

# **COLONIALISM INFLUENCE ON ACCOUNTING PRACTICES IN ASEAN COUNTRIES REGARDING EARNINGS MANAGEMENT STRATEGY CLASSIFICATION**

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## **ABSTRACT**

As colonialism is a part of international environment affecting accounting diversity and with the widespread of IFRSs adoption, this paper aims to examine whether colonialism still influenced on accounting practices. Six ASEAN countries were selected based on their colonialism experiences, including Indonesia (the former-Dutch colonized), the Philippines (the former-US colonized), Malaysia and Singapore (the former-UK colonized), Vietnam (the former-France colonized), and Thailand (non-colonized experience). The study investigated the differences in accounting practice (in term of earnings management (EM) strategies) among these countries and if such differences were detected, the relationship between colonialism and accounting practice was implied, and this then indicated the possible colonialism influence. The data from 1990 to 2014 was collected from companies listed on a national stock exchange of the ASEAN countries. The EM strategies were measured by using accruals earnings management (AEM) and real earnings management (REM). The cluster analysis is used to classify EM strategies and Pearson's chi-square tests ( $\chi^2$ ) was undertaken to observe how likely types of EM strategies differ among the ASEAN countries.

The cluster analysis classified EM strategies into three main types (Normal, Downward, and Upward). The results showed that although historically all ASEAN countries' accounting practice, except Thailand, had different colonialism experiences and then all had followed IFRSs, Vietnam was only country that had significantly differences in EM practice from others, suggesting the possibility of the existence of colonialism influence on its institutional system, mainly legal, tax and financing system, and then affect accounting practice. The results seemed to support that a country historically colonized by France was likely to have strong persistence of colonialism influence on institutional environment which then make accounting practices responding differently from the other countries.

**Keywords:** Colonialism; Accruals earnings management; Real earnings management; Earnings management strategy; ASEAN.

## **1. INTRODUCTION**

Many studies (Saudagaran & Diga, 1998; Muniandy and Ali, 2012) considered that colonialism has an impact on economic and/or social characteristics of a colonized country. The effect of

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colonialism on colonized countries can be reflected through various aspects, such as culture, lifestyle, language, laws and regulations. Accounting is also another aspect influenced by colonialism (Saudagaran & Diga, 1998; Kamla, 2007; Nobes, 2011b; Muniandy and Ali, 2012). The influence could be historically reviewed (Dyball, Poullaos and Chua, 2007) and implied from the accounting classification research. The studies (Doupnik and Salter, 1995; Nobes 2011a, Nobes, 2011b) showed that the colonized countries were likely to be categorized in the same group as their former colonialist. For example, Doupnik and Salter (1995) reported that Hong Kong (HK) and Singapore were classified in the same group as the UK, which was defined as 'the Anglo group'. Nobes and Stadler (2013) employed various characteristics in classifying the countries' accounting system and found that the UK and HK accounting systems were likely to be in the same group. These classifications suggested colonial influence on colonized countries' accounting system. Nevertheless, at present, the International Financial Reporting Standards (IFRSs) are widespread and thus, accounting worldwide seems to move toward the same direction. Nevertheless, Nobes (2011a; 2011b) and Nobes and Stadler (2013) still recognized the colonial influence. They suggested that despite IFRSs application, the local/traditional accounting system, which was influenced by the former colonizer, possibly remain in a country's accounting practices; as such, the companies used the same methods in preparing financial reports. Thus, the question arises, whether colonialism as an international environment still influenced on a country's accounting system. To address this question, the research investigated the differences in accounting practices, in term of earnings management (EM) strategies, among the former-colonized countries with different colonizers. If there were significant differences in accounting practices, the relationship between colonialism and accounting system would be inferred, and then the colonialism influence was implied.

The research chose ASEAN countries as a sample because several countries in South East Asia had been formerly colonized by different colonialists (Volz, 2013) and later most countries has moved toward the International Accounting Standards (IASs) and International Financial Reporting Standards (IFRSs), suggesting the likely similar accounting practices. Therefore, with the different former colonizers but similar IASs/IFRSs implementation effort, the relationship between colonialism and accounting system would be more explicitly detected. The research then selected companies listed on a national stock exchange of six ASEAN countries, including Indonesia, Malaysia, Philippines, Singapore, Vietnam, and Thailand. The first five countries were historically colonized; the Philippines by the US, Malaysia and Singapore by the UK, Indonesia by the Netherlands and Vietnam by France. The last one, Thailand, was chosen because it has never been colonized under other countries until present (The ASEAN Secretariat, 2013) and thus it was assumed to have no impact of colonialism on accounting, which then would be a fair measure to identify the impact of colonialism on accounting practice in other ASEAN countries. If Thai accounting practices tended to be insignificantly different from that of the former-colonized countries, no impact of colonialism on accounting in those countries would be inferred. Theses six selected countries have also been moving toward IASs/IFRSs implementation, although in different periods of time. According to Nobes (2011a) that had classified countries by IFRS practices and proposed two main groups: the 'Anglo' group (Australia and UK) and the 'Continental European' group (Germany, France, and Spain), and Forst (2014) who confirmed these traditional accounting system classifications, the sample then could be divided into three main groups based on their former-colonialists: 1) the Anglo model, including the US (the Philippines) and the UK (Malaysia and Singapore), and 2) the Continental European group, including the Netherlands (Indonesia) and France (Vietnam), and 3) Non-colonialism (Thailand).

The current study thus determines whether there are the differences in earnings management strategies among the three groups. If so, the relationship between the colonialism and accounting practice was inferred, suggesting the remaining colonialism influence on accounting.

In the research, the cluster analysis was employed first in order to determine the EM strategies mostly applied by the listed companies in the ASEAN countries. The EM strategies included two types: accruals earnings management (AEM) and real activities earnings management (REM). AEM was measured by using a modified Jones model, which is consistent with Kothari, Mizik, and Roychowdhury (2012), to detect abnormal total accruals, while REM was measured by employing Roychowdhury's (2006) model to detect abnormal cash flows from operation (CFO). After clustering, the Pearson's chi-square test ( $\chi^2$ ) was employed to determine the differences in EM strategies among the three groups.

The results of cluster analysis revealed three main types (Normal, Downward, and Upward) of EM strategies and eleven sub-groups using AEM and/or REM as a mechanism to manage corporate earnings. The results have added the knowledge of AEM and REM practices of six member countries of ASEAN, which had not been thoroughly investigated with this perspective by previous research (Shen and Chih, 2007) before. Furthermore, the Pearson's Chi-square test showed that there were differences in EM strategies among ASEAN countries, but statistically significant differences were found between the former-French-colonialism country, Vietnam, and other countries. These significant differences suggested the possible relationship between colonialism and accounting practices in Vietnam, implying that colonialism might still have an impact on the country's accounting practice. The persistence of colonialism influence might be reflected through the financing system, the strong insider equity providers and creditors, which could motivate management to practice high EM in order to secure the personal benefits. Also, the current accounting system of Vietnam was a combination of western accounting concept, mainly IFRSs, and traditional approach which was French-influenced, but the latter approach characterized the accounting practice to be uniformity and statutory control; as a result, the accounting professions are unlikely to prefer exercising their professional judgment in preparing financial reports. This ignorance of the professions possibly caused accountant to not apply IFRSs rigorously. High EM practice could incur after IFRSs adoption.

The results seemed to support that a country historically colonized by France was likely to have strong persistence of colonialism influence on institutional environment which then make accounting practices responding differently from the other countries that were colonized by the US, UK and the Netherlands. This suggested that the degree of remaining colonialism influence on accounting practice depended on the persistence of the institutional environment imported from the former colonizers.

The rest of the paper is organized as follows: Section 2 reviews the related literature and hypotheses; Section 3 explains the data selection and research method; Section 4 presents the research results; Finally, Section 5 provides the conclusion, discussion, and suggestions for future research.

## **2. LITERATURE REVIEW**

### **2.1. Earnings management (EM)**

In this research, earning management is defined as an instrument of managers or investors to analyze a situation of an enterprise through financial reports. Depending on earnings targets, the firms may manipulate the company's earnings via positive or negative earnings management. Positive earnings management is spread across aggressive accounting decisions for inflated earnings such as overly aggressive drawing down provisions or reserves; in addition to, undervaluation of purchase acquisition, understatement of providing for bad debt, understatement of restructuring charges and asset write-offs, accelerating sales, and postponing discretionary expenditure, such as research and development (R&D) and advertising expenditures (Dechow and Skinner, 2000). In contrast, negative earnings management strategy is spread across conservative accounting decisions for deflated earnings such as reserving overvaluation on process R&D, overstatement cut-off asset, shift of sales, and accelerating discretionary expenditure, such as R&D and advertising expenditures (Dechow and Skinner, 2000). Moreover, the zero earnings management results from a neutral operating process from management decisions. Therefore, earnings management depends on managerial intent. From previous research (e.g. Dechow and Skinner, 2000; Graham, Harvey and Rajgopal, 2005; Gunny, 2010; Cohen and Zarowin, 2010; Wongsunwai, 2013; Kothari et al., 2012), earnings are typically known to be managed through two procedures: accruals earnings management (AEM) and real earnings management (REM).

AEM is defined as the difference between earnings and cash flows from operating activities. According to the accounting framework, financial reports presented on the accruals basis are useful in assessing the entity's past and future ability to generate net cash inflows. Accruals arise because of differences between the timing of accounting recognition and cash activities. As a result, accounting earnings are comprised of three components, namely cash flows from operations, nondiscretionary accruals, and discretionary accruals (Healy and Wahlen, 1999); the discretionary accruals are the one that management employs to manage earnings. Nondiscretionary accruals are normal accruals resulting from changes in the companies' economic situation whereas discretionary accruals are abnormal accruals resulting from managing earnings. This discretionary or abnormal accruals are then used as a proxy to measure AEM (Healy and Wahlen, 1999; Dechow, Sloan, and Sweeney, 1995). Many researchers attempt to separate the partitioning of total accruals into nondiscretionary and discretionary accruals components (Healy and Wahlen, 1999; Dechow et al., 1995). High values of discretionary accruals indicate that management exercises intense accounting discretion accruals and *ceteris paribus*. A positive sign of discretion accruals indicates that management exercises the discretionary accruals to increase the companies' earnings, which is *ceteris paribus* (Leuz, Nanda and Wysocki, 2003). Therefore, accruals play an important role in managing companies' earnings via accounting decisions.

After the effect of the world's accounting scandals (i.e., Enron and WorldCom), earnings management behavior changed from taking accounting decisions to mixing accruals decisions and real activities to manage earnings. Due to the certification requirements imposed by the SOX, trends in earnings management behavior switched from AEM to REM (Cohen and Zarowin, 2010). REM activities, such as postponing discretionary expenditures, accelerating discretionary expenditures, discounting sales price, delaying sales, and accelerating sales, may possibly optimize actions in certain economic circumstances (Dechow and Skinner, 2000; Roychowdhury, 2006).

Whenever, the manager assures the structuring of an operation, investment, and financing activities in an effort to influence the output of the accounting system, that is considered REM (Gunny, 2010). Gunny (2010) proposed four activities of REM: (1) decreasing discretionary research and development expenses, (2) decreasing discretionary selling, general, and administrative expenses, (3) timing the sale of fixed assets to report gains, and (4) overproduction reflecting an intention to cut prices or extend more lenient credit terms to boost sales or overproduction to decrease cost of goods sold expense. The models has been employed widely among the researchers to investigate EM practiced by companies either in a particular country (Ismail, Kamarudin, van Zijl and Dunstan, 2013) or in various countries (Ugrin, Mason and Emley, 2017; Houqe, Monem, Tareq and Zill, 2016; Hessayri and Saihi, 2015).

Furthermore, the widespread use of REM has been validated by comparing its use to AEM, Kim and Sohn (2012) found that REM was completed before accruals earnings manipulation occurred. Moreover, management adjusts the level of accruals earnings management according to the level of real activity earnings management as substitutes. Thus, many researchers (e.g. Kim and Sohn, 2012; Kothari et al., 2012; Wongsunwai, 2013; Zang, 2012) focused on both accruals and real activity as the mechanism of earnings management.

## **2.2. Colonialism in ASEAN countries**

Based on the histories of the ASEAN countries, a number of countries located in the Southeast Asia were colonized by other countries. During the 1500s and 1600s, the power of the Western countries – the Great Britain, France, Netherland, and the United States – spread throughout Asia and were able to trade over Asia and diverted the profit from this trade to own countries (Cotterell, 2014). As a result, the Western countries became stronger and they had objectives to establish their authority over Southeast Asia while Asian kingdoms became weaker, and the Western countries succeeded in the 1800s (Cotterell, 2014). They had colonized many ASEAN countries (Cotterell, 2014), and in this research, the six countries, including Indonesia, Malaysia, Singapore, the Philippines, Vietnam, and Thailand, are in focus.

### **Indonesia**

Indonesia was conquered by Netherland or Dutch between 1605 and 1930, and it set up a republic in 1945 (Cotterell, 2014; Wihardja and Negara, 2015). In 1949, the United Nations (UN) assisted the Indonesian to gain their independence from the Dutch after four years of fighting (Wihardja and Negara, 2015). Thus, Indonesia was influenced by the Dutch for a long period of time, which is around 344 years. Certainly, its accounting environment, such as legal, economic, and political system, was affected by the Dutch (Cotterell, 2014). Heniwati (2014) viewed that Indonesia is the Roman-Dutch law country with a complex legal system and its laws have been mainly confluence of three distinct systems, Syari'ah or Islam laws (a form of adat ), adat (the traditional customary laws of many ethnic and religious groups in Indonesia), and the Dutch colonial law and European jurisprudence. These three systems still appear in Indonesian modern laws, which had caused the justice concept different from Anglo-Saxon model. Heniwati (2014) criticized that due to this difference, the country would have challenges in enforcing the disclosure requirements of IFRSs when it decided to converge with IFRSs.

For accounting system, before 1973, Indonesia employed the Dutch accounting system; however, from 1973, the system has mainly applied the US system. The Indonesian Accounting Principles (Prinsip Akuntansi Indonesia: PAI), formulated by the Indonesian Institute of Accounting (IAI) in 1973, were directly adopted from document published by the AICPA in 1965 (Perera and Baydoun, 2007; Heniwati, 2014; Joshi, Yapa, Khraal, 2016), and Indonesian accounting standards draw heavily upon US sources (Joshi et al., 2016). The standards had been significantly progress after the introduction of the Indonesian capital market with the revised PAI effective in 1985 and later, from 1995, the IAS-based accounting standards, named Indonesian Financial Accounting Standards (SAK), were applied, and currently, SAK has been revised and developed to converge with IFRSs (Heniwati, 2014).

According to its history, Indonesian accounting system seems to be a combination of the Dutch, US and IASB influences. The former is likely to have an impact on the accounting practices through the legal system, regarding Heniwati (2014) criticism mentioned previously; whereas the US had an impact in the short period before the IASB considerably increased its role in SAK setting in 1995 and its standards have fully been implemented since 2012. If the colonialism influence still remains in Indonesian accounting practices, the accounting concept of the continental European countries is expected to be traced; otherwise, the IFRSs effect will be found.

### ***Malaysia and Singapore***

Malaysia and Singapore were conquered by the Great Britain between 1786 and 1819. Malaysia is Malacca, and Singapore is Penang. They were dominated by the Great Britain as Straits Settlements. Hence, the Great Britain had colonized on Malaysia and Singapore around 150 years (Cotterell, 2014; Wihardja and Negara, 2015). During the colonialism period, the Great Britain exported culture, language, economic, legal, educational system, and also the accounting system into its colonial countries (Kamla, 2007). The British transferred the enterprises' law, the accounting standard of an organization, and the financial statement standard in which it is clearly seen that those of Malaysia and Singapore were based on those of the UK (Muniandy and Ali, 2012).

As stated Malaysia was colonized by Britain, the common law was unsurprisingly its legal system, and also, before independence in 1957 its accounting standards and reporting practices reflect the colonial history. Consequently, its financial reporting system was developed toward the Anglo-Saxon model which provides fair presentation, transparency and full disclosure in financial reporting (Muniandy and Ali, 2012). After their emergence in the 1970s Malaysian formal accounting standards were gradually aligned with the IAS. The Malaysian Association of Certified Public Accountants and the Malaysian Institute of Accountants endorsed IAS in 1977, and they continue to review accounting standards when issued by the IASC and adapt them to local needs. By 1996, most IAS standards had been adopted or were under consideration in Malaysia, with only a few exceptions (Joshi et al., 2016). Then, the two-tier framework, legally backed up by the government, was applied to set up accounting standards. The Financial Reporting Foundation (FRF) and Malaysian Accounting Standards Board (MASB) were established. MASB is responsible for setting Malaysian Financial Reporting Standards (FRSs) which are mainly based on IASs and aim to enhance comparability of financial reporting practices nationally and internationally (Muniandy and Ali, 2012). The FRSs have been implemented in 2006 when Malaysian companies were required to implement FRSs issued by MASB in the preparation and presentation of financial statements. The FRF and MASB also issued a joint statement about their plans to bring Malaysia

to full convergence with IFRSs by 1 January 2012 (Muniandy and Ali, 2012), and thus, In November 2011, the MASB issued a new MASB approved accounting framework, namely, the MFRS framework which was effective for all Malaysian companies to comply with on 1 January 2012 (Joshi et al., 2016).

According to its history, Malaysian accounting practices had been traditionally influenced by its former colonist, Britain, and after its independence, Malaysian accounting standards have adopted IFRSs model. Nevertheless, Muniandy and Ali (2012) argued that although Malaysia has adopted IFRSs, many challenges arise in the adoption; for example, the complexity of the IFRSs, lack of technical expertise, and arguments among accounting researchers and practitioners about fair value accounting. These challenges may prevent the rigorous application of the standards. Some of The UK practices may still be able to be traced. Therefore, the combination of the UK and IFRSs practices are expected in Malaysia. This combination possibly leads to a claim that Malaysian accounting practices are likely to be categorized into the Anglo model, regarding the accounting classification discipline.

Similar to Malaysia, Singapore was colonized by the Great Britain for nearly one hundred and fifty years; therefore, the country's accounting practice was likely to be British-influenced (Wijewardena and Yapa, 1998; Nobes, 2011a). During the colonial period, Singapore had evidently experienced the transfer of British accounting system. For example, accounting education program was set up according to British system and the professions were required to take an examination organized by overseas professional accounting bodies, such as the Association of Certified Corporate Accountants of the United Kingdom (ACCA) (Wijewardena and Yapa, 1998). After gaining independence in 1959, Singapore improved the country's systems on its own way with remarkable results. It has achieved a considerably high economic development during the early years of post-independence, and has emerged as one of the newly industrialized countries (NIC) in the 1980s and 1990s (Wijewardena and Yapa, 1998).

However, for its accounting standards, Joshi et al. (2016) reviewed literature and viewed that before 1987, there was no formal standard setting and the standards were mainly adopted from UK standards. The changes in accounting standards occurred when the Singapore Institute of Certified Public Accountants was established in 1987. The country immediately turned to the IASB (IASC at that time) for guidance on standard setting. The IASs have been adopted by the end of 1995 with some modifications to suit Singapore environment, but the amendments were generally insignificant and the essence of each IAS statement was retained. Joshi et al. (2016) further reviewed that after the restructure of IASC to IASB, Singapore continually follows the IASs and IFRSs with the modification. The standards are called Singapore Financial Reporting Standards (SFRS) which Singaporean companies are required to comply with. Singapore has supported the use of IFRSs even more. Joshi et al. (2016) described that for Singapore-incorporated companies, they are allowed to choose IFRSs in preparing financial reports if the Accounting and Corporate Regulatory Authority of Singapore grants approval. Furthermore, if they are listed in both a securities exchange in Singapore and a securities exchange outside Singapore, they can apply IFRSs in financial reporting preparation if the foreign securities exchange requires the use of IFRS. From the Britain as the former colonist, and IFRSs influences, it is expected that Singapore would have accounting practices similar to the Anglo model.

### ***The Philippines***

The Philippines were conquered by the United States of American over 43 years starting in 1946 and they received their independence in 1989 (Asian Development Bank, 2003). Asian Development Bank (2003) reported that the American colonial period was the most significant in effecting the country's major institutions, including the educational system and the formalization of the accounting profession. The US businesses operated considerably during that time and many large Philippine companies were subsidiaries or branches of these businesses; as a result, US accounting practices clearly appeared in the Philippine practices. The public accounting profession was also required to serve this business growth. Therefore, the Accountancy Act 1923 was introduced to support the establishment of the Board of Accountancy which was responsible for issuing the Certified Public Accountant (CPA) certificate (Asian Development Bank, 2003). Later, the Philippine Institute of Certified Public Accountants (PICPA) was established within the private sector to represent professional interests.

Asian Development Bank (2003) further viewed that after its independence, the Philippines still had a close relationship with the US particularly in the business area; thus, its public and private sector regulation and practices were still strongly influenced by the US. Its accounting and auditing regulatory framework was similar to the US framework, as well as its accounting standards replicated the US standards. Asian Development Bank (2003) also explained that the US influence remained until the mid-1990s when the Philippine accounting and auditing moved toward international practices. The country started to apply IASs as the basis for developing the Philippine accounting standards and when Asian economic crisis occurred and auditing and accounting arrangement was needed among ASEAN countries, the Philippines decided to adopt IASs/IFRSs in order to ensure its financial reporting quality at the international level. From its history, therefore, the Philippine accounting system is strongly influenced by the US and, for recent system, international practices, specifically IFRSs/IASs.

### ***Vietnam***

In Vietnam, France moved into the country in 1858 and completed the conquest of Indochina by 1907. Vietnam was conquered for around 95 years (Cotterell, 2014; Wihardja and Negara, 2015). Anh and Nguyen (2013) reviewed literature and reported that during that time, the country's administrative, legal, and economic systems had been entirely influenced by France. This included Vietnam's accounting system which was heavily influenced by the French system, especially in the formal sector of the economy and for official (e.g. taxation) purposes during the first half of twentieth century. Anh and Nguyen (2013) further viewed that Vietnam accounting system was also influenced by the Chinese approach which was based on the Soviet accounting system. This influence emerged when Vietnam was separated into the North and the South. Later, after the reunion, the uniformity of accounting system was strongly implemented. Uniform accounting system was developed to serve the central planning economic system. This uniformity has continued and combined with the Western accounting concept which has formally been practiced in Vietnam when its economic reform proceeded. At present, Anh and Nguyen (2013) reported that the current system is a mixture of conceptual and formal elements taken from Western accounting and some basic features and practices retained from the old (Soviet-style and French-influenced) system. Convergence toward international practices is likely to be slow, especially in the SME sector and in large enterprises that do not attract capital from foreign sources.



Anh and Nguyen (2013) critically discussed the current system that continuing to use a uniform chart of accounts and highly detailed rules, Vietnamese accountants do not have to exercise their judgment in preparing financial reports, as the uniformity limits the extent to which accountants can make use of their own judgment and knowledge of sophisticated accounting methods, whereas Western accounting system, specifically IASs/IFRSs, allows the accountant considerable flexibility in exercising judgment. Furthermore, due to the uniformity, accounting methods are limited by the range of options available and so providing little incentive for accountants to enhance their professional skills, as they have few opportunities to exercise judgment or use sophisticated methods (Anh and Nguyen, 2013).

From Vietnam history and the previous criticism, the French influence still strongly appears in the country's accounting system although it put more of international practices, i.e. IFRSs/IASs, in the system. Therefore, uniformity of accounting practices, which have been categorized in the continental European model, are highly expected found in Vietnam; whereas, the western accounting practices are possibly evidenced in some accounting areas.

### ***Thailand***

Unlike other ASEAN countries, Thailand is an independent state and has never been colonized by other countries until present. Nevertheless, its accounting development is similar to other independent developing countries, which used western accounting standards as a model. Its accounting had influenced by the countries, which have a significant role at international level, mainly the US and UK and, after the introduction of IASC, the IASs. The Institute of Certified Public Accountants and Auditors in Thailand (ICAAAT), the first Thai accounting profession, issued the first Thai accounting principle, *Recommended Accounting Concepts and Principles* (Saudagaran and Diga, 2000) in 1972. Later, during the Thai economic boom in the late 1980s and the early of 1990s, many Thai accounting standards were issued to serve the growth of business transactions. The combination of the US, UK, and IASs still existed, but the US and IASs seemed to have stronger influence than the UK, as Saudagaran and Diga (1998) suggested that the standards published during this time were mainly based on these two models. After the 1997 economic crisis, the ICAAT decided to adopt the IASs as Thai Accounting Standards (TASs) with a few modifications if necessary in order to ensure that TASs suited Thai environment. However, in 2009, the Federation of Accounting Profession (FAP) (previously ICAAT) has fully adopted the IFRSs/IASs, meaning that TASs are following the IFRSs/IASs without modifications. At present, FAP has issued Thai Financial Reporting Standards (TFRSs) and TASs based on IFRSs/IASs. The international standards are interpreted in Thai language, published by the FAP, and then endorsed by the Department of Business Development, Ministry of Finance as TFRSs/TASs. From its history, therefore, Thai accounting system is a combination of the three main accounting models: the UK, US and IFRSs/IASs with its own development approach.

**Table 1: Colonialism of Southeast Asia (Cotterell, 2014)**

No.	Colonialism	Colonized countries	Period
1.	The Great Britain	Malaysia, Singapore	1786 – 1963 1819 – 1965
2.	Dutch/Netherland	Indonesia	1825 – 1949
3.	France	Vietnam	1859 – 1954
4.	The U.S.	Philippines	1898– 1964

### 2.3. *Colonialism and earnings management in ASEAN countries*

Colonialism has been considered one of the factors influencing a country's accounting system (Nobes, 2011b), as normally, a colonist exported its culture, language, economic system, legal system, and educational system to its colonized country (Kamla, 2007). Several researchers (Doupnik and Salter, 1995; Nobes, 1998) dealing with the accounting classification showed that a country with colonial experiences tended to have their own accounting system similar to their colonists; for instance, Doupnik and Salter (1995) reported that Hong Kong and Singapore were classified in the same group as the UK. Nobes and Stadler (2013) also empirically supported that the UK and Hong Kong are always in the same group of accounting classification. This is possibly because that the colonialism experiences have shaped the colonized countries' institutional system, mainly legal, tax, and financing systems, which then form the accounting system similar to their former colonizer. Nobes (1998; 2011a) also supported this view by considering that accounting differences are from the deep-seated effects of different financing, tax and legal systems. Therefore, this current research view the relationship between colonialism and accounting system based on the assumption that due to the colonialism influence, a former-colonized country's institutions would be imported from its colonizer and thus its accounting system was classified into the same group as its colonizer; consequently accounting practice, specifically earnings management, were possibly corresponding in the same way as the practice in the former-colonist country.

Most accounting classification studies (Doupnik and Salter, 1995; Nobes, 1998; Nobes, 2011a; Nobe and Stadler, 2013) categorized accounting practices into two main models: the Anglo and Continental European group, even after the IFRSs were widespread adopted by many countries, these two main groups have still been empirically evidenced. In fact, Nobe (2011b) counted IFRSs in the same group as the Anglo model. Nobes (2011a) studied eight countries, seven European countries plus Australia, in order to test whether the two groups of accounting classification still remained in the IFRSs-adoption regime, and their results empirically supported. Nobes (2011b) suggested that the Anglo group would have financial reporting practices similar to the UK, US, or IFRSs, whereas another group would have the practices comparable to France and Germany or Italy.

The Anglo group is considered having the principle-based accounting practices. That is, the accounting practices are flexible and require professional judgement in implementation (Othman and Zeghal, 2006; Beiruth, Fávero, Murcia, de Almeida, and Brugni, 2017). This leads to the criticisms and then concerns of increasing earnings management and decreasing of earnings quality. These concerns were clearly supported in the studies dealing with IFRSs adoption and EM. Fargher and Zhang (2014) studied the fair value measurement stated in the IFRSs and a quality of earnings and argued that the measurement increase managerial discretion which initiates higher probability of earnings management. Furthermore, Fiechter and Novotny-Farkas (2015) studied the value

relevance of financial information based on IFRSs and suggested that fair value used in IFRSs/IASs might allow management to manipulate financial reports, especially in a country with capital markets that are illiquid, opaque, underregulated or insufficiently representative of the economy (de George and Shivakumar, 2016). Several researchers (e.g. Capkun, Collins and Jeanjean, 2012; Rudra and Bhattacharjee, 2012; Li and Park, 2012; Ugrin et al., 2017) studied earnings management, either using AEM or REM, before and after the IFRSs adoption, and confirmed higher earnings management practice after the country adopted IFRSs.

Nevertheless, low EM could possibly be found in the countries historically influenced by the US, UK, or IFRSs. Several researchers (e.g. Aussenegg, Inwinkl and Schneider, 2009; Zeghal, Chtourou and Sellami, 2011; Chua, Cheong and Gould, 2012; Ismail et al., 2013) found either no changes or decrease in EM practices after the IFRSs adoption, implying that accounting practices based on the Anglo model might not usually lead to an increase in EM. Ugrin et al. (2017) explained the increase and decrease EM after IFRS adoption that this was due to the culture of a firm's country of origin, and further suggested that a significant increase in income-increasing earnings management after IFRS adoption possibly occurred amongst firms based in countries that are more power distant, uncertainty avoidant, individualistic, short-term oriented, and indulgent. Leuz et al. (2003) also viewed that EM differences are possibly caused by how much strong of investor protection in capital market. In the strong protection environment, the outsider rights limit insiders to exploit the private control benefits and alleviate insiders' incentives to manage earnings. This view also was supported by Othman and Zeghal (2006).

From the results of previous research, the former-colonized countries influenced by the US and UK models, then later adopt IFRSs, could have either high or low level of EM practice. Therefore, if high EM was found, it would be implied the remaining colonialism influences. However, if low EM was found, it would be inferred that colonial influence was less likely to exist on accounting practice, but either cultural factor or some institutional systems could be significant in shaping accounting practice.

On the other hand, the Continental European model, according to Nobes (2011b), is found in a country with weak equity-outsider financing system. The main financial resources are from creditors and insiders; as a result, the accounting practices are mainly based on the concept of conservatism, secrecy of disclosure, and tax rules. Othman and Zeghal (2006) explained the different accounting practices between the Anglo and Continental European models and described those based on the latter model being high statutory control, uniformity, conservatism, and uncertainty avoidance. Nobes (2011b) provided the examples of the differences in accounting practices between the Anglo and Continental European models, such as accounting for depreciation, a country with the Anglo model tends to have accounting practices different from tax rules, but accounting practice in a country with the Continental European model is likely to follow its tax rules. With the accounting characteristics, management tends to have less discretionary accounting practices and consequently less professional judgement used in preparing financial reports (Anh and Nguyen, 2013); as a result, less opportunity to do EM practices compared to the Anglo model. However, Othman and Zeghal (2006) argued that a country with the Continental European model has a debt-covenant and effective tax rate motivations to perform EM. Their results showed that in France, as a country with the Continental European model, the debt covenant and effective tax rate are more likely to affect the companies' EM behavior than in a country with the Anglo model, Canada. Furthermore, Leuz et al. (2003) ranked the countries based on their EM score and the

Continental European country, in particular interest of this current research is France and the Netherlands, was ranked higher than the Anglo countries, the US and UK. Leuz et al. (2003) explained that the differences in EM practice depend on to what extent a country's investors' right protection was strong.

From the review, therefore, the countries with colonialism experiences of the Continental European group could have either low or high EM practice, implying that the colonialism have an impact on accounting practices in different ways. If the low EM was found, high statutory control, uniformity, and conservatism of the accounting system received from the former colonizer might be inferred as colonialism influence. However, if the high EM was detected, it could be implied that the institution characteristics, mainly the small capital market and the financial resources from creditors and insiders which were historically imported from the colonizer, might cause the motivation to manage earnings, as Leuz et al. (2003) suggested.

Based on the two groups of accounting classification and regarding the ASEAN countries' colonialism history, the EM practices in the Philippines, Malaysia and Singapore, which were historically influenced by the US and UK, were expected to be different from Indonesia and Vietnam, the former-colonized countries of the Netherlands and France, which have the Continental European model as their accounting practices. The US- or UK-based system possibly have higher magnitude of EM than the Continental European-based system. Also, compared to Thailand where have no colonization experience, if colonization experiences relate to accounting system, EM practices in the five ASEAN countries would be different from that in Thailand. If no differences in EM were revealed, the IFRSs influence would possibly be inferred, as at present, all six ASEAN countries have adopted IFRSs. Therefore, the current research hypothesized that

H<sub>1</sub>: the post-colonial countries in different group would have different earnings management strategies.

H<sub>2</sub>: the post-colonial countries would have different earnings management strategies from Thailand.

### **3. RESEARCH METHODOLOGY**

#### **3.1. Data**

This study focuses on quadrants earnings management metrics, which measures both accruals and real earnings management of six ASEAN countries member – Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam. The rest of these are Brunei, Cambodia, Myanmar and, Lao are excluded from this study because of their without and rare stock exchange. The main data were collected from Thomson Reuter's database. The research was confined to the companies listed in the national stock exchange between 1990 and 2014. These listed companies were chosen because their financial information is publicly available and was during post-colonial era before establishment of an ASEAN Economic Community in 2015. According to the conditions mentioned above, 3,951 listed companies were selected (see in table 2).

**Table 2:** Number of listing companies classified by stock exchange.

No.	Countries	Stock Exchanges	Symbol	Number of sample
1.	Indonesia	Indonesia Stock Exchange	IDX	4,155
2.	Malaysia	Bursa Malaysia Berhad	MYX	931
3.	Philippine	Philippine Stock Exchange	PSE	2,093
4.	Singapore	Singapore Exchange	SGX	760
5.	Thailand	Stock Exchange of Thailand	SET	5,200
6.	Vietnam	Ho Chi Minh City and Hanoi Stock Exchange	HOSE and HNX	3,980
Total				28,134

\* Number of listed companies as of August 5, 2015.

Source: Thomson Reuter's database.

In this research, descriptive statistics were used to provide simple summaries of the sample. All of the companies' data of the six countries were calculated for AEM and REM. Then, the classification of the firms according to their AEM and REM value on quadrants earnings management were conducted using cluster analysis statistics (Likitwongkajon and Sutthachai, 2015). To classify data on quadrants of earnings management, the firms in each cluster with high internal (within-cluster) are classified as homogeneity, while those with high external (between-cluster) are heterogeneity. When plotting a geometrical graph, firms in the same cluster are close together and firms in different clusters are far apart from those in other clusters (Hair, Black, Babin and Anderson, 2010; p.508). To address the research objectives, the tests of differences were used to examine the difference in earnings management among the classifications; also, Pearson's chi-square tests ( $\chi^2$ ) are employed to test how likely types of earnings management strategies differ among the groups of colonialism.

### 3.2. Earnings Management Proxy

#### 3.2.1. AEM Proxy

This study adopts a modified Jones model, which is consistent with Kothari et al. (2012), to detect abnormal total accruals as a proxy of AEM. This study estimates normal accruals by regressing panel data. Following Kothari et al. (2012), these estimation abnormal accruals adjust the firm fixed effects in for specific firms. This equation is adjusted for time fixed effects in this estimation, exploiting the entire time series available for every year for the adjustment. Therefore, the estimation of unbalanced panel takes into account unobservable variations across cross-section and periods by including firm specific and time-period specific dummy variables. In this estimation Period SUR (PCSE) standard errors and covariance are well approximation. Following Kothari et al. (2012), the modified Jones model for measuring abnormal total accruals is as follows:

$$\frac{TA_{it}}{A_{it-1}} = \alpha_{1it} + \alpha_{2it} \left( \frac{1}{A_{it-1}} \right) + \beta_{1it} \left( \frac{\Delta Sales_{it} - \Delta REC_{it}}{A_{it-1}} \right) + \beta_{2it} \left( \frac{PPE_{it}}{A_{it-1}} \right) + \beta_{3it} \left( \frac{NI_{it}}{A_{it-1}} \right) + \varepsilon_{it} \quad (1)$$

where  $i$ , and  $t$  index firm, and year, respectively.  $TA_{it}$  denotes total accruals for firm  $i$  in year  $t$ .  $\Delta Sales_{it}$  denotes a change in net sales for firm  $i$  in year  $t$ .  $\Delta REC_{it}$  denotes a change in account receivables for firm  $i$  in year  $t$ .  $PPE_{it}$  denotes net property, plant, and equipment for firm  $i$  in year  $t$ .  $NI_{it}$  denotes net income for firm  $i$  in year  $t$ .  $A_{it}$  denotes total assets for firm  $i$  in year  $t$ .  $\varepsilon_{it}$  is an

error term and represents the discretionary total accruals or abnormal total accruals (AEM) for firm *i* in year *t*.

3.2.2. *REM Proxy*

This study employs Roychowdhury (2006) to detect abnormal CFO as a proxy of REM. This study estimates normal CFO by regressing panel data. According to Kothari et al. (2012), this estimation abnormal CFO adjusts the firm fixed effects in for specific firms. This equation for time fixed effects in the estimation, exploiting the entire time series available for every year for the adjustment. Therefore, this estimation of unbalanced panel takes into account unobservable variations across cross-section and periods by including firm specific and time-period specific dummy variables. In this estimation Period SUR (PCSE) standard errors and covariance are well approximation. Following Roychowdhury (2006), the Roychowdhury model for measuring abnormal CFO is as follows:

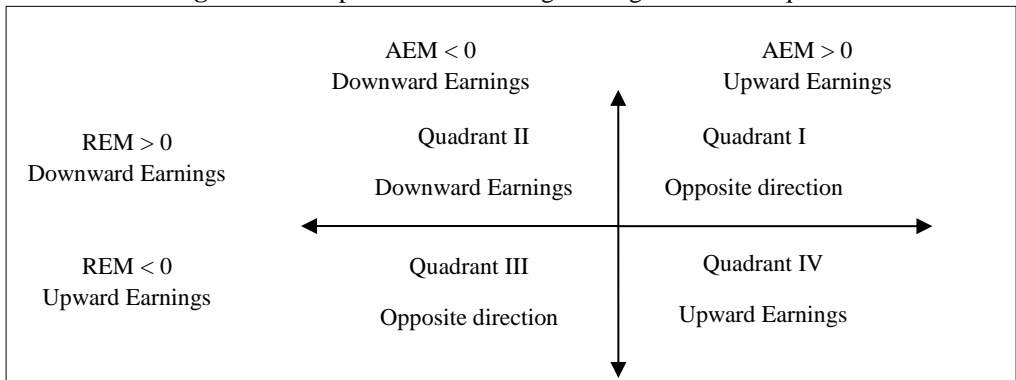
$$\frac{CFO_{it}}{A_{it-1}} = \alpha_{0it} + \alpha_{1it} \left( \frac{1}{A_{it-1}} \right) + \beta_{1it} \left( \frac{SALE_{it}}{A_{it-1}} \right) + \beta_{2it} \left( \frac{\Delta SALE_{it}}{A_{it-1}} \right) + \varepsilon_{it} \tag{2}$$

where *i*, and *t* index firm, and year, respectively. *CFO<sub>it</sub>* denotes cash flows from operation for firm *i* in year *t*. *Sales<sub>it</sub>* denotes net sales for firm *i* in year *t*.  $\Delta Sales_{it}$  denotes a change in net sales for firm *i* in year *t*. *A<sub>it</sub>* denotes total assets for firm *i* in year *t*.  $\varepsilon_{it}$  is an error term and represents the abnormal CFO (REM) for firm *i* in year *t*.

3.2.3. *Quadrants earnings management (QEM)*

Based on abnormal total accruals (AEM) and abnormal CFO (REM), Likitwongkajon and Sutthachai (2015) classified firms into four partitions. The benefit of partitioning firms is to segregate firms by their earnings management technique. The quadrants partitions and earnings management strategies are presented in Figure 1.

**Figure 1:** Four partitions of earnings management technique



Source: Adapt from Likitwongkajon and Sutthachai (2015)

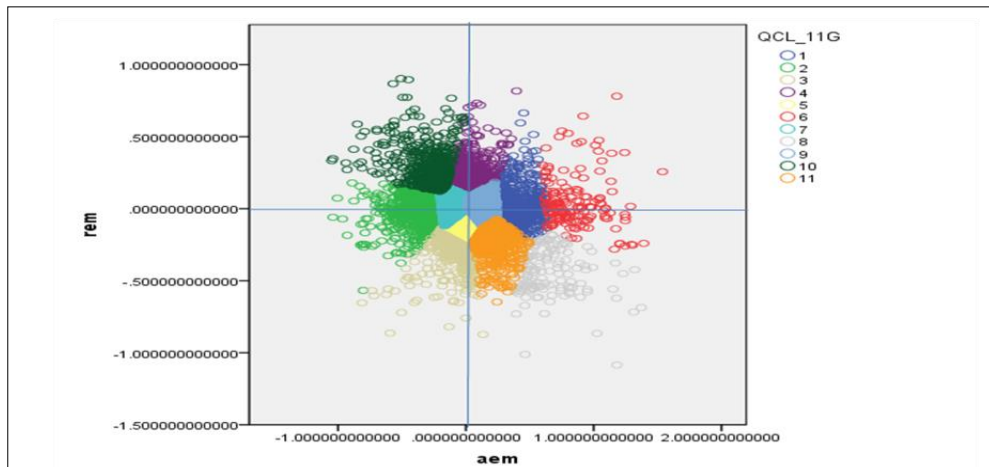
Downward earnings strategy is defined as firms in quadrants 2. It includes firms that are likely to use both AEM and REM simultaneously to understate earnings. Conversely, upward earnings strategy is the group of firms in quadrants 4 that are likely to use both AEM and REM simultaneously to overstate earnings. Firms in quadrants 1 are likely to overstate earnings via REM and to understate earnings via AEM; thus if a company employs REM more than AEM, its earnings tend to be upward and vice versa. Conversely, firms in quadrants 3 are likely to use AEM to understate earnings and to use REM to overstate earnings; therefore, a firm with high value of AEM is likely to have low earnings and vice versa.

#### 4. RESULTS AND DISCUSSION

##### 4.1. Earnings Management Classification with Cluster Analysis

Scatter diagrams are used to show both the AEM and REM classifications of the strategies. The AEM is on the horizontal axis whilst the REM is on the vertical axis. Each point presents AEM and REM that companies managed. The coloring of the points is the result of clustering of the firm samples based on their earnings management strategy similarity. The clustering plots show the distance of earnings management strategy between firms. Figure 2 shows the scatter plots of the eleven clusters of earnings management strategies. The clustering plots show a clear correlation between these two earnings management mechanisms of each earnings management strategy. The firms in the middle of the plot are classified as the “Normal” cluster (7, 9, and 5), meaning that they have no earnings management strategy, as their AEM and REM values have a smaller distance between them in the cluster and these stay around zero. Other clusters are named regarding their position in the quadrants as shown in Figure 3. The figure reveals eleven clusters for six ASEAN countries and they are classified into three main types: type 1 is a normal, type 2 is downward earnings, and type 3 is upward earnings. The details of three main types are shown in table 3 and explained as below.

**Figure 2:** Scatter plots of accruals and real earnings by earnings management strategy (N=3,951; T=24)

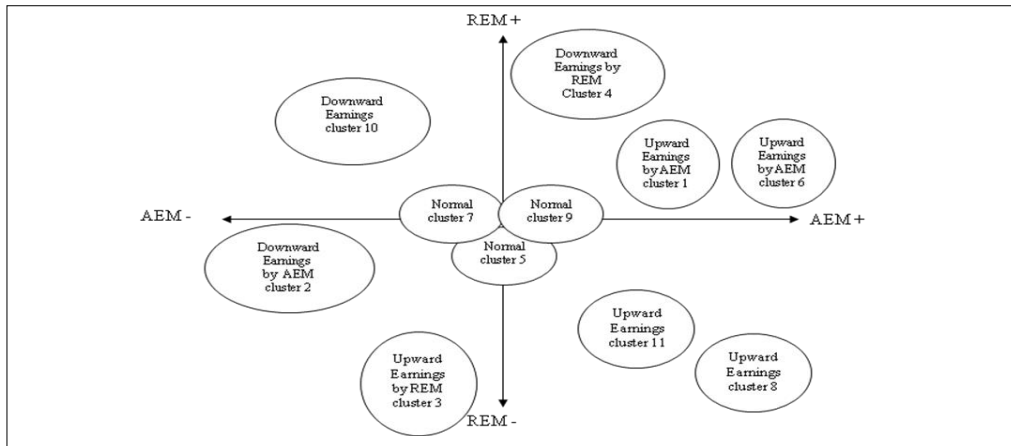


*Type 1 is a normal earnings management*

The firms in cluster 7 have negative small values of AEM (mean = -0.0592) and positive small values of REM (mean = 0.0269). This means that the firms in cluster 7 manage earnings downwards through abnormal total accruals and also manage earning downwards through abnormal CFO simultaneously. However, the levels of both earnings management are small and thus have no cause on abnormal earnings. This cluster is labelled “Normal\_A&R” (small earnings management).

The firms in cluster 5 have very low positive values of AEM (mean = 0.0093) and low negative values of REM (mean = -0.0648). This means that the firms in cluster 5 manage earnings upwards through abnormal total accruals and also manage earning upwards through abnormal CFO at the same time. Although the values of REM are a little bit higher than that of AEM, the levels of both earnings management have not been caused abnormal earnings. Therefore, this cluster is labelled “Normal\_AEM” (small earnings management especially accruals earnings management).

**Figure 3:** Classification on quadrants earnings management technique



The firms in cluster 9 have low positive values of AEM (mean = 0.0953) and very low positive values of REM (mean = 0.0045). This means that the firms in cluster 9 manage earnings upwards through abnormal total accruals but manage earning downwards through abnormal CFO simultaneously. The levels of both earnings management are low and so have not initiated abnormal earnings. This cluster is then labelled “Normal\_REM” (small earnings management especially real earnings management).

*Type 2 is a downward earnings management.*

The firms in cluster 10 have negative values of AEM (mean = -0.2738) and positive values of REM (mean = 0.2715). This means that the firms in cluster 10 manage earnings downwards through both abnormal total accruals and abnormal CFO. This cluster is labelled “Downward\_A&R” (downward earnings management through both AEM and REM).



The firms in cluster 2 have a high positive value of AEM (mean = -0.3119) and very low negative value of REM (mean = -0.0047). This means that the firms in cluster 2 manage earnings downwards through abnormal total accruals. The level of AEM of this cluster is higher than the cluster “Downward\_A&R” but the REM level is very low. The cluster is labelled “Downward\_AEM” (downward earnings management through AEM).

The firms in cluster 4 have a very low negative value of AEM (mean = -0.0016) and high positive value of REM (mean = 0.1777). This means that the firms in cluster 4 manage earnings downwards through abnormal total accruals and abnormal CFO. The mean of REM value suggests that although firms use both earnings management tool, they tend to employ REM in decreasing corporate earnings rather than AEM; therefore, the cluster is labelled “Downward\_REM” (downward earnings management through real earnings management).

#### *Type 3 is an upward earnings management*

On average, the firms in cluster 11 have positive values of AEM (mean = 0.2172) and negative values of REM (mean = -0.2212). This means that they are likely to manage earnings upwards through both abnormal total accruals and abnormal CFO. This cluster is labelled “Upward\_A&R” (Upward earnings management through both AEM and REM). Similarly to cluster 11, the firms in cluster 8 have positive values of AEM (mean = 0.6539) and negative values of REM (mean = -0.4381), suggesting the use of AEM and REM in increasing corporate earnings. However, the levels of AEM and REM in this cluster are higher than those of cluster 11 and so this cluster is labelled “Upward\_A&R\_H” (High upward earnings management through high AEM and REM).

The firms in cluster 1 have moderate positive values of AEM (mean = 0.3781) and low positive values of REM (mean = 0.0224). This means that the firms in cluster 1 manage earnings upwards through abnormal total accruals. This cluster is labelled “Upward\_AEM” (Upward earnings management through AEM).

The firms in cluster 6 have high positive values of AEM (mean = 0.8540) and low positive values of REM (mean = 0.0465). This means that the firms in cluster 6 manage earnings upwards through abnormal total accruals. The level of AEM in this cluster is the highest compared to other clusters and thus this cluster is labelled “Upward\_AEM\_H” (High upward earnings management through AEM).

The firms in cluster 3 have low negative values of AEM (mean = -0.0791) and moderate negative values of REM (mean = -0.2829), suggesting that the firms in cluster 3 tend to manage earnings upwards through abnormal CFO. The level of REM in this cluster is higher than other upward-earnings clusters. This cluster is labelled “Upward\_REM” (Upward earnings management through REM). The summaries of 11 clusters are shown in Table 3.

#### **4.2. Colonialism and Earnings Management Strategies**

Based on the cluster analysis—three main types (i.e., normal, downward, and upward) and eleven sub-types, the study divided the samples by country and by their AEM and REM into each sub-clusters. Table 4 shows that a country with no colonialism experiences have the normal main type

79.4% ( $n = 4,127$ ), followed by the downward main type (13.1%,  $n = 682$ ) and the upward main type (7.5%,  $n = 391$ ). In the group of the Great Britain colonialism, the normal main type was 80.7% ( $n = 10,255$ ), followed by downward main type (12.0%,  $n = 1,533$ ) and the upward main type (7.3%,  $n = 918$ ). For the U.S. colonialism countries, the normal main type was 77.2% ( $n = 1,616$ ), followed by the downward main type (14.2%,  $n = 298$ ) and the upward main type (8.6%,  $n = 179$ ). For the Netherland colonialism, the normal main type that was 73.5% ( $n = 3,055$ ), followed by the downward main type (16.0%,  $n = 663$ ) and the upward main type (10.5%,  $n = 437$ ). Finally, for the France colonialism countries, the normal main type was 65.8% ( $n = 2,616$ ), followed by the downward main type (20.6%,  $n = 820$ ) and the upward main type (13.6%,  $n = 544$ ).

Noticeably, the post-French-Colonialism country has the lowest percentage of number of companies in the Normal group and highest percentage in other two main groups, suggesting that the firms in this country are likely to manage earnings more than those in other countries. From Figure 4, the post-UK-colonialism countries have the highest proportion of the “Normal” (80.7%). It means that the UK colonialism has a low earnings management. One-fifth of the firms in these countries have employed an earnings management strategy to manage earnings. Only 7.2 percent of the firms in the post-UK-colonialism countries has managed earnings upward through AEM and REM, noticeably six percent of the firms used only AEM. This implies that UK colonialism companies have high earnings quality of financial statement. On the other hand, the post-French-Colonialism countries have the lowest proportion of the “Normal” (65.7%). It means that this country has a high earnings management than the UK colonialism. One-third of the firms in this country have an earnings management strategy to manage earnings.

**Table 3:** Cluster centers and cluster Names (N=3,951; T=24).

Main Cluster	Cluster centers		Sub-Cluster Names	Number of cases	Percentage (%)
	AEM	REM			
Normal Type:					
Cluster 7	-0.0592	0.0269	Normal_A&R	9,759	34.69
Cluster 5	0.0093	-0.0648	Normal_AEM	6,656	23.66
Cluster 9	0.0953	0.0045	Normal_REM	5254	18.67
Downward Earnings Type:					
Cluster 10	-0.2738	0.2715	Downward_A&R	687	2.44
Cluster 2	-0.3119	-0.0047	Downward_AEM	1,479	5.26
Cluster 4	-0.0016	0.1777	Downward_REM	1830	6.50
Upward Earnings Type:					
Cluster 11	0.2172	-0.2212	Upward_A&R	740	2.63
Cluster 8	0.6539	-0.4381	Upward_A&R_H	144	0.51
Cluster 1	0.3781	0.0224	Upward_AEM	849	3.02
Cluster 6	0.8540	0.0465	Upward_AEM_H	164	0.58
Cluster 3	-0.0791	-0.2829	Upward_REM	572	2.03
				28,134	100

The results of the Pearson’s Chi-square test implied that the colonialism variable was significantly related with the earnings management strategies ( $p < 0.001$ ) with the contingency coefficient of 0.180. The Pearson’s chi-square test showed similar results that there were differences in earnings

management strategies among the four groups, but statistically significant differences were found between the post-French-colonialism country, Vietnam, and other groups, i.e. the Philippines, Malaysia, Singapore, Indonesia, and Thailand. These significant differences suggested the possible relationship between colonialism and accounting practices in Vietnam, implying that colonialism might still have an impact on the country's accounting system.

**Table 4:** Earnings management classification by post-colonialism.

Earnings Management Classification		Colonialism				Total	
		Never	UK	US	NL		FR
<i>Normal Type:</i>							
Normal_A&R	N	1,838 <sub>b</sub>	4,699 <sub>a</sub>	750 <sub>a, b</sub>	1,426 <sub>b</sub>	1,046 <sub>c</sub>	9,759
	%	35.3	37.0	35.8	34.3	26.3	34.7
ormal_AEM	N	1,293 <sub>a</sub>	3,104 <sub>a</sub>	426 <sub>b</sub>	931 <sub>b, c</sub>	902 <sub>c</sub>	6,656
	%	24.9	24.4	20.4	22.4	22.7	23.7
Normal_REM	N	996 <sub>a</sub>	2,452 <sub>a</sub>	440 <sub>a</sub>	698 <sub>b</sub>	668 <sub>b</sub>	5,254
	%	19.2	19.3	21.0	16.8	16.8	18.7
<b>Subtotal</b>	<b>%</b>	<b>79.4</b>	<b>80.7</b>	<b>77.2</b>	<b>73.5</b>	<b>65.8</b>	<b>77.1</b>
<i>Downward Earnings Type:</i>							
Downward_A&R	N	105 <sub>a, b</sub>	234 <sub>a</sub>	44 <sub>a, b</sub>	105 <sub>b</sub>	199 <sub>c</sub>	687
	%	2.0	1.8	2.1	2.5	5.0	2.4
Downward_AEM	N	243 <sub>a</sub>	638 <sub>a</sub>	145 <sub>b</sub>	269 <sub>b</sub>	184 <sub>a</sub>	1,479
	%	4.7	5.0	6.9	6.5	4.6	5.3
Downward_REM	N	334 <sub>b</sub>	661 <sub>a</sub>	109 <sub>a</sub>	289 <sub>b</sub>	437 <sub>c</sub>	1,830
	%	6.4	5.2	5.2	7.0	11.0	6.5
<b>Subtotal</b>	<b>%</b>	<b>13.1</b>	<b>12.0</b>	<b>14.2</b>	<b>16.0</b>	<b>20.6</b>	<b>14.2</b>
<i>Upward Earnings Type:</i>							
Upward_A&R	N	109 <sub>a</sub>	274 <sub>a</sub>	35 <sub>a</sub>	98 <sub>a</sub>	224 <sub>b</sub>	740
	%	2.1	2.2	1.7	2.4	5.6	2.6
Upward_A&R_H	N	16 <sub>b</sub>	56 <sub>a, b</sub>	15 <sub>a, c</sub>	22 <sub>a, b, c</sub>	35 <sub>c</sub>	144
	%	0.3	0.4	0.7	0.5	0.9	0.5
Upward_AEM	N	135 <sub>a, b</sub>	386 <sub>a</sub>	70 <sub>a, c</sub>	162 <sub>c</sub>	96 <sub>b</sub>	849
	%	2.6	3.0	3.3	3.9	2.4	3.0
Upward_AEM_H	N	30 <sub>b</sub>	45 <sub>a</sub>	26 <sub>c</sub>	59 <sub>c</sub>	4 <sub>d</sub>	164
	%	0.6	0.4	1.2	1.4	0.1	0.6
Upward_REM	N	101 <sub>b</sub>	157 <sub>a</sub>	33 <sub>a, b</sub>	96 <sub>b</sub>	185 <sub>c</sub>	572
	%	1.9	1.2	1.6	2.3	4.6	2.0
<b>Subtotal</b>	<b>%</b>	<b>7.5</b>	<b>7.2</b>	<b>8.5</b>	<b>10.5</b>	<b>13.6</b>	<b>8.7</b>
Total	N	5,200	12,706	2,093	4,155	3,980	28,134
Pearson Chi-Square = 939.129, Asymp. Sig. (2-sided) = 0.000							
Contingency Coefficient = 0.180							

a, b, c, d Each subscript letter denotes a subset of Colonialism categories whose column proportions do not differ significantly from each other at the 0.05 level.

% is the percentage of firms within the colonialism.

When considering the percentages of companies practicing EM, the result showed that in Vietnam, the percentages were higher than that in other ASEAN countries, suggesting high EM. This could imply the colonialism influence in two aspects. First, the colonialism might have an impact on the country's institutions, particularly corporate financial system which financial resources are mainly from insiders in terms of creditors or equity providers. The system then possibly creates a debt covenant and effective tax rates motivation to manage earnings, as Othman and Zeghal (2006) reported that a country with the Continental European model is likely to employ EM due to a debt covenant and effective tax rates motivation. Second, the colonialism had caused the uniformity and statutory control of accounting practices; thus, the accounting professions are unlikely to prefer exercising their professional judgement in preparing financial reports, which then accountants might not apply IFRSs rigorously and high EM could be incurred after IFRSs adoption. This view was supported by Anh and Nguyen (2013) who viewed that the present Vietnam accounting system is a mixture of conceptual and formal elements taken from Western accounting, namely IFRSs, and some basic features and practices retained from the old (Soviet-style and French-influenced) system but the convergence toward international practices is likely to be slow because the companies have less requirement to attract foreign capital and the accountants prefer to use a uniform chart of accounts and highly detailed rules, as they are not familiar with employing the professional judgement to make significant decisions.

Interestingly, in Indonesia, which was historically colonized by the Netherlands and expected to have similar EM practices to those in Vietnam, EM strategies of the companies were mainly insignificantly different from the former-US-colonial country, the Philippines, and considerably different from Vietnam. The result differs from what the current research hypothesized, and this suggested that the colonialism possibly has no relation with Indonesian accounting practices, meaning no colonial influence on accounting system in Indonesia remained. Other imported systems, including the US system and IFRSs, are likely to be more influential, as since 1973 Indonesian accounting development has strongly been affected by the US system and later in 1995 by the IASB standards.

Regarding the differences between the US- and UK-based accounting practices, the results showed that no noticeably significant differences in EM practices were detected among the three main clusters, as the proportions of the clusters between the two groups seemed to be comparable. Significant differences were found only in the sub clusters; upward\_AEM\_H and downward\_AEM, noting that the Philippines seem to employ AEM more than Malaysia and Singapore, but this is not much noticeable when compared with the result of differences of the former-French-colonialism country discussed previously. The results thus supported that the former-colonized countries, which were based on the Anglo model, have no substantial differences in accounting practices. When compared with Thailand, the results also showed no significant differences among them. The proportions of the three main clusters of the former-US- and former-UK-colonialism countries and Thailand are similar, implying no relationship between colonialism and accounting practices in the Philippines, Malaysia, and Singapore, consequently little or no colonialism influence.

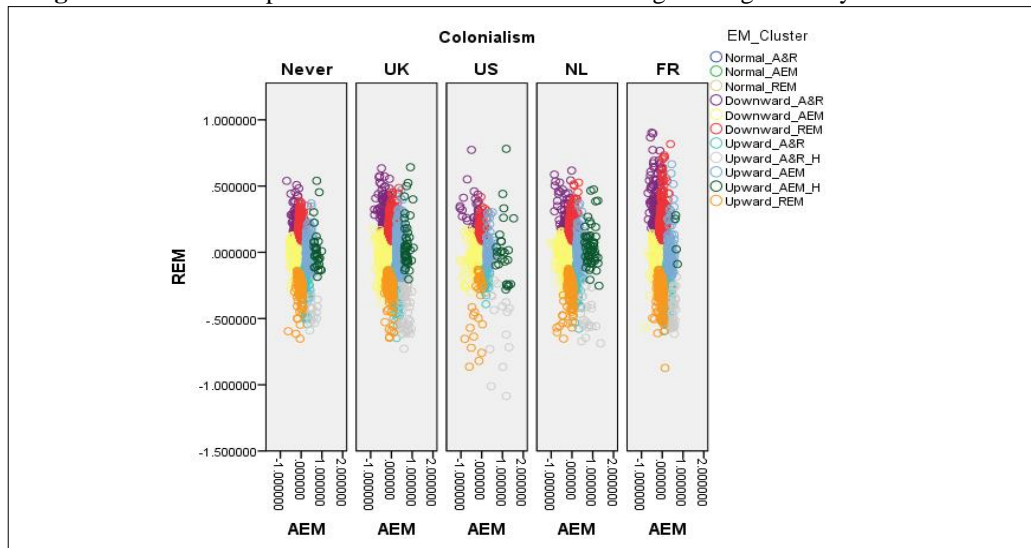
The insignificant differences in EM among the five ASEAN countries, including Indonesia, the Philippines, Malaysia, Singapore, and Thailand, suggested that the colonialism slightly related to the countries' accounting practices and the IFRSs have probably increased its role in affecting the practices instead. That is, although it could not be refused that the colonialism influence still

remains on the former-colonized countries’ institutional systems, particularly laws and financial system, which were then expected to shape their accounting practices, the IFRSs, which currently have been employed by all ASEAN countries, probably have increased its part in shaping the practices. However, in Vietnam, the EM practices were significantly different from those in other countries, suggesting the relation between colonialism and accounting practices. The colonialism remains in the country’s institutional systems, which still have their part in affecting the accounting practices. Although Vietnam accounting practices have been moving toward international practice, mainly IFRSs, like other ASEAN countries, the different institutional environment, such as the ignorance of accountants in employing professional judgement and the strong creditor and insider-equity system, possibly has caused Vietnamese corporation act differently in applying EM practices. Therefore, IFRSs had not taken part much in shaping accounting practices, but the colonialism influence still existed.

**4.3. Scatter Diagrams of Earnings Management Strategies by Post-Colonialism influence**

Scatter diagrams are used to show both the AEM and REM classifications of each of six ASEAN countries. The AEM is on the horizontal axis whilst the REM is on the vertical axis. Each point presents AEM and REM. The coloring of the points is the result of the clustering of the firm samples based on their quadrants earnings management. The clustering plots show the distance of each type of earnings management between firms. The plots show a clear difference between the firms in the former-French-colonialism country and those in other countries, confirming the significant differences in EM practices between Vietnam and other ASEAN countries.

**Figure 5:** The scatter plots of the eleven clusters of earnings management by colonialism.



## **5. CONCLUSION**

The research categorized earnings management strategies together by using the cluster analysis and found that there were eleven clusters regarding AEM and REM strategies: Normal\_A&R, Downward\_A&R, Upward\_A&R, Normal\_AEM, Normal\_REM, Downward\_AEM, Downward\_REM, Upward\_A&R\_H, Upward\_AEM, Upward\_AEM\_H, and Upward\_REM. These clusters could be grouped into three main types: Normal, Downward, and Upward. After clustering the samples by the former colonizers of five ASEAN countries, the Netherlands (Indonesia), the US (the Philippines), the UK (Malaysia and Singapore), and France (Vietnam), the results show that all groups of former colonizers contained eleven types of the earnings management classification, but the former-French-colonialism country, i.e. Vietnam, had a significant differences in earnings management strategies from other countries, suggesting the relationship between colonialism and accounting practices, and thus implying the colonial influence on the practices. This influence was reflected through the country's institutional environment, specifically the legal system, the small capital market, and the strong insider equity providers, which then lead to the statutory control and uniformity of accounting practice. These characteristics had possibly caused EM to be high because the strong insider equity providers could motivate management to increase earnings in order to maintain their personal benefits (Othman and Zeghal, 2006), and the statutory control and uniformity of accounting practices did not encourage the use of professional judgement among the accountants; as a result, might not apply IFRSs rigorously, which then managed earnings either intentionally or unintentionally.

Regarding the indifferences in EM practices among all ASEAN countries, except Vietnam, the result possibly implied slight colonialism influence on their accounting practices, which might remain through the country's institutional environment, mainly the legal and corporate financial system. While the colonialism had slightly influenced on the practices, the IFRSs seemed to increase their part in this matter. This was inferred from the view that after colonialism and non-colonialism experiences, all five countries employed IFRSs in preparing financial reports, and if colonialism influence on accounting practices existed, there should be significant differences between the former-colonized and non-colonized countries; however, the result showed no significant differences in EM practices.

To sum up, the results supported that in Vietnam, despite the IFRSs influence, the colonialism is likely to have an association with EM strategies, suggesting the existence of colonialism influence on accounting practices; whereas in other former-colonized countries with the IFRSs adoption, the colonialism influence might lower its degree on the accounting practices. To what extent the degree of colonialism influence remains depends on the persistence of the institutional environment imported from the former colonizers. The results seemed to support that a country historically colonized by France was likely to have strong persistence of colonialism influence on institutional environment which then make accounting practices responding differently from the other countries. However, this statement is required to be more verified and could be further investigated for the former-colonized countries with the Continental European model, which then would be benefit for international accounting discipline as its result would indicate how difficulty and what the problems would be if IFRSs implemented in those former-colonized countries.

Although this research seems to support the relationship between earnings management and colonialism factor, some of limitations needed to be aware and some of the limitations could be

addressed by future research. The research used only listed companies in each national stock exchange and those companies are required to have a complete set of data to run statistics and thus the samples might not include all listed companies. However, the samples are sufficient to certain the power of statistics that the paper tested. Another limitation is that in this research, AEM and REM had been measured with Kothari et al.'s (2012) model and Roychowdury's (2006) CFO model respectively, whereas in this research area, there are various models available and these models could provide different results from this paper. Nevertheless, the models applied here have been considered one of the most used by many researchers.

In addition, the research results were interpreted on the assumption that the colonialism influence was on a country's institutional systems, mainly the legal, tax and financing system, which then have an impact on accounting practices, in this research referred to the EM strategies. This influence was implied from the differences in EM practices and thus the relationship between colonialism and EM strategies. However, EM practices could be affected by several factors, as many studies dealing with EM indicated (see for example, Leuz et al., 2003; Othman and Zeghal, 2006; Ugrin et al., 2017; Houqe et al., 2016; Ismail et al., 2013; Hessayri and Saihi, 2015). Therefore, the research using advanced statistical methods to test the relationship among colonialism, institutional systems, and EM practices might be worth to be undertaken.

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