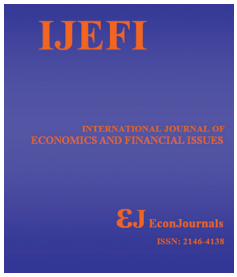

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Audit Quality, Firm Characteristics and Real Earnings Management: The Case of Listed Vietnamese Firms

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ABSTRACT

This study examines the effect of audit quality and firm characteristics on real earnings management of listed companies in Vietnam. Using the measurement of real earnings management of Roychowdhury (2006), we find that firm size has a negative effect on real earnings management while profitability and firm age have positive effects. Notably, there is no difference between big 4 and non-big 4 in diminishing real earnings management in Vietnam. Our results are based on a large sample of 1687 firm-year observations on listed companies in Vietnam. We used GMM estimator to test our hypotheses. Our findings make a significant contribution to the literature on the effects of audit quality and firm characteristics on real earnings management, especially in emerging markets.

Keywords: Real Earnings Management, Emerging Markets, Audit Quality, Firm Characteristics
JEL Classifications: G14, M41, M42

1. INTRODUCTION

Earnings management is considered as an underlying reason for a wide range of pervasive financial scandals, raising a big concern on the quality of financial information (El Diri, 2017). Generally, earnings management may be undertaken through two primary methods including accrual-based earnings management and real earnings management. Accrual-based earnings management involves selecting specific accounting choice for certain transactions to manipulate reported earnings (El Diri, 2017). Therefore, manipulations through accruals do not influence the economic transactions and the company's cash flows. Meanwhile, managers engage in real earnings management by taking "actions that deviate from normal business practices," including relaxed sales credit policies, decreased discretional expenses or overproduction to achieve earnings targets (Roychowdhury, 2006). Comparing these two forms of earnings management, real earnings management is more difficult to be discovered due to its nature which can be concealed in normal business activities (Anagnostopoulou and Tsekrekos, 2016). However, real earnings management is more dangerous to companies as it affects directly on business decisions and cash flows. Prior research has shown that real earnings management negatively affects future operating performance and firm value (Cohen et al., 2008; Graham et al., 2005).

From agency theory's perspective, audit quality is considered as an effective monitoring mechanism, which serves in detecting manager's manipulation and aligning shareholders' and managers' interest (Alzoubi, 2017). However, the effects of audit quality on the level of earnings management is still an open question due to arguable results from prior research. Similarly, firm characteristics are widely considered as important determinants of earning management, with, however, different results being provided.

By examining 241 listed companies on Vietnam stock markets (HNX and HOSE) in the period from 2010 to 2016, our study's main aim is to investigate the effects of audit quality and firm's specific factors relating to size, age, leverage, profitability on the level of real earnings management. Our research is motived by the following reasons. Firstly, while the prior research has extensively focused on accrual-based earnings management, real

earnings management has been paid attention since the research of Graham et al. (2005) and Roychowdhury (2006) (El Diri, 2017). Our research contributes to the current literature by focusing on investigating real earnings management. Secondly, due to debatable results of current literature, our study would clarify the relationship between audit quality and firm characteristic on the level of real earnings management. Last but certainly not least, in the attempt to enhance accounting harmonization, the understanding of different country context should be accounted for in all investigated issues (Alzoubi, 2017). With the first exchange establishing in 2000, the stock market in Vietnam is still in its infancy. Consequently, the issues of information asymmetries and market transparency are considerable challenges to financial reporting quality. Additionally, since the reformations in 1986, the Vietnam economy is still partially opened, with more Government's efforts on improving business environment (Vo, 2017). Considering these specific contexts, the results on earnings management in Vietnam are expected to be far more different from a developed market. Nonetheless, while the literature on earnings management is vibrant in others countries, research on this topic in Vietnam is still limited. Therefore, our study contributes to the current literature by providing evidence on the effects of audit quality and firm characteristic on real earnings management, specifically, in an emerging market as Vietnam.

We organized our paper as follows. The next section reviews the related literature and establishes hypothesis; section 3 and 4 shows the research methodology, model and data. Our findings are presented in section 5, with the conclusion, limitations and a few recommendations being provided in section 6.

2. LITERATURE REVIEW

This section is to summarise the prior literature regarding the effects of audit quality and firm characteristics on real earnings management.

2.1. Audit Quality and Real Earnings Management

External audit plays a critical role in diminishing information asymmetry among managers and companies' stakeholders which is often the cause of many agency problems. By verifying the reliability and fairness of financial statements, audit enhances the quality of financial information and mitigates earnings management. A large amount of prior research has shown a positive association between audit quality and earning managements (Alzoubi, 2017; Becker et al., 1998; Ghosh and Moon, 2005; Gul et al., 2009; Krishnan, 2003; Rusmin, 2010).

The difference in audit quality of Big N and non-Big N firms has been reported. Firstly, due to their worldwide client base, big audit firms have greater motivation to maintain audit quality and avoid reputational risks (Behn et al., 1997; Krishnan, 2003). Big N firms are also more conservative in mitigating earnings management. Research of Kim and Park (2013) showed that when higher levels of real earnings management is noticed, audit firms are less likely to retain this client. Additionally, Big N audit firms are expected to have more resources relating to a number of staff, auditors' expertise, budget, and technology, allowing them to perform more extensive procedures to detect earnings management (Alzoubi, 2017; Becker et al., 1998; Rusmin, 2010). Prior research showed that the lower level of earnings management is reported in clients of Big N auditors (Alzoubi, 2017; Becker et al., 1998; Francis and Wang, 2008) while non-big N audit firms allow greater earnings management (Singh et al., 2001).

On the other hand, a large amount of research also reported no or positive relationship between audit quality and earnings management. Piot and Janin (2007) showed that there is no difference between Big N or non-big N auditors regarding earning managements activities. By point out the passitivity and low effectiveness of stock market authorities in France, Piot and Janin (2007) claimed that the litigation risk of audit firms in France is not significant. Hence, there is no difference between Big N and non-Big N firms regarding mitigating earnings management. By examining UK IPOs between 1998-2008, Alhadab and Clacher (2017) found that the presence of Big N auditors cannot constrain all form of earnings management. While the lower level of discretionary expenses-based manipulations is reported, IPO firms audited by Big N firms still involve to a higher level of sales-based manipulation. Alves (2013) also mentioned that Big N audit firms is positively related to earnings management. Especially, from research of Chi et al., (2011), higher audit quality (proxy as Big N audit firms) is indicated to be associated with more real earnings management due to constrain accrual-based earnings management.

In this research, we develop hypothesis relating to the impact of audit quality on the level of real earnings management as follows:

H_1: Audit quality has a negative effect on real earnings management.

2.2. Firm Size, Firm Age and Real Earnings Management

The relationship between firm size and real earnings management is still debatable. Firstly, the large economy of scale and scope may offer the company extensive benefits, lessening the pressure to dress up the firm's financial performance (Zamri et al., 2013). Moreover, research of Kim et al. (2003) showed that internal control systems in large-sized firms are likely to be more effectively designed and implemented comparing to small-sized, which mitigates earnings management behaviours. Large firms also exposure to higher pressure and scrutiny of the market, leading to reputation cost in engaging in manipulation activities (Gul et al., 2009; Kim et al., 2003). Additionally, large firms are usually audited by high quality audit firms which have more competence auditors to prevent and detect earnings manipulations (Kim et al., 2003).

On the other hand, prior research also indicated a positive association between firm size and earnings management**.** Firstly, managers in large firms exposure to higher pressure to meet and beat analyst's expectation (Barton and Simko, 2002) and face higher political costs (Watts and Zimmerman, 1986). This can motivate more window-dressing tactics to achieve expected performance or reduce the potential political risks. Large-sized firms also have more opportunities to involve in earnings

management. Research of Jensen and Meckling (1976) mentioned that agency cost increases when the firm size increases, with managers' discretion being greater. The operation of large firms is tend to more complex comparing to small firms. Therefore, it is difficult for investors and outside parties to access the nature of these such complex activities, allowing more rooms for managers to do earnings management (Kim et al., 2003). Additionally, larger firms also have more bargaining power to auditors, then tend to successfully waive earnings management in financial reports (Nelson et al., 2002).

Previous research also found that both small and large firms manage earnings to avoid losses or improve profits (Burgstahler and Dichev, 1997; Kim et al., 2003). However, Kim et al. (2003) stated that small firms engaging more in EM to avoid losses while large firms engaging more in EM to avoid earnings deterioration.

Our expectation is that large firm is more effectively in diminishing real earnings management than small firms. The hypothesis is established as follows:

H_2: Firm size has a negative effect on real earnings management.

Similarly, firms with long history are also expected to be more experience corporate governance and exposure to more reputational risks. Therefore, they would be more conservative to engage in earnings management to defend their reputation. Research of Gul et al. (2009) showed a negative relationship between firm age and earnings management. As a results, we construct the following hypothesis:

H_3: Firm age has a negative effect on real earnings management.

2.3. Firm Leverage and Real Earnings Management

Theory and empirical evidence have indicated different results on the relationship between leverage and real earning management.

From capital provider's perspective, financial reporting quality is critical in evaluating investment decisions and monitoring the use of their capital (Anagnostopoulou and Tsekrekos, 2016). Especially, due to diluted power, resulting high control costs and no welfare, individual investors have little motivation in controlling manager's activities. Meanwhile, private debt-holders have motivation and opportunities to monitor borrower companies through the debt contracts and require of higher information quality (Alzoubi, 2017). This is also coincide with control hypothesis of Jensen and Meckling (1976) which mentioned that the nature of debt covenants can be served in controlling manager's discretion in free cash flows. There is extensive research showed that companies with high (or increasing) debt level exposure to higher scrutiny and monitoring from creditors and bankers, which diminishes manager's opportunities to engage in earnings management activities (Ahn and Choi, 2009; Rodríguez-Pérez and van Hemmen, 2010; Zhong et al., 2007).

However, the presence of debts can lead to manager's incentives in financial manipulation in order to enhance creditors' perceptions. Firstly, debt covenants are tend to be more binding when the companies incur losses (Roychowdhury, 2006), resulting higher cost (Watts and Zimmerman, 1986). Hence, extremely leverage companies have tendency to engage in income-increasing earnings management to avoid debt covenant violation (De Fond and Jiambalvo, 1994; Dichev and Skinner, 2002; B. Kim et al., 2011; Sweeney, 1994). Secondly, upward EM is also used in high-debt companies to achieve more favourable terms in funding contracts, improve bargaining power in finance cost negotiation as well as maintain good relationship with lenders for future loans contracts (Anagnostopoulou and Tsekrekos, 2016).

Concerning underinvestment problem, Myers (1977) suggested that a firm with risky debts would forgo valuable investment opportunities because investors have no motivation to invest when the main portion of benefits go to creditors. Empirical research of Cai and Zhang (2011) also confirmed this argument by showing firms with increasing debt ratios tend to receive less future investments. Similarly, substantial empirical evidence also coincided that leverage ratios have negative effects on stock market price (Bradshaw et al., 2006; Cohen and Lys, 2006; Penman et al., 2007), especially in the context of high leverage, high likelihood of default or financial constrains is reported (Cai and Zhang, 2011). These effects would not only reduce the firms growing opportunities but also made managers concern about their job security and reimbursement. To diminish unfavourable effects of leverage ratios, in high-debt firms, managers tend to engage in earnings management to improve the financial perspective and satisfy equity investors (Graham et al., 2005). By contrast, in low debt companies, the problem of underinvestment is seem to less severe. In addition to the higher scrutiny of creditors, managers have less incentive to involve in earning managements (Alzoubi, 2017).

In the presence of high or increasing level of debt, firms tend to replace real activities earning management to accrual-based earnings management because of higher scrutiny from outsider (Cohen et al., 2008). Moreover, real earnings management is also more preferable because it is difficult to distinguish these activities to normal daily business transactions, then the likelihood to be discovered is lower (Anagnostopoulou and Tsekrekos, 2016; Roychowdhury, 2006).

We develop the hypothesis relating to the effects of leverage on real earnings management as follows:

H_4: Firm leverage has a positive effect on real earnings management.

2.4. Profitability and Real Earnings Management

Profitability is an important KPI to inform to the firms stockholders. There are great motivations for managers to meet or beat given benchmarks relating to zero earnings, last year's earnings or analyst's forecast (El Diri, 2017; Xue, 2003). Generally, managers' efforts are tend to avoid reporting losses (Hayn, 1995). Research of Burgstahler and Dichev (1997) also estimated that 30-40% of examined firms with small losses managed to achieve positive earnings. Furthermore, for profitable companies, a consistently increasing earnings pattern also creates premium in PE ratios, while unfavourable abnormal

stock returns is reported in the year the earnings decrease or the increasing pattern is broken (Barth et al., 1995; DeAngelo et al., 1996). Consequently, company is motived to lengthen the string of profits increasing (Burgstahler and Dichev, 1997; DeAngelo et al., 1996; Roychowdhury, 2006), with 8-12% of small-earnings-decreased firms managing to report earnings increases (Burgstahler and Dichev, 1997). Additionally, analysts' forecast is also reflect the market's perception and expectation, which triggers the attempts to meet these forecast (Graham et al., 2005).

In the case of equity issuance (initial public offering or seasoned equity offering), profitability is also a point of focus. Investors may consider the company's earnings before buying stocks or use it to evaluate company's subsequence performance (Ronen et al., 2006). Therefore, the firms have great motivations to inform better picture of company's performance and improve the firms' valuation (Fan, 2007). Research of Yang et al. (2016) also showed that companies with financial distress risk tend to aggressively overstate earnings around SEOs.

In this study, we establish the hypothesis of the relationship between profitability and real earnings management as follows:

H_5: Profitability has a positive effect on real earnings management.

3. MODEL AND VARIABLES

In this section, we start by measuring the level of real earnings management, then estimating the regression model of determinants of real earnings management from the explanatory factors identified in current literature. The relationship between real earnings management and determinate variables is also discussed from various theoretical perspective.

3.1. Model

This section focuses on developing the regression model that examines determinants of real earning management in Vietnam. We use Arellano and Bond (1991) linear dynamic GMM to account for the omitted variable problem, country-specific heterogeneity, and endogeneity issue.

The regression model can be formulated as follows:

$$REM_{i,t} = \mu REM(-1)_{i,t} + \delta_1 SIZE_{i,t} + \delta_2 ROA_{i,t} + \delta_3 LEV_{i,t} + \delta_4 AGE_{i,t} + \delta_5 AUD_{i,t} + \varepsilon_{i,t}$$

Where $REM_{i,t}$ is the level of real earnings management, ROA as a proxy for profitability, SIZE is a proxy for firm size, LEV is a measure of leverage level, AGE is the proxy for firm age, AUD is a proxy for Audit quality, $\varepsilon_{i,t}$: Error term.

3.2. Measurement of Real Earnings Management

In this section, three methods to measure the level of real earnings management from the research of Roychowdhury (2006) are employed, including the abnormal levels of cash flows from operations (*REM_CFO*); production costs (*REM_PROD*) and discretionary expenses (*REM_DISX*) (Cohen and Zarowin, 2010; Roychowdhury, 2006).

We run the following cross-sectional regression in order to calculate the normal level of cash flows from operations:

$$\frac{CFO_{i,t}}{A_{i,t-1}} = \beta_1 \frac{1}{A_{i,t-1}} + \beta_2 \frac{SALES_{i,t}}{A_{i,t-1}} + \beta_3 \frac{\Delta SALES_{i,t}}{A_{i,t-1}} + \varepsilon_{i,t} \quad (1)$$

Where: $CFO_{i,t}$: Cash flows from operations of firm i in period t; $A_{i,t-1}$: Total assets of firm i in year t−1; $Sales_{i,t}$: Sales of firm i in year t; $\Delta Sales_{i,t}$: Sales of firm i in year t less sales of firm i in year t−1; $\varepsilon_{i,t}$: A residual term that captures the level of abnormal cash flows (*REM_CFO*) of firm i in year t; $\beta_1, \beta_2, \beta_3$ are firm specific parameters.

We apply the model of Roychowdhury (2006) to compute the normal level of discretionary expenses as follows:

$$\frac{DISCEXP_{i,t}}{A_{i,t-1}} = \beta_1 \frac{1}{A_{i,t-1}} + \beta_2 \frac{SALES_{i,t-1}}{A_{i,t-1}} + \varepsilon_{i,t} \quad (2)$$

Where: $DISEXP_{i,t}$: The sum of selling and marketing expenses and general and administrative expenses of firm i in year t; $A_{i,t-1}$: Total assets of firm i in year t-1; $Sales_{i,t-1}$: Sales of firm i in year t_1; $\varepsilon_{i,t}$: A residual term that captures the level of abnormal discretionary expenses (*REM_DISX*) of firm i in year t; β_1, β_2 are firm specific parameters.

Real earnings management is also conducted through overproduction to utilize lower fixed cost per unit. We estimate abnormal production costs through the model of Roychowdhury (2006):

$$\frac{PROD_{i,t}}{A_{i,t-1}} = \beta_1 \frac{1}{A_{i,t-1}} + \beta_2 \frac{SALES_{i,t}}{A_{i,t-1}} + \beta_3 \frac{\Delta SALES_{i,t}}{A_{i,t-1}} + \beta_4 \frac{\Delta SALES_{i,t-1}}{A_{i,t-1}} + \varepsilon_{i,t} \quad (3)$$

Where: $PROD_{i,t}$: The sum of cost of goods sold and change in inventory of firm i in year t; $A_{i,t-1}$: Total assets of firm i in year t−1; $Sales_{i,t}$: Sales of firm i in year t; $\Delta Sales_{i,t}$: Sales of firm i in year t less sales of firm i in year t−1; $\Delta Sales_{i,t-1}$: Sales of firm i in year t−1 less sales of firm i in year t−2; $\varepsilon_{i,t}$: A residual term that captures the level of abnormal production costs (*REM_PROD*) of firm i in year t; $\beta_1, \beta_2, \beta_3, \beta_4$ are firm specific parameters.

Following Cohen and Zarowin (2010), we use two aggregate measures of real earnings management, REM1 and REM2 to quantify the level of real earnings management of a particular firms in a fiscal year.

$$REM1 = REM\_DISX + REM\_PROD$$

$$REM2 = REM\_CFO + REM\_DISX$$

3.3. Independent Variable

ROA is defined by net income divided lagged total assets at year-end. We use ROA as a proxy for profitability, following prior research (Alhadab and Clacher, 2017; Anagnostopoulou and Tsekrekos, 2016; Chi et al., 2011; Cohen et al., 2008).

SIZE is a proxy for firm size. In this study, it is calculated by the natural logarithm of the book value of total assets at year-end (Baatour et al., 2017; Luo et al., 2017; Pacheco Paredes and Wheatley, 2017; Yasuda, 2005); *LEV* is a measure of leverage level, which is calculated by the ratio of the total short- and long-term debt to total assets at year-end (Baatour et al., 2017; Pacheco Paredes and Wheatley, 2017); *AGE* is the proxy for firm age, measuring by the difference between the year under investigation and the firm's year of birth (Alhadab and Clacher, 2017; Gul et al., 2009; Yasuda, 2005); *AUD* is a proxy for audit quality. In this study, we use a dummy variable equal to 1 if the company is audited by a Big 4 audit firm, and 0 otherwise. This is consistent to prior research (Alhadab and Clacher, 2017; Chi et al., 2011; Karjalainen, 2011; Pittman and Fortin, 2004).

4. DATA

Our data set includes 241 companies on Vietnam stock markets (HNX and HOSE) in the period from 2010 to 2016, with a total of 1687 firm-year observations being collected. We do not choose banks, security companies, insurance companies and financial companies in our data sample due to their specific business characteristics which is different from the rest samples.

We use secondary data from financial statements, retrieved from Thomson Reuters EIKON to measure the dependent and independent variables.

Descriptive statistics of variables is provided at Table 1.

5. RESULTS AND DISCUSSION

Table 2 exhibits correlation matrix among variables utilized in the paper. None of the correlations among variables, which are proxy distinctive constructs, are extremely correlated (>0.90) to appoint a problem with multicollinearity (Gujarati and Porter, 2003). Real earnings management is negatively correlated with audit quality, firm leverage, firm size and positively correlated with profitability.

$$REM_{i,t} = \mu REM(-1)_{i,t} + \delta_1 SIZE_{i,t} + \delta_2 ROA_{i,t} + \delta_3 LEV_{i,t} + \delta_4 AGE_{i,t} + \delta_5 AUD_{i,t} + \varepsilon_{i,t}$$

Where: REM is the real earnings management indicator. SIZE is firm size, measured by the natural log of assets. ROA is the ratio of net income after taxes to total assets. LEV is firm leverage, measured as ratio of total debt over total assets. AGE is firm age, calculated by the number of years since the firm's established in the market. AUD is audit quality that is 1 if auditor is a Big 4 audit fiUD and 0 otherwise. *, **, *** denotes the level of significance of 10%; 5% and 1% respectively.

The results showed that audit quality (proxied as Big 4 or non-Big 4) has no statistic meaning, which cannot support H_1. This is contrast to a huge amount of current research indicating that the lower level of earnings management is observed in Big N's clients. However, this supports the prior study of Piot and Janin (2007) in which no difference between big N and non-big N in mitigating real earnings management was observed. The explanation for Vietnam market is relatively similar to Piot and Janin (2007). Despite of the rapid development, the stock market in Vietnam is still in its infancy (Vo, 2017). Therefore, the effectiveness of investor's rights protection mechanisms are still limited, which provides no pressure of higher risk firms to appoint Big 4 auditor for external audit engagement. Additionally, in that such market conditions, the litigation risk of auditor is considered lower. Thus, the differentiation of Big 4 comparing to non-big 4 may not affect the level of real earnings management in emerging market (Table 3).

The coefficients of firm size are negative and significant in both regression using REM1 and REM2. This suggests that larger firms in Vietnam are less likely to engage in real earning management through manipulations in sales, discretionary expenses and productions cost than smaller firms. Therefore, this confirms H_2.

Interestingly, the relationship between firm age and real earnings management is significantly positive in both regressions, which cannot support H_3. From this results, firms which long history tend to engage in real earnings management than young entrepreneurs. The explanation is that due to higher pressure and scrutiny from the market, these such firms may have less opportunities to perform manipulations through accrual discretions. As a results, managers have tendency to engage in real earnings management, which can be concealed as normal business transactions and more difficult to be discovered (Roychowdhury, 2006).

Firm leverage also has slightly positive effects on proxy of real earnings management (*REM2*). This suggests that in the presence of debt, companies are more likely to employ temporary sales discount, relaxed credit policies or the reduction of discretionary expenditures to achieve more favourable contract terms and avoid contract violation. This supports the prior research of Anagnostopoulou and Tsekrekos (2016) and confirm H_4.

Table 1: Descriptive of variables

Variable	REM1	REM2	SIZE	ROA	LEV	AGE
Mean±SD	1.0941±1.1473	1.2308±2.8247	27.3787±1.5534	0.0602±0.0663	0.5428±0.2055	16.7635±8.3167
Min	(6.4252)	(60.1034)	23.5801	(0.6455)	0.0320	1
Max	10.3849	17.2106	32.8265	0.7837	0.9481	59
Observations	1,687	1,687	1,687	1,687	1,687	1,687
Frequency	0	1				
AUD	71.55	28.45				

The table reports summary statistics of variables over the period from 2010 to 2016 for Vietnamese listed firms. REM is the real earnings management indicator. SIZE is firm size, that is, natural log of assets. ROA is the ratio of net income after taxes to total assets. LEV is firm leverage, measured as ratio of total debt over total assets. AGE is firm age, that is the number of years since the firm's established in the market. AUD is audit quality, that is 1 if auditor is a Big 4 audit firm, and 0 otherwise

Table 2: Pearson correlation coefficient matrix

	REM1	REM2	AUD	SIZE	AGE	LEV	ROA
REM1	1						
REM2	0.367	1					
AUD	−0.141	−0.165	1				
SIZE	−0.387	−0.570	0.478	1			
AGE	0.050	−0.028	0.005	−0.009	1		
LEV	−0.060	−0.234	0.064	0.290	0.097	1	
ROA	0.100	0.060	0.035	−0.031	−0.043	−0.503	1

The table reports correlation matrix over the period from 2010 to 2016 for Vietnamese listed firms. REM is the real earnings management indicator. SIZE is firm size, measured by the natural log of assets. ROA is the ratio of net income after taxes to total assets. LEV is firm leverage, measured as ratio of total debt over total assets. AGE is firm age, calculated by the number of years since the firm's established in the market. AUD is audit quality that is 1 if auditor is a Big 4 audit firm, and 0 otherwise

Table 3: Dynamic GMM- regression results

Variables	REM1		REM2	
	Coef.	P>t	Coef.	P>t
Lag of Dep. Var	−0.4165**	0.023	−0.1645	0.698
AUD	−0.2559	0.511	0.1142	0.830
SIZE	−1.6355***	0.000	−3.3106***	0.000
AGE	0.1360***	0.000	0.2310***	0.000
LEV	−2.9457	0.232	6.6841*	0.075
ROA	5.1703***	0.007	10.0456***	0.002
J- statistic	21.33		14.99	
Prob J- statistic	0.212		0.1	

The table reports parameter estimates of the model

Profitability has significantly positive effects on real earnings management in both models with 99% confidence. This supports the argument that managers have motivations to engage in operational discretion to dress up the firm performance and lengthen the increasing series of earnings (Burgstahler and Dichev, 1997; DeAngelo et al., 1996; Roychowdhury, 2006) or meet analyst forecast (Graham et al., 2005). The results has confirmed our hypothesis of H_5.

6. CONCLUSION

The main objective of this research is to analyse the effects of audit quality and firm characteristics to real earnings management. To achieve this, we have measured the level of real earnings management and employed GMM model to quantify the effects of explanatory factors to real earnings management. Our study extends the current literature in earnings management by focusing on real earnings management and examining this in the context of an emerging market as Vietnam. Our contributions are meaningful in varied aspects. Firstly, contrary to a large amount of prior research in developed markets, we found that there is no difference between Big N and non-big N in mitigating or eliminating real earnings management. The implications to the policies makers is to enhance the effectiveness of investors' rights protection mechanisms and allow more monitoring modes from investors. Higher probability of litigation risk would motive the auditor's efforts towards earnings management. Secondly, our research shows the evidence of managers' motivations to engage in operational discretions to achieve earnings benchmarks as well as the adverse effects of firm size and leverage on real earnings management. This supports the prior study' findings which conducted in mostly developed countries, and extends these meanings to an emerging market as Vietnam. Thirdly, the research also identifies the adverse relationship between firm age and real earnings management. This is would be a warning for investors in examining long established companies. Limitations of our research are that we employ measurement metrics in the research of Roychowdhury (2006), which focuses on upward real earnings management. Therefore, we do not cover downward real earnings management and accrual-based earnings management. The future research can examine the effects of audit quality and firm characteristics on downward real earnings management and the switching between real earnings management and accrual-based earnings management in certain contexts.

REFERENCES

Ahn, S., Choi, W. (2009), The role of bank monitoring in corporate governance: Evidence from borrowers' earnings management behavior. Journal of Banking and Finance, 33(2), 425-434.

Alhadab, M., Clacher, I. (2017), The Impact of Audit Quality on Real and Accrual Earnings Management Around IPOs. The British Accounting Review.

Alves, S. (2013), The impact of audit committee existence and external audit on earnings management: Evidence from Portugal. Journal of Financial Reporting and Accounting, 11(2), 143-165.

Alzoubi, E.S.S. (2017), Audit quality, debt financing, and earnings management: Evidence from Jordan. Journal of International Accounting, Auditing and Taxation, 11(1), 51-76.

Anagnostopoulou, S.C., Tsekrekos, A.E. (2016), The effect of financial leverage on real and accrual-based earnings management. Accounting and Business Research, 47(2), 191-236.

Arellano, M., Bond, S. (1991), Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. The Review of Economic Studies, 58(2), 277-297.

Baatour, K., Ben Othman, H., Hussainey, K. (2017), The effect of multiple directorships on real and accrual-based earnings management: Evidence from Saudi listed firms. Accounting Research Journal, 30(4), 395-412.

Barth, M., Elliott, J., Finn, M. (1995), Market rewards associated with increasing earnings patterns. Journal of Accounting Research, 37, 387-413.

Barton, J., Simko, P.J. (2002), The balance sheet as an earnings management constraint. The Accounting Review, 77(S-1), 1-27.

Becker, C.L., De Fond, M.L., Jiambalvo, J., Subramanyam, K. (1998), The effect of audit quality on earnings management. Contemporary Accounting Research, 15(1), 1-24.

Behn, B.K., Carcello, J.V., Hermanson, D.R., Hermanson, R.H. (1997), The determinants of audit client satisfaction among clients of big 6 firms. Accounting Horizons, 11(1), 7-11.

Bradshaw, M.T., Richardson, S.A., Sloan, R.G. (2006), The relation between corporate financing activities, analysts' forecasts and stock returns. Journal of Accounting and Economics, 42(1-2), 53-85.

Burgstahler, D., Dichev, I. (1997), Earnings management to avoid earnings decreases and losses. Journal of Accounting and Economics, 24(1), 99-126.

Cai, J., Zhang, Z. (2011), Leverage change, debt overhang, and stock prices. Journal of Corporate Finance, 17(3), 391-402.

Chi, W., Lisic, L.L., Pevzner, M. (2011), Is enhanced audit quality associated with greater real earnings management? Accounting Horizons, 25(2), 315-335.

Cohen, D.A., Dey, A., Lys, T.Z. (2008), Real and accrual-based earnings management in the pre-and post-Sarbanes-Oxley periods. The

Accounting Review, 83(3), 757-787.
Cohen, D.A., Lys, T.Z. (2006), Weighing the evidence on the relation between external corporate financing activities, accruals and stock returns. Journal of Accounting and Economics, 42(1-2), 87-105.
Cohen, D.A., Zarowin, P. (2010), Accrual-based and real earnings management activities around seasoned equity offerings. Journal of Accounting and Economics, 50(1), 2-19.
De Fond, M.L., Jiambalvo, J. (1994), Debt covenant violation and manipulation of accruals. Journal of Accounting and Economics, 17(1-2), 145-176.
DeAngelo, H., DeAngelo, L., Skinner, D.J. (1996), Reversal of fortune dividend signaling and the disappearance of sustained earnings growth. Journal of Financial Economics, 40(3), 341-371.
Dichev, I.D., Skinner, D.J. (2002), Large-sample evidence on the debt covenant hypothesis. Journal of Accounting Research, 40(4), 1091-1123.
El Diri, M. (2017), Introduction to Earnings Management. Switzerland: Springer.
Fan, Q. (2007), Earnings management and ownership retention for initial public offering firms: Theory and evidence. The Accounting Review, 82(1), 27-64.
Francis, J.R., Wang, D. (2008), The joint effect of investor protection and Big 4 audits on earnings quality around the world. Contemporary Accounting Research, 25(1), 157-191.
Ghosh, A., Moon, D. (2005), Auditor tenure and perceptions of audit quality. The Accounting Review, 80(2), 585-612.
Graham, J.R., Harvey, C.R., Rajgopal, S. (2005), The economic implications of corporate financial reporting. Journal of Accounting and Economics, 40(1-3), 3-73.
Gujarati, D., Porter, D. (2003), Multicollinearity: What happens if the regressors are correlated. Basic Econometrics, 11, 363.
Gul, F.A., Fung, S.Y.K., Jaggi, B. (2009), Earnings quality: Some evidence on the role of auditor tenure and auditors' industry expertise. Journal of Accounting and Economics, 47(3), 265-287.
Hayn, C. (1995), The information content of losses. Journal of accounting and economics, 20(2), 125-153.
Jensen, M.C., Meckling, W.H. (1976), Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of Financial Economics, 3(4), 305-360.
Karjalainen, J. (2011), Audit quality and cost of debt capital for private firms: Evidence from Finland. International Journal of Auditing, 15(1), 88-108.
Kim, B., Lisic, L.L., Pevzner, M. (2011), Debt Covenant Slacks and Real Earnings Management. George Mason University.
Kim, Y., Liu, C., Rhee, S.G. (2003), The effect of firm size on earnings management. Journal College of Business Administration University of Hawai, 6, 1-30.
Kim, Y., Park, M.S. (2013), Real activities manipulation and auditors' client-retention decisions. The Accounting Review, 89(1), 367-401.
Krishnan, G.V. (2003), Does Big 6 auditor industry expertise constrain earnings management? Accounting Horizons, 17, 1.
Luo, J.H., Xiang, Y., Huang, Z. (2017), Female directors and real activities manipulation: Evidence from China. China Journal of Accounting Research, 10(2), 141-166.
Myers, S.C. (1977), Determinants of corporate borrowing. Journal of Financial Economics, 5(2), 147-175.
Nelson, M.W., Elliott, J.A., Tarpley, R.L. (2002), Evidence from auditors about managers' and auditors' earnings management decisions. The Accounting Review, 77(S-1), 175-202.
Pacheco Paredes, A.A., Wheatley, C. (2017), The influence of culture on real earnings management. International Journal of Emerging Markets, 12(1), 38-57.
Penman, S.H., Richardson, S.A., Tuna, I. (2007), The book-to-price effect in stock returns: Accounting for leverage. Journal of Accounting Research, 45(2), 427-467.
Piot, C., Janin, R. (2007), External auditors, audit committees and earnings management in France. European Accounting Review, 16(2), 429-454.
Pittman, J.A., Fortin, S. (2004), Auditor choice and the cost of debt capital for newly public firms. Journal of Accounting and Economics, 37(1), 113-136.
Rodríguez-Pérez, G., van Hemmen, S. (2010), Debt, diversification and earnings management. Journal of Accounting and Public Policy, 29(2), 138-159.
Ronen, J., Tzur, J., Yaari, V.L. (2006), The effect of directors' equity incentives on earnings management. Journal of Accounting and Public Policy, 25(4), 359-389.
Roychowdhury, S. (2006), Earnings management through real activities manipulation. Journal of Accounting and Economics, 42(3), 335-370.
Rusmin, R. (2010). Auditor quality and earnings management: Singaporean evidence. Managerial Auditing Journal, 25(7), 618-638.
Singh, A., Gore, J., Pope, P. (2001), Non-Audit Services, Auditor Independence and Earnings Management.
Sweeney, A.P. (1994), Debt-covenant violations and managers' accounting responses. Journal of Accounting and Economics, 17(3), 281-308.
Vo, X.V. (2017), Determinants of capital structure in emerging markets: Evidence from Vietnam. Research in International Business and Finance, 40, 105-113. DOI: 10.1016/j.ribaf.2016.12.001
Watts, R., Zimmerman, J. (1986), Positive Theory of Accounting. Englewood Cliffs, NY: Prentice-Hall.
Xue, Y. (2003), Information Content of Earnings Management: Evidence from Managing Earnings to Exceed Thresholds.
Yang, T.H., Hsu, J., Yang, W.B. (2016), Firm's motives behind SEOs, earnings management, and performance. International Review of Economics and Finance, 43, 160-169.
Yasuda, T. (2005), Firm growth, size, age and behavior in Japanese manufacturing. Small Business Economics, 24(1), 1-15.
Zamri, N., Rahman, R.A., Isa, N.S.M. (2013), The impact of leverage on real earnings management. Procedia Economics and Finance, 7, 86-95.
Zhong, K., Gribbin, D.W., Zheng, X. (2007), The effect of monitoring by outside blockholders on earnings management. Quarterly Journal of Business and Economics, 46, 37-60.