

This may be also the reason why a kind of “wait-and-see” situation also currently occurs in Indonesia. However, there are many countries that require the use of IFRS and then most of them also adopt XBRL.

It is then projected that the XBRL adoption in Indonesia will soon be done once the IFRS convergence efforts will have been in place in 2012/2013.

Research Problems

Jianing (2010) indicates that one main reason for the slow XBRL adoption in US is that almost all of the US schools or universities have not covered XBRL materials in their courses yet.

Based on Jianing’s findings, it can be concluded that it is important to adopt XBRL related topics to Indonesia universities’ curriculum. By adopting XBRL in the curriculums, the similar problem can be avoided when Indonesia implement the XBRL in the very near future.

The following research problems are what this paper discusses:

1. Ideal ways to integrate XBRL materials in Accounting Curriculums at POLIBAN based on the suggestion of Roger Debreceny and Stephanie Farewell (2010)
2. Applicable ways to integrate XBRL materials in Accounting Curriculums at POLIBAN.

2. LITERATURE REVIEW

What is XBRL

XBRL promises to help achieve those goals. XBRL stands for eXtensible Business Reporting Language. XBRL is one of a family of “XML” languages in the financial reporting arena. It has been designed to standardize financial and business reporting. It enables unique identifying tags to be applied to items of financial data, such as ‘net profit’.

As a simplification, XBRL is just like using BARCODE for financial data which can track a can of milk from the manufacturing plant through the point of sale.

Likewise, XBRL tags financial information so it, too, can be tracked, from the first interactions with vendors, to reports submitted to various operating divisions within a company, and finally to become part of a consolidated financial report.

How XBRL Works

There are two primary components in the delivery of XBRL reporting solutions i.e. XBRL taxonomy and XBRL instance documents. By splitting XBRL report into two documents, the taxonomy will remain the same every time a new balance sheet is created. It is only the facts which are updating.

XBRL Taxonomy

The taxonomy document outlines the concepts which are to be reported. It also includes the definition of those concepts and describes the relationship between the concepts. A concept is a basic piece of information that exists in a report.

The following picture shows the example of relationships between concepts in a simple balance sheet:

(Source: KPMG:2011)

Figure 1: Concept Relationship

Taxonomy Concept File

It is an XML schema file contains the business reporting concept definitions. It usually has the extension .xsd. The taxonomy file is developed as XML schema. Therefore, there must be a root element. This root element is always the <schema> element of the XBRL Taxonomy concept file.

XBRL instance documents

The values or financial facts are contained in an instances document. Those values refer to the concepts that are described in the taxonomy document.

The following picture illustrates an instance document for the balance sheet of the above taxonomy document:
By combining a taxonomy document with an instance document, a meaningful business report can be produced.

<table>
<thead>
<tr>
<th>FACTS</th>
<th>Concept (from the taxonomy)</th>
<th>Value</th>
<th>As Of Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts Payable</td>
<td>90</td>
<td>Dec. 31, 2001</td>
<td></td>
</tr>
<tr>
<td>Current Assets</td>
<td>160</td>
<td>Dec. 31, 2001</td>
<td></td>
</tr>
<tr>
<td>Loans</td>
<td>25</td>
<td>Dec. 31, 2001</td>
<td></td>
</tr>
<tr>
<td>Non-Current Assets</td>
<td>275</td>
<td>Dec. 31, 2001</td>
<td></td>
</tr>
<tr>
<td>Retained Earnings</td>
<td>120</td>
<td>Dec. 31, 2001</td>
<td></td>
</tr>
<tr>
<td>Stock</td>
<td>280</td>
<td>Dec. 31, 2001</td>
<td></td>
</tr>
</tbody>
</table>

By combining a taxonomy document with an instance document, a meaningful business report can be produced.

Hoffman and Watson (2010) explained that an XBRL instance has four main parts: Values, Context, Concepts, and Dictionary.

Instance - Values

The values are the text (individual values or entire narratives) and numbers in the report, the business information. Generally, the text and numbers come from some sort of business system, such as an ERP system or a spreadsheet.

The instance document can handle numeric and non-numeric data, different units of measurement and multi-period financial statements. For example, a value would be a number like “1254” or text, such as “Inventory consists of finished goods and working-progress” or even a paragraph or so of narratives.

Instance – Context

The context explains important information about the values. For instances: what entity the value relates to, what period the values relate to, and whether the values are actual, budgeted, and so on.

By having context, then it is possible to say that the information relates to a company and not some other company, and that the period is for 2011, not 2007.

Instance – Concept

Concepts mean technical representations of business terms like “Net Income (Loss)” and “Sales, Net”. These terms are associated with the text or numbers contained on a business report, the values. Values (like “5347” in the example) are reported for concepts and within a specific context.

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Source: Hoffman and Watson (2011)
XII (2011) explains that XBRL International is comprised of local jurisdictions which represent countries, regions or international bodies and focus on the progress of XBRL in there areas as well as contributing to international development. XII (2011) adds that there are two types of jurisdictions i.e. provisional jurisdictions and established jurisdictions.

Provisional jurisdictions

According to XII (2011), Provisional jurisdictions are similar to start-up organisations with a small working group focussed on increasing interest within their region and developing an initial taxonomy for local accounting standards. Provisional jurisdictions have up to two years to become an established jurisdiction.

3. RESEARCH AIM AND BENEFITS

Research aim and objectives are interrelated. The aim is what this research wants to achieve, and the objective describes how this research achieves that aim. An aim is a general statement, which reflects the intention or purpose of the area of this research, while an objective is a specific statement relating to the defined aim of this research.

Research Aim

The aim that this research wants to achieve is to design accounting curriculums at POLIBAN that integrate the XBRL materials. The designs will be implemented in Computerized Accounting Study Program and Regular Accounting Study Program.

Research Objectives

The following research objectives are what this research wants to conduct in order to achieve the research aim:

1. To develop an ideal accounting curriculum at POLIBAN that applies the XBRL related course design suggested by Debreceny and Farewell (2010).
2. To develop an applicable accounting curriculum of POLIBAN that integrates the XBRL material.
   To define the strategy that minimizes the barriers of implementing gradually the ideal accounting curriculum suggested by Debreceny and Farewell (2010) in every academic years.

4. RESEARCH METHODS

Research method is a procedure to find the required data to draw conclusion or make some predictable results. In other words, research method is a way of collecting inputs and finding the outputs.

1. Conducting XBRL related literature reviews and related previous researches, such as XBRL concepts and principles. Studying the related literature is one way to gathering the research inputs i.e. how to adopt the XBRL materials into accounting curriculum. The main literatures for this research are from the work of Roger Debreceny and Stephanie Farewell (2010): XBRL in the Accounting Curriculum and the work of Jianing, F (2011).
2. As the secondary data, the current accounting curriculums for academic year 2010 / 2011 were explored. From this analysis, the ideal XBRL material integration into accounting curriculums was then developed based on the suggestion of Debreceny and Farewell (2010).
3. The feasibility of the ideal course design implementation was investigated. Based on this investigation, the barriers were determined. Suggestions were developed to avoid or minimize the impediment and finally to implement gradually the ideal course design in every academic year.

5. FINDINGS AND DISCUSSIONS

Findings sub chapter discusses about the current status of XBRL implementation in Indonesia, and current curriculum in accounting department at State Polytechnic Banjarmasin. The discussion sub chapter then discusses about how to integrate XBRL topics in the curriculum.

Findings : XBRL Implementation in Indonesia

At the time of this writing, there is neither established jurisdiction nor even provisional jurisdiction for Indonesia. In fact, the awareness of XBRL has already appeared since 2006.

In that year, two staffs of BAPEPAM-LK (Indonesian Capital Market and Financial Institutions Supervisory Agency) went to IASCF XBRL Team in UK. The staffs (Mr. Hudiyanto and Mr. Sidi Darmawan) joint one-month XBRL training/apprentice program.

The other Indonesia regulatory agency, the Indonesia Central Bank (Indonesia Bank) participates also in some XBRL events such as doing a comparative study at XBRL Belgium at 21.03.2011 and attending XBRL International 21st Conference at Beijing on October 19-21, 2010.

Discussion

In POLIBAN, the accounting curriculums will be re-adjusted at least every three (3) years via so-called curriculum development workshop. Participants at the workshop came from academia and industries. The aims of this workshop
include adjusting the subjects offered to student in order to match the needs of industries and accounting knowledge trends. Another objective of this workshop is to correct which semester that a subject has to be offered based on previous lectures.

The current curriculums 2010/2011 are now adjusted via curriculum development workshop in year 2011. One of accounting knowledge trends that will be adapted to the new curriculums is XBRL formatted Financial Report. XBRL materials will be integrated into the latest accounting curriculums developed via curriculum workshop in 2011.

1. Ideal ways to integrate XBRL materials in Accounting Curriculums at POLIBAN

This chapter will explain the scenario how to integrate ideally XBRL related materials into POLIBAN’s accounting curriculum will be based on an XBRL research done by Roger Debreceny and Stephanie Farewell XBRL in the Accounting Curriculum. According to them, the coverage of XBRL builds in the accounting curriculum the same way that the breadth and depth of accounting concepts increases.

According to Roger Debreceny and Stephanie (2010), the XBRL topics are not only about a systems topic or specially about XBRL technology. As the XBRL topics will be also related to accounting principles, it is then suggested that the coverage of XBRL builds in the accounting curriculum the same way that the breadth and depth of accounting concepts increases.

These include the double-entry bookkeeping system and the role of accounting information within organizations and the broader economy. Later in the program the curriculum broadens (financial and management accounting, systems and auditing) and deepens.

Debreceny and Stephanie (2010) suggested that the more senior then the deeper/wider the coverage of XBRL.

Introduction to Accounting Subjects

The XBRL materials in these subjects should focus on an end-user perspective on XBRL and only at a relatively surface level.

Cost and Management Accounting Subjects

Debreceny and Farewell (2010) suggested that the focus remains on users within the introductory cost and management course.

Cost and Management Accounting Subjects

In regular accounting study program, the subjects will just focus on (limited to) the primary components of XBRL i.e. Taxonomy and Instance Document. Where as in The Computerized Accounting Study Program will include more detailed knowledge of the technical aspects of XBRL.

Intermediate Financial Accounting Subjects

Students of regular accounting program-study and of computerized accounting program-study will get the foundation skill and knowledge of how to prepare financial statement based on Indonesian GAAP i.e. PSAK.

Advanced Financial Accounting subjects

The key element of the discussion on XBRL in these subjects should encompass its role in the consolidation process. This may involve the use of both XBRL-GL and financial reporting taxonomies such as PSAK and IFRS taxonomies.

2. Applicable ways to integrate XBRL materials in Accounting Curriculums at POLIBAN

Actually, the curriculum suggested by Debreceny and Farewell (2010) can be adopted into POLIBAN’s accounting curriculum since most of the core subjects (such as Introductory Accounting, Cost Accounting, Budgeting, Public Sector Accounting, Audit, Intermediate Accounting and Advance Accounting) have its accounting lab subjects. However, there are some barriers that should be taken into account when the curriculum design comes to implementation.

This chapter discusses the feasibility and strategy to integrating the above course designs into Accounting Curriculum at POLIBAN. Actually, Debreceny and Farewell (2010) suggested integrating the study of XBRL with overall learning objectives for those courses rather than be a standalone learning outcome. However, there are some reasons that cause the suggestions not fully applicable for the case of POLIBAN Accounting Department. Then on the next sub chapter, it will explain how to adjust the suggestions of Debreceny and Farewell (2010), so then the suggestions fit with the case of POLIBAN Accounting Department.

Main Impediments of XBRL Integration into all core accounting courses

When we come to implement the ideal course designs above, we cannot adopt them in one go. The following main impediments make us cannot ‘suddenly’ integrate XBRL into all subjects mentioned on previous chapter:

1. As the explanation of Debreceny and Farewell (2010), the availability of teaching and learning materials is indeed an important element of adoption of new content in the curriculum. Accordingly, the recommended textbook authors and case writers have to be prepared and integrated into the syllabus of
For academic year 2011/2012, the writer suggests to include the XBRL materials as a standalone learning outcome. The next sub chapters explain what subjects that will include the XBRL materials.

1. Computerized Accounting Study Program – 2011/2012
   a. Management Information System
      • Understand the essential concepts of XBRL
      • Understand how business implements the XBRL through their Enterprise Application (ERP systems).
      • Understand the two primary components in the delivery of XBRL reporting solutions i.e. XBRL taxonomy and XBRL instance documents.
   b. Accounting Information System II
      An introduction to XBRL GL which allows transfer of much more than just financial data between systems.
   c. Internet/Web Programming
      Understanding XML languages and its relation to XBRL

2. Regular/General Accounting Study Program – 2011/2012
   A subject called “Current Issue in Accounting” will explore the essential concepts of XBRL and Introduction of XBRL Global Ledger (GL).

Applicable ways: XBRL materials integration into accounting curriculum 2011/2012

Based on the reasons/obstacles explained on the previous sub chapter, it can be concluded that it is not easy to implement what Debreceny and Farewell (2010) suggested i.e. integrating the study of XBRL with overall learning objectives for those courses. However in the long run, the further XBRL implementation in Indonesia, the more comprehensive the course designs will be implemented in Accounting Curriculum at POLIBAN.

Tabel 2 – Computer Based Accounting 2011/2012 Curriculum
This subject is actually intended to offer any current issues in Accounting which has not been covered yet in any other core accounting subjects, for instance: XBRL implementation, IFRS convergence, Mining Accounting, Human Resource Accounting, Computer based Auditing and so on.

6. CONCLUSIONS AND SUGGESTIONS

Conclusions

XBRL stands for eXtensible Business Reporting Language. XBRL is one of a family of "XML" languages that focuses particularly on the financial reporting arena. It has been a widely accepted standard and implemented worldwide including US, China, and Australia. All publics companies in those countries will be required to prepare their financial statements in XBRL format to government agencies such as Central Bank, Tax Office, and Securities Commission.

At the time of this writing, Indonesia has not yet adopted the XBRL formally and has not had any XBRL Jurisdiction, although the initial awareness of XBRL among Indonesia government agencies has appeared since 2006. One main reason for the slow XBRL adoption in US is that almost all of the US schools or universities have not covered XBRL materials in their courses yet.

Indonesia had better determine and avoid the same problems that other countries like US had confronted when implementing XBRL. Indonesian Universities should then integrate XBRL materials in their courses.

The XBRL course design suggested by Debreceeny and Farewell (2010) is considered as an ideal XBRL integration into curriculum. The coverage of XBRL builds in the accounting curriculum the same way that the breadth and depth of accounting concepts increases. However, there are two main impediments that make Accounting Dept. cannot adopt them in one go:

1. As XBRL is relatively new topic to most of the accounting lecturers, then not all lecturers understand well about XBRL
2. Developing a syllabus in every accounting core subject that accommodates the recommended course designs will take time.
3. Indonesia GAAP Taxonomy has not been developed at the time of this writing. It means that there is no case study related to this taxonomy that can be developed.
4. In Academic Year 2011/2012, Accounting Department at POLIBAN will integrate the XBRL material into selected subjects i.e.:
a. Regular Accounting Study Program: Current Issue in Accounting

5. In subsequent academic years (after 2011/2012), Accounting Department at POLIBAN should then evaluate:
   a. The previous XBRL course designs implemented in previous academic years.
   b. The feasibility adoption of XBRL course designs suggested by Debreceny and Farewell (2010).

Suggestions

1. POLIBAN should take sustainable improvement in accounting curriculum development to accommodate the link and match with industrial needs and accounting current issues. One of accounting current issues is implementation of XBRL.

2. The accounting department should take the initiative to the integration of XBRL material into accounting curriculum. This initiative is one of the efforts to be the leading innovative Polytechnics in INDONESIA.

3. To combat or minimize the obstacles in XBRL materials integration in accounting curriculum, the following strategies may have to be done in order to adopt gradually the XBRL related course design suggested by a. Debreceny and Farewell (2010):
   a. Lecturers should efforts to sustainable researches related to XBRL (at least XBRL literatures researches). It will then help speed up the acceleration of XBRL learning among the lecturers.
   b. Accounting department should invest more on XBRL textbooks specially the textbooks recommended by Debreceny and Farewell(2010) is indeed important.
   c. The institution (via P2M POLIBAN - Research and Society Service Unit) should provide or socialize the access to National and International Database Online Journals such as EBSCO, JSTOR, PROQUEST, EBSCO, IEEE, Science Direct, and SPRINGERLINK. The journals provide XBRL related papers/ researches that help the lecturers update their knowledge and insight of XBRL. Thus, the access will help lecturers to prepare a better syllabus.
   d. Accounting department should invest more on XBRL training because the training will also enhance the XBRL skill and knowledge of accounting lecturers.
   e. The teaching team should be formed in order to disseminate the XBRL knowledge and skills among the lecturers.

7. REFERENCES


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