Culture and corruption-driven agency costs and earnings management: Evidence from south east Asian countries

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Abstract

Purpose: This study scrutinised whether agency costs driven by culture and corruption could determine the earnings quality in six South-East Asian (SEA) countries: Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam.

Design/methodology: This research restricted the categorisation of each SEA country whether they have low or high agency cost. This study employs 581 firm-years observations from the 30 biggest market capitalisation firms of six SEA countries. This paper runs multiple regressions of three main accrual models for main analysis (Jones, 1991; Dechow, Sloan & Sweeney, 1995; Kasznik, 1999) to get discretionary accruals.

Findings: Results show that firms in low agency cost countries have lower earnings quality and indicate that earnings management behaviour in this study is efficient rather than detrimental. Furthermore, results present that large firms engage less in earnings management conduct compared to their counterparts.

Research limitations/implications: This study has implications on standard setters and regulatory bodies, (prospective) investors, and wider society.

Originality/value: This study provides broader acknowledgement of how cultural values and corruption and their assumed correlation to agency cost could affect earnings management behaviour in South East Asia. Authors use a single proxy of high/low agency cost based on national cultural and corruption index.

Keywords: Cultural Values, Corruption Level, Earnings Management, South East Asia

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1. Introduction

According to the general theory of agency, it is predictable that investors will incur costs in making managers operate for maximisation of the firm's value because of agency conflict. Agency conflict exists because interests between agents and principal, as "rational" men, are different (Simon, 1955). Agency conflicts that may arise are behaviour versus outcome, information asymmetry, moral hazard and adverse selection of agents. Jensen and Meckling (1976) argued that it is impossible for agents to operate at absolutely no cost in order to maximise principals' wealth. Eisenhardt (1989, pp. 60) generated one of the fundamental propositions: *When the principal has information to verify agent behaviour, the agent is more likely to behave in the interests of the principal.* This proposition is a logical consequence of agency costs because "having reliable information" and "verifying agent behaviour" carry cost. However, this point of view is not free from criticism. For example, a critic from the minimalist school of thought (Hirsch, Michaels & Friedman, 1987) accused this theory of being "unrealistic" in the broader social construct context.

Critics have pointed out that social life is not only about contracts but also about social existence, relationship, legal or political environment and other social constructs. Therefore, the principal-agent conflict is not the only determinant of agency cost. Empirically, it was found that preference toward risk (Stroh, Brett, Baumann & Reilly, 1996; Ghosh & John, 2000) and cross-cultural differences upon compensation understanding (Pennings, 1993) influence the agency cost. Taking this into consideration, studies of correlation between cultural contexts (Johnson & Droege, 2004) or legal system (La Porta, Lopez-de-Silanes, Shleifer & Vishny, 2000) and agency costs are immensely relevant. Knowing these correlations will be useful to understand the circumstances of embedding agency costs and even help various stakeholders across countries, with various interests, to take proper actions.

Thus, this study scrutinised how cultural and corruption level differences across South-East Asian (SEA) countries affect earnings management. This study used a single proxy of agency cost level in country level considering corruption indicator and cultural differences. Authors intend to contribute to the existing literature on how such differences in culture and corruption can affect agent behaviours on smoothing earnings because correlation of earnings management and agency cost is still a controversial issue. On one hand, it is argued that earnings management and agency cost are negatively correlated. Under low agency cost, managers may engage in earnings smoothing to predict future performance and to signal to the market about the current performance (Arya, Glover & Sunder, 2003), and shareholders may even favour permitting such action due to its benefits (Jiraporn, Miller, Yoon & Kim, 2008). On the other hand, it is contended that managers in firms with high agency costs are more likely to engage in misconduct that detrimentally affects stakeholders (Healy & Wahlen, 1999). Concealing information and engaging in less conservative accounting report are opportunistic behaviours that could risk the value of firm (Healy & Palepu, 1993). Risks such as low credibility of financial statement (Ragan, 1998) and being sued by external stakeholders for reporting deceitful information are indeed undeniable. However, authors also acknowledge that earnings management can be diminished by mechanisms such as effective disclosure system (La Porta, Lopez-de-Silanes, Shleifer & Vishny, 1998), high-quality external auditor (Fan & Wong, 2005), and institutional ownership (Velury & Jenkins, 2006).

Existing literature relating to corporate governance issues mostly focuses on East Asia (EA) rather than SEA countries (Claessens, Djankov & Lang, 2000; Fan & Wong, 2002). This study focuses on SEA countries because there are huge differences between EA and SEA countries. Even though SEA is part of EA, the two vary on geographical area, economic cooperation via the Association of South-East Asian Nations (ASEAN), and, more importantly, in terms of cultural values and corruption index. In fact, EA countries that are not included in SEA (such as Japan, Korea, Taiwan, and Hong Kong) are perceived cleaner in public governance than SEA countries in a 2015 report (Transparency International, 2015). Also, cultural values of collectivism and power distance are generally higher in SEA countries compared to the other EA countries (Culture Compass, 2010).

This study employed an indicator of agency costs based on cultural values of Hofstede Centre and corruption perceived index of Transparency International. Authors used measurements of earnings management from the three accrual models for the main analysis (Jones, 1991; Dechow et al., 1995; Kasznik, 1999). Evidence strongly suggested that earnings management is not detrimental. Results were robust even with employing more recent

accrual models (Dechow, Richardson & Tuna, 2002; Dechow & Dichev, 2002) and with controls of size, leverage, and growth. Therefore, school of thought inclining the benefits of earnings management is supported, specifically in case of countries in South East Asian region.

2. Literature review and hypotheses development

2.1. Agency cost

Principals incur agency costs because of problems in the principal-agency relationship in a company. Both principals and agents have distinct interests in terms of maximising their own utility. Shareholders invest in a company to get maximum return from the company's performance, while managers are able to make decisions within a company that favour their interest. Managers can potentially initiate conflicts by engaging in information asymmetry and moral hazards because they have more knowledge about daily activities of the company and strategic authorisation. A vital account is dividend which managers can regulate based on their perception and expectation (Easterbrook, 1984). One explanation why managers tend to engage in such irresponsible conduct is that they are rational (Simon, 1955). They therefore behave depending on their own perceptions upon their contracts (i.e. employment contract) and whether costs and rewards are correctly interpreted. Such interpretation by managers of contractual correctness affects their behaviour towards decision-making within the company. Therefore, if managers consider that the contract is broadly correct, they are more likely to operate on behalf of principals. However, Jensen and Meckling (1976, pp. 308) state:

"… it is generally impossible for the principal or the agent at zero cost to ensure that the agent will make optimal decisions from the principal's view of point."

This statement implies that agency cost is a direct effect of imperfection in the principal-agency relationship. Thus, agency cost inevitably exists as the principal is not running the firm directly and entirely. Jensen & Meckling (1976) specify agency cost as every expenditure that can reduce the welfare of shareholders because of differences in interests between principal and agent such as monitoring expenditure by principals, bonding expenditure by the agent, and residual loss.

However, critics have pointed out that the relationship between principal and agent is not affected only by contractual agreement. This relationship also depends on other social constructs such as cultures (Fidrmuc & Jacob, 2010), legal (Jensen, 2005) and political environment (Li, Meng, Wang & Zhou, 2008) are also crucial. Previous literature has found that preference towards risk affects agency cost (Stroh et al., 1996) arguing that in turbulence conditions, managers tend to be motivated by increase of compensation level. Fundamental agency theory depicts that high individualism is the major factor of principal-agent problems, thus Eastern Europe and Asian countries are believed to solve the principal-agent specific problems due to their unique characteristics such as collectivism (Young, Peng, Ahlstrom, Bruton & Jiang, 2008). Empirical studies support this argument suggesting individualism is correlated to high agency cost and collectivism is negatively related to high agency cost (Fidrmuc & Jacob, 2010; Jaggi & Low, 2000; Hope, 2003).

Pennings (1993) also distinguishes that cross-cultural differences on understanding compensation affect agency cost. He examines executive compensation in US, France, and Netherlands and conducts semi-structured interviews with executives in a small set of firms in the targeted nations. Questions were asked about executive interpretation on effort-performance, performance-pay, and overall perceptions over pay-performance linking ability within a company. He finds that compensation differs between the US and its counterparts. While US executive compensation plans are both fixed and variable, Dutch firms grant insignificant bonuses. French executives, on the other hand, are more prepared to improve their performance because of greater uncertainty in compensation. He contends:

"…executives from US firms express a strong belief in the motivational efficacy of executive compensation systems, whereas their French and Dutch counterparts tend to be cautious or even ignorant." (1993, p. 272).

This explains that cultural context affects agency cost. Values of concern in one society can be seen differently or even as unimportant in other societies. Managers in the US believe that compensation systems should be

explicit, while their counterparts in Dutch and French firms think that bonuses are antecedent of their firms' performance.

2.2. Legal tradition and culture

Investors are generally in favour of legal mechanisms for (1) protection of their property from expropriation, (2) high probability of claiming contracts, (3) calling for a meeting with management if there is a significant concern and (4) cleanliness of public governance to avoid extra undesirable costs (Larcker & Tayan, 2011). In fact, interventions from government may overcome agency problems where market and firm control systems fail (Jensen, 2005), or even improve economic conditions (Nguyen & van Dijk, 2012). However, Larcker and Tayan (2011) argue that public governance with so-called interventions does not work properly (i.e. in protecting property rights) if corruption is perceived higher. For example, Jain (2001) describes the inter-correlation of corruption and weak legal system as driven by external shock. Through increasing income from corruption, political elites will weaken the judicial system through reallocation of resources intended for corruption eradication or colluding with politicians. Through such weakening, active and passive corruption will spread and thereby create many other frauds. Empirically, there is a significant inter-relationship between corruption and legal ineffectiveness (Herzfeld & Weiss, 2003) or even strong correlation between them (Fisman & Miguel, 2007). Therefore, higher corruption level can be a measure to predict ineffectiveness of a country's legal system and lack of investor protection, and hence higher agency cost.

Culture values in a country deliberately influence firms' activity. Culture defines whether firms, as a structural part of society, are conducting their business operations correctly or not. These values also define particular priorities and ambitions of firms (Schwartz, 1999). From a cultural perspective, countries across the world are considered differently. For example, UK and USA are countries with highly individualistic values. People in those countries are not highly dependent on other members of society. Promotion depends only on merit, showing good performance or achieving certain individual targets. However, this might not apply in most SEA countries. For example, in Indonesia, there is no significant gap between business and family matters. A family member can be instantly elected to become a manager in a family-owned firm even when an employee candidate is available who would better suit the position due to having more experience and knowledge.

Hofstede (1980) developed four national cultural dimensions that are derived from collective mental programming. Among these four dimensions, three are perceived relevant to this study, namely: power distance, uncertainty avoidance, and individualism. Power distance depicts inequality in the distribution of power in relations between leaders and workers within an institution. In countries with high scores on power distance, the agency cost is perceived lower because social stratification is permissible and well-practised, i.e. aligning incentives of management and shareholders is effortless. In contrast, low power distance countries require normative means, e.g. outcome compensation to align agents' and principals' incentives (Johnson & Droege, 2004). Empirically, low power distance is significantly correlated with higher dividend pay-outs (Fidrmuc & Jacob, 2010). Other research also discovered that power distance was negatively correlated with accounting disclosure, which Depoers (2000) found the disclosure to be correlated with agency cost, in univariate (and multivariate analysis in common law countries) (Hope, 2003). Also, an empirical study using Netherland firms, concluded that managers decided on high dividend pay-out for a country with low power distance (Renneboog & Szilagyi, 2015). Furthermore, dividend pay-out in Malaysia, a very low power distance country, was negatively related with share volatility (Hashemijoo, Ardekani & Younesi, 2012). Therefore, authors posit the idea of lower power distance as a sign of high agency cost.

Another cultural dimension is uncertainty avoidance, indicating how accepting a society is of ambiguous situations, unknown future occasions, tolerance of unpredictable behaviour and thoughts (Hofstede, 1980). One notion argues that civilians with high uncertainty avoidance are more risk averse and therefore require higher rewards (e.g. higher discount rate or dividend pay-out ratio). Johnson and Droege (2004) argue that gain potential should overweigh the loss potential in societies with high avoidance of uncertainty. However, this idea is not always applicable because lower dividend pay-out ratio is a sign of high predictability and stability in a company. It is certain that uncertainty in cash-flow is one of main reasons of lower dividend payout that led to agency conflicts (Chay & Suh, 2009). Existing research evidence supports this idea that high uncertainty avoidance is

correlated with high cash flow holding, low dividend pay-out ratio, or with dire disclosure (Ramírez & Tadesse, 2009; Chang & Noorbakhsh, 2009; Fidrmuc & Jacob, 2010; Hope, 2003; Bae, Chang & Kang, 2012). Therefore, this study predicts high uncertainty avoidance as indicator of low agency cost.

Individualism is also an important dimension implying that the individual is only concerned about his or herself and, if any, closest colleagues (Hofstede, 1980). Not surprisingly, agency theory empirical studies proliferate in western-countries (Johnson & Droege, 2004) because such opportunistic-prospecting behaviour is claimed to be driven by individualism as the main value of western culture. In contrast, collectivist countries, mostly found in Eastern parts of the world, are considered as those countries with values that can align principal-agency interests. Literature evidence supports this idea that in countries of high individualism, agency costs of companies are higher (Fidrmuc & Jacob, 2010; Hope, 2003). Other research also pointed out that financial disclosure was better, to compensate the agency cost, in individualist countries (Jaggi & Low, 2000). Thus, this study assumes high individualism as relating to high agency cost.

Lastly, building on development by Hofstede in 1991, Hofstede and Minkov (2010) create a new perspective on long-term orientation (the fifth cultural dimension) that relates to future-oriented, avoiding risk, maintaining current behaviour and perpetuating specific & innovative leadership. This is also a relevant cultural dimension in this case. Lumpkin, Brigham and Moss (2010) contended that long-term orientation is important in business because it has a unique impact upon entrepreneurial outcomes and it uses a strategic approach to deal with control issues instead of financial incentives; however, they acknowledge that this cultural value is highly associated with concentration of family ownership. Chang and Noorbakhsh (2009), meanwhile, demonstrate that firms within a country with higher long-term orientation have a tendency to retain more cash. When looking for investment opportunity, investors in society with long-term oriented culture are dependent on long-term profitability (e.g. maintaining business performance is preferable to engaging in high risk projects) or non-economic achievement (e.g. sustainability of workforce). As Lumpkin et al. (2010) put it that firms with long-term orientation benefit more from innovativeness, proactiveness, and autonomy. Indeed, long-term orientation for family firms is a key for sustainability, only if collaborating the orientation with good corporate governance mechanisms and keeping the business professional (Breton-Miller & Miller, 2006). Evidence from cross-countries study also found that long-term orientation was negatively (positively) correlated with dividend pay-out (dividend changes) (Bae et al, 2012). Hence, this article indicates high long-term orientation as a signal of low agency cost.

2.3. Earnings management

In relation to agency cost and earnings management, there are two separate schools of thought: (1) earnings management is bad; (2) earnings management is not always bad.

Agents can benefit from misuse of authorisation. This can cause damaging contractual outcomes that badly affect stakeholders (Healy & Wahlen, 1999). This is known as opportunistic behaviour, whereby agents choose reporting decisions on the basis of their own interest (Healy & Palepu, 1993). This behaviour principally works against outside investors through concealing information on current and forecasting outcomes. Also, where earnings management is widely recognised by the public or market, the idea of beneficial earnings management seems to lack supporting arguments. Firms engaging in earnings management will bear higher risk of low credibility of financial statements (Ragan, 1998); hence, such firms will have difficulty in raising external funds, or may even be sued by public due to their unreliable reports (e.g. by regulation of Securities and Exchange Commission in US). This idea thus indicates that earnings management positively correlates with agency cost. Empirically, the literature supports this idea (Teoh, Welch & Wong, 1998; Ragan, 1998). Latest empirical studies on independent board directors and audit committees, having a reputation to hold to demonstrate best performance to find accounting manipulation practices, were identified to successfully reduce earnings management (Jaggi, Leung & Gul, 2009; Xie, Davidson III & DaDalt, 2003; Klein, 2002).

However, earnings management is not always detrimental, and can be beneficial (Arya et al., 2003). Even though shareholders may have the chance to limit earnings management, they may not choose to do so. Based on their expertise in communication, under the condition where managers and shareholders are working in the same interests, agents will improve the firm's value and try to give their best prediction of future performance; hence,

earnings smoothing presents a reasonable signal to outside investors. Then, shareholders will allow that to happen to boost management motivations. Therefore, earnings management and agency cost are negatively correlated. Jiraporn et al. (2008) and Subramanyam (1996) support this idea empirically. Recent empirical studies by Bergstresser and Philippon (2006) and Cheng and Warfield (2005) found out that if CEOs are more incentivised by equity or sensitive to share price of companies, the earnings management is higher. Dutta and Gigler (2002) also identified that indeed shareholders are allowing such earnings management behaviour. Moreover, Chi, Lisic and Pevzner (2011) discovered that audit quality, as reduction of costly management misconduct, and audit fees are associated with real earnings management, as an alternative measurement of accrual-based earnings management that decreased when regulation in US was strengthened (Cohen, Dey & Lys, 2008).

Young et al. (2008) elaborated the problematic issues in corporate governance of emerging countries and categorized them to possess principal-principal (PP) governance intricacies. Such impediment raised was when minority shareholders are expropriated by majority holders. This typical ownership is general in Asian and Eastern Europe. In fact, corporate assets across Eastern Asia are owned only by number of families (Claessens et al., 2000) instead of dispersed as commonly found in western countries. One dire impacts that Fan and Wong (2002) identified was that, in East Asia, merely majority shareholders benefit the most on the accounting information. Hence, the drive of earnings management may differ when country differentiation took place considering the wide variation of cultures, law enforcement, etc. This study is intended to contribute in gap in the existing literatures.

Thus, this study posited that earnings management is beneficial, following the argument that managers tend to manage earnings and shareholders approved such action. Therefore, it is predicted that if a country possesses low agency cost, earnings management would be high. In other word:

> *H1. Earnings management is lower for firms in countries with higher agency cost driven by cultures and corruption*

2.4. Earnings management as contra-measurement of accounting quality

From the perspective of analysts, Dechow and Schrand (2004) explain that accounting quality is reflected by an earnings number that (1) accurately describes the current performance, (2) can be used for future performance prediction, and (3) is useful for a correct firm's valuation. By this definition, a financial statement should be decision-relevant, informative, faithful, and represent the true value of the firm (Dechow, Ge & Schrand, 2010; Hribar, Kravet & Wilson, 2014).

There is no easy way to define accounting quality. However, earnings is a single account that most stakeholders focus on. Therefore, it is most convenient to define accounting quality based on earnings quality. There are many proxies of earnings quality in previous studies. Dechow et al. (2010) divided earnings quality proxies into three categories, namely (1) property of earnings, (2) investor responsiveness and (3) external indicators of earnings misstatement. Accruals modelling is one way to detect the earnings quality from earnings property. By distinguishing between normal and abnormal accruals, one can identify of earnings with reasonable quality and discretionary earnings respectively. Normal accruals can be modelled properly using components of accounts that can be recognised as earnings without bias, while abnormal accruals comprise error in terms of the accrual model that cannot be explained by proper modelling and therefore represents distortion of earnings quality.

3. Research methodology

3.1. Sample selection

The sample in this study comprised 148 firms (out of 180 firms) from the 30 biggest market capitalisation companies in Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam. These countries were selected due to the maturity, having operated for more than 10 years. This paper employed 2012-2015 data, avoiding financial crisis effects in 2007-2008 and window effects of reforming regulation for corporate governance in the early 2000s. This paper excluded financial firms since estimation of accruals is different in this sector (32 firms in total). The financial data were collected from Datastream. Following the majority of previous cross-country articles, authors used US dollar as a unit measurement in all variables across countries with consistency in

currency codes of the firm-year samples (Han, Kang, Stephen & Yoo, 2010; Fidrmuc & Jacob, 2010). By considering the problems due to the standardisation of the measurements (extensively pointed out by, such as financial data disruption, ignoring the compliance of accounting standard, and statistical-model related difficulties), this paper used the actual values from annual accounts (Tay & Parker, 1990). Fortunately, when extracting data, Datastream automatically generated the measurement of variables in single number.

3.2. Agency cost category

Previously, Han et al. (2010) analysed the cultural and legal differences and their correlation with discretionary accruals. They conducted empirical models of individualism, uncertainty avoidance, masculinity, power distance (Hofstede, 1980) and investor protection score from La Porta et al. (1998) to scrutinise the effect between abnormal accruals and interactions of investor protection and (1) individualism and (2) uncertainty avoidance. Their method used these interactions to detect cultural values' effect on abnormal accruals when legal system is taken into account. However, instead of employing each cultural value in analysis, this study used the average score of both cultural values and corruption level as agency cost level for each country. The countries were then categorised as either high or low agency cost countries.

This research predicted agency cost scores ranging from 0-100 based on country-specific measures: cultural values and CPI scores. Corruption perception index (CPI) data was gathered from Transparency International while cultural values from Hofstede Centre. Since the score of cultures and CPI also range from 0-100, it was unnecessary to rescale the measurement. The assumption was that power distance, uncertainty avoidance, long-term orientation and CPI would correlate negatively to agency costs while individualism was vice versa. This was as discussed in the literature review (see Table 1). For example, Indonesia scores 14 on individualism, so the agency cost score was 14; inversely power distance in Indonesia was 78, so the agency score was 22. Then summed country-specific measures for each country to get the total agency cost score.

No	Country-Specific Measure	Assumed Correlation with Agency Cost
1	Corruption Perception Index	(-)
2	Individualism	(+)
3	Power Distance	(-)
4	Uncertainty Avoidance	(-)
5	Long-term Orientation	(-)

Table 1. Assumed Correlation of Country-Specific Measures with Agency Cost

Then, we rank countries based on this total agency cost score. We define the top three countries as countries having high agency cost and the fourth, fifth, and sixth countries as countries having low agency cost. Table 2 shows how the scoring is conducted, and identifies Indonesia, Malaysia and Singapore as countries with low agency costs and Thailand, Philippines and Vietnam as countries in the high agency cost category. This attempt to self-develop index in studies is not novel. For example, Ashbaugh and Pincus (2001) developed an index cumulating the changing in disclosures and measurement methods following International Accounting Standard (IAS) to study whether forecast is more accurate after IAS implementation, even though they employed those three measurements individually in the study. Moreover, Piot (2001) investigated the correlation between agency cost and audit quality and determining investment opportunity set (IOS) proxy using two ratios of market-to-book and two ratios of risk measures, yet he employed principal component analysis to determine the proxy factors. Also, La Porta et al. (1998) established shareholder protection index to scrutinise whether investors are treated badly in poor investor protection. These explain that defining proxies did not always meet a consensus (Gaver & Gaver, 1993) especially when studying agency topic, e.g. proxy of free cash-flow (Shin & Kim, 2002). Therefore, this study tried to develop a proxy index to determine the agency cost level because cultural values and corruption are perceived, either individually or simultaneously, to contribute in influencing typical country-specific agency cost. This was somehow empirically investigated by Hope (2003, pp 219) when studying the effect of legal origin and national cultures on reporting and concluded:

"..., there is no support for the argument that culture is unimportant in explaining firm disclosure after controlling for legal origin... Standard setters should be aware of variations in national culture when attempting to make changes...."

Country	Agency Cost Score							Agency Cost Level
	PDI	IDV	UAI	LTO	CPI	TOTAL	Rank	
Indonesia	22	14	52	38	66.50	192.50	5th	Low
Malaysia	0	26	64	59	49.75	198.75	4th	Low
Philippines	6	32	56	73	64.25	231.25	2nd	High
Singapore	26	20	92	28	14.50	180.50	6th	Low
Thailand	36	20	36	68	63.00	223.00	3rd	High
Vietnam	30	20	70	43	69.00	232.00	1st	High
Average Value								
Low	16	20	69.33	41.67	43.58	190.58		
High	24	24	54	61.33	65.42	228.75		

Notes: PDI = power distance index, IDV = individualism value, UAI = uncertainty avoidance index, LTO = long term orientation, CPI = corruption perception index.

Table 2. Calculating Agency Cost Level of SEA Countries

3.3. Generating abnormal accruals

Next, following Siregar and Utama (2008), we generated the abnormal accruals from three different accrual models by Jones (1991), Kasznik (1999), and Dechow et al. (1995) in Table 3. Following general existing literature, we deflated each variable with total asset of current year to solve the heteroskedasticity problem in error terms.

No	Accrual Models
(1)	$ACC_{it} = \beta_0 + \beta_1 \Delta REV_{it} + \beta_2 PPE_{it} + \varepsilon_{it}$
(2)	$ACC_{it} = \beta_0 + \beta_1 (\Delta REV_{it} - \Delta REC_{it}) + \beta_2 PPE_{it} + \varepsilon_{it}$
(3)	$ACC_{it} = \beta_0 + \beta_1 (\Delta REV_{it} - \Delta REC_{it}) + \beta_2 PPE_{it} + \beta_3 \Delta CFO_{it} + \varepsilon_{it}$

Notes: ACC = Total net income minus net cash flow operational divided by total asset current year. ΔREV = Net turnover at time t minus turnover at time $t-1$ of a company divided by total asset current year. ΔREC = Net receivables at time t minus receivables at time $t-1$ of a company divided by total current last year. PPE = Net property, plant, and equipment of a company divided by total asset current year. ΔCFO = Net cash flow operational at time t minus net cash flow operational at time $t-1$ of a company divided by total asset current year. Equation (1) is the accrual models by Jones (1991), Equation (2) is the accrual models by Dechow et al. (1995), and Equation (3) is the accrual models by Kasznik (1999).

Table 3. Accrual Models by Jones (1991), Dechow et al. (1995) and Kasznik (1999) Employed

We generated estimates of abnormal accruals by pooling all firms in all SEA countries (across countries). Then, we recognised that a fixed-effects model (FEM) was suitable for running regression because FEM solved the problem of all heterogeneity effect correlated with regressors. Therefore, we ran regression using fixed effects model (FEM). When generating abnormal accruals, we realised that negative and positive signs in abnormal accruals had similar manipulation information in either increasing or decreasing earnings (symmetric information). Therefore, we analysed each of abnormal accrual value in two measurements: actual and absolute value of abnormal accruals. We employed this method because we intended to scrutinise which abnormal accruals measurement would give the best explainability of the model, and also we consider that all measurements should produce similar outcomes, or at least in the majority of cases.

3.4. Is earnings management lower among firms in high agency cost countries?

Based on the abnormal accrual measurements generated, this study used univariate and multivariate analysis to test hypothesis H1. In univariate analysis, the sample of firm-year observations were split into the following two categories: firms in countries with low agency costs and those in countries with high agency costs. Then, the mean values of abnormal accruals were compared between the two categories. In multivariate analysis, dummy variable was used, AGENCY COST, to identify firm-year observations in countries with low agency cost scores in the first category (AGENCY COST = 0) and those in countries with high agency cost scores in the second category (AGENCY COST = 1). Then, regression of AGENCY COST dummy and control variables of size, leverage ratio and book-to-market ratio on different measurements of abnormal accruals was performed. This study included year dummies and clustered standard error for firms in all regressions. Size and book-to-market

value were used as controls because literatures indicated that size (Lang & Lundholm, 1993) and growth (McNichols, 2000) were associated with managers' behaviour. Also, following Tendeloo & Vanstraelen, 2005), this study comprised leverage effect as control for earnings management. It was realised that the second method might give more interpretative results, while conducting the first method involved several steps. However, while the first method had more of a theoretical background, the second method posed risk of bias in the model. Thus, this study controlled for year effect to avoid multicollinearity problems and clustered standard error for firm to get more consistency in standard error.

$$DACC_{it} = \delta_0 + \gamma AGENCY\ COST_{it} + \theta_1 SIZE_{it} + \theta_2 LEV_{it} + \theta_3 BTM_{it} + \varepsilon_{it} \qquad (4)$$

where:

DACC = Discretionary accruals from accrual model divided by total asset current year

AGENCY COST = One if firm is operating in high agency cost country and zero otherwise

SIZE = Natural logarithm of total asset divided by total asset current year

LEV = Debt-to-equity ratio of a company at current year

BTM = Book value divided by market value of a company at current year

4. Analysis

Table 4 presents descriptive statistics of variables for the three main accrual models by Jones (1991), Dechow et al. (1995) and Kasznik (1999). This table presents mean and median values of firm-year observations operating in low agency cost countries (AGENCY COST = 0; n = 298) and those operating in high agency cost countries (AGENCY COST= 1; n = 289). This table also presents the mean difference (using t-stat and z-stat of Mann-Whitney U test) of variables between categories.

Variables	Low Agency Cost (N = 298)		High Agency Cost (N = 289)		Difference	t-stat	
	Mean	Median	Mean	Median			
ACC	-0.0195	-0.0186	-0.0297	-0.0322	0.0102	2.05	**
ΔREV	-0.0246	-0.0017	0.0352	0.0278	-0.0598	-4.70	***
PPE	0.3865	0.3430	0.3573	0.3607	0.0292	1.66	*
ΔREV – ΔREC	-0.0268	-0.0089	0.0239	0.0198	-0.0507	-4.14	***
ΔCFO	-0.0039	-0.0032	0.0125	0.0127	-0.0164	-3.45	***

Notes: ACC = total net income minus net cash flow operational divided by total asset current year, ΔREV = net turnover at time t minus turnover at time $t-1$ of a company divided by total asset current year, PPE = net property, plant, and equipment of a company divided by total asset current year, ΔREV – ΔREC = ΔREV minus net receivables at time t minus receivables at time $t-1$ of a company divided by total current last year, ΔCFO = net cash flow operational at time t minus net cash flow operational at time $t-1$ of a company divided by total asset current year. ***, **, * significantly different at 1%, 5%, 10% level.

Table 4. Descriptive Statistics of Variables for Three Main Accrual Models

Firms in low agency cost countries had significant higher accruals (ACC) than their counterparts at 5% level (t-stat = 2.05; z-stat = 2.53). This meant that firms in low agency cost countries beared higher risk of having higher normal accruals. Meanwhile, firms in high agency cost countries had higher change in revenue (ΔREV) than their counterparts at 5% level (*t*-stat = -4.70; *z*-stat = -7.55). This indicated that firms in high agency cost countries had higher performance before managers manipulated the figures (Jones, 1991). Plant, property and equipment (PPE) were higher for firms in low agency cost countries compared to their counterparts (*t*-stat = 1.66; *z*-stat = 1.13). Although the difference was only significant at 10% level in t-test, this implied that firms in low agency cost were more capital intensive.

Firms in high agency cost countries had significantly higher change in revenue subtracted by change in receivables (ΔREV – ΔREC) than their counterparts at 1% level (*t*-stat = -4.14; *z*-stat = -6.49). This implied that firms in high agency cost countries were less likely to conduct earnings management by credit sales recognition (Dechow et al., 1995). Change in cashflow (ΔCFO) was significantly higher for firms in high agency cost

countries at 1% level (*t*-stat = -3.45; *z*-stat = -4.64). According to Dechow (1994), this meant that earnings of firms in high agency cost countries was less informative because cash holdings presented timing and matching issues.

This research then ran regression of three main accrual models and predicted abnormal accruals for univariate and regression analyses designed to test hypothesis H1. All measurements of abnormal accruals are summarised in Table 5.

Measurements for Analysis	Abnormal Accruals	Specification
DACC1	Actual	Actual abnormal accruals from FEM, scaled by total asset, calculated from all firms in all six SEA countries
DACC2	Absolute	Absolute abnormal accruals from FEM, scaled by total asset, calculated from all firms in all six SEA countries

Table 5. Abnormal Accruals Measurements for First Phase of Study

4.1. Univariate analysis

Table 6 summarises the univariate analysis of six abnormal accruals measurements from three accrual models. This table presents mean value differences of abnormal accruals measurements between firms operating in low agency cost countries (AGENCY COST = 0; n = 298) and those operating in high agency cost countries (AGENCY COST = 1; n = 289). The table presents univariate analysis of the abnormal accruals predicted from across countries regressions (DACC1 and 2). Mean values of DACC1 were significantly different in Model 1 and Model 2, and the abnormal accruals depicted that firms in low agency cost countries were significantly higher than those of their counterparts in high agency cost countries in Model 1 and Model 2 (*p*-values of low>high: Model 1 = 0.01; Model 2 = 0.01). Furthermore, mean values of DACC2 only showed a significant difference in Model 3, and this model indicated that firms in low agency cost countries had significant bigger mean values of DACC2 (*p*-values of low>high: Model 3 = 0.02) at 5% level.

			N	Model 1	Model 2	Model 3
DACC1	Mean of low agency cost		298	0.0054	0.0053	0.0024
	Mean of high agency cost		289	-0.0056	-0.0055	-0.0024
	t-test	*p*-value low = high		0.02[b]	0.03[b]	0.28
		p-value low > high		0.01[a]	0.01[a]	0.14
DACC2	Mean of low agency cost		298	0.0467	0.0467	0.0436
	Mean of high agency cost		289	0.0428	0.0427	0.0379
	t-test	*p*-value low = high		0.23	0.22	0.05[b]
		p-value low > high		0.12	0.11	0.02[b]

$ACC_{it} = \beta_0 + \beta_1 \Delta REV_{it} + \beta_2 PPE_{it} + \varepsilon_{it}$

$ACC_{it} = \beta_0 + \beta_1 (\Delta REV_{it} - \Delta REC_{it}) + \beta_2 PPE_{it} + \varepsilon_{it}$

$ACC_{it} = \beta_0 + \beta_1 (\Delta REV_{it} - \Delta REC_{it}) + \beta_2 PPE_{it} + \beta_3 \Delta CFO_{it} + \varepsilon_{it}$

Notes: DACC1 = actual abnormal accruals from FEM, scaled by total asset, calculated from all firms in all six SEA countries; DACC2 = absolute abnormal accruals from FEM, scaled by total asset, calculated from all firms in all six SEA countries.

Model 1:– Jones (1991)

Model 2 – Dechow et al. (1995)

Model 3: – Kasznik (1999)

a, b, c significantly different at 1%, 5%, 10% level.

Table 6. Results of Univariate Analysis

Overall, this univariate fairly suggested that firms in low agency cost countries had higher abnormal accruals (as measure of low earnings quality) compared to their counterparts in high agency cost countries. This result indicated significant differences in abnormal accruals between categories, and it supported hypothesis H1 of this study.

4.2. Multivariate analysis

Table 7 reports the descriptive statistics of variables for regression analysis. Number of observations on all variables for this analysis was made consistent, including abnormal accruals of all measurements and control variables. Panel A, Table 7 presented six measurements of abnormal accruals from the three different accrual models. Actual abnormal accruals measurements were small on average because positive and negative value of observations cancelled each other out (i.e. the summation of values became small).

Variable		N	Mean	Median	Std. Dev.	Min	Max
Panel A – Measurements of Abnormal Accruals							
DACC1	Model 1	581	0.0002	-0.0005	0.0598	-0.1667	0.1784
	Model 2	581	0.0002	< 0.0001	0.0597	-0.1669	0.1783
	Model 3	581	0.0001	0.0004	0.0538	-0.1886	0.1605
DACC2	Model 1	581	0.0449	0.0348	0.0394	0.0003	0.1784
	Model 2	581	0.0449	0.0343	0.0393	< 0.0001	0.1783
	Model 3	581	0.0409	0.0315	0.0349	< 0.0001	0.1886
Panel B – Control Variables and Firm in High Agency Cost Country							
SIZE		581	15.0635	15.2151	1.2807	8.4506	17.9777
LEV		581	0.4702	0.3207	0.8352	-0.8675	5.3617
BTM		581	0.6183	0.4614	0.5214	0.0070	2.5785
		Proportion Dummy = 0			Proportion Dummy = 1		
		N	%		N	%	
AGENCY COST		293	50.43		288	49.57	

$ACC_{it} = \beta_0 + \beta_1 \Delta REV_{it} + \beta_2 PPE_{it} + \varepsilon_{it}$

$ACC_{it} = \beta_0 + \beta_1 (\Delta REV_{it} - \Delta REC_{it}) + \beta_2 PPE_{it} + \varepsilon_{it}$

$ACC_{it} = \beta_0 + \beta_1 (\Delta REV_{it} - \Delta REC_{it}) + \beta_2 PPE_{it} + \beta_3 \Delta CFO_{it} + \varepsilon_{it}$

Notes: DACC1 = actual abnormal accruals from FEM, scaled by total asset, calculated from all firms in all six SEA countries; DACC2 = absolute abnormal accruals from FEM, scaled by total asset, calculated from all firms in all six SEA countries; SIZE = log of total asset divided by total asset current year, LEV = debt-to-equity ratio of a company, BTM = book value divided by market value of a company, AGENCY COST = one if firm is operating in high agency cost country and zero otherwise.

Model 1 – Jones (1991)

Model 2 – Dechow et al. (1995)

Model 3 – Kasznik (1999)

Table 7. Descriptive Statistic of Abnormal Accruals Measurement, Control and Agency Cost Dummy Variables for Regression Analysis

Panel B, Table 7 presents descriptive statistics of control variables and dummy of firms in high agency cost countries. SIZE was reasonably high because our sample firms represent the highest market capitalisation. LEV for sample firms was 47.02% on average indicating that sample firms were neither excessively in debt nor operating in bad conditions. BTM was 61.83% on average which indicates that sample firms are expected by the market to grow. The total number of firm-year observations was 581 consisting of firm-year observations in low agency cost countries (AGENCY COST = 0; n = 293) and high agency cost countries (AGENCY COST = 1; n = 288).

Table 8 reports six regressions using six measurements of abnormal accruals generated from three accrual models. As the table presents, AGENCY COST had negative significant correlation with DACC1 in Model 1 and 2 at 5% level (t-stat: -2.07 and -2.05 respectively). Moreover, AGENCY COST also had negative significant correlation with DACC2 in all models (t-stat: Model 1 = -1.85; Model 2 = -1.87; Model 3 = -2.08). This result supported hypothesis H1.

SIZE had negative significant correlation with DACC1 in all models at 10% level (*t*-stat: Model 1 = -1.83; Model 2 = -1.82; Model 3 = -1.82). Also, SIZE had negative significant correlation with DACC2 (*t*-stat: Model 1 = -3.84; Model 2 = -3.81; Model 3 = -2.92) at 1% level.

BTM was positively significantly correlated with DACC1 (*t*-stat: Model 1 = 4.00; Model 2 = 4.02; Model 3 = 4.90) in all models at 1% level. However, BTM was not significantly correlated with DACC2 in all models. This implied that under-priced firms were more likely to engage in earnings management.

LEV was found to be positively significantly correlated with DACC2 at 10% level in Model 3 (*t*-stat = 1.80). This indicated that firms with high leverage were more likely to conduct earnings management.

Overall, in line with the univariate results, the findings strongly suggested that firms in low agency cost countries had higher abnormal accruals compared to their counterparts in high agency cost countries. The coefficient sign of AGENCY COST was negative in all models and regressions, meaning that a negative correlation existed between high agency cost level and abnormal accruals. Therefore, this correlation strongly supported hypothesis H1 of this study. Moreover, it was conclusive that SIZE had negative correlation with abnormal accruals. This meant that bigger firms had less abnormal accruals rather than their smaller counterparts.

N = 581	Model 1				Model 2				Model 3			
	DACC1		DACC2		DACC1		DACC2		DACC1		DACC2	
	Coeff.	t	Coeff.	t	Coeff.	t	Coeff.	t	Coeff.	t	Coeff.	t
cons	0.0805*	1.66	0.1539***	5.51	0.0801*	1.66	0.1531***	5.48	0.0673	1.54	0.1160***	4.61
AGENCY COST	-0.0165**	-2.07	-0.0091*	-1.85	-0.0163**	-2.05	-0.0092**	-1.87	-0.0102	-1.28	-0.0104***	-2.08
SIZE	-0.0056*	-1.83	-0.0069***	-3.84	-0.0056*	-1.82	-0.0069***	-3.81	-0.0051*	-1.82	-0.0047***	-2.92
LEV	-0.0061	-1.10	0.0045	1.40	-0.0061	-1.1	0.0045	1.41	-0.0073	-1.41	0.0058*	1.80
BTM	0.0255***	4.00	-0.0043	-1.08	0.0255***	4.02	-0.0042	-1.07	0.0287***	4.90	-0.0027	-0.75
F-Stat		6.98		4.22		6.97		4.18		8.54		2.57
Prob > F	0.000		0.003		0.000		0.003		0.000		0.041	
R^2	0.082		0.057		0.081		0.056		0.110		0.049	

$ACC_{it} = \beta_0 + \beta_1 \Delta REV_{it} + \beta_2 PPE_{it} + \varepsilon_{it}$

$ACC_{it} = \beta_0 + \beta_1 (\Delta REV_{it} - \Delta REC_{it}) + \beta_2 PPE_{it} + \varepsilon_{it}$

$ACC_{it} = \beta_0 + \beta_1 (\Delta REV_{it} - \Delta REC_{it}) + \beta_2 PPE_{it} + \beta_3 \Delta CFO_{it} + \varepsilon_{it}$

Notes: Dependent variable: DACC1 = actual abnormal accruals from FEM, scaled by total asset, calculated from all of firms in all six SEA countries; DACC2 = absolute abnormal accruals from FEM, scaled by total asset, calculated from all firms in all six SEA countries. Independent variable: HIGH = one if firm is operating in high agency cost country and zero otherwise, SIZE = log of total asset divided by total asset current year, LEV = debt-to-equity ratio of a company, BTM = book value divided by market value of a company.
Model 1:– Jones (1991)
Model 2 – Dechow et al. (1995)
Model 3: – Kasznik (1999)
*** significant at 1% level, ** significant at 5% level, * significant at 10% level.

Table 8. Results of Multivariate Analysis

4.3. Sensitivity analysis

This section reports on how we test the sensitivity of the main results in univariate and multivariate analyses. We measured discretionary accruals using two alternative models of Dechow et al. (2002) and Dechow and Dichev (2002). When we employ the previous accruals (ACC_{it-1}) and future change of revenue (ΔREV_{it+1}), the discretionary accruals were negatively correlated with dummy variable of high level of agency cost. Similarly, if we used cash flows in the accrual models, the high level of agency cost dummy was negatively correlated with abnormal accruals (even though it was significant only using absolute abnormal accruals as measurement).

Consistent with our main results, the finding in the sensitivity analysis strongly indicated that firms in high agency cost countries had lower abnormal accruals, and AGENCY COST had a negative sign in all regressions in this sensitivity analysis. Therefore, hypothesis H1 in this study was also supported. Moreover, consistent with previous analysis, results showed that bigger firms were less likely to engage in earnings management.

5. Discussion

This study scrutinised on how agency costs determined by cultural and corruption values associated with earnings quality in six SEA countries: Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam. This study employed observations of biggest market capitalisation firms from 2012 to 2015. Three main accrual models (Jones, 1991; Dechow et al., 1995; Kasznik, 1999) and two accrual models for sensitivity analysis (Dechow et al., 2002; Dechow & Dichev, 2002) were utilised to calculate discretionary accruals.

Relevant literatures in this area have scrutinised cultural values, the legal system and correlations with agency cost and earnings quality. A study by Fidrmuc and Jacob (2010) using 5,797 firms in 41 countries indicated that individualism (power distance and uncertainty avoidance) was associated with high (low) agency cost. They utilised dividend pay-out as proxy of agency cost. Also, a relevant study by Han et al. (2010), using 96,409 firm-year observations from 32 countries including the US, pointed out that individualism (uncertainty avoidance) was positively (negatively) correlated with earnings management. Han et al. also considered cultural values of individualism, uncertainty avoidance, power distance, masculinity and legal system (investor protection score) in each country. Empirically, other studies indicated that earnings management was higher (negatively correlated) in high uncertainty avoidance (with investor protection) (Nabar & Boonlert-U-Thai, 2007). Callen, Morel and Richardson (2011) found out that religion was not affiliated with earnings management while individualism (uncertainty avoidance) is negatively (positively) correlated with earnings management. In banking industries, Kanagaretnam, Lim and Lobo (2011) discovered that high individualism, high masculinity, and low uncertainty avoidance conducted meeting/beating earning targets. These studies, together with their empirical evidence, concluded similarly towards the importance of culture, law enforcement, and other social cunstruct differences when explaining earnings management (Desender, Castro & De León, 2011; Doupnik, 2008) and agency costs across countries.

Previous literatures have produced mixed results on whether earnings management is opportunistic or beneficial. On one hand, earnings management has been negatively correlated with agency cost (Subramanyam, 1996; Arya et al., 2003; Jiraporn et al., 2008). These previous studies suggested that firms with low agency conflict tended to allow discretionary accounting conduct by managers to meet interests of various parties. On the other hand, empirical studies have found that discretionary accruals are positively correlated with agency cost (Teoh et al., 1998; Ragan, 1998). It was argued that managing earnings was an opportunistic behaviour because managers chose accounting report mechanisms that only favoured their own interests. Also, earnings management was related to low credibility of financial statements, high cost of external funding, and higher litigation risk. Therefore, this study testified the correlation between high agency cost and earnings management using alternative hypothesis that there was a positive correlation between high agency cost countries and earnings quality if only the countries have developed ways of constraining earnings management behaviour. Results from univariate and regression analysis showed that firms in low agency cost countries have higher abnormal accruals compared to their counterparts in high agency cost countries. This result indicated that indeed there was a correlation between high agency cost countries and earnings quality, and it strongly supported hypothesis H1. This was different from findings of previous relevant literature (Han et al., 2010).

The result indicated that earnings management was beneficial rather than opportunistic. Arya et al. (2003) argued that earnings management involves decisions on dispersal of information. Managers have the expertise to communicate this information in a way that best serves shareholders, and less intervention by shareholders can free managers up to perform maximum effort. For example, such flexibility enables managers to implement "big bath" by reducing earnings in earlier periods to gain profitability for years to come, thereby enabling owners to reap benefits over a longer period of time. However, this cannot happen if principals restrict this kind of manipulation. In stricter firms, recognising loss in earlier years can make agents appear incompetent in managing firms, and this can cause them to lose potential bonuses or even their job. Arya et al. (2003, pp. 115) argued that "no information is preferred over some information", and allowing the offer of discretionary conduct the means of avoiding real manipulations. Dutta and Gigler (2002) and Jiraporn et al. (2008) backed the idea of principal support. Overall, benefits of earnings management are identifiable for both agents and principals, especially for firms with equity-incentive management (Bergstresser & Philippon, 2006; Cheng & Warfield, 2005).

Another possible explanation of this finding is that earnings management behaviour by firms in high agency cost countries is effectively reduced by systematic internal and external corporate governance mechanisms. Once they are aware that high agency cost is embedded, stakeholders develop strategies for addressing this problem such as increasing effectiveness of mandatory reporting, audit quality, and activist or institutional ownership. Fan and Wong (2005) conducted research on the role of external auditor in inhibiting agency problems in East Asian countries. They found that firms with higher agency costs deriving from control in concentrated ownership were more likely to hire Big 5 auditors, and these Big 5 auditors charged premium fees (higher fee). They also reported

that big auditors also take more consideration for audit opinion for companies with agency problems driven by the concentration of ownership. Therefore, auditors have an important role to play in mitigating such agency problems that could lead to higher earnings quality. However, Chi et al. (2011) discovered that even high-quality audit only shifted the management method to manipulate from abnormal accruals to real earnings management. Real earnings management is perceived to be more law obedient than accruals, since more regulatory bodies focused only to prevent accrual earnings management (Cohen et al., 2008).

6. Conclusion

This study discovered that agency cost level driven by cultural values and corruption level could determine earnings quality in SEA countries and proved that earnings management in SEA region was rather beneficial than detrimental. Moreover, larger firms conducted more earnings management than smaller firms. This research employed a proxy of cultures and corruption to determine the level of agency cost countries and provided evidences that agency cost level affected earnings quality in countries of SEA region; therefore, supporting the idea that typical agency cost, corporate governance, and social construct differences are crucial when discussing across-country study of earnings quality.

6.1. Implications

First, this study has implications for standard setters and regulatory bodies. We find sufficient evidence that low agency cost country is correlated with earnings management, either by aggressive or conservative means. Therefore, governments in Indonesia, Singapore and Malaysia need to place more emphasis on regulation to make firms more truthfully informative when dealing with accounting reports. The way to address this issue is either for government to regulate for compliance (enforcement) on accounting standards to produce reliable accounting information or to conduct campaigns promoting the benefits of good practice of free manipulation.

Second, the wider society needs to exert more monitoring influence from outside on firms in countries with low agency cost levels. Global society is put at higher risk when companies in any country report manipulative numbers. When companies are found to engage in such discretionary behaviour, future performance is perceived as invalid, and stakeholders such as prospective investors and government bodies will react unfavourably (e.g. withdraw investment). Therefore, consequences such as lowering salaries and unemployment are inevitable. Strategies that can be adopted in this situation are monitoring by non-governmental organisations or media and involvement in activist investment.

Third, the study has implications for investors or prospective investors. Based on the evidence of this study, investors or prospective investors may base their decisions on earnings accounts of firms. Decisions to invest in firms operating in low agency cost countries need to be made using more precautions or scepticism compared to decisions made in high agency cost countries, where firms might already be aware that accounting manipulation should be avoided in order to access external funds efficiently.

6.2. Limitations and suggestions for further research

Several limitations that could affect results in this study had been addressed accordingly. For example, statistical problems of homogeneity problem in generating abnormal accruals was dealt by using FEM regression method, or the depiction of untruthful result of variable coefficient was dealt by using appropriate control variables or avoiding multicollinearity problems by controlling year effect and standard error inconsistency by clustered standard error. And also, this research generated robust results to other models of generating abnormal accruals. However, other limitations are also identified in this study that can be addressed in further research. First, low coefficients for variables and overall regression model were observed, therefore limitation regarding to the model needs to be developed. Second, it seems that further studies should employ other models or even develop new models for particular countries or industries. Third, data availability is a limitation in particular South East Asian Countries such as Vietnam. Fourth, limitations in sample size and period are also acknowledged. The sample used in this study comprises the 30 biggest market capitalisations in six SEA countries over four years. Fifth, further research could develop other proxies of earnings quality from earnings properties such as earnings persistence, asymmetric timeliness and beating targets or from investor responsiveness and other external indicators of earnings quality. Sixth, there may be other intermediating variables that are affected by cultural

values such as investor protection, mandatory disclosure, accounting standards applied, independent auditor quality, institutional ownership and other corporate governance mechanisms and structures.

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