Are We Walking Hand in Hand? The Case of AEC: Accounting Harmonization in Measurement Practices

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Abstract*— *This study examines the degree of harmonization of accounting measurement practices. The data is elicited from the financial year 2009 annual reports of 150 sample listed companies in five ASEAN countries, including Indonesia, Malaysia, Philippines, Singapore and Thailand. The degree of harmonization is measured using the I index and between-country comparability index (C_b). The results show that the values of the indices are relatively high in the areas of valuation of inventory, valuation of property, plant and equipment and depreciation method. In contrast, the lower values of the indices indicate a lower level of harmonization in the areas of inventory costing.

***Keywords*— Accounting harmonization, AEC..**

1. INTRODUCTION

Economic integration of countries in the same geographical region has increasing roles in reinforcing their sustainable economic growth. In order to meet the goal, members of the same region economic alliances aim to eliminate extant trade barriers among the member countries. The alliances have emphasized on the harmonization of fiscal, business, and financial policies [1]. As an increasing amount of goods, service and capital flow across domestic border in regional economic community. Such as the Association of Southeast Asian Nations (ASEAN), ASEAN Economic Community (AEC) allows free flows for goods, service, capital, investment, and people among member countries by enacting lenient policies, supporting fund transfers and reducing tariff tax within ASEAN [2]. The total amount of Foreign Direct Investment (FDI) flow among ASEAN countries was 10,461 million dollars in 2008, 21% of the total FDI, increased from 2007 with 9,682 million dollars as 13% of the total FDI [3]. From target as AEC, amount of investments from abroad within ASEAN will proliferation many number of trade transaction and international business in the future.

From decision making perspective, Investors would like to direct their capital to the most efficient and productive companies globally. They need to understand accounting information from other member countries for make well informed financing and investing decision across domestic borders [4, p.2]. Social environment influences accounting, so the variation of country's accounting regulations and practices results the differences in financial statements [4, p.3]. Harmonization of accounting practices among countries improves the comparability of financial statements, as making them more useful to understand and interpret. Regional harmonization of accounting, a step towards greater international harmonization, is less heterogeneous environmental factors within a regional boundary. If regional harmonization is achieved, international harmonization would be much easier to accomplish [5]. Prior accounting harmonization studies mainly concentrates on developed countries or the European Union (EU) countries [6]-[8].

ASEAN accounting harmonization research appears to be little [9]-[11]. ASEAN have different environment in terms of the economic, political, culture and society. ASEAN must promote consistency in accounting practices, in order to facilitate ASEAN financial report users to understand and compare financial reports across countries. The purpose of this study is to examine the degree of harmonization of accounting practices with particular focus on measurement practices of listed companies in AEC context. The samples are retrieved from 150 annual reports of listed companies in five founder countries of ASEAN, namely Indonesia, Malaysia, Philippines, Singapore and Thailand. As the five pioneers has joined in ASEAN[1] for 43 years though the second group has already joined in ASEAN for 11, 13, 15 and 26 years. If the first group is achieved to accomplish regional harmonization, the second group would be easier to adopt the accounting regulations.

This study provides academic and practical contributions. First, the findings add to the current body of accounting harmonization literature by gaining more understanding of corporate accounting practices in South East Asia. Second, the study documents empirical evidence of evolving accounting practices in AEC. Third, the results of the study provide insight for accounting professional and regulators to determine the current status of accounting harmonization in AEC. Therefore, ASEAN commissioners can determine the extent of discrepancies to formulate guidelines for implementing accounting harmonization. In addition, the

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[1] ASEAN has been established by Indonesia, Malaysia, Philippines, Singapore and Thailand since 1967. Brunei joined in 1984, Vietnam joined in 1995, Myanmar and Laos joined in 1997 and Cambodia joined in 1999.

results could be used as a comparative model to develop accounting standards for other economic groups in other world regions, such as, South America, South Asia and Africa.

The remainder of this paper is organized as follows. The second section presents the prior research and review of literature. The third section discusses research methodology, including data selection and statistical analysis and section four provides an analysis of the results by measurement practice. Finally, the fifth section concludes with a summary of the findings, limitations and possibilities for future research.

2. PRIOR RESEARCH AND REVIEW OF LITERATURE

Accounting Diversity and Its Antecedents

The variation of country's accounting regulations and practices results the accounting diversity. Mueller (1976) discussed the impact of the environment on the formulation of accounting practices in a country. Conditions that can shape the accounting practices include culture, economy, society and political system (see also [12]). Research has adopted and supported Muller's conceptualization. Consistently, Reference [13] suggested that environmental factors are related to the accounting system. Reference [14] proposed that environmental factor affecting the development of accounting in each country. Reference [15] proposed the factors affecting the accounting by dividing variable of the culture from Gray whose variables culture divided into four groups plus a variety of six other factors. Research revealed environmental factors affect the development of national accounting, such as culture [15]-[18], the type of legal system [15], the type of political system [19], the type of capital market [20] and colonial [21].

Culture is a factor affecting the accounting within the country. Prior studies have examined the relationship between culture and accounting practices and found that country with different culture has different kind of accounting practices [15]-[18]. Hofstede (1985) defined culture as "the collective programming of mind which distinguishes the members of one human group from another." such as language, race, religion, customs, social roles and attitudes of people in society (see also [16]-[17]). The association between culture and accounting has been discussed widely [16]. Reference [16] extended the Hofstede's cluster of culture to explain the relationship between the characteristics of culture and accounting called the Hofstede-Gray Model. Reference [16] further explicated four characteristics of accounting

Several researchers have studied the relationship between cultures with the accounting in various settings. Reference [22] have identified the impact of Islam nature on accounting in Islam countries. Reference [23] have identified the impact of the languages the accounting disclosure. Reference [17] has identified the influence of culture on the financial reporting of the United States and the Netherlands. Reference [18] have identified the differences in accounting standards by comparing with the countries using International Accounting Standard (IAS) from the difference of culture.

Legal system is another important factor relating to accounting practices. Reference [15] discussed a relationship between the accounting system and the law system. The legal system is divided into two systems as Common law and Codified Roman law. In Common law countries, the accounting law is flexible. That is, the accounting law provides more like framework which allows accountants to exercise their own judgments. The details of how the performance and presentation of financial reporting will be determined by the professional institutions of accounting that are independent of government [24, p.28], [25, p.32]. Examples of developed countries which are using the Common law legal system are Ireland, the United States, Canada, Australia and New Zealand [24, p.28].

In countries using the Codified Roman law, the accounting will be set out in legislation such as the Code of Commerce. In general, the law is defined as a detailed presentation on financial reporting and accounting methods to be used in the preparation of financial reporting and this policy was not changed frequently [24, p.28], [25, p.32]. France, Italy, Germany, Spain, the Netherlands, Portugal and Japan are examples of the countries using the Codified Roman law [24, p.28]. Reference [14] argued that the different political systems would cause the different accounting practices. Political system is defined in terms of power of government and the authority in the country. It is indicative the significant relationship between the political system and accounting system in the country.

Source of capital funding is another factor attributing to the characteristics of accounting systems. Capital market is considered a funding source for domestic companies which want to expand their business by offering shares to public. Reference [26] commented that the accounting practices in countries which have strong domestic capital markets are different from those in countries which mostly depend on funding from financial institutions. Reference [20] commented that growth of capital markets also influences the development of accounting disclosure. In countries with large capital markets, companies would have a higher level of disclosure. On the other hand, in countries with relative small capital markets, companies would have a lower level of disclosure.

From the historical perspective, in the colonial era, the United Kingdom and France had spread their nations of their accounting system to various countries around the world. Now the British accounting still exists in Australia and New Zealand. The French accounting is appeared in its former colonies in East Africa. The Dutch accounting was transferred to countries that used to be a colony of the Netherlands. The accounting system in the United States colony is influenced by the U.S. accounting systems as well. Being the former colonies of foreign countries would contribute to the similarity and dissimilarity of accounting systems of those countries [4], [10, p.8], [25, p.34]. The British accounting was transferred to developing countries in the ASEAN region which were once a British colony [21]. Currently, due to economic integration and the spread of economic power,

the isomorphism of accounting system within the EU, NAFTA and ASEAN has been observed and documented. For instance, the U.S. accounting system has been adopted by Canada, Mexico, and Israel [4], [10, p.8], [25, p.34].

Regional Economic Integration

Region Economic integration of countries in the same geographical has increasing roles in reinforcing their sustainable economic growth. One of the strongest trade unions in the world is the European Union (EU) [1]. EU, an international economic group in Europe, has been founded since 1950 with six member countries including Belgium, France, Germany, Luxembourg, Italy, and the Netherlands [27]. Currently, EU has 27 member countries [28]. Total value of Gross Domestic Product (GDP) from EU countries was 16.4 trillion dollars in 2009 (28.3% of the world), which is the top regional economic groups of the world [29]. Canada, the United States and Mexico has established the Free Trade Area since 1994, called North American Free Trade Agreement (NAFTA). The purpose of NAFTA is to reduce barriers for trade and investment among member countries by decreasing the import and export tax, liberating the movement of funds among member countries [30].

In the Southeast Asian Region, the Association of Southeast Asian Nations (ASEAN) has been established since 1967 by five countries namely Indonesia, Malaysia, Philippines, Singapore and Thailand. Currently, ASEAN has ten member countries [31]. The ASEAN countries represent a significant emerging economic group, with a total population of 573 million (8.6% of the world) and a combined GDP almost 1.5 trillion dollars (2.5% of the world) in 2008 [29]. ASEAN has extended negotiations to other countries in Asia. Important negotiations are as follows. ASEAN+3 includes ASEAN countries, China, Japan and Republic of Korea. ASEAN+6 includes ASEAN + 3, Australia, India and New Zealand. ASEAN+6 bundles with a population 3,240 million (48.6% of the world) and a combined GDP almost 13.9 trillion dollars (23.6% of the world) in 2008 represent a big economic group [32]. ASEAN+6 free trade market is viewed as a potential emerging economic group in the world trade.

One important goal of ASEAN is to aggregate economic groups in the region called the ASEAN Economic Community (AEC) in 2015. According to the AEC Blueprint, four characteristics of AEC to be achieved are (1) to be a single market and production base, (2) to be a highly competitive economic region, (3) to be a region of equitable economic development, and (4) to be a region fully integrated into the global economy. These four characteristics are inter-related and mutually reinforcing [2]. From target as AEC, number of trade transaction and international business within ASEAN will be expanding in the future.

Accounting Harmonization

Environment influences accounting, so the variation of country's accounting regulations and practices results the accounting diversity. Harmonization of accounting practices among countries improves the comparability of financial statements. Regional harmonization of accounting is a major means to achieve uniting member countries as a single common market.

Harmonization has been defined in several ways. Reference [8]define it as "the similarity in the frequency of accounting policy choices across countries" and as "the extent of concentration around a particular accounting policy choice". Reference [26] defines as "the process of increasing the consistency and comparability of accounts in order to remove the barriers to the international movement of capital and exchange of information by reducing the differences in accounting and company law". Reference [4, p.36] define as "the process aimed at enhancing the comparability of financial statements produce in different accounting regulations". For the purpose of this study, harmonization is the similarity in the frequency of accounting policy choices across countries [8].

Specifically, accounting harmonization is classified into 2 categories, de jure and de factor harmonization. First, de jure harmonization (or Formal harmonization) is considered the consistency of accounting regulation that has been in force at that time. Second, de facto harmonization (or Material harmonization) is the consistency in accounting practice with focus on financial reporting [33]-[34]. Reference [1] examine the de jure harmonization for adoption of International Financial Reporting Standard (IFRS) in Latin American region. Reference [12] examine the de jure harmonization for adoption of IFRS in South Asia Pacific region: include Papua New Guinea, Fiji, Australia and New Zealand. De jure harmonization is supported by international accounting professional institute via IFRS so accounting harmonization should concentrate on accounting practice. The occurrence of a de jure harmonization among countries does not mean that de facto harmonization will occur among those countries [33]-[34].

Many researchers [6], [8], [33], [35]-[36] measure the degree of accounting harmonization. Reference [33] compares the degree of material measurement harmonization among the United Kingdom, the Netherlands and the United States by statistic method. The researcher takes a measure accounting harmonization within country by H index (Herfindahl index) and between countries by I index. The index value ranges from 0 (no harmony) to 1 (all companies using the same method). Van de Tas index is the widely-accepted for measuring the degree of harmonization. Reference [7] study accounting harmonization practices based on 1991 annual reports from 413 large companies in five countries namely Germany, France, the United Kingdom, Japan and the United States. The degree of harmonization is measured using I index. The findings reveal significant differences in the measurement of accounting for inventory, fixed assets and investment.

Prior harmonization research has concentrated on the EU financial reporting [6], [8], [33], [34], [36]. Reference [6] examined the accounting harmonization of measurement practices in three European Community (EC) countries, namely France, Germany and the UK,

based on 1989 annual reports from 26 large industrial companies located in each of the three countries. I and H indexes were used as a measure of the degree of harmonization. They reported relatively low I index indicating significant differences in the measurement practices of inventory valuation, depreciation, research and development costs, goodwill, fixed asset valuation and extraordinary items.

Similarly, Reference [8] examined the degree of harmonization of accounting measurement practices among eight EC Countries, namely Belgium, Denmark, France, Germany, Ireland, the Netherlands, Portugal and the United Kingdom. Their study is based on 1992/93 annual reports from 217 large companies. The degree of harmonization is measured using I index and H index. Their results show a high degree of harmonization in the areas of inventory valuation and foreign currency translation of assets and liabilities, treatment of translation differences, and a low level of harmonization in the areas of fixed asset valuation, depreciation, goodwill, research and development costs, inventory costing and foreign currency translation of revenues and expenses.

Reference [36] examined accounting harmonization of consolidated goodwill and deferred taxation in eight EC countries, namely Belgium, France, Germany, Ireland, the Netherlands, Sweden, Switzerland and the United Kingdom. Their study is based on 1986/87 and 1990/91 annual reports from 89 companies which influenced by international factors. The degree of harmonization was measured using within-country comparability index for measuring harmonization within country and between-country comparability index for between countries. Their results showed a low level of harmonization in two areas of consolidated goodwill and deferred taxation and a little progress of harmonization between 1986/87 and 1990/91.

A few prior studies investigated harmonization in Asia. Reference [5] examine the extent of harmonization of selected accounting measurement practices in three countries of South Asia, namely India, Pakistan and Bangladesh. The study is based on 1997/8 annual report from 566 non-financial companies. The degree of harmonization is measured using I index and modified C index. Their study show a relatively higher degree of harmonization in the areas of property, plant and equipment, foreign currency translation and long-term investment, and a lower level of harmonization in the areas of inventory, amortization of goodwill and leases.

Reference [9] examined corporate annual report disclosure practices both de jure harmonization and de facto harmonization among five ASEAN countries, namely Indonesia, Malaysia, the Philippines, Singapore and Thailand. The sample was based on 1993 annual reports from 145 public companies listed on ASEAN stock exchanges. The degree of harmonization was measured using disclosure index. This result showed a high degree of de jure disclosure harmony in ASEAN since International Accounting Standard Committee (IASC) has sanctioned accounting standard setting processes on national accounting standards. The study found distinction de facto, a significant variation in actual disclosure levels among five countries because of the national environment difference.

3. RESEARCH METHODOLOGY

This study focuses on material harmonization (de facto), which measures corporate accounting practices in each country, namely Indonesia (ID), Malaysia (MY), Philippines (PH), Singapore (SG) and Thailand (TH) as well as among those five countries of AEC. The areas of measurements harmonization of interest are examined two measurement practices includes property, plant and equipment and inventory. The categories of alternative accounting methods are based on the actual wording contained in the company annual reports.

Data selection

The data are collected from annual reports available during fiscal year 2008/09. The sample embodies 150 annual reports from Indonesia, Malaysia, Philippines, Singapore and Thailand. Thirty listed companies were randomly selected from each main national stock exchange.

The annual reports are obtained from the Indonesia Stock Exchange (http://www.idx.co.id) [36], the Bursa Malaysia Berhad (http://www.klse.com.my) [37], the Philippine Stock Exchange (http://www.pse.com.ph)[38], the Singapore Exchange and the Securities (http://www.sgx.com) [39], and Thai Securities and Exchange Commission (http://www.sec.or.th) [40]. The sample represents 14, 4, 12, 4 and 6 percent of the total listed companies in Indonesia, Malaysia, Philippines, Singapore and Thailand, respectively.

Measurement of Variables

To measure degree of national accounting harmonization the Herfindahl (H) index by Van der Tas (1988) and within-country comparability index (C_w) by Archer et al (1995) are used. For the measurement degree of regional accounting harmonization is using the I index by Van der Tas (1988) and between-country comparability index (C_b) by Archer et al (1995).

The general formula of the H index by Van der Tas (1988) is as follows:

$$H = \sum_{i=1}^{n} p_i^2 \quad (1)$$

where:

H = the Herfindahl index

p_i = the relative frequency of accounting method i

n = the number of alternative accounting methods

The general formula of I index by Van der Tas (1988) is as follows:

$$I = \left(\sum_{i=1}^{n} (f_i^1 \times f_i^2 \times \ldots\ldots \times f_i^m) \right)^{1/(m-1)} \quad (2)$$

where:

I = the I index

f_i = the relative frequency of accounting method i in country m

m = the number of countries.

n = the number of alternative accounting methods

The general formula of the C_w index by Archer et al. (1995) is as follows:

$$C_w = \frac{\left(\sum_i \sum_j (x_{ij}(x_{ij}-1))\right)}{\left(\sum_i (x_{i+}(x_{i+}-1))\right)} \quad (3)$$

where:

C_w = the within-country comparability index

x_{ij} = the number of companies in country i using accounting method j

x_{i+} = the total number of companies in all countries using method j

The general formula of the C_b index by Archer et al. (1995) is as follows:

$$C_b = \frac{\left(\sum_i \sum_j (x_{ij}(x_{+j}-x_{ij}))\right)}{\left(\sum_i (x_{i+}(x_{++}-x_{i+}))\right)} \quad (4)$$

where:

C_b = the between-country comparability index

x_{+j} = the number of companies in all countries using method j

x_{++} = the total number of companies across countries

The values of the H, the I, the C_b and the C_w indices range from 0 (indicating no harmony, with an infinite number of alternative methods all with the same frequency) to 1 or 100% (all apply the same accounting method). The Chi-square (χ^2) tests are employed to assess whether the pattern of measurement practices is significantly different across the five AEC Countries.

4. RESULTS

Valuation of Property, Plant and Equipment

International Accounting Standard Number 16 (IAS 16) property, plant and equipment, amended effective 2009, prescribes that property, plant and equipment should initially be recorded at cost. Cost would include its original purchase price, costs of site preparation, delivery and handling, installation, related professional fees for architects and engineers and the estimated cost of dismantling and removing the asset and restoring the site [42].

For subsequent measurement, IAS 16 permits two accounting models for after initial recognition including cost model and revaluation model. According to the cost model, property, plant and equipment is presented at cost less accumulated depreciation and impairment. Under the revaluation model, property, plant and equipment is presented at a revalued amount less subsequent accumulated depreciation and impairment [42]. The valuation practices of property, plant and equipment methods are reported in Table 1.

Table 1. Valuation Practices of PPE

Methods	ID	MY	PH	SG	TH	Total
Cost model	30	25	30	27	26	138
Other	0	5	0	3	4	12
Total	30	30	30	30	30	150
H index	1.0000	0.7222	1.0000	0.8200	0.7689	
C_w index	100.00	71.26%	100.00	81.38	76.09	
I index = 0.8979, C_b index = 84.04% , χ^2 = 9.6 , p-value = 0.048						

From Table 1, the cost model is the most popular method for the valuation of property, plant and equipment in all five countries (92 %), while a limited number of companies use the revaluation model (4 %). The cost model is the majority method used in Indonesia (100 %), Malaysia (83 %), Philippines (100 %), Singapore (90 %) and Thailand (87 %). The measurement degree of national accounting harmonization is relatively high in Indonesia and Philippines. The I index value of 0.8979 suggests that an 89.79 per cent level of harmony exists among the five countries on the issue of the valuation of property, plant and equipment. The I index produce similar results with the C_b index, which presents a higher level of harmony of the valuation of property, plant and equipment. The χ^2 statistic is significant, which indicates that there is significant difference in the use of valuation methods among the five South East Asia countries. After excluding Indonesia and Philippines, the χ^2 statistic is insignificant (χ^2 = 0.57, p-value = 0.749), which indicates that there is no significant difference in the use of valuation methods among Malaysia, Singapore and Thailand.

Depreciation of Property, Plant and Equipment

IAS 16 prescribes guidance on depreciation for property, plant, and equipment. The standard requires that companies should allocate the depreciable amount of property, plant, and equipment on a systematic basis over its useful life. The companies should apply depreciation method which reflects the pattern of consumption of economic benefits and should review at least annually [42]. The depreciation practices of property, plant and equipment methods are investigated, which are reported in Table 2.

Table 2. Depreciation of PPE

Methods	ID	MY	PH	SG	TH	Total
Straight	27	30	30	29	30	146
Other	3	0	0	0	0	3
Total	30	30	30	29	30	149
H index	0.82	1.0000	1.0000	1.0000	1.0000	
C_w index	81.38	100.00	100.00	100.00	100.00	
I index = 0.9740, C_b index = 95.98% , χ^2 = 12.14 , p-value = 0.016						

Form Table 2, the straight-line depreciation is the most popular (98 %) method in all five countries, while a less number (2 %) of companies uses other methods. The straight-line depreciation is the majority method in Indonesia (90 %), Malaysia (100 %), Philippines (100 %), Singapore (100 %) and Thailand (100 %). Only 3 companies in Indonesia adopted a combination of the straight line and the reducing balance methods.

The measurement degree of national accounting harmonization is absolutely high in Malaysia, Philippines, Singapore and Thailand. The I index (0.9740) shows that the harmony level is 97.40 per cent, the results suggest a higher level of harmony with depreciation of property, plant and equipment practices in these countries. The C_b index (95.98 %) produce similar results with the I index. The χ^2 statistic is significant (12.14), which indicates that there is a significant difference in the use of depreciation methods in the five South East Asia countries (p value < 0.05). The use of depreciation methods is not significant difference among Malaysia, Philippines, Singapore and Thailand.

Inventory Valuation

IAS 2 Inventories, revised effective 2005, prescribes that inventories required being valued at the lower of cost and net realizable value (NRV) [43]. The investigated of inventory valuation method are reported in Table 3.

Table 3. Inventory Valuation Practices

Methods	ID	MY	PH	SG	TH	Total
Lower of cost or	21	29	19	22	24	115
Other	0	0	0	0	0	0
Total	21	29	19	22	24	115
H index	1.0000	1.0000	1.0000	1.0000	1.0000	
C_w index	100.00	100.00	100.00	100.00	100.00	
I index = 1.0000, C_b index = 100.00%						

Form Table 3, the lower of cost or net realizable value (NRV) is the only method adopted in all five countries (100 %). All of companies in the five South East Asia countries apply the same accounting method. The I index for the inventory valuation is absolutely high (1.00), which similarly suggests the highest level of harmony. The results for the C_b index (100 %) are consistent with to the index value.

Inventory Costing Methods

IAS 2 prescribes measurement of inventories. The standard permits companies to adopt four inventory costing method includes: the standard cost and retail methods, the specific cost, the first-in first-out (FIFO) and the weighted average costs. The standard cost and retail methods may be used for the measurement of inventories which the results approximate actual cost. The inventory cost should be determined on a specific cost for no interchangeable goods. For inventory items that are interchangeable, IAS 2 allows the FIFO or weighted average cost methods. The last-in first-out (LIFO) methods is not under IAS 2. [43]. The inventory costing methods are investigated, which are reported in Table 4.

Table 4. Inventory Costing Method

Methods	ID	MY	PH	SG	TH	Total
Specific	5	3	0	0	2	10
FIFO	3	10	0	8	3	24
Average	8	10	2	11	10	41
Other	4	7	2	2	3	18
Total	20	30	3	21	18	52
H index	0.2850	0.2985	0.3469	0.4286	0.3765	
C_w index	24.74	27.25	23.81	40.00	33.99	
I index = 0.3382, C_b index = 30.27%, $\chi 2$ = 24.08 , p-value = 0.0200						

Form Table 4, the average method includes weighted average, moving average and average methods. The average method is the most popular method (44 %) in all five countries following by the FIFO method (27 %). The average method is still popular in Indonesia (40 %), Malaysia (36 %), Singapore (52 %) and Thailand (56 %). The measurement degree of national accounting harmonization is low in all five countries. The I index for the inventory valuation is comparatively low (0.3367), which similarly suggests a low level of harmony. The results for the C_b index (30.27 %) are also similar to the I index value. The χ^2 statistic (24.08) supports the position that there are significant differences in the inventory costing methods among companies in the five South East Asia countries.

5. CONCLUSION

The purpose of this study is to examine accounting and reporting practices in five AEC countries, namely Indonesia, Malaysia, Philippines, Singapore and Thailand, with reference to the harmonization of property, plant and equipment and inventory measurement practices. The data were collected from 150 listed companies' annual reports for the year 2009/10 including 30 companies randomly selected from each country. This study used I index and C_b index to examine the differences for measuring the harmony level across countries. The study also used χ^2 statistics to examine whether significant differences exist in the measurement of accounting practices across AEC countries. A summary of the I index, the C_b index and χ^2 statistics with associated significance levels is given in Table 5.

Table 5. Summary

	Measurement Practices	I	C_b index	χ^2
1	PPE	0.8979	85.04%	9.60*
2	Depreciation methods	0.9740	95.98%	12.14*
3	Inventory valuation	1.0000	100.00%	
4	Inventory costing method	0.3382	30.27%	24.08*

*Significant at 0.05 levels.

The results show a high degree of harmonization exists in the treatment of inventory valuation. A relatively high degree of harmonization exists in the treatment of valuation model and depreciation methods for property, plant and equipment respectively. However, a lower level of harmonization is found in the treatment of inventory costing methods. The χ^2 statistics of three measurements are statistically significant, suggesting the existence of significant differences in accounting measurement treatments across five countries. For only the treatment of inventory valuation, there is a not significant difference in accounting measurement treatments across five countries.

The results of this study should be compared to prior research. The high degree of harmonization of valuation model for property, plant and equipment is consistent with [5] and [6]. In contrast, Reference [8] have identified a low level of harmonization in the areas of fixed asset valuation. The high degree of harmonization of depreciation methods for property, plant and equipment is consistent with [8] in case of study excludes Germany. Moreover [5] and [6] have identified a low level of harmonization in the areas of depreciation method. The high degree of harmonization of inventory valuation is consistent with [8]. Moreover [5] and [6] have identified a middle level of harmonization in the areas of inventory valuation. The low degree of harmonization of inventory costing methods is consistent with [8] and [5].

Consistently, Reference [9] has identified a high degree of de jure disclosure harmony in ASEAN since International Accounting Standard Committee (IASC) sanctioned. The study found distinction de facto, a significant variation in actual disclosure levels because of the national environment difference. Until now this study shows a high degree of de facto harmony in AEC countries. Environmental factors knowingly influence adoption of accounting treatments across AEC countries, so the variation of accounting regulations and practices in each AEC countries results in the differences in financial statements. Surprisingly, accounting diversity in AEC countries is low relatively to the evidence of the high degrees of harmonization from prior research.

Regional harmonization in AEC countries is achieved because most of AEC companies use the same accounting measurement method. For investment decision making perspective, a high degree of harmonization of accounting practices among AEC countries improves the comparability of financial statements, as financial statements become more useful to understand and interpret. Investors can understand accounting information from other member countries in order to make well informed financing and investing decision across domestic borders. The results are subject to limitations. First, the results of this study are based on small sample size. The second is the limitations of the indices. This study investigates by two measurement practice across five AEC countries. Further research should extent to investigate the degree of harmonization measurement practices. The future study may consider the degree of harmonization to cover ten member countries in AEC.

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