

Accrual - Based Earnings Management, Corporate Policies and Managerial Decisions of Quoted Companies in Nigeria

Augustine Oke Okolie, Ph. D, FCA
Department of Accounting, Faculty of Management Sciences
Ambrose Alli University, PMB 14, Ekpoma, Nigeria
E-mail: okolieaustin@yahoo.co.uk

Abstract

Managers use a variety of strategies to deliberately manipulate company earnings to match a predetermined target by performing certain activities that alter or smooth income, achieve high earnings level or sway company share prices. This study examines the relationship and effects of managerial decisions on earnings management of companies in Nigeria using directors' remunerations, dividend payments, changes in earnings, and changes in total net assets as surrogates for corporate managerial policies and decisions. The study relies on secondary data derived from various companies' financial statements and the Nigerian Stock Exchange fact book to determine and measure the level of earnings manipulations of corporate financial statements, applying an all-inclusive multivariate analysis. The empirical analysis shows that earnings management intensity, measured by the absolute values of discretionary accruals reflects mixed outcomes when regressed on change in profits, dividend policy, directors' remunerations and change in assets values. The finding suggests a need to further study board room dynamics as managerial decisions investigated in isolation may not provide a satisfactory clarification to the causal effects of earnings management. Perhaps, these accounts for the clear polarity in empirical conclusions since firm specific effects may well interface with managerial decisions structure.

Keywords: Corporate Earnings, Directors' remunerations, Discretionary accruals, dividend Payments, Earnings management, Net total assets,

1.0 Introduction

The quality and credibility of annual reports of companies across the world and Nigeria in particular, has become considerably questionable due to recent corporate accounting scandals (Badawi, 2008; Enofe, 2010). These recent corporate financial scandals pose a great challenge to the veracity, utility and value relevance of the financial reports and quality of earnings reported by firms. Badawi (2008) has reported a list of companies involved in cases of accounting scandals related to earnings manipulations and financial misstatements in the US in the past decade. In Nigeria, corporate scandals such as the cases of Cadbury Nigeria Plc and African Petroleum plc (Okolie & Agboma, 2008); Savannah Bank and African International Bank (Odia, 2007); Wema Bank, Nampak, Finbank and Spring Bank (Adeyemi & Fagbemi, 2010) and more recently Intercontinental Bank Plc; Bank PHB; Oceanic Bank Plc. and AfriBank Plc are known publicly reported cases that resulted in misleading financial reports. There is therefore a concern about the quality of accounting income and its relationship with the managerial policies and decision process, which has been observed to increase over time following the periodical clusters of business failures, frauds, and litigations. The issue is whether these corporate collapses are not the outcome of deliberate corporate strategies and conscious managerial decisions used to perpetrate Earnings Management.

Earnings Management through discretionary accruals manipulations is motivated by the need for accounting adjustments and allocations made at the end of a given year for a number of reasons. Usually, accounting for routine exchange transactions does not result in accounting records being properly stated on the accrual basis to make adjusting and allocation entries at the end of the accounting period. The required adjustments are necessitated by the need to ensure that the financial accounts disclose a true picture of the transactions and operations of the organization, as well as comply with GAAP. While the key concept is that GAAP based accounting is supposed to reflect, and not obscure true economic performance, GAAP may also be violated by actions that result or do not result in fraud. GAAP rules are often arbitrary, complicated, and occasionally misleading (Revsine, 2002). GAAP permits many accounting choices and requires a great deal of estimation through accruals, deferrals and allocations, thereby facilitating earnings management by companies which make innumerable operating and accounting choices and hence engage in some form of earnings management (Schipper & Vincent, 2003).

Corporate policies define the set of management decision taken at corporate level and provide a platform for organizational jurisprudence and rules of the workplace. On the other hand, Earnings Management is a strategy used by company managers to deliberately manipulate company earnings to match a predetermined target and involves the planning and execution of certain activities that manipulate or smooth income, achieve high



earnings level and sway the company's stock price (Schipper, 1989; Healy & Wahlen, 1999). Earnings management is primarily achieved by managed actions that make it easier to achieve desired earnings levels through accounting choices inherent in Generally Accepted Accounting Principles (GAAP). This is commonly occasioned by discretionary accruals manipulations that are likely to present some problems for a true and qualitative earnings report in emerging markets such as the Nigerian Stock Exchange (NSE), (Healy & Wahlen 1999). Knowing the significance of the impact of this primary indicator on stock prices, organizations have long been using various strategies and techniques, legal or illegal, to alter the earnings of a company in ways to attain certain outcomes or achieve specific objectives.

This study relies on secondary data derived from various companies' financial statements and the Nigerian Stock Exchange (NSE) fact book to determine and measure the level of earnings manipulations in corporate financial statements. The study examines whether some identified managerial decision categories (directors' remuneration, dividend payment, increases in earnings, and increases in total net assets) are associated with earnings management. Thus, as one of the first studies to integrate the four major research aspects that have been disparate and incongruent, the study examines the effects of managerial decisions on earnings management of companies quoted on the NSE using directors' remunerations, dividend payments, changes in earnings, and changes in total net assets as surrogates for corporate managerial policies and decisions.

2.0 Literature Review

Extant literature relating to this study covers the areas of earnings management, corporate managerial decisions, and the relationship which subsists between earnings management and each of some perceived four corporate policies and managerial decision categories, including directors' remunerations, dividend payment policies, earnings changes and Net total Assets of Companies.

2.1 Earnings Management and Corporate Decisions

Extant literature and result of previous studies indicate the impact of specific managers' decisions on the income of companies. Bertrand and Schoar (2003) assert that managers fixed effects explain an economically significant proportion of a firm's activities such as Research and Development (R&D) and Mergers & Acquisitions (M&A) suggesting that managers have individual effects on their firms. Similarly, a number of prior studies indicate that CEOs matter for various corporate decisions and subsequent performance (Graham, Li, & Qiu 2011; Jian & Lee 2011; Malmendier, Tate, & Yan, 2011). Bamber, Jiang and Wang, (2010) show that individual managers have various disclosure preferences while Dyreng, Hanlon, and Maydew, (2010) revealed that certain managers make more aggressive tax positions to affect their firms' effective tax rates. Ge, Matsunmoto and Zhang, (2011) posit that CEOs' individual styles influence accounting disclosures.

Earnings quality may vary because of the individual CEOs employed. The individual managers affect the financial reporting of the firm in a systematic way. Evidence suggests that reputable managers receive a compensation premium (Falato, Li, & Milbourne, 2011; Graham et al. 2011). Thus, to the extent that earnings management tarnishes their reputation, higher-quality managers might be more hesitant to undertake these activities (Fama, 1997). Alternatively, if the expected cost of earnings management on high-ability managers' reputations is minimal, then the potential reputation loss might not be large enough to discourage opportunistic behaviour.

Gabrielsen, Gramlich and Plenborg (2002) found a positive but non-significant relation between managerial decisions and discretionary accruals in a sample of Danish firms. Managerial decisions of firms are critical to the effectiveness of oversight mechanisms employed to constrain earnings management practice (Sikka, 2009; Dabor & Adeyemi, 2009).

2.2 Earnings Management and Directors' Remuneration

The increasing spate of corporate collapses has refocused the attention of stakeholders on executive compensation, involving issues affecting the design of executive compensation and the degree to which options truly support the stake of management and other stakeholders. Watts and Zimmerman (1978) considered and analyzed managerial opportunism in relation to discretionary behaviours against reported earnings and its influences on contractual outcomes and wealth transfers; confirmed and corroborated by Suh (1990) and Bradshaw, Richardson and Sloan (2001). Findings of McNichols and Wilson (1988) support income decreasing hypothesis regarding earnings management but not income smoothing hypothesis. Hart and Holmstrom (1987), Guidry, Leone and Rock (1999) and Kreps (1990) view earnings management as a means to generate higher management compensations.

Matsunaga and Park (2001), studied the effects of missing quarterly earnings benchmarks on the CEOs' annual bonus structures, found that CEO bonus plans provide them with economic incentives to meet quarterly analysts' earnings forecasts and also earnings from the same quarter in the prior year. Bergstresser and Philippon (2006) found that firms where the CEO compensation is closely linked with the value of firms' stock and option



holdings are more likely to use discretionary accruals to manipulate reported earnings. Bergstresser and Philippon (2006) provide evidence that the use of discretionary accruals to manipulate reported earnings is more pronounced in firms where CEOs' potential total compensation is more closely tied to the value of stock and option holdings. Bartov and Mohanram (2004) found that private information used by senior executives to time abnormally large stock option awards involve earnings management in order to increase cash payout from these awards, hence suggesting that such stock option awards need to be overseen by the directors.

Watts and Zimmerman (1986) found that ex-post managerial discretions are made to increase compensation or to avoid debt covenant violations. Shuto (2007) studied the relationship between discretionary accounting choices and executive compensation in a sample of Japanese firms and revealed that the use of discretionary accruals increases executive compensation; company managers receiving no bonus adopt income – decreasing accruals and extraordinary items; negative extraordinary items are strongly associated with no bonus payment and there is association between discretionary accruals and executive bonus.

Elitzur and Yaari (1995) showed that the choice of compensation scheme by owners tends to affect earnings manipulation and insider trading provides an informative signal about the direction of earnings manipulation. Dye (1988) found that earnings management increases remunerations of managers and existing shareholders who want to see the market value of their firm increase and thereby increasing the possibilities of wealth transfer from new to existing shareholders.

2.3 Earnings Management and Dividends Payment

Corporate managers usually engage in a number of vital decisions relating to the finances including dividend payout policies perceived as symbol of sound financial health of a company. Healy and Palepu (1990), studying firms' accounting and dividend responses to an increase in the tightness of dividend constraints, opined that accounting-based dividend constraints in lending contracts are imperfect means of mitigating conflicts of interests between stockholders and bondholders since managers have flexibility to make accounting decisions in order to circumvent the covenants. Unlike many US studies, Kasanen, Kinnunen and Niskanen, (1996) found strong evidence of earnings management in Finland, where Finnish managers set earnings to satisfy the demand for dividends by institutional investors and owners with preference for stable dividends.

Modigliani and Miller (1961) by assuming perfectly efficient market, proved that firm value cannot be increased by changing dividend policy number of a firm. However as perfect market do not exist in reality, literature provides a number of theories including clientele theory, agency theory, and signaling theory to show that dividends increases the value of equity and thus investors are more attracted towards dividend paying firms.

Kato, Micho and Yasuhi (2002) provided evidence of dividend motivated earnings management. The results revealed direct relationship between earnings management and dividend payment policies of Japanese banks. Lintner (1956) showed that managers are reluctant to cut dividends and target long-term pay-out ratios when making dividend decisions. Current earnings influence current dividend decisions through the target payout ratio, defining 'dividend conservatism' as the partial adjustment in dividends, given the current financial performance, dividend change in any given year is only part of the amount indicated by the target pay-out ratio and current earnings.

Baker and Powell (2000) and Baker, Veit and Powell (2001) conclude there is little change in manager's views of dividend determinants over time, namely the level of current and expected future earnings, and the pattern of past dividends. The two studies also found that the desire to maintain a given dividend payout ratio is a moderately important factor in determining dividend policy.

Haider, Alli and Sadiq (2012) examined the impact of earnings on dividend policy and analysis done on Pakistani listed companies using data from Karachi stock exchange for the period between 2005 and 2009, based on five variables which include dividend payout (dependent variable) and discretionary accrual (DA), self finance ratio (SFR), return on equity (ROE) and size of the firm (control variables). It was explained that a relationship exist between both of the variables with coefficient showing weak or no relationship.

An analysis conducted by Shah, Hui and Zafar (2010) indicates the impact of dividend policy on earnings by taking the data of Pakistani and Chinese listed companies from year 2003 to 2007 and from 2002 to 2007 respectively using two basic variables (dividend payout and earnings management) and three other variables (return on equity, size of firm and self finance ratio) as control variables. The results showed no relationship between earning management and dividend payout policy for both countries...

Savov (2006) examined the relationship between investment, earning management and dividend payment using data from German companies covering 1982 to 2003 periods. The results showed a negative relationship between earnings management and dividend payout policy. Farsio, Geary and Moser (2004) examined the relation between dividends and earnings. The quarterly data of 500 companies was used from the period of 1988 to 2002. The study revealed no significant relationship between dividend policy and earnings in the long run and suggests different possibilities of relationship between future earnings and dividend.



2.4 Earnings Management and Changes in earnings

A number of existing studies indicate the relationship and effects of earnings management on changes in earnings of companies. In Australia, companies have been found to manage their earnings to ensure positive profit reporting and sustainable earnings trends. Some of the studies reveal a positive relationship between discretionary accruals calculated through Jones model, financial performance and growth of firms. Shin and Sonen (1998) studied the relationship between earnings management and earnings on a sample of 589 firms from 1975 to 1994 and revealed a strong negative association between the firms' net trade cycle (working capital) and its earnings.

Some studies have pointed to the tendency of a strong negative correlation between the earnings and income smoothing behaviour of firms and that the firms with low profits possess greater propensity and higher motivation to apply earnings smoothing for the reported profits. Padachi (2006) examined the trends in earnings management and its impact on firms' performance. The result provided that high investments and receivables are associated with lower earnings and that inventory days and cash conversion cycle had positive relationship with earnings.

Vishnani and Shah (2007) investigated the impact of working capital management policies on the corporate performance of Indian consumer electronics industry and noted that inventory holding period, debtors' collection period and net working capital cycle had negative relationship on earnings of firms while the average payment period had positive correlation with earnings. Samiloglu and Demirgunes (2008) analyzed the effect of earning management on firm earnings in Turkey for period of 1998 – 2007 and showed that account receivables period, inventory period and leverage significantly and negatively affect earnings while firm growth significantly and positively affect earnings. The results also confirm that cash conversion cycle, size and fixed financial assets had no statistically significant effect on earnings.

2.5 Earnings Management and Changes in Total Net Asset

One of the early studies on management's incentives for fixed asset manipulation by Brown, Izan and Loh, (1992) examined the revaluation decisions in Australia and showed that larger firms which report a high profit, face a takeover or likelihood of labour strike threats, have greater incentives to undertake an upward revaluation of their assets. Brown et al (1992) also examined political costs as a motivation for managers to undertake asset revaluations and found that larger firms revalue assets more frequently than smaller firms. The hypothesis stems from the fact that larger firm with huge profits are more likely to be noticed by regulators and pressure groups that might have the power to reallocate resources from such large firms. Huge profits are usually associated with demands for higher taxes and/or other restrictions from these pressure groups (Watts & Zimmerman, 1978). Increasing assets would help firms to reduce the rate of returns. Ball and Foster (1982) regard the size as a noisy proxy for political costs and use industries prone to strikes as coal mining, waterfront, metal trades, and building & construction (Perry, 1979).

Gaeremynck and Veugelers (1999) created a theoretical model of asset revaluation and present some empirical evidence from Belgium regarding managerial motivations on asset revaluations. Using an analytical model, the authors examine the signaling motivation of managers in an environment where the probability of raising funds not only depends on the expected future prospects of its projects but also on its existing financial position. Revaluation decreases the expected costs of reorganization since a decision not to revalue may increase the leverage of a firm (debt to asset or equity ratio) leading to violations of its debt covenants. However, the decision not to revalue its assets increases the probability of receiving additional funds because it signals that it would be more successful without resort to revaluation. The study showed that a separating equilibrium can be achieved only when successful firms do not revalue assets because the expected cost of reorganization is smaller than the additional benefits received from additional funding. Gaeremynck and Veugelers (1999), however, contend that such strategy is not favourable in all circumstances. The strategy that is most favourable is those industries which are characterized by high variance in performance and low equity to debt ratio.

Cotter and Zimmer (1995) examined some of the issues that were not explored by earlier researchers. The authors are concerned with the large number of independent revaluations carried out by firms where there are no restrictions. Furthermore, while independent revaluations are required in order to make the balance sheet more attractive, the widespread use of directors' revaluation in financial statements also made the authors think about the motivation of such revaluations. The authors also question leverage as the only criteria for receiving additional funds and determining the borrowing capacity of firms.

Black, Seller, and Manly (1998) extend the evidence on asset revaluation in the context of the United Kingdom (UK), Australia, and New Zealand. The authors examine whether firms are engaged in earnings management through sale of revalued fixed assets. Using a sample of 696 firm-year observations from the UK and 503 firm-year observations from a combined sample for Australia and New Zealand during the period 1985 – 1995, the study examined whether revaluers and non-revaluers differ in terms of debt equity ratio, market-to-book ratios or liquidity ratios. The result suggests that revaluers are larger and have more market capitalization



than non-revaluers, at least in Australia and New Zealand. Consistent with prior work, evidence from the analysis of the data suggests that both in the UK and Australia and New Zealand, revaluers are much different to non-revaluers in terms of leverage, book-to-equity ratios and liquidity. While the leverage of revaluers is much higher than non-revaluers, the liquidity is much lower. The result did not show any evidence of income smoothing behaviour by firms through the sale of revalued assets. Sales of revalued assets occur primarily because of sound investment and production reasons.

Using large samples from 1989 and 1991 of firms listed on the London Stock Exchange, Lin and Peasnell (2001) examine the relationship between contracting, signaling, and political environments and assets revaluation. They examine whether asset revaluation is used to fill equity depletion brought about by implementation of the UK accounting method, which requires firms to write off goodwill purchases to equity reserves. The selection of the two years (1989 and 1991) helped to examine whether firms store undisclosed revaluation reserves during periods of economic boom (1989) and report them during periods of economic downturn (1991). The result suggests that equity depletion is strongly related to asset revaluation, asset revaluation is also positively related to size, gearing and fixed asset intensity of the firm but negatively related to liquidity. The result support the contracting hypothesis and show that equity depletion, quick assets and size are important factors in determining when a particular firm revalues its assets.

Jaggi and Tsui (2001) provided evidence of manager's motivation for upward asset revaluation from Hong Kong. The study uses a sample of 481 firm-year observations during the period 1991 – 1995 drawn from the EXTEL database of Financial Times Information. The authors' result shows that the most important motivation for asset revaluation is the signaling of the fair value of the asset to investors. This comes from the strong positive relationship between revaluation and future operating income. The results also reveal the alignment of the investors and managers assessment of asset values. The results further showed a relationship between share price increase and asset revaluation. They also present evidence in a setting where firms are mostly owned and controlled by family and indicate that revaluation is considered value relevant by the investors.

Missionier-Piera (2007) presents evidence of economic motivations for asset revaluation of Swiss managers. Investigation of asset revaluation in Switzerland becomes interesting for a number of reasons: Firms in Switzerland use international accounting standards; international stakeholders are important to Swiss firms as a number of Swiss firms rely on international investors and customers and therefore provides the opportunity to examine the influence of international stakeholders on the choice of accounting treatment and the Swiss stock exchange is relatively illiquid and resembles more of a bank oriented market.

McNichols and Stubben (2008), examining earnings management in the context of suboptimal fixed assets investment decisions by public companies with high and discretionary accruals, found that earnings manipulating firms over-invest substantially during the misreporting period and no longer over – invest following the misreporting period thereby suggesting that earnings management, in addition to targeting external stakeholders, can also influence internal decisions.

2.6 Evidence of Earnings Management practices in Nigeria

In Nigeria, prior studies closely related to the present study include Osisioma and Enahoro (2006), Akindayomi (2012) and Okolie (2013). Osisioma and Enahoro (2006), investigated whether financial accounting information users including Accountants, Company Managers, Investors, Investment Analyst, etcetera in Nigeria are aware of earnings management in the Nigeria private sector. Using, primary data obtained from structured questionnaire, a survey analysis of a sample of 300 practicing accountants was conducted. The study reported that earnings management present a definite effect on information users. Thus, the practice of earnings management constructively benefits the manipulator of accounts. This further indicates that the genuinely positive aspect of the corporation is presented to the fullest proportion to the public, while the area of weakness is played down in the reports in anticipation of correcting the weakness. The financial status is enhanced to enable the company to be attractive.

Akindayomi (2012) studied "Earnings Management and the Banking Crisis of the 1990s: Evidence from Nigeria" and found that Nigeria banks show a positive association between earnings before taxes and provisions for loan losses, indicating earnings smoothing, and that healthy banks have smoother earnings than distressed ones while distressed banks deliberately understate loan loss provisions to inflate earnings.

Okolie, (2013) studied the effect and relationship between audit quality, earnings management and earnings response coefficients of quoted companies in Nigeria, and documented evidences that are consistent with the relationship and effects which audit quality exerts on earnings management from the perspectives of discretionary accruals manipulations and the manipulations of real economic operations of companies listed on the Nigerian Stock Exchange and extended the relationship between audit quality and earnings management to the relationship and effects which audit quality exerts on the earnings response coefficients as well as market prices per share of quoted companies in Nigeria. Based on a sample of 342 companies – year observations from the NSE for the fiscal years, 2006 to 2011, and using four of the commonly applied audit quality measures



together, a massive and all-inclusive multivariate analysis was conducted. The result showed that audit quality is significant and negatively related to earnings management measured by discretionary accruals of quoted companies in Nigeria, exerts significant relationship with real earnings management and exerts significant influence on the earnings response coefficient and market price per share of quoted companies in Nigeria.

3.0 METHODOLOGY

This study adopts a cross-sectional survey based on 250 companies' year observations for the period 2007 – 2011. Relying on secondary data sourced from the CBN Statistical Bulletin, NSE fact book and annual reports and accounts of a sample of 50 quoted companies in Nigeria, the study applies multiple regression analysis to panel data. The following is the overriding hypothesis of this study:

H₀: Managerial Decision Categories do not directly relate to the Level of Earnings Management of Quoted Companies in Nigeria

3.1 Estimation of Variables

The dependent variable of the study is Discretionary Accrual used as proxy for earnings management while the independent variables include Director's Remuneration, Dividend Payment, Change in earnings and change in Total Net Asset. The study examines whether each of these proxies for managerial decision categories is associated with earnings management. Discretionary accrual is measured using the Jones (1991) model as modified by Dechow, Sloan and Sweeny (1995), stated as:

$$TA_{i,t}\!/A_{it\text{-}1} = \alpha_i[1/A_{it\text{-}1}] + \beta_{1i}[\Delta REV_{it} - \Delta REC_{it}\!/A_{it}] + \beta_{2i}[PPE_{it}\!/A_{it\text{-}1}] + \epsilon_{i,t} \tag{1}$$

This model estimates the discretionary portion of total accruals. To partition total accruals into its discretionary and non-discretionary components, Jones (1991) used the following expectation model for total accruals to control for changes in the firm's economic circumstances:

$$TA_{i,t}/A_{it-1} = \alpha_i [1/A_{it-1}] + \beta_{1i} [\Delta REV_{it}/A_{it-1}] + \beta_{2i} [PPE_{it}/A_{it-1}] + \epsilon_{i,t}$$
(2)

Where, for (1) and (2):

 $TA_{it} = Total accruals in year t for firm I;$

 A_{it-1} = Total assets in year t – 1 for firm i;

 ΔREV_{it} = Change in Revenues in year t less revenues in year t – for firm I;

 ΔREC_{it} = Change in accounts receivables in year t less receivables in year t – for firm I;

PPE it = Gross property, plant and equipment in year t for firm i;

 $\varepsilon_{i,t}$ = Error term in year t for firm i.

Jones (1991) used ordinary least squares regression for equation (2) to generate firm specific coefficients for $\alpha_{i,}$ β_{1i} and β_{2i} . These coefficients were then used to estimate the level of non-discretionary accruals for each sampled firm as specified in the above equations. The level of discretionary accruals was then estimated by Jones (1991) using the following model to estimate the extent of earnings management:

$$DA_{it} = TA_{i,t}/A_{it-1} - NDA_{it}$$
(3)

Where: DA_{it} = Discretionary accruals in year t for firm i

 $TA_{i,t}$ = Total accruals in yeat t for firm I;

 A_{it-1} = Total assets in year t – 1 for firm I;

 $NDA_{it} = Non-discretionary$ accruals in year t for firm I $(TAit - DA_{it})$

3.2 MODEL SPECIFICATION

The model for testing the effects and presumed relationships between dependent and independent variables considers the most commonly used proxies for managerial decision categories. We apply multiple linear regression analyses to test the relationship between the dependent variable (DAC) and the identified independent managerial decision variables. The model is specified as follows:

$$DAC_{it} = \alpha_1 + \alpha_2 DR_{it} + \alpha_3 DP_{it} + \alpha_4 PR_{it} + \alpha_5 TNA_{it} + \epsilon_{it} \qquad (4)$$

Where: DAC = Amount of Discretionary Accruals of firm I at time t,

DR_{it} = director's remuneration variable for firm i at time t, DP_{it} = dividend payment variable for firm i at time t,

PR_{it} = change in earnings variable for firm i at time t, TNA_{it} = change in total net asset variable for firm i at time t,



 ε_{it} = the error term for firm i at time t, and α_1 , α_2 , α_3 , α_4 , α_5 are firm specific parameters.

3. 3 Measurement of variables

In this study, we used accounting accruals approach to measure earnings management. Accruals include a wide range of earnings management techniques available to managers when preparing financial statements, such as accounting policy choices and accounting estimates (Grace & Okoh, 2005) and (Fields, Lys & Vincent 2001). Director Remuneration (DR), Dividend payment (DP), changes in earnings (PR) and changes in Total Net Asset (TNA) were collected from the annual reports of the sampled companies in the Nigerian stock Exchange (NSE) data base. DR was defined as the value of salaries, emoluments, perquisites, bonuses and share option paid out to the directors of the organization in the period under review. DP was measured as the percentage of amount paid out to various share holders as dividend payment, PR was measured as changes in the value of earnings before interest and tax (EBIT) between one period and another while TNA which is the difference between total asset and current liability was measured as changes in total net asset between one period and another.

4.0 Data Presentation and Analysis

The models specified in the previous section are examined empirically. The study examines the causal effects and relationship between Managerial decision and earnings management in Nigeria. The descriptive and correlation analyses were first conducted before the regression assumption test on the variables. The last part of the analyses is the multiple regression analysis. For robustness, the sensitivity of the endogenous variables was tested by modifying the baseline equations to include distributive lags and interactions between variables. The regression analysis was conducted using the pooled OLS and the panel estimated generalized least squares (EGLS). Robustness Test section, test of robustness of the main results was conducted by modifying some aspects of the estimation equations. Finally, we begin by testing whether the coefficients of the variables are sensitive to the inclusion of new control variables in both equations. Lagged values of the explanatory variables were utilized for this purpose. In addition, the baseline equation is modified by including interactions between the variables in the model. The results of the analyses are presented in tables 1 to 6 below.

5.0 Discussion of Results and Findings, Recommendations and Conclusion

The NSE possesses a visible and aggressive position towards financial performance resulting from the convolution of financial intermediation in Nigeria. Despite the need to influence stakeholder perception, the recent notable cases of corporate collapses and financial scam in Nigeria stem from the NSE; hence providing a seeming reinforcement of this perception. This study was aimed at testing the relationship between earnings management and managerial decisions and to examine if this association differs amongst companies on the Nigeria Stock Exchange. The standard assumption is that each of the proxies for managerial decisions categories has different purposes with implications for corporate strategy and performance (Edwards & Nibler 2000; Thomsen & Pedersen, 2000). The discussion of results and findings, recommendations and conclusion are as stated below.

5.1 Discussion of Results and Findings

This section discusses the results and findings of study as follows. Each proxy for managerial decisions category is expected to influence earnings management differently.

The panel fixed effects estimates indicate that Director Remuneration (DIRREM) exerts a positive effect on earnings management but this is not significant at 5%. In the distributive lag model that includes lags of the dependent variables (used as control variables), DIRREM remains positive and insignificant. This suggests that the effect of Director Remuneration (though positive) may not be significant to signal increased propensity for earnings management behaviours. Thus, from the baseline model results, the hypothesis of no significant relationship between Directors' Remuneration and earnings management is accepted. The analysis result shows that the coefficient of the interacting term (DIRREM*DIVPAY) is positive, indicating that, given a stable dividend policy, increases in directors remuneration will result in an increase in earnings management. The result of this analysis is supported by Abbott, Parker and Peters (2003) and Baber, Kang and Liang (2006) which found no significant relationship between directors compensation using stock ownership and the occurrence of financial statement restatements. However, in contrast with our findings, Erickson, Hanlon, and Maydew (2006) found that increased use of different forms of Director Remuneration provided executives with excessive incentives to artificially manage reported earnings. Outside directors may not directly involve in earnings manipulation, but some of them may know and choose to go along with such activities if they also benefit from manipulated earnings through increased compensations. In addition, Bersgtresser and Philipon (2006), Cheng and Warfield (2005), Ke (2005), and Burns and Kedia (2006) provide empirical evidence that directors with higher remuneration are more likely to manipulate earnings. Erickson et al (2006), however, failed to find any association between director's remuneration and



- accounting fraud. Various studies have also provided evidence of reverse-causality where executive compensation's packages are a result of earnings management that inflates earnings and stock prices (Bergstresser & Philippon, 2006; Meek, Rao, & Skousen, 2007).
- 2. The panel fixed effects estimates show that dividend payments significantly impacts negatively on earnings management at 5% significance level. In the distributive lag model, the control variables did not significantly influence the performance of the explanatory variables while dividend payments also impacts negatively and significantly on earnings management. In the model with interactions and distributive lags, it is observed that dividend payments maintained its negative sign but this was not significant at 5% level. The baseline model results (fixed effects) suggest a rejection of the hypothesis of no significant relationship between DIVPAY and Earnings Management. The result of this analysis is supported by Savov (2006) which examined the relationship between earning management and dividend payment for German companies of 1982 and found the existence of a significant negative relationship between earnings management and dividend payment policy. Also, Kasanen, Kinnunen and Niskanen (1996) study undertaken for non-financial firms in Finland found that reported earnings were dependent on the dividend-based target earnings. The finding of kato, Michio and Yasushi (2002) conducted using Japanese banks also supports the result of this study. However, Fariso, Geary and Moser (2004) examined the relationship between dividends and earnings using quarterly data of 500 companies from 1988 to 2002 and found no significant relationship between dividend policy and earnings in long run.
- 3. The panel fixed effects estimates indicate that 'change in profits' is positive but not significant at 5% level. In the distributive lag model, it was observed that the control variables did not significantly influence the performance of the explanatory variables and change in profits remains positive but not significant at 5% level. In the model with interactions, it is observed that change in profits appeared negative and significant at 5%. The baseline model results (fixed effects) indicate that the hypothesis of no significant relationship between change in earnings and Earning Management should be accepted. With respect to the direction of the relationship, the result of this study is supported by Lee (2006) who found no significant relationship between discretionary accruals and the financial performance. Furthermore, the studies of Brazel et al (2008), Holland & Ramsay (2003), Das & Zhang (2003) and Pandey (2001) have showed the existence of a significant and positive relationship between earnings management and firm's earnings changes, while studies such as Farsio, et al (2004) have found a significant negative relationship between earnings management and change in firm's earnings.
- 4. The panel fixed effects estimates indicate that changes in total assets are negative and significant at 5% level. In the distributive lag model, it is observed that the control variables did not significantly influence the performance of the explanatory variables as change in assets also exerts a significant negative influence on earnings management. In the model with interactions, it is observed that change in assets has a positive slope. The baseline model results (fixed effects), suggests a rejection of the hypothesis of no significant relationship between change in assets and earnings management. This result is supported by that of Black, Sellers, and Manly (1998) study undertaken for firms in the UK, Australia, and New Zealand which showed no significant effects of total assets change on income smoothing behaviour of companies.

5.2 Recommendations

On the strength of the results of foregoing analysis and the discussion of the findings, this study recommends that:

- Regulatory agencies such as the Securities and Exchange Commission, Professional Accounting Bodies, Financial Reporting Council of Nigeria, and the National Assembly, in their supervisory position, should distinguish between legitimacy, outright fraudulent reporting and earnings statements that reflect the desires of management rather than the underlying performance of the company and impose appropriate disciplinary penalties on offenders. Financial Reporting Council (FRC) in particular should strengthen efforts at ensuring higher quality financial reporting.
- 2. Effective corporate governance should be established while relevant channels that may directly or indirectly signal an apprehensive financial environment that predispose managers to engage in earnings management should be identified and installed. Corporate governance is critical to the achievement and sustenance of financial reporting quality. This realization has been well entrenched in the US Public Companies Accounting Oversight (Sarbanes Oxley's) Act, 2002 act following the reporting failures that occurred in Enron and other companies in the U.K. and the US. The existing corporate governance code in Nigeria amended in 2007, which restrictively focuses on the banking sector, should be given wider applicability across companies in different sectors. In order to enhance high Audit Quality and minimize Earnings Management, Companies in Nigeria should adapt to or engage in an outright adoption of currently available best practices like the provisions of Sarbanes Oxley's 2002 and Public Companies Accounting Oversight



Board standards, the UK Financial Reporting Council's Audit Quality Guidelines and Frameworks, followed by a statutorily backed earnings monitoring of companies in Nigeria.

- 3. In Nigeria, unethical aspects of earnings management which may be pervasive require that the practice of forensic accounting be initiated. Financial statement alert on companies' questionable accounting practices, will help guide investors in areas of the extent of a company's earnings from operations, warning signs in the financial statements, changing accounting methods to more favourable ones, or using accounting methods different from the ones the competitors use, and assets or liabilities on (or off) the balance sheet that might affect future earnings.
- 4. The principle based accounting system practiced in Nigeria, seems to provide excessive flexibility for companies to engage in practices that influences the financial reporting process for their private gain. Though, the rule based system is not without its peculiarities, certain measures should be introduced to minimize the propensity for reporting accountants to defeat the reporting principles for their private benefits.
- 5. Attention should also be focused on companies' attempts to smooth or increase earnings to beautify its attractions in the stock market through unnecessary manipulation of real economic operations and cash flows. Firm-wide performance measures in determining employee compensation that often lead to commonality and cohesion of purpose toward earnings management should be de emphasized. We recommend that companies earn high quality income only through sales growth and cost reduction activities since repeatable and fairly predictable earnings that come from sales and cost reductions present the company's earnings as high quality earnings in the eyes of investors.

5.3 Conclusion

The long run pervasive effects of earnings management observed in several corporate collapses around the world has heightened stakeholder awareness and signaled considerable paranoid responses with regards to credibility of corporate earnings reports and financial statements. This study examines managerial decisions and earnings management in Nigeria by investigating the effect of director's remuneration, dividend payment, change in earnings and change in total net asset used (as proxies for managerial decisions) on earnings management. The analysis shows that earnings management intensity measured by the absolute values of discretionary accruals and scaled by asset size, reflects mixed outcomes when regressed on change in profits, dividend policy, director remunerations and change in assets values. The study found the existence of no significant relationship between director remunerations and earnings management; a significant relationship between Change in earnings management, and a significant relationship between change in assets and earnings management. Directors' remuneration and change in earnings show positive relationship with earnings management.

The results of this study are subject to some limitations. The study is based on 250 company accounting year observations conducted using fifty (50) quoted companies on the NSE over the period 2007 - 2011. The study did not control for a number of governance attributes to mitigate the correlated omitted variables problem. The effect of these limitations is that external validity problem may be amplified to constrain the generalization of the results to cover different periods of time and different locations. The effects of inflation on figures related to financial statements, the estimation of discretionary accruals were ignored.

These limitations notwithstanding, the study provides new evidence from Nigeria that changes in profits, dividend policy, director remunerations and changes in assets values are important variables of earnings management behaviour and the effect of these factors appear to be largely predictable. The findings suggest the need to investigate the board room dynamics as the managerial decisions examined in isolation may not provide a satisfactory justification to the underlying effects of Earnings management. This may probably be responsible for the apparent divergence in empirical results as firm specific effects might border on managerial decisions structure. This study represents one of the first studies in Nigeria to integrate the four major research aspects that have been disparate and incongruent, by focusing on the effects of managerial decisions on earnings management of companies quoted on the NSE and using directors' remunerations, dividend payments, changes in earnings, and changes in total net assets as surrogates for corporate managerial policies and decisions.

References

Abbott, L., Parker, S. and Peters, G. (2003). Audit Committee Characteristics and restatements, *Auditing: A Journal of Practice and Theory*, 23, 69 – 87.

Adeyemi, S. B. and Fagbemi, T. O. (2010). Audit quality, corporate governance and firm characteristics in Nigeria, *International Journal of Business and Management*, 5 (5), 169 – 179.

Akindayomi (2012). Earnings management and the banking crisis of the 1990s: evidence from Nigeria, *Academy of Accounting and Financial Studies Journal*, 16 (3).



- Baber, M., Kang, S. and Liang, L. (2006). Strong boards, external governance, and accounting restatement, *Working paper*, George Washington University.
- Badawi, I. M. (2008). Motives and consequences of fraudulent financial reporting, paper presented at the 17th annual convention of the global awareness society international, May, , San Fracisco, USA.
- Baker, H. and Powell, G. (2000). Determinants of corporate dividend policy: A survey of NYSE firms, *Financial Practice and Education*, 10, 17 35.
- Baker, H., Veit, T. and Powell, G. (2001). Factors influencing dividend policy decisions of NASDAC firms, *The Financial Review*, 36, 19 38.
- Ball, R. and Foster, G. (1982). Corporate financial reporting: a methodological review of empirical research, *Journal of Accounting Research*, (Supplement 116), 234.
- Bamber, L., Jiang, J. and Wang, I. (2010). What's my style? The influence of top managers on voluntary corporate financial disclosures, *the Accounting Review*, 85 (4), 1131 1162.
- Bartov, E. and Mohannram, P. (2004). Private information, earnings manipulations and executive stock option exercises, *The Accounting Review*, 79, 889 920.
- Bergstresser, D. and Philipon, T. (2006). CEO incentives and earnings management, *Journal of Financial economics*, 80, 511 529.
- Bertrand, M., and Schoar, A. (2003). Managing with style: the effect of managers on firm policies, the *Quarterly journal of Economics*, 1169 1208
- Black, E., Sellers, K. and Manly, T. (1998). Earnings management using assets sales: an international study of countries allowing noncurrent assets revaluation, *Journal of Business Finance and Accounting*, 25 (9 10), 1287 1317.
- Bradshaw, M., Richardson, S. and Sloan, R. (2001). Do analysts and auditors use information in accruals? *Journal of Accounting Research*, 39, 45 74.
- Brown, P., Izan, H. and Loh, A. (1992). Fixed assets revaluations and managerial incentives, *Abacus*, 28 (1), 36 37.
- Burns, N. and Kedia, S. (2006). The impact of CEOs incentives on earnings reporting, *Journal of Financial Economics*, 68, 45 67.
- Cheng, Q. and Warfield, T. (2005). Equity incentives and earnings management, *The Accounting Review*, 80 (2), 441 476.
- Cotter, J. and Zimmer, I. (1995). Asset revaluation and assessment of borrowing capacity, Abacus, 31 (2), 136 151.
- Dabor, E. and Adeyemi, S. (2009). Corporate governance and credibility of financial statements in Nigeria, *Journal of Business Systems, governance and Ethics*, 4 (1), 13 24.
- Dechow, P., Sloan, R. and Sweeny, A. (1995). Detecting earnings management, *The Accounting Review*, 193 195.
- Dye, R. (1988). Earnings management in an overlapping generations model, *Journal of Accounting Research*, 26, 195 235.
- Dyreng, S., Hanlen, M. and Maydew, E. (2010). The effects of executives on corporate tax avoidance, the *Accounting Review*, 85 (4), 1163 1189.
- Edwards, J. and Nibler, M. (2000). Corporate Governance in Germany: the role of banks and ownership concentration, *Economic Policy*, 31, 237 260.
- Elitzur, R. and Yaari, V. (1995). Executive incentive compensation and earnings manipulations, *Journal of Economic Behaviour and Organization*, 26 (2), 201 219.
- Enofe, A. 2(010). Reaping the fruits of evils: how scandals help reshape the accounting profession, *International Journal of Business, Accounting and Finance*, 4 (2), 53 69.
- Erickson, M., Hanlon, M. and Maydew, E. (2006). Is there a link between executive equity incentives and accounting fraud? *Journal of Accounting Research*, 44, 113 143.
- Falato, A. Li, D. and Milbourne, T. (2012). Which skills matter in the market for CEOs? Evidence from pay CEO essentials, working paper, federal reserve board and Washington university, St. Louise
- Fama, E. and French, K. (1997). Industry cost of equity, Journal of Financial Economics, 43 (2), 153 193.
- Fariso, F., Geary, A. and Moser, J. (2004). The relationship between dividend and earnings, *Journal of for Economic Education*, 4 (4).
- Fields, T., Lys, T. and Vincent, L. (2001). Empirical research on accounting choice, *Journal Accounting and Economics*, 33, 255 307.
- Gabrielsen, G. Gramlich, J. and Plenborg, T. (2002). Managerial ownership, information content of earnings and discretionary accruals in a non US setting, *Journal of business, finance and accounting,* 29, 967 988
- Gaeremynck, A. and Veugelers, R. (1999). The revaluation of assets as a signaling device: A theoretical and an empirical analysis, *Accounting and Business Research*, 29 (2).



- Ge, W., Matsumoto, D. and Zang, J. (2011). Do CEO have style? An empirical investigation of the effect of individual CEOs on accounting practices, *Contemporary Accounting Research*, 28 (4), 1141 1179.
- Grace, H. and Okoh, P. (2005). Does the presence of institutional investors influence accruals management? Evidence from Australia, Coporate Governce, 13, 809 823.
- Graham, J., Li. S. and Qiu, J. (2011). Managerial attributes and executive compensation, *Review of financial studies*, 24, 1944 1979.
- Guidry, F., Leone, J. and Rock, S. (1999). Earnings based bonus plans and earnings management by Business unit managers, *Journal of Accounting & Economics*, 26, 113 142.
- Haider, J., Alli, A. and Sadiq, T. (2012). Earnings management and dividends policy: empirical evidence from Pakistani listed companies, *European Journal of Business and Management*, 4 (12), 1222 1305
- Hart, O. and Holmstrom, B. (1987). The theory of contracts, in T. Bewley (ed.), Advances in economic Theory, Cambridge University Press: Cambridge, 71 155.
- Healy, P. and Palepu, K. (1990). Effectiveness of accounting based dividend covenants, *Journal of Accounting and Economics*, 7, 85 107.
- Healy, P. and Wahlen, J. (1999). A review of the earnings management literature and its implications for standard setting, *Accounting Horizons*, 13 (4), 365 383
- Jaggi, B. and Tsui, J. (2001). Management motivation and market assessment: Revaluation of fixed assets, *Journal of International Financial Management and Accounting*, 12 (2), 160 187.
- Jian, M. and Lee, K (2011). Dose CEO Reputation matter for capital investment? *Journal of Corporate Accounting*, 17 (4), 929 946
- Jones, J. (1991). Earnings management during import relief investigation, *Journal of Accounting Research*, 29, 193 228.
- Kasanen, E., Kinnumen, J. and Niskanem, J. (1996). Dividend based earnings management: Empirical evidence from Finland, *Journal opf Accounting and Economics*, 22 (1 3), 283 312.
- Kato, K., Micho, K. and Yasushi, Y. (2002). Dividend behavour and pure accrual management of Japanese banks, Working Paper, 2001 2003.
- Kreps, D. (1990). Corporate Culture and Economic Theory, in J. Alt and K. Shepsle, Eds. Perspectives on Positive political economy, Cambridge University Press
- Ke, B. (2005). Do equity based incentives induce CEOs to manage earnings to report strings of consecutive earnings increases? *Working paper*, Penn State University.
- Lee, C. (2006). Performance growth and earnings management, *Published on line*, 11, 305 334.
- Lin, Y. and Peasnell, K. (2001). Fixed assets revaluation and equity depletion in the UK, *Journal of Business*, *Finance and Accounting*, 27 (3 4), 359 394.
- Lintner, J. (1956). Distribution of incomes of corporations among dividends, retained earnings and taxes, *The American Economic Review*, 46, 97 113.
- Malmendier, U., Tate, G. and Yan, J. (2011). Overconfidence and early life experiences: the effect of managerial traits on corporate financial policies, *The Journal of finance*, LXVI (5), 1687 1733.
- Matsunaga, S. and Park, C. (2001). The effect of missing a quarterly earnings benchmark on the CEO's annual bonus, The Accounting Review, 76 (Supplement), 313 332.
- McNichols, F. and Stubben, R. (2008). Does earnings management affect firms' investment decisions? *The Accounting Review*, 83 (6), 571 603.
- McNichols, M. and Wilson, G. (1988). Evidence of creative accounting from the provision of bad debts, *Journal of Accounting Research*, 26 (Supplement), 1-33.
- Meek, G., Rao, R. and Skousen, C. (2007). Evidence of factors affecting the relationship between CEO stock option compensation and earnings management, *Review of Accounting and Finance*, 6, 304 323.
- Missionier-Piera, F. (2007). Motives for fixed assets revaluation: An empirical analysis with Swiss data, *International Journal of Accounting*, 42 (2), 186 205.
- Modigliani, F. and Miller, M. (1961). The cost of capital, corporation finance and the theory of investment, *American Economic Review*, 48, 261 297.
- Odia, J. (2007). Creative accounting and its implications for financial reporting in Nigeria, *Nigeria Journal of Business Administration*, 8 (1 & 2) (Jan/July)
- Okolie, A. (2013). Audit quality, earning management and earnings response coefficients of quoted companies in Nigeria, *Unpublished Doctoral Dissertation, University of Benin, Benin City, Nigeria*.
- Okolie, A. O. and Agboma, D. J. (2008). The impact of environmental dynamics on the accounting profession in Nigeria, *Journal of Business Administration and Management*, 3 (1), 70 75.
- Osisioma, B. and Enahoro, J. (2006). Creative accounting and the option of total quality accounting in Nigeria, *Journal of Global Accounting*, 2(1), 5-15.



Padachi, K. (2006). Trends in working capital management and its impact on firms performance, *International Review of Business Research*, 2 (2), 45 – 58.

Perry, G. (1979). Trends in Australian strike activity, Australian Bulletin of Labour, 1913 - 1978

Revsine, L (2002). The selective financial misrepresentation hypothesis, *Accounting Horizons, (December)*, 16 – 27.

Samiloglu, F., and Demirgunes, K. (2008). The effect of working capital management on firm profitability in Turkey, *The International Journal of App; lied economics and finance, 2 (1), 44 – 50.*

Savov, S. (2006). Earnings management, investment and dividend payments, Working Paper, July 16, 2006.

Schipper, K. (1989). Commentary on creative accounting, Accounting Horizons, December, 91 - 102

Schipper, K. and Vincent, L. (2003). Earnings quality, Accounting Horizons, (Supplement), 97 – 110

Shah, Z., Hui, Y. and Zafar, N. (2010). Earnings management and dividend policy: An empirical comparison between Pakistani listed companies and Chinese listed companies, International Research Journal of finance and Economics, Issue 35.

Shin, H. and Sonen, L. (1998). Efficiency of working capital management and corporate profitability, *Financial Practice and Education*, 8 (2), 37 – 45.

Shuto, A. (2007). Executive compensation and earnings management: Empirical evidence from Japan, *Journal of International Accounting, Auditing and Taxation*, 16, 1 – 26.

Sikka, P. (2009). Financial crisis and the silence of the auditors, *Accounting, Organization and Society*, 34, 868 – 873.

Suh, Y. (1990). Communication and income smoothing through method accounting choice, *Management Science*, 36, 704 – 723.

Thomsen, T. and Pedersen, T. (2000). Ownership structure and economic performance in the largest European companies, *Strategic Management Journal*, 21, 289 – 705.

Vishnani, S., and Shah, B. (2007). Impact of working capital management policies on corporate performance: an empirical study, *Global Business Review*, 8, 267 – 281.

Watts, R. and Zimmerman, J. (1978 & 1986). Positive Accounting Theory, Prentice – Hall, Englewood Cliffs, NJ

Table 1: Descriptive Statistics

	ΔASSET	ΔPROFIT	DIVPAY	DISACC	DIRREM
Mean	-1564.247 -	1667.391	6.83E+08	5.75E-09	50080425
Median	9.58	6.73	67928000	1.70E+08	24515000
Maximum	2191.14	19042.34	1.89E+10	1.17E+10	5.87E+08
Minimum	-402462	-409161.2	0.00	-1.80E+10	0.00
Std. Dev.	25509.27	26001.81	1.89E+09	1.82E+09	75558995
Jarque-Bera	627723.7	613699.2	22677.41	24859.67	2971.738
Probability	0.000	0.000	0.000	0.000	0.000
Observations	249	249	249	249	249

Source: Author's calculation from E - Views version 7.0 (2013)

Where; DISACC = Discretionary Accruals; DIRREM $_{it}$ = director's remuneration variables for firm i at time t; DIVPAY $_{it}$ = dividend payment variable for firm i at time t; Δ PROFIT $_{it}$ = change in earnings variable for firm i at time t; Δ ASSET $_{it}$ = Change in total net asset variable for firm i at time t,

Table 2: Pearson Correlation Result

	ΔASSET	ΔPROFIT	DIVPAY	DISACC	DIRREM
ΔASSET	1				
ΔPROFIT DIVPAY	0.0170 0.022	1 0.023	1		
DISACC DIRREM	-0.006 0.028	-0.030 0.041	0.015 0.307	1 0.004	1

Source: Author's calculation from E - Views version 7.0 (2013)



Table 3: Hausman Test

Correlated Random Effects – Hausman Test								
Test Cross-Section randor Test Summary Cross-section random	m effects 44.069626	Chi-Sq. Statistic Chi-sq.d.f	0.00	Prob.				

Source: Eviews 7.0

Table 4: Regression Result

	POOLED OI	LS	PANEL OLS (RANDOM EFFECTS)			PANEL GLS(FIXED EFFECTS)	
VARIABLE	COEFFICENT	PROB	COEFFICENT	PROB	COEFFICENT	PROB	
C	56120683	0.757	-3.3E+07	0.843	-3.4E+07	0.000*	
Δ ASSET	1107.413	0.958	1830.488	0.931	-62062.2	0.006*	
Δ PROFIT	3414.501	0.859	4138.478	0.829	19362.13	0.173	
DIVPAY	-0.029	0.683	-0.0232	0.720	-0.054	0.011*	
DIRREM	0.823	0.717	1.569	0.408	0.003	0.098	
\mathbb{R}^2	0.05		0.047		0.421		
$ADJR^2$	0.02		0.022		0.203		
F-Stat	1.412		1.907		1.931		
P(F-Stat)	0.223		0.094		0.000		
D.W	2.1		2.1		2.6		

Source: Author's computation from E - Views version 7.0, (2013)

In line with the Hausman test, the fixed effects result is shown in the equation below with p-values are in parenthesis. *Significant at 5% level.

EARNMGT = $-3.4E+07 - 62062.2 \Delta ASSETS + 19362.13 \Delta PROFIT -0.054 DIVPAY + 0.003 DIRREM + u$ (0.00)* (0.006)* (0.173) (0.011)* (0.098)

Table 5: Regression Result (Distributive lag model)

	POOLED OLS	PA	NEL OLS (RAND	OM EFFE	CTS) PANEL	GLS(FIXED EFFECTS)
VARIABLE	COEFFICENT	PROB	COEFFICENT	PROB	COEFFICENT	PROB
C	1.58E+08	0.506	-55.8736	0.997	2637345	0.930
ΔASSET	-10382.7	0.988	58567.44	0.627	-62130.8	0.043*
ΔPROFIT	17960.52	0.763	25576.21	0.438	16640.47	0.205
DIVPAY	0.008	0.939	0.011	0.597	-0.056	0.000*
DIRREM	1.291	0.778	1.366	0.241	2.573	0.004*
Δ ASSET _{t-1}	1492.687	0.964	2562.285	0.174	281.092	0.006*
$\Delta PROFIT_{t-1}$	1307.162	0.966	1982.707	0.103	52.865	0.292
DIVPAY _{f-1}	-0.014	0.897	-0.023	0.547	-0.035	0.199
DIRREM t-1	-1.694	0.739	0.035	0.0.983	-0.794	0.007*
AR (-1)						
\mathbb{R}^2	0.009		0.22		0.452	
ADJR ²	-0.009		0.18		0.23	
F-Stat	0.09		0.354		2.046	
P(F-Stat)	0.99		0.954		0.008	
D.W	1.9		2.0		2.6	

Source: Author's calculation from E - Views version 7.0* (2013); significant at 5%

In line with the Hausman test, we represent the fixed effects result in the equation below with p-values in parenthesis. *Significant at 5% level.



(0.930) (0.007) $(0.043)^*$ (0.205) $(0.000)^*$ $(0.004)^*$

 $(0.004)^*$ (0.292) (0.292)

Table 6: Regression (Robustness) Result (Distributive lag model)

P	OOLED OLS	PAN	EL EGLS(RANDON	(S) PANEL GLS	PANEL GLS(FIXED EFFECTS)	
VARIABLE	COEFFICENT	PROB	COEFFICENT	PROB	COEFFICENT	PROB
C	54037320	0.789	53011194	0.7692	-3.3E+07	0.176
Δ ASSET	1225.82	0.955	3249.5	0.627	263.103	0.056
ΔPROFIT	-823.98	0.968	-3243.35	0.088	-2413.11	0.000*
DIVPAY	-0.031	0.856	-0.19116	0.122	-0.08634	0.104
DIRREM	0.988	0.763	-0.2174	0.928	0.5541	0.069
∆DIRREM*DIVPAY	7.66E-10	1.70E-10	1.35E-09	0.176	7.66E-10	0.169
ΔPROFIT*DIVPAY	0.0011	0.486	0.0018	0.195	0.0003	0.049*
\mathbb{R}^2	0.005		0.45		0.704	
ADJR ²	0.003		0.41		0.619	
F-Stat	1.068		4.601		8.329	
P(F-Stat)	0.38		0.002		0.000	
D.W	2.0		2.1		2.4	

Source: Eviews 7.0* significant at 5%

In line with the Hausman test, we represent the fixed effects result in the equation below;

 $EM = 3.3E+07+ 263.103 \Delta ASSETS - 2413.11\Delta PROFIT -0.056 DIVPAY + 2.573 DIRREM + 7.66E-10$

DIRREM*DIVPLAY + 0.0003 ΔPROFIT* DIVPAY + u

(0.176) (0.056)* (0.000)* (0.104)(0.069) (0.169) (0.049)*