

Effects of Discretion Accruals on Stock Prices of Quoted Manufacturing Companies in Nigeria

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Abstract: This study examines the effect of discretion accruals on stock prices of Quoted manufacturing firms in Nigeria. We have accruals components identified as facilitator of firm's earnings increase or decrease with abnormal effect on stock price performance. The researcher considered four years annual data prior to the adoption of international financial reporting standard (IFRS) from ten (10) quoted manufacturing companies. The study adopted expo-facto design that necessitated the determination of the pre-existing independent variables used in this study. Data were gathered using on-line retrieval method. Also, panel regression model was employed to combine the properties of time series and cross sectional data. The results demonstrated increase and existence of a unique long-run relationship between discretion accruals and stock prices. This implied that firms whose share prices were very high and recorded high returns in the stock market used discretionary accruals to influence their performance. The findings indicate that managers capitalize on the inefficiency of the stock market and information irregularities between investors and insiders (director) to manipulate earnings. This study recommends that regulatory authorities should enforce compliance with Accounting Standards, particularly; International Financial Reporting Standards (IFRS) in accounting disclosure such that financial information manipulation undertaken by firms to improve earnings is eliminated.

Keywords: Discretion accruals, stock prices, accounting earnings, quoted manufacturing companies.

1. Background

Several situations have been mixed on the tide relationship between stock market performance and firm's discretion accruals mechanism in the manufacturing sector. This study seeks to contribute to the fundamental properties of accruals accounting and examine its implications on firm's stock price performance in Nigeria. Discretion accruals constitute accounting techniques employ to communicate performance information and firm market value, not because of the chain of activities involved but to impress provider of capital.

As accounting method, accrual recognizes expenses when incurred and revenue when earned rather than when payment is made or received, it measures performance and status of a firm regardless of when cash transaction occurs. Allen, Larson and Sloan (2011), assert that accrual anticipate probable future economic benefit and obligation. Chan, Jegadeesh and Lakonishok (2006), also posit that changes in accrual connote manipulation. According to Dechow (2005), accounting convention such as objectivity and historical cost limits the flexibility of management to manipulate revenues and expenses recognition. Firms adopts accrual accounting as a means of providing accurate information, but the complexity involving timing and matching of the transaction made it appears more difficult to implement. Similarly, Qiang, Qiao and Rong (2010), posit that accrual retain both

economic and statistical figure used to forecast future market returns. Against the back drop of predicted high stock return and unstable holdings for interior corporate reason that possess negative effect on investors, managers often communicate financial information that will improve earnings capacity, and increases short term economic value without having to analyses its long term stock market effect. Sule and Momoh (2009), view the financial sector as a driver and catalyst to achieving the vision of any economy, because it strengthen the domestic financial market and increase growth. Okodua and Ewetan (2013), agreed that economy with active stock price may have its vital stock market index frequently used to measure performance. To realize the daily speculation of analyst and investors, management put good face on earnings by deploying discretion accruals as techniques to growing accounting income which serves as predictive power for future stock price velocity. Surprisingly, stock market does not recognize discretion accruals used by management to improve income due to its volatility. In essence, the years following income increase accounting change, most firm show poor share price performance despite prior year performance indicator in the stock market giving negative view on investor's speculation about firm's earnings growth. While there are empirical studies on discretion accruals in advance economies, there have been only a few studies in developing

economies such as Nigeria. The focus of this study is therefore to examine the effect of discretion accruals on stock prices of the quoted firms with regard to aggregate stock market performance of the industries under study in Nigeria.

2. Empirical review

Discretion accruals have been identified as a measure of performance that contains management future expectation irrespective of when cash transaction occurs. It conceals necessary adjustment related to the operating cash flow and enhances stock price movement in optimistic market cycle. Gomez, Okumura and Wasley (2005), studied accruals model and accounting process in Japan using Jones Model. Their results revealed that Japanese tax code allow firms to set aside funds annually against future contingences such as losses due to doubtful accounts, product return etc. These reserve accounting maintained by firms serves as an additional way to smooth income. Sloan (1996), used ordinary least square to examine stock price performance and accruals information. His result revealed that stock market fails to recognize accruals information. The reason is that firms with high (low) accruals, report earnings in the following year that are predictably lower (higher) than market expectation. Allen, *et al.* (2011), examined accrual reversals earnings and stock return in the United States of American. They found that accruals contain a significant amount of estimated error that has predictable consequences for future accruals and stock returns.

Using Johansen co-Integrated test, Tien, Kim andwei-Jin (2002), investigated corporate performance and stock price in Singapore. Their studies revealed that, institutional investors should pay more attention to the underlying performance of stocks, especially earnings per share and net asset value in their stock selection process.

Similarly, Core, Guay and Verdi (2008), conducted appropriate asset pricing test on accrual and priced risk factors using Asset pricing model. Their result showed that accrual quality is not responsible in price risk factor. Franked and Charles (1998), predicted market expectation and cross-sectional stock return in the United States of America using Analyst Based Evaluation Model, they found that firm value (v) is highly correlated with contemporary stock price and that the firm value of price ratio (v/p) is a better predictor of long-term cross-sectional return. However, conflicting evidence were provided on discretion accruals and accounting earnings.

Qiang, *et al* (2010) used ordinary least square to predict stock market returns with aggregate discretionary accruals, the study revealed that aggregate discretionary accruals have an increasingly larger role in predicting firm-level returns as the firm size increases.

Discretion accruals and firms stock market performance

Stock market all over the world provides listed companies the platform to mobilize capital needed for long-term investment. Companies acquire this capital through issuing part of their ownership to existing holders and could also withdraw from issuing new security in the event where information irregularities are high in the market. Before undertaking the investment, economies analyst and investors see stock prices as representing the financial health of a company. This indirect link between stock price and financial health trigger managers to inflate accounting earnings persistently before security offering. Park and Park (2004), posit that insider especially directors and managers before selling their own stocks would have intentionally increase current period earnings through accruals and deliberately delay certain transactions such as liabilities been under-estimated in a pessimistic period. Sometimes investors could also see high growth rate as if it will last forever leading to overestimating firm's market value.

However, recognition of financial statement items reported in the bottom line has been a major concern among scholars over decades. These conflicting issues is centered on timing period of recognizing expenses and revenue which manager will always prevent from affecting the reported earnings of the firm with the view of ensuring constant lead and patronage in the stock market (Qianget *al.* 2000). In Nigeria, managers make use of the silence opportunity in accruals variable and market inefficiency to enhance earnings so as to improve its stock price when faced with weak market performance. With discretion accruals influence, investors' prediction about firm future stock market performance could be affected with sudden change, (Ming-feng (2015)

Daneshfer and Mohamed(2009), identified three market cycles. In Their views, optimistic market cycle occurs where investors are confident and very certain about future increase in stock price in the economy. In neutral market cycle, investors have no feelings about the market rather they evaluate economy information relating earnings per share changes. The pessimistic market cycle, exist when stock price are revalued across board without national economy influence. Moreover, stock price retain meaningful power of predicting future stock return and firms performance. This power can be affected by uncertainties such as discount rate news and unexpected changes in future cash flow due to accrual effect. Though, persistence increase or decrease of stock price dampened investor's reliability on the true nature of the earnings especially during optimistic market cycle. But during pessimistic market cycle, investors are bent to analyze management action over negative market report and their decision could fashion firm stock market with decrease in stock price especially when high abnormal accruals are involved.

Conclusively, investors and financial analyst make use of accounting information to analyze and value firm's stock

price. For this reason, managers used strong incentive to manage earnings when the stock market is weak so as to prevent market shock in a pessimistic cycle. When aggregate market value falls, managers’ report increased earnings by shifting current-period accruals and putting face on aggregate equity market instead of looking at their own stock price performance to manage earnings.

Hypothesis: There is no significant relationship between discretion accruals and return on share of quoted manufacturing companies in Nigeria.

3. Methodology

For the purpose of this study, our data sample consist of 10 quoted manufacturing firms on the Nigeria stock Exchange covering 2012 to 2015 financial years. We used this period in other to avoid data misplacement and enhanced consistency in the companies reporting method prior to the adoption of IFRS. The main reason of using non-financial firms is to enable us obtain robust data for accrual computation. We adopted Sloan (1996) accrual model to compute the value for total accrual, that is $ACC = (\Delta CA - \Delta C) - (\Delta CL - \Delta STD - \Delta TP) - Dep$. Where ΔCA is change in current asset, ΔC change in cash, ΔCL change in current

liabilities, ΔTP change in income taxes payable, ΔSTD equals change in debt included in current liabilities and Dep is depreciation amortization expenses. This was used to disclose information content that possess value to stakeholders since there is no scope for profitability speculation in the stock market in support of the assertion of Shannon (1948) and Eugene (1960).Cash flow was measure using Sturm (2006) cash flow accrual ratio $CFAR = [NOI - \{OA + IA\}] - NOA$. These formula was used so as to enable us determine the value of cash flow and the extent at which its fluctuation affect companies stock prices.

The model is described by the following equation:

$RET = f(ACC, CF, REC, INV)$. In more explicit form, the regression equation can be stated as

$$RET = a_0 + a_1Acc_i + a_2Cf_i + a_3REC_i + a_4INV_i + e_i$$

Where RET Returns on firms share performance measurement is the dependent variable, ACC Accrual, CF Cash flow, REC Change in accounts Receivable and INV Change in inventories. All data were obtained from the company’s financial statement. From the equation above, t =year t , e_i = error term, $a_1 - a_4$ = regression parameter or coefficient and a_0 = regression constant

ACC, REC, INV = Independent variable.

4. Data Analysis and Results

Table 1: Dependent variable for model.

COMPANY	DIVIDEND PAID (RET)			
	Year 1	Year 2	Year 3	Year 4
GUINNESS	-14071.1	-4274.6	10849.2	
HONEY WELL	-1030.9	-1189.5	-1268.8	-1343.1
UAC	-1760.8	-2401.1	-2561.2	-3361.5
ASHAKA CEM	-671.8	-895.5	-940.6	-940.6
SEVEN UP	-1281.2	-1281.2	-1333.6	-1513.1
NORTHERN NIG FLOU	-152		-17.3	-71.3
NESTLE	-8827.3	-8849.2	-16190.6	-26105
VITA FOAM	-245.7	-245.7	-245.7	-245.7
FLOUR MILL	-3833.4	-4058.6	-4868.9	-4981.9
PZ	-2731.7	-1707.3	2994.7	

Source: Companies published financial statement.

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Table 2: Cross sectional result showing effect of Discretion Accruals on Stock Returns of quoted companies in the Nigerian Stock Market

Variables	Coefficients of selected companies									
	Flourmill Pz	Guinness	Nestle	UAC N	Northern flour	Ashaka cement	Honeywell flour	7- up	Vita foam	
ACC	-0.0039 (-8.33)	0.1379 (3.71)	-0.3123 (-1.50)	1.5805 (9.56)	-0.0430 (-6.79)	-0.1154 (3.09)	0.0489 (4.64)	-0.0959 (-5.06)	0.3422 (1.07)	0.0070 (1.53)
INV	-0.0138 (-6.74)	0.0742 (3.26)	0.7319 (6.82)	-0.1594 (-2.06)	-0.2142 (1.36)	0.4319 (1.88)	-0.0185 (-2.89)	0.8187 (1.17)	-2.0286 (-8.84)	0.2563 (1.64)
CF0.0516	-0.0389 (5.02)	0.1380 (-4.35)	0.7773 (4.99)	0.0692 (9.39)	0.0251 (5.72)	0.0181 (9.43)	-0.0779 (1.51)	0.0183 (7.14)	0.1029 (1.44)	(1.14)
REC	0.1319 (-5.81)	-0.5792 (-8.04)	0.7514 (1.13)	0.5656 (1.22)	0.0981 (5.53)	0.1938 (2.00)	0.0423 (1.18)	0.5817 (7.26)	4.088 (1.19)	0.8300 (6.38)
R ² 0.94	0.87	0.85	0.94	0.95	0.94	0.92	0.96	0.96	0.87	
SER	3.09	8.57	5.11	4.32	1.33	1.19	1.89	4.67	2.38	8.13
DW-Stat	2.46	1.70	0.49	1.08	2.53	3.67	2.23	1.20	2.38	2.65

Note: The values in bracket below, shows the respective variable coefficients and their respective T-statistics.

Source: Author compilation from panel regression (Appendix 1-9)

Table 3. Panel least square regression result on the effect of discretionary accrual on the returns of selected firms

Variables	Coefficient	Std Error	t-Statistics	Prob.
C	-1199.605	840.5215	-1.427215	0.1670
ACC	0.018949	0.062635	0.302527	0.7650
INV	-0.123525	0.176354	-0.700442	0.4907
REC	-0.214592	0.255767	-0.839014	0.4101
CF	0.103113	0.026333	3.915662	0.0007
R2	=	0.801575		
R2 Adj	=	0.663540		
F-stat	=	5.80705		
SER	=	3292.397		
DW	=	1.594442		

Source: Author compilation from panel regression (Appendix 11).

Table 3 presents the pooled panel results of the relationship that exists between discretion accrual and stock returns of quoted manufacturing companies in the Nigeria Stock Exchange. The result had R² of 80 per cent and this indicates that the variables INV, CF, ACC and REC which represents change in inventory, cash flow, accrual and change in account receivable jointly explain 80 percent deviation firms returns while 20 per cent variations in firms returns remained unexplained. Furthermore, the R²Adj. Of 66 percent could also be interpreted explaining the co-movement between the companies returns and the independent variables.

The constant term “c” which is often called the autonomous coefficient has a value of -1199.605 percent. This result indicates that a decrease of -1199.605 in firm’s returns is bound to occur with or without the existing independent variables and this decrease could be caused by factors exogenous to model. The value of our F-statistics is

5.80705. The value of our F-statistics is observed to be higher than the value in tabulated statistical table which is 2.45. Thus, we can conclude that our model is statistically significant, meaning that the variables in the model adequately explain the variation of the returns of the firms.

The results presented in Table 3 indicate that cash flow (CF) has a positive relationship with the returns of the quoted firms. The result can be interpreted that a unit increase in firms cash flow will increase returns of the firms by 10 per cent, although the value of the p-value of 0.0007 signify that the relationship between accounting earnings and returns of the firm can be considered as significant in the model. The result also indicates that accrual (ACC) has a positive relationship with return of the quoted company. This implied that a unit increase in ACC will increase company returns by 1 per cent, although the p-value of 0.76 signify that the relationship cannot be considered significant in the model. The other variables, INV and REC (already defined)

were all observed to exert a negative influence (decrease - 0.123525 and -0.214592) on firms returns as well as significant in the model since their respective p-values were all seen to be below 0.05 per cent in the model. The interpretation of the cross sectional panel result is a unit increase in discretion accrual (ACC) will increase firms returns by 0.018949 units or 1 percent while a unit increase in cash flow (CF) will also increase firms returns by 0.103 units or 10 per cent. Similarly, a one unit decrease in inventory (INV) will decrease firm's returns by -0.123 units or 12 percent and a unit decrease in account receivable (REC) will decrease firm returns by -0.214 unit or 21 per cent. The F-statistics of the estimated coefficient of discretion accruals was observed to be 5.8070 and the statistical table value is 2.69 at 0.05 per cent confidence interval. Given that the calculated value of 5.8070 is greater than the tabulated value of 2.69 with the degree of freedom $n - 5 (40-5) = 35$ at 0.05 per cent level of significance. The null hypothesis is therefore rejected and the alternative accepted. Thus, the study therefore concludes that there exist a significant relationship between stock returns and discretion accruals of manufacturing companies in the Nigeria stock exchange.

Table 2 presents the cross sectional results of individual firms on accrual (ACC), inventory (INV), account receivables (REC) and cash flow (CF) to its own stock returns. The result indicates that four (4) companies viz, PZ, 7up, Nestle and Ashaka cement positively influenced its own stock prices using discretion accrual. The result further revealed that the stock returns of five (5) other firms apart from 7up, Nestle, Ashaka cement, Flour mill and UACN were positively affected by its own inventory. When we consider the effect of individual firm's cash flow on their stock returns, we observed that all the firms apart from PZ and Honey well exerted negative effect on their own stock market returns. The results suggest that the stock returns of individual firms on account receivable showed positive returns except PZ with negative effect.

5. Discussion of findings

The results of these hypotheses suggest that there exist a significant relationship between discretion accruals and companies stock returns. After a critical look at the cross sectional result presented in table 2, it was observed that companies that used discretion accruals to influence their stock prices were companies whose stock returns were very high in the stock market. This contrast with Sloan (1996), that stock market grants no special treatment on accounting information submitted to it. The result in table 2 further observed that majority of the companies used discretion accrual variables to increase their stock returns, such that investors may not be aware of their weaknesses and periods of falling profits. This result is supported with the assertion of Allissa *et al.* (2013) and Cornett *et al.* (2009) on the persistent overstatement of accrual information by managers

when faced with greater difficulty forecasting earnings. However, since the majority of the firms out of the 10 companies studied used discretion accruals (seen by their positive coefficients, high values and their level of significance of their variables) to increase their stock prices, we can conclude that discretion accrual is a wide spread phenomena among firms that operate in the stock market. Although, the significant finding in this study is that majority of the firms studied appear to be using discretion accrual to manage their earnings and increase stock returns. It could also be true that some of these firms may not be using earnings management to influence their returns, but their high returns could also be a reflection of their excellent performance arising from prudent management of resources. This is against the result in Alissa *et al.* (2013), whose findings revealed that firms having below expected income rating uses discretion accruals to move toward expected ratings. It is possible that managers of firms adopt accounting policies which allows them to shield their management practice. This practice is targeted at influencing investor's behavior in the market by them (investors) not being able to notice the gap between real stock returns and that which could have been achieved in cases of no manipulation. Thus, investors in the Nigeria Stock Exchange (NSE) who are not learned on the changing accounting policies and practices are easily trapped by these fierce managerial practices (discretion accrual) to over-price or under-price stocks in the market. Thus, discretion accrual (which could be either positive or negative as observed in firm's return) should not often be used to identify and describe situation representative of earnings management in the general population of the firms in the stock market.

6. Conclusion and recommendations

The study was undertaken to assess the effect of discretion accruals on stock prices of quoted manufacturing companies in Nigeria. Manufacturing sector is a non-financial sector that has robust accounting information needed for the determination of accruals variables used in the study. From our cross sectional result, accrual (ACC), cash flow (CF), inventory (INV) and account receivable (REC) are insidious element used by firms to increase their value before security offering. The study revealed that discretion accrual is an accounting policy adopted by firms to hide negative management practice. From the result, it is crystal clear that firms operating in the stock market used discretion accrual to communicate their knowledge about their future performance and positively increase their earnings in anticipation of optimistic report in the stock market. However, this paper has presented proof that accounting practice plays dominant role in income smoothing and loss of matching between revenues and expenses. In fact, using our accrual model to justify accruals effect on stock market performance, we find evidence that accruals constitute manager predictive power for future performance. From

market efficiency perspective, these accruals manipulations by managers can be regarded as morally disgraceful. They are not fair to users, because market participant receive and react on all the relevant financial information as they are made available in the stock market. Therefore, we conclude that discretion accrual is a major accounting techniques used by big manufacturing companies to shape their stock returns and performance. This could be interpreted as a result of their several operational activities which cannot be readily identified by investors.

We therefore, recommended restriction on the chance of accrual as a value of fake transactions, accounting guidelines should encourage the clarification of true and fair value as the prevalence of substance over form. Need to strengthen accounting and auditor’ sethical code as to refrain from conniving at discretion accrual. Finally, Nigeria Stock Exchange (NSE), rating and public authorities should evolve astute regulations that can limit such behavior (manipulating earnings) to enhance the stability and confidence of investors in the stock market.

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