

Stock Price and Firms Attributes of Listed Deposit Money Banks in Nigeria: The Intervening Role of Creative Accounting

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ABSTRACT

The study examined the intervening role of creative accounting on the relationship between stock price and firms' attributes of commercial banks in Nigeria. The study adopted the ex-post facto research design and measured creative accounting using the working capital accruals in Dechow and Dichev model. The data collected from eight years annual financial statements of fourteen commercial banks listed on the Nigerian Stock Exchange were analysed and the model estimated using panel data regression. The study results show that firm's growth had significant effect on stock price, while firms' size is not statistically significant. The result of the intervening role of creative accounting shows that creative accounting has no significant relationship with firm's size but creative accounting partially mediates the direct effect between firms' size and stock price. The study concluded that the quest for growth can engender creative accounting practices. The study recommended that regulatory authorities and stakeholders should constantly examine the financial statements of commercial banks to ensure that there are no systematic misrepresentation of the true income and assets of the banks.

Keywords: Stock price, Firms attributes and Creative accounting

INTRODUCTION

Accounting is generally referred to as the language of business just as finance is referred to as the life blood of any corporate entities. As a language of business, it is a means where by data relating to economic activities of an organization are classified, summarized, recorded and communicated to intended users for analysis and interpretation to enable users of financial statements make decisions concerning their investments in an entity. Financial statements provide information that is used by interested parties to assess the performance of managers and to make economic decisions such as share purchase. Management decisions and information about the firm's performance are communicated to major stakeholders. These decisions and information have direct influence on their market performance or market value (Adamu, et al., 2019). Moreover, corporate attributes such as firm size, leverage, profitability, liquidity and growth among others, are variables that send signal to investors as regard to the worth of a firm. Investors hold firms' equities with the hope to maximize expected returns. To meet the expectation of investors, firms devise a means of increasing the value of their shares in the market. Firms most often use those unique attributes as a platform for decision making in their quest to maximize their shareholder's returns (Muhammed & Usman, 2016). Share price movements are functions of market expectation, which is itself, is a function of firm attributes such as size and growth. Share prices seem to go up when actual earnings exceed the expected earnings. This explains the relationship between earnings and share price.

Users may assume that the financial information they receive is reliable and suitable for its purpose. Accounting regulation attempts to ensure that information is produced on a consistent basis in accordance with a set of rules that make it reliable for users. However, communications between entities and shareholders may be distorted by the deliberate activities of financial statement preparers who wish to alter the content of the messages being transmitted. This is made possible through regulatory flexibility, dearth of regulation,

management considering the scope for estimation in discretionary areas, artificial transactions to manipulate financial data and to move profits between accounting periods and the reclassification and presentation of financial numbers to suit managers target (Gowthorpe & Amat, 2010). These practices constitute what researchers have christened earnings management or creative accounting. The concept, creative accounting differs in practice, complexity and nomenclature across the globe. In the United States of America (USA) the preferred and the most frequent used term is “earnings management” whereas in Europe “creative accounting” is often employed (Amat, Gowthorpe & Perramon, 2003). In the literature, terms like income smoothing, earnings smoothing, cosmetic accounting or accounting cosmetics, financial crafts or accounting crafts have also been describing as creative accounting and earnings management. Managers engage in earnings management to achieve certain goals such as avoiding loss, meeting market expectations, avoiding debt covenant violations (Jaggi & Tsui, 2007).

The numerous corporate failures are indication of lapses in the corporate accounting information disclosure practices among corporations globally, Nigeria inclusive (Arowoshegbe & Okunbor, 2014). In Nigeria for instance, most banks that collapsed in the late 1990’s and early 2000’s had fantastic audited results. This of course, became a challenge to the professional bodies whose members were auditors and accountants of such failed banks as society questioned the integrity of such auditors (Mulford & Comisky, 2002). In the past, many banks in Nigeria are involved in a mild form of creative accounting that has resulted to the moribund of many banks in Nigeria. Banks lend to stockbrokers to buy their own shares to sustain demand pressure thus causing continued price rise without corresponding appreciation in underlying values or fundamentals (Amat, Blake & Dowds, 1999). There is an indication from some previous studies that the reason why Nigerian commercial banks engage in creative accounting is to boost the market value of share (Sanusi & Izadonmi, 2013). This study therefore, examine the influence of firm’s attributes on stock market price of selected Commercial banks in Nigeria, while controlling for creative accounting.

There is no doubt that the rationale for yearly preparation of financial statements is to enable managers evaluate their performance for the resources entrusted to them by the shareholders which in turn enables stakeholders to evaluate how well the managers used the resources in creation of wealth which is one of the core objectives of any company. But because of information asymmetry, there is always mis presentation of fact since managers can deliberately decide not to disclose some information that they considered being harmful to the shareholders, rather since performance is evaluated by the yearly numbers presented, the numbers are sometimes fictitious numbers existing only on papers.

Most cases of corporate failures are indication of lapses in the corporate accounting information disclosure practices. Some harmful effects of corporate scandals is massive loss of investors’ funds, disruption of capital market and reduction in the National Gross Domestic Product (GDP). Creative accounting is one way management manipulate accounting figures with the aim of enhancing performance. Investors who are not knowledgeable in accounting and finance find it very tedious to decipher the techniques applied by management to carry out creative accounting or window dressing of financial data.

There have been instances of manipulation of reported figures by firms in Nigeria (e.g., Cadbury plc in 2003). Within the last decade and half, many commercial banks in Nigeria were taken over by the apex bank because of several infractions including manipulation of financial data. This practice appears not to have abated; therefore, this study therefore seeks to examine the effect of firm’s attributes on stock price manipulation and to ascertain whether creative accounting is a contributory factor. Against this background that the study seeks to assess the intervening role of creative accounting on stock price and firms’ attributes. The paper divided into five-part, section one look at the Introduction, section, literature review, section three takes the methodology, section four discussed the results and section five conclude the study.

In view of the above, therefore, the following research hypothesis was developed and stated in null form.

- i. Ho. There is no significant relationship between the size of commercial banks in Nigeria and the market price;
- ii. Ho. There is no significant relationship between the growth of commercial banks in Nigeria and the

market price.

- iii. Ho. Creative accounting does not significantly mediate the relationship between market price and firm attributes of commercial banks in Nigeria.

LITERATURE REVIEW

This section will look at the theory, concept and review used in the study.

Agency theory

The agency theory that was propounded by Jensen and Meckling (1976) holds that agency relationship is one in which one or more persons (the principals) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent. The theory sees firm as a legal fiction which serves as a focus for a complex process in which the conflicting objectives of individuals are brought into equilibrium within a framework of contractual relations. Most of the research on Agency theory has focused on solving the preceding obstacle and a plausible solution has emerged. Namazi (1985) stated that an agency operates under the condition of risk and uncertainty. Under this circumstance, the amount and content of information sources would become a significant issue in risk sharing and controlling the agent's actions. However, gradually the domain of the agency theory was extended to the management area for determining the cooperation between various people with different goals in the organization and attainment of the goal congruency (Eisenhardt, 1989). The ethical dimension of human behaviour may provide an important element missing from legalistic and adversarial agency relationships (Horrigan, 1987). Agency theory Baiman, Fischer and Rajan (2000) support collecting additional information about the agent's efforts and skills because it will improve the fee schedule solution and will enhance the precision of the measurement criteria of the management's control system. There are two problems associated with the agency relationship (i) the agency problem and the risk-taking preferences. These problems constitute the two perspectives to the agency theory: opportunistic behaviour and economic cost theories. Opportunistic behaviour is the result of asymmetric information, with the agent possessing more information than the principal does. Generally, proponents of the opportunistic behaviour theory are of the view that in dealing with situations involving compensation contracts, debt contracts and regulations, managers tend to exploit information asymmetry between insiders and outsiders for personal benefit or utility (Eisenhardt, 1989). The opportunistic behaviour perspective supports this study because investors can be misled into buying company share through unreliable information and reports that paints a rosy picture of performance.

Concept of firm attributes

Firm attributes are those distinctive features unique to companies that could be financial or non-financial, internal or external to the firm (Hassan & Ahmed, 2012). Firm attributes are classified into firm performance attributes and firm structural attributes. Performance attributes are those attributes that differ by time and allow identifying a firm's performance, while company structure attributes are those attributes that are widely known and considered stable over time (Rabiu, 2019; Naser, Al-Khatib & Karbhari, 2002).

The firm performance attributes include firm growth, firm leverage and firm profitability, while firm structural characteristics include firm size, firm age and capital expenditure or management efficiency (Shehu, 2009). Firm attributes are wide varieties of information disclosed in the financial statement of business entities that serve as the predictors of the firm's quality of accounting information and performance (Shuaibu, Ali & Amin, 2019). In this study, firm growth and firm size are the relevant constituents of firm attributes. Firm attributes such as asset growth can influence market value. It can be argued that growth in asset results from higher investment in equity capital that aids productivity of the firm and hence, return on investment. Return on investment translates to growth in share price of such a firm over time (Adamu, Ekundayo, & Yunusa, 2019). Share price, which measures a firm's value, is the highest or lowest buying or selling prices of units of companies' stock, financial asset, or derivatives at a particular point in time (Lo & MacKinlay, 1988). Studies such as Dana (2008), Abu Shanab (2008) & Abdallah (2012) have shown corporate attributes such as firm size, leverage, profitability, growth among others affect share prices.

Concept of Creative accounting

Creative accounting and earnings management have been called income smoothing, earnings smoothing, cosmetic accounting, accounting cosmetics, financial crafts, “innovative” or “aggressive” accounting (Jaggi & Tsui, 2007; Elliot & Schroth, 2002). Scholars define earnings management or creative accounting differently. Schipper (1989: p. 92) described earning management as “purposeful intervention in the external financial reporting process, with the intent of obtaining some private gain” (as opposed to merely enabling the impartial operation of the process). If gains or profits are changed to comply with GAAP, such as inventory estimation and depreciation, it is permissible. Accelerating income recognition and postponing expense recognition without GAAP makes earnings management dishonest (Yang, Chun, & Ramadili, 2009). Scott (1997) defines earnings management as managers using GAAP accounting standards to maximise their utility and/or the company's market value. Ortega and Grant (2003) claim that earnings management manipulates business finances using financial reporting flexibility. “Earnings management is attempts by management to influence or manipulate reported earnings by using specific accounting methods, accelerating expense or revenue transactions, or other methods to influence short-term earnings” (Isenmila & Afensimi, 2012). Healy and Wahlen (1999) have a popular definition of earnings management: managers use their discretion in financial reporting and transaction structuring to mislead stakeholders about the company's economic performance or to influence contractual outcomes that depend on reported accounting numbers.

Review of Related Empirical Studies

The study that was conducted by Osisioma and Enahoro (2006) on Creative Accounting and Option of Total Quality Accounting in Nigeria was carried out through field work questionnaire administration and the population was randomly selected with sample size of 300 utilized for the analysis. The target groups were practicing accountancy and audit firms and the data was analyzed with statistical test of relevance (Chi-square, χ^2 at 5% significance level). The study found out that creative accounting has definitely affected information users. Hence, in Nigeria it is believed that the practice of creative accounting is constructive to the benefit of the manipulator of accounts. Also, the authors found out 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 reporting in anticipation of correcting the weakness. The financial status is enhanced to enable the company to be attractive. However, less than 40% claim this advantage while less than 40 percent do not consider that creative accounting is creditable for practice. Creative accounting is manipulation or falsification and it gives erroneous impression of the reality and this is fraudulent.

Akenbor and Ibanichuka (2012) studied creative accounting practices in Nigerian banks. To achieve the purpose of this study a population of 25 managers and 25 accountants drawn from the twenty-five (25) recapitalized banks within the Federal Capital Territory (FCT) – Abuja was adopted. The study used survey research design and the primary method of data collection was employed with the aid of questionnaire, which was designed in five-response options of Likert-Scale. The data generated for this study were analyzed through mean scores while the stated hypotheses were statistically tested with Z-test and they concluded that firms adopt creative accounting as a means to cushion earnings boosting the market price of their shares thereby. Also a study conducted on the effect of creative accounting on the job performance of accountants (auditors) in reporting financial statement in Nigeria by Ezeani, Chuks and Okonye (2012) aimed at identifying the strategies used by the accountants to avoid creative accounting in any of their financial dealings. The study employed empirical survey. Two hundred and twenty seven out of 500 respondents were chosen, using simple ransom sampling techniques and Taro Yamani's for formula. The data generated were analyzed using simple percentage method and pie chart for the research question, and t – test statistics for the hypotheses formulated. Among the findings made in the study was that the accountants/auditors indulge in creative accounting through profit eroding mechanisms to attract investors and resources but deceptive or fraudulent and it was also noted that managers of non-profits organizations may have incentives to manipulate their reported programme-spending ratios because donors use them in determining contribution decision. It is recommended that there is urgent need for practice monitoring to commerce in order to raise the quality of financial report globally.

Umobong, Choba, and Ironkwe (2017) work on Creative Accounting Practices and Financial Performance of firms in Nigeria using food and beverage firms with the aid of performance variables such as: return on assets, returns on equity and earnings per share were used and seasonal trading reports was used to measure creative using change in sales Volume (Turnover) for firm i in period $t-1$ shows that sales turnover ratio has no significant relationship with ROA, ROE and EPS and not used to manipulate ROA, ROE and EPS. STR has negative relationships with performance variables and we conclude that an increase in STR decreases performance. Then study adopted ex-post factor research design. The population includes all manufacturing firms in Nigeria and uses census method of sampling which does not require sample size determination. However, all firms in the food and beverage subsector were considered but only 35% of firms in the sector had complete data for the period 2006 to 2014.

Nyabuti, Memba, Chegeand Kenyatta (2016) on the Influence of Creative Accounting Practices on the Financial Performance of Companies Listed in the Nairobi Securities Exchange in Kenya. The research used both descriptive and inferential statistics to examine the major practices of creative accounting that influence financial performance of public companies listed in the Nairobi securities exchange in Kenya. The target population of this study was top management of public limited companies that is the CEO, directors, top managers and accountants. A sample of 30 public companies was drawn using purposive sampling. Logistic linear regression technique was used to analyze the relationship between creative accounting practices and financial performance and the correlation between the variables and financial performance. Quantitative approach through the use of questionnaires was adopted to help in the collection of primary data for analysis purposes. The secondary data was collected from NSE handbook relevant text books, finance journals, financial statements and the website of public limited companies that were be sampled. The study found a strong relationship exists between creative accounting practices and financial performance. Also based on a study by Asuquo (2011), he studied the impact of creative accounting and earnings management on modern financial reporting. He noted that there is need for the review of the concepts of “True and Fair”, and materiality as they affect published financial statements since management are always contending that sometimes noted by auditors are not material against the standard. While previous empirical studies relied on survey, this study employed secondary data to measure creative accounting. This is because the study believes that large firms with high prospect of growth are more likely to manipulate their financial statements in order to report better earnings which in turn influences share price. In estimating the relationship between share price and firms attributes creative accounting was used as an intervening variable as the researcher believes that the relationship between firm’s attributes and share price is not direct but indirect through creative accounting.

METHODOLOGY

The researcher made use of ex-post facto research design. Ex-post facto design helped the researcher to find out, describe and explain existing phenomena and drew conclusion based on the data collected from already existing source. The total population of the research comprised of ten (14) quoted money deposit banks that are continuously quoted on the NSE from 2010-2017. This study will adopt the Krecjie and Morgan (1970) method for determining sample size where the population is unknown or infinite as the researcher is not able to accurately determine the number of employees of the 14 commercial banks under study. The formula is given as:

The data utilized for this study were obtained from secondary source. The secondary source of data consists of annual reports of the commercial banks for the period 2010 to 2017.

$SHPRICE = f \{ \text{Creative accounting proxied with Dechow and Dichev model} \}$

Creative accounting proxied with Dechow and Dichev model is given as:

$$DWCA = b_0 + b_1 CFO_{t-1} + b_2 CFO_t + b_3 CFO_{t+1} + \epsilon_t \text{----- (1)}$$

OR

$$\Delta WCA = \Delta AR_{it} + \Delta INV_{it} - \Delta AP_{it} - \Delta TP_{it} + \Delta OA_{it} \text{----- (2)}$$

Where:

D WCA is change in working capital accrual

CFO_{it-1} = Lag of cash flow from operations (previous year's cash flow)

CFO_{it} = Current year's cash flow from operations

CFO_{it+1} = Following year's cash flow from operations

ΔAR_{it} = Change in accounts receivable

ΔINV_{it} = Change in inventory

ΔAP_{it} = Change in accounts payable

ΔTP_{it} = Change in taxes payable

ΔOA_{it} = Change in other assets (PPE)

All variables are scaled by average assets.

D WCA = f (FSIZE, FGRWT)----- (3)

Dechow and Dichev Model (D WCA) = f (FSIZE, FGRWT) ----- (4)

D WCA = $b_0 + b_1 CFO_{t-1} + b_2 CFO_t + b_3 CFO_{t+1} + \epsilon_t$ ----- (4)

SHPRICE = f ((DWCA, FSIZE, FGRWT)with (DWCA)as intervening variable---- (5)

Where:

SHPRICE = Share price

DWCA = Creative accounting proxied with Dechow and Dichev model

FSIZE = Firm size proxied with total assets

FGRWT = Firm growth measured as changes in turnover (DTURN)

Testing for mediation effects

In order to test for mediation effects in line with the schematic representation of the model, the researcher followed previous studies such as Baron and Kenny (1986), Judd & Kenny (1981), Mackinnon (2011), Mackinnon, and Dwyer (1993), and specified the study model as follows:

→ $Y = c X + e_1$ the independent variable (X) causes the outcome variable (Y)

→ $M = a X + e_2$ the independent variable (X) causes the outcome variable (M)

→ $Y = c' X + b M + e_3$ the mediator (M) causes the outcome variable (Y) when controlling for the independent variable (X). This must be true.

In econometric form the model is specified as:

$Y_{it} = \alpha_0 + \alpha_1 c X_{it} + e_{it}$ ----- (6)

$M_{it} = \alpha_0 + \alpha_1 a X_{it} + e_{it}$ ----- (7)

$Y_{it} = \alpha_0 + \alpha_1 c' X + \alpha_1 b M_{it} + e_{it}$ ----- (8)

Where

Y = Dependent variable (SHPRICE = Share price)

X = Independent variable {firm attributes represented by: FSIZE = Firm size proxied with total assets and FGRWT = Firm growth measured as changes in turnover (DTURN0)}

M = Mediator variable (DWCA = Creative accounting proxied with Dechow and Dichev model)

c= overall effect or total effect of FSIZE and FGRWT on SHPRICE (i.e. the direct effect)

a= effect of FSIZE and FGRWT on the mediator(DWCA) (i.e. the direct effect of the independent variable on the mediator variable, DWCA.

c'= effect of FSIZE and FGRWT on the outcome variable (SHPRICE) while controlling for DWCA.

b = effect of DWCA on SHPRICE.

Equations (2) and (3) are estimates of the direct effect and indirect effect. The direct effect represents the path from X to Y called ‘c’ while controlling for the mediator (M). The indirect effect is represented by the path X to M, that is, (a path) and path M to Y (b path) or the product of the regression weights a and b. Thus, equation (7) and (8) gives the direct effect ‘c’ and the indirect effect ‘ab’. If the effect of X on Y is zero when the mediator is included (c' = 0), there is evidence for mediation (Judd & Kenny, 1981). This would be full mediation.

If the effect of X on Y is reduced when the mediator is included (c' < c), then the direct effect is said to be partially mediated.

RESULT AND DISCUSSIONS

TABLE 1 Descriptive statistics

	SHPRICE	lnWCA	lnFSIZE	lnFGRWT	lnWCA*FSI ZE	lnWCA*FG RWT
Mean	9.082589	-1.464286	27.31614	9.742764	-32.86365	-87.84251
Median	6.765000	-23.00000	27.56206	22.89455	-590.2804	-550.5175
Maximum	41.50000	29.00000	29.85282	27.20990	809.0749	697.8074
Minimum	0.500000	-30.00000	21.25130	-26.80551	-813.0281	-723.0920
Std. Dev.	8.902857	25.56071	1.492913	21.65725	699.4535	599.6978
Skewness	1.402379	0.106716	-1.265431	-0.901476	0.105061	0.285358
Kurtosis	4.914920	1.024572	5.801928	1.840102	1.037085	1.118201
Jarque-Bera	53.82342	18.42339	66.52832	21.44800	18.18688	18.04546
Probability	0.000000	0.000100	0.000000	0.000022	0.000112	0.000121
Sum	1017.250	-164.0000	3059.408	1091.190	-3680.729	-9838.361
Sum Sq. Dev.	8797.956	72521.86	247.3957	52063.06	54305112	39919751
Observations	112	112	112	112	112	112

Researcher’s compilation 2020 from e-view 9

The researcher begins by examining the descriptive statistics and relationship between the dependent and independent variable. In table 4.1, the main statistic of interest is the Jarque-Bera test of normality. It can be

seen from the result that entire distribution is not normally distributed with $p < 0.01$). The data set failed the normality test implying that the ordinary least square regression technique cannot be used for estimation of the model, hence a more appropriate statistical tool (Panel data regression technique) was adopted.

TABLE 2 Estimation result for Model I: Share price and firm attributes

Variable	Panel OLS	Fixed Effects	Random Effects
C	-22.294	6.638	4.332
	(-1.449)	(0.658)	(0.431)
	0.150	0.512	0.668
lnFSIZE	1.152	0.071	0.157
	(2.042)	(0.193)	(0.433)
	{0.043}	{0.847}	{0.666}
lnFGRWT	-0.008	0.051	0.048
	(-0.209)	(2.587) *	(2.446)
	{0.834}	{0.01}	{0.016}
R ²	0.036	0.801	0.05
Adj. R2	0.019	0.769	0.03
F-Statistic	2.085	25.70	2.993
Prob. F-Statistic	0.129	0.000	0.05
D-W Statistic	0.370	1.416	1.188
Redundant fixed		28.289(0.000)	
Hausman test			7.458(0.02) *
LM Test(Breusch-Pagan)	Cross section 204.34(0.000)	Both 205.01 (0.000)	

Source: Researcher's estimation, 2020 from E-view. * sig @ less than 5%, ** @ less than 1%; () t-value; {} p-value

Table 2 shows the regression result of the effect of firm attributes on share price using the ordinary least square (OLS) and generalized least square (GLS) estimation.

The effect of ln FGRWT on share price (SHPRICE) is positive (coefficient = 0.051) and significant ($t = 2.587$, $p = 0.01$) and result implies that firm growth has significant effect on share price, thus high growth firms are likely to command higher prices for their shares. However, ln FSIZE has a positive (coefficient = 0.071) but non-significant ($t = 0.193$; $p = 0.847$) effect on share price, meaning that the size of a firm has no influence on the market price of its shares.

The model parameters are as follows: coefficient of determination (R^2) = 80percent, Adjusted $R^2 = 77$ percent. These values suggest that the model explains about 77percent of systematic variations in share price. The F-stat = 25.7p (f-stat) = 0.0.000 and D. W=1.48 The F-values confirm that the hypothesis of a significant linear relationship between the variables (dependent and independent) should not be rejected at 5percent level while the DW statistic indicates possibility of the existence of serial correlation in the residuals. Moreover, the Bruesch- Pagan Lagrange Multiplier (LM) test for higher order autocorrelation which is more efficient than DW statistic also shows that there are no serial correlation problems in the variables for cross section and both time and cross section at 204.34 ($p = 0.000$) and 205.01 ($p = 0.000$).

TABLE 3 Estimation result for Model II: Dechow and Dichev Model (ΔWCA) and firms' attributes

Variable	Panel OLS	Fixed Effects	Random Effects
C	-79.87	-108.81	-89.51
	(-1.818)	(-1.905)	(-1.878)
	{0.07}	{0.059}	{0.063}
lnFSIZE	2.936	4.002	3.292
	(1.824)	(1.915)	(1.888)
	{0.07}	{0.058}	{0.061}
lnFGRWT	-0.184	-0.202	-0.193
	(-1.66)	(-1.812)	(-1.774)
	{0.09}	{0.073}	{0.078}
R ²	0.048	0.224	0.054
Adj. R2	0.031	0.103	0.037
F-Statistic	2.749	1.856	3.138
Prob. F-Statistic	0.068	0.037	0.049
D-W Statistic	2.089	2.564	2.289
Redundant fixed		1.684(0.08)	
Hausman test			0.628(0.72) ***

Source: Researcher's estimation, 2020 from E-view. * sig @ less than 5%, ** @ less than 1%; () t-value; {} p-value; *** not significant.

From the result displayed in Table 3 the Hausman test for random effect is greater than 0.05, therefore the random effect is preferred. The regression result of the effect of firm size (lnFSIZE) on working capital (ln ΔWCA) is positive (coefficient = 3.292) but not significant (t = 1.888, p= 0.06), while ln FGRWT has negative (coefficient = -0.193) but non-significant (t = -1.774; p= 0.07) effect on working capital. As the result is not significant it does not merit further comment.

The model parameters are as follows: coefficient of determination (R²) = 5%, Adjusted R² = 4%. These values suggest that the model explains about 4% of systematic variations in share price. The F-stat=3.138p (f-stat) = 0.04 and D. W=2.289. The F-values confirm that the hypothesis of a significant linear relationship between the variables (dependent and independent) should be rejected at 5% level while the DW statistic indicates there are no serial correlations in the residuals.

Mediation effect of Dechow and Dichev Model (ΔWCA)

The relationship between firm attributes (lnFSIZE and lnFGRWT) and share price (SHPRICE) when controlling for creative accounting (ΔWCA) is examined in this section.

TABLE 4 Estimation result for Model III: Share price, Dechow and Dichev Model (ΔWCA) and firms' attributes

Variable	Panel OLS	Fixed Effects	Random Effects
C	-28.522	13.787	10.544
	(1.707)	(1.223)	(0.942)

	{0.09}	{0.224}	{0.349}
lnΔWCA	-0.405	0.682	0.610
	(-0.643)	(1.980)	(1.787)
	{0.522}	{0.05}	{0.07}
lnFSIZE	1.378	-0.188	-0.069
	(2.258)	(-0.457)	(-0.170)
	{0.02}	{0.649}	{0.865}
lnFGWRT	-0.018	0.057	0.053
	(-0.047)	(2.836)	(2.664)
	{0.641}	{0.006}	{0.009}
lnWCAlnFSIZE	0.013	-0.025	-0.022
	(0.577)	(-1.969)	(-1.784)
	{0.565}	{0.05}	{0.077}
lnWCAlnFGRWT	0.000	-0.001	-0.0006
	(0.115)	(-0.811)	(-0.782)
	{0.908}	{0.420}	{0.436}
R ²	0.05	0.81	0.091
Adj. R2	0.007	0.77	0.048
F-Statistic	1.163	22.23	2.117
Prob. F-Statistic	0.33	0.000	0.068
D-W Statistic	0.43	1.447	1.22
Redundant fixed		28.81(0.000)	
Hausman test			9.913(0.087)***

Source: Researcher's estimation, 2020 from E-view. * sig @ less than 5%, ** @ less than 1%; () t- value; {} p-value, *** not significant

From the result displayed in Table 4.4 the Hausman test for random effect is greater than 0.05, therefore the random effect is preferred and the statistic of interest is the coefficient of the variables: c' and c . If $c' = 0$, there is full mediation, while if $c' < c$, it implies partial mediation. The regression result of the relationship between firm attribute (lnFSIZE) and share price (SHPRICE) when controlling for the mediator ((lnΔWCA) is negative ($c' = -0.068$) compared to the coefficient when there is no mediating variable ($c = 0.071$). As ($c' = -0.069$) is less than $c = 0.071$, the direct effect is partially mediated. However, for the variable lnFGRWT, ($c' = 0.053$) is greater than $c = 0.051$, hence there is no mediation.

Tests of hypotheses

In this section, the hypotheses of the study are tested based on the outcome of the model.

Hypothesis 1

There is no significant relationship between the market price of the shares and the size of commercial banks in Nigeria

In the result shown on Table 4.3 for the first model under the random effects, the coefficient of $\ln\text{FGRWT}$ is positive (0.051) and significant at 1% ($t = 2.587$, $p = 0.01$). Consequently, the null hypothesis that firms' growth has no significant relationship with share price is rejected implying that growth has significant influence on market prices of shares of commercial banks in Nigeria. The result shows that a one-percentage change in $\ln\text{FGRWT}$ will bring about 2.587 percent change in share prices.

Tests of hypotheses

In this section, the hypotheses of the study are tested based on the outcome of the model.

Hypothesis 1

There is no significant relationship between the market price of the shares and the size of commercial banks in Nigeria

In the result shown on Table 4.3 for the first model under the random effects, the coefficient of $\ln\text{FGRWT}$ is positive (0.051) and significant at 1% ($t = 2.587$, $p = 0.01$). Consequently, the null hypothesis that firms' growth has no significant relationship with share price is rejected implying that growth has significant influence on market prices of shares of commercial banks in Nigeria. The result shows that a one-percentage change in $\ln\text{FGRWT}$ will bring about 2.587 percent change in share prices.

Hypothesis 2

There is no significant relationship between the market price of shares and the growth of commercial banks in Nigeria.

This hypothesis captures the effect of firms' size on share price of commercial banks. The result shows that the natural logarithm of firms' size ($\ln\text{FSIZE}$) has a positive (0.071) relationship with share price but the relationship is not significant at 5% ($t = 0.193$, $p = 0.847$). Since the result is not significant, the analysis does not merit further comment.

Hypothesis 3

Creative accounting does not mediate the relationship between market price and firm attributes of commercial banks in Nigeria.

This hypothesis captures the moderating effect of creative accounting as a control variable on share price of firms and it is depicted by the third model. The regression result of the mediation effect shown in table 4.4 shows that the direct effect of ($\ln\text{FSIZE}$) on share price (SHPRICE) when controlling for the mediator ($\ln\Delta\text{WCA}$) is partially mediated ($c' < c$) or ($c' = -0.069$ is less than $c = 0.071$).

DISCUSSIONS

Firms' attributes and share price

The coefficient of $\ln\text{FGRWT}$ is positive (0.051) and significant ($t = 2.587$) at 1 percent level ($p = 0.01$). This implies that firms' growth affects share price. The result is in tandem with the conclusions of Muhammed and Usman (2016) and Ayuba et al (2018) who find a significant positive relationship between firm size and share price but negates the result of the studies carried out by Okafor & Chijoke-Mgbame (2011) and Ekundayo (2018) who report a negative relationship between firm growth and share price. Again, this study's finding is at variance with the study of Adedoyin (2011) which asserts that firm attributes have no impact on share price. However, the study cannot categorically say whether it is high or low growth that has relationship with share price. The $\ln\text{FSIZE}$ has no significant relationship (0.071; $t = 0.193$, $p = 0.84$) with SHPRICE and as such does not merit further comment.

Creative accounting and firms' attributes

The \ln FSIZE has a positive (3.292) association with creative accounting ($\ln\Delta$ WCA) but the relation is not significant ($t = 1.888$) at 5 percent level ($p = 0.06$) contrary to theoretical expectation. This implies that firms' size may not be responsible for creative accounting. This study result is in tandem with the conclusions of Uwugbe, et al., 2012; Tucker and Zarowin, 2006 and Dou, et al. 2013 who found positive relationship between firms' size and creative accounting represented with income smoothing. Firms' growth has negative and non-significant relationship (-0.193 ; $t = -1.774$; $p = 0.07$) with creative accounting. This result is at variance with the findings of the study carried out by Tucker and Zarowin, 2006 and Dou, et al. 2013 who reported a positive association between income smoothing as a measure of creative accounting and share price.

Mediating effect

The result of the test for mediating effect indicates that although firm's size has no significant relationship with creative accounting, creative accounting however, partially mediates the direct effect between firms' size and share price. Indeed, the study result shows that the quest for growth could influence creative accounting practices.

CONCLUSION AND RECOMMENDATIONS

The study examines the intervening role of creative accounting on stock price and firms' attributes and conclude that earnings and share prices are related as share price movements are a function of market expectations. Firm attributes such as size and growth have a great influence on market prices. Share prices seem to go up when actual earnings exceed the expected earnings. Firms' management often use creative accounting to manipulate accounting figures to enhance performance and boost market value of shares.

The study examined the effect of firms' attributes on stock price manipulation while controlling for creative accounting. The study concludes that while firms' growth has significant effect on share prices, creative accounting is partially responsible for the direct effect of firm size on share price, although firm size has no significant relationship with share price.

The study also recommends that investors and regulatory authorities should undertake careful scrutiny of the financial statement of commercial banks, especially those that has high taste for growth to ensure that they are not engaged in creative accounting practices.

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