International Journal of Progressive Sciences and Technologies (IJPSAT)
ISSN: 2509-0119.

http://ijpsat.ijsht-journals.org
Vol. 28 No. 2 September 2021, pp.230-244

Accounting Information and Stock Price: Empirical Evidence from Quoted Manufacturing Firms in Nigeria

Anachedo, Chima Kenneth[1], Egbunike, Francis Chinedu PhD[2], Nnojie, Izuchukwu Andrew[3], Jeff-Anyeneh, Elechi Sarah PhD[4]

[1,3,4]Department of Banking and Finance,
Nnamdi Azikiwe University, Nigeria.

[2]Department of Accountancy,
Nnamdi Azikiwe University, Nigeria.

Abstract – The objective of the study is to examine the nexus between accounting information and stock price of quoted consumer goods manufacturing firms in Nigeria. The study adopts an ex post facto research design; and, the sample drawn from quoted consumer goods manufacturing firms on the Nigerian Stock Exchange (NSE). The study employs a combination of descriptive and inferential statistical technique to analyse the data. The panel data from 2011 to 2019 was retrieved from annual financial reports and empirically analysed using the pooled OLS procedure. The results showed a non-significant negative effect of earnings per share and sales growth ratio on the stock price indicator; while, the operating cashflow ratio had a significant positive effect. The profitability ratio, i.e., return on assets had a non-significant positive effect on stock price indicator. Based on this, the study recommended that investors pay closer attention to information from the statement of cashflows as they tend to portray the true state of affairs in most companies. The futility of using only the profitability indicators as a yardstick for stock purchase decision. In addition, the use of supporting documents such as the corporate governance report to reveal otherwise information not obtained from the quantitative counterpart and vital for investment decisions.

Keywords – Consumer goods, Earnings per share, Stock price, Cashflow, Profitability

I. INTRODUCTION

Managers are responsible for preparing financial statements, which portray the financial status or position of their firm. The objective of financial statements is to provide information about the company's performance, financial position to enable users make better decisions. The users include management, loan providers, creditors, financial analysts, and government. The investors utilise qualitative and quantitative information from the financial statements and disclosures 'to assess risk and value of a firm when taking investment decision' (Angahar & Malizu, 2015, p. 76). Therefore information contained in financial statements is vital to investors in deciding whether to invest in a company's stock or not (Kachchhy, 2015). They are provided primarily for shareholders' to use in order to enable them make informed judgement and decisions (Eriabie & Egbide, 2016) and enables an investor make a difference in economic decisions that have a predictive value, confirmatory value or both (Uniamikogbo, Ezennwa, & Bennee, 2018).

The information is 'value relevant' if stock price movements are associated with the release of such information. Value relevance is defined as "the ability of accounting numbers to summarize the information underlying the stock prices, thus the value relevance is indicated by a statistical association between financial information and prices or returns"(Jianwei & Chunjiao, 2007).

Several factors may affect a company's stock price, these includes financial and monetary policy, industrial policy, foreign trade policy and other macro-economic factors, financial information, investors' expectation, market supervision and other internal factors (Kachchhy, 2015).

Studies have documented a relationship between accounting information and stock prices in different parts of the world. The value relevance of financial statements implies ability of information contained therein to explain stock market measures. The focus of this study is the fact that in the Nigerian context studies such as Musa (2013) have shown the value relevance of accounting information in explaining stock price information in the conglomerate sector; similarly, Olugbenga and Atanda (2014) reported a significant relationship between accounting information and share prices of manufacturing companies. However, such studies such as Musa (2013), Olugbenga and Atanda (2014), Ijeoma (2015) mainly focused on book value and EPS of firms on the Nigerian stock exchange. Ijeoma (2015) also found a significant relationship between ROE and share prices. Ewereoke (2018) using pooled cross sectional regression reported a significant relationship between EPS and Share Prices of listed firms. Against this backdrop, the study examines the relationship between accounting information and stock price of quoted consumer goods manufacturing firms in Nigeria.

1.2 Objective of the Study

The main objective of the study is to ascertain the relationship between accounting information and stock price of quoted consumer goods manufacturing firms in Nigeria. The study specifically examines the following:

1. To ascertain the relationship between earnings per share and stock price of quoted consumer goods manufacturing firms.
2. To determine the relationship between sales growth ratio and stock price of quoted consumer goods manufacturing firms.
3. To examine the relationship between operating cash flow ratio and stock price of quoted consumer goods manufacturing firms.
4. To evaluate the relationship between return on assets and stock price of quoted consumer goods manufacturing firms.

II. Literature Review

2.1. Accounting Information

Accounting information refers to information contained in published financial statements of a company. Financial statements are published in annual, half yearly or quarterly reports (Olowolaju & Ogunsan, 2016). Accounting information is of prime importance to several stakeholders. The "management use them to improve efficiency, investors use them for investment decisions, creditors use them for credit rating, regulators use them to determine the extent of compliance to regulatory issues while government use them for tax and fiscal policies" (Olowolaju & Ogunsan, 2016, p.129).

2.2. Stock Price

A share price is the price of a single share of a company's stock (Uniamikogbo, Ezennwa, & Bennee, 2018). Share prices of a publicly traded company are usually determined by market forces of demand and supply. Value relevance measures the joint response of earnings or some other measure of accounting and market returns to information arrival. This can be explained via a statistical relationship between accounting variables and share prices (Hassan & Haque, 2017). Ijeoma (2015) found evidence of the value relevance of accounting information in in explaining share price in Nigeria. Yu and Huang (2005) found a positive correlation between accounting information and stock price of firms listed on Shanghai stock exchange.

2.3. Earnings per Share (EPS) and Stock Price

The EPS is shown in the statement of profit and loss of a company, and measures the profit allocated to each share (Mulenga & Bhatia, 2018). The stream of studies investigating the relationship between accounting information and stock price has been termed "value relevance" research (Uniamikogbo, Ezennwa, & Bennee, 2018). The study by Negakis (2005) found that earnings and book values have no similar effect on stock prices. Another stream of research has shown evidence that the effect of earnings and book values on stock prices varies across industries or different countries. In Nigeria, the study by Ijeoma (2015) found a significant relationship between EPS, book value, ROE and share prices of firms listed on the Nigerian stock exchange. Dimitropoulos, Asteriou, and Koumanakos (2010) found that earnings have higher incremental importance in explaining stock return movements compared to cash flows.

2.4. Sales Growth and Stock Price

Sales growth is the percentage growth in net sales of a business from one fiscal period to another. It is a metric that measures the ability of the firm to increase revenue over a fixed period of time. Mondal and Imran (2010) using a sample of firms on the Dhaka stock exchange (DSE) examined the value relevance of accounting variables on stock prices. The result of the study showed that accounting variables growth is value relevant and affect stock prices.

2.5. Operating Cashflow and Stock Price

Operating cashflow is a realistic figure of how much cash is generated from operating activities of the enterprise (Asif, Arif, & Akbar, 2016). The quality of financial disclosures impact a firm's cash flow directly in addition to an influence on the cost of capital at which such cash flows are discounted (Mgbame & Ikhatua, 2013). In Pakistan, the study by Asif, Arif, and Akbar (2016) using a sample of firms from KSE-30 index found that net operational cash flow per share had a positive non-significant effect on average share price. In Nigeria, the study by Olugbenga and Atanda (2014) using a sample of quoted companies firms in the Nigerian stock exchange showed a significant relationship between accounting information and share prices; specifically, information on earnings, dividend, book value and cash flows predict share prices of quoted firms.

2.6. Return on Assets (ROA) and Stock Price

Return on assets (ROA) measures a company's efficiency in utilizing assets they have for the purpose of generating company's profits (Mulenga & Bhatia, 2018). The study by Mondal and Imran (2010) using a sample of firms on the Dhaka stock exchange examined value relevance of accounting variables on stock prices. The result showed that profitability is value relevant and affect stock prices. Using empirical data from China, Nguyen (2016) from a sample of listed firms on Ho Chi Minh City stock exchange (HOSE) and Hanoi stock exchange (HNX) showed that profit positively affected stock price.

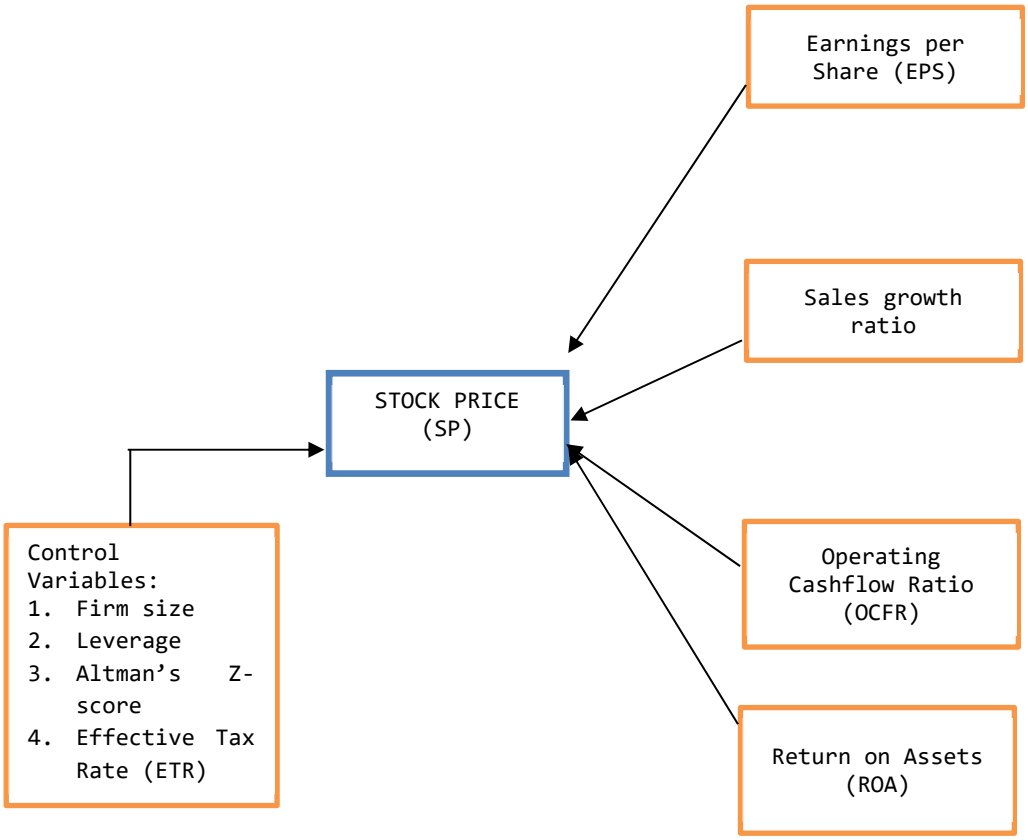

Figure 2.1: Conceptual model of the study

Source: Author's Conceptualisation (2020)

III. THEORETICAL FRAMEWORK

3.1. Efficient Market Hypothesis (EMH)

EMH was initially used to refer to a market that adjusts itself rapidly to new information (Fama, 1970). However, this view was later modified to a market which fully reflects all available information, i.e., "efficient market" (Fama, 1991). An efficient stock market is expected to be externally and informationally efficient; such that security prices is an unbiased reflection of all available information on the security's expected future cash flows and the risk involved in owning such a security (Reilly & Brown, 2003). Fama (1970) classifies market information into three dependent on how quickly share prices reflect such information:

1. Weak form EMH: - In this market, share prices reflect all past market information;
2. Semi strong form EMH: - In this market, prices fully reflect all publicly available information.
3. Strong form EMH: - The strong form efficiency holds that prices are expected to reflect both public and private information (Mgbame & Ikhatua, 2013).

3.2. Signalling Theory

Signalling theory was propounded by Andrew Michael Spence in 1973. The theory has roots in information asymmetry (a deviation from perfect information) in economic transactions, i.e., inequalities in access to information upset the normal market for the exchange of goods and services. Spence (1973) proposed that two parties could get around the problem of asymmetric information by having one party send a signal that would reveal some piece of relevant information to the other party. That party would then interpret the signal and adjust her purchasing behaviour accordingly; usually by offering a higher price than if he/she had not received the signal. The theory is useful for describing behaviour when two parties (individuals or organizations) have access to different information (Connelly, Certo, Ireland, & Reutzel, 2011).

3.3. Empirical Review

Ewereoke (2018) undertook a study titled 'Value relevance of accounting information in a transitional economy: The case of Nigeria stock market'. The sample comprised of 68 companies selected using multiphase sampling technique. The study relied on secondary data obtained from annual financial statements. The data were analysed using the Ordinary Least Squares approach. The results showed that EPS had a positive significant effect on share prices; while, book value per share was positive but statistically insignificant. The results showed that dividend per share had a negative insignificant effect on share prices of companies listed on Nigerian stock exchange.

Hung, Ha, and Binh (2018) conducted a study titled 'Impact of accounting information on financial statements to the stock price of the energy enterprises listed on Vietnam's stock market'. The sample comprised of 44 energy enterprises listed on HSX and HNX. The study relied on secondary data retrieved from financial statements from 2006 to 2016. The data were analysed using OLS and quantile regression models. The results showed a positive significant effect of ROA and a negative non-significant effect of leverage on share price. The authors recommended that investors pay particular attention to accounting information and firms should provide sufficient accounting information on the financial statements, within the prescribed time.

Dang, Tran, and Nguyen (2018) undertook a study titled 'Investigation of the impact of financial information on stock prices: The case of Vietnam'. The sample comprised of 273 listed firms on Ho Chi Minh City stock exchange (HOSE). The study relied on secondary data for the period 2006 to 2016. The data were analysed using multiple regression technique. The results showed that EPS, book value of stock, cash flow from operating activities, and firm size have a positive effect on stock prices. They recommended among others that investors focus on accounting information in the audited financial statements when purchasing stocks and the provision of accounting information in a complete and timely fashion.

Uniamikogbo, Ezennwa, and Bennee (2018) conducted a study titled 'Influence of accounting information on stock price volatility in Nigeria'. The study adopts the cross-sectional research design. The sample comprised of twenty two (22) companies judgmentally selected using simple random sampling technique. The study relied on secondary data obtained from annual reports and accounts for a period of five years (2013-2017). The data were analyzed using descriptive statistic and Ordinary Least Square (OLS) regression. The results showed that earnings per share and dividend per share have a negative and significant effect on stock prices while book value per share has a positive and significant effect on stock prices.

Hassan and Haque (2017) conducted a study titled 'Role of accounting information in assessing stock prices in Bangladesh'. The sample comprised of 93 companies from six industries listed on the Dhaka stock exchange (DSE), Bangladesh. The study relied on secondary data obtained from companies' official website and DSE from 2012 to 2016. The data were analysed using multiple regression technique. The results showed a positive significant effect of EPS; while, book value per share had a positive non-significant effect on market price per share. The study however offered no recommendation.

Olowolaju and Ogunsan (2016) conducted a study titled 'Value relevance of accounting information in the determination of shares prices of quoted Nigerian Deposit Money Banks'. The sample comprised of 12 listed DMBs purposively drawn from the Nigerian stock exchange. The study relied on secondary data from financial statements, NSE fact book and market prices from NSE daily listing. The data were analysed using multiple regression technique. The results showed that book value per share and dividend per share had a significant positive influence on market value of shares; while, EPS was positive but non-significant. The study recommends that banks provide adequate and reliable accounting information in their financial statements to assist potential and prospective investors in taking informed decisions. The results also showed that number of shares in issue had a significant positive effect on demand for shares; while, EPS was positive and non-significant. The study was however conducted and limited to banking institutions.

Eriabie and Egbide (2016) undertook a study titled 'Accounting information and share prices in the food and beverage, and conglomerate sub-sectors of the Nigerian stock exchange'. The study used a comparative analysis research design. The sample comprised of 14 companies randomly selected from the conglomerate and food and beverage subsector (i.e., seven each). The study relied on secondary data obtained from the annual reports of the sampled companies for periods of 2005 to 2014. The data were analysed using multiple regression technique. The results showed that book value per share (BVPS) and earnings per share (EPS) were positive but insignificantly related to market price per share for the conglomerate sub-sector. For the food and beverage sub-sector, both BVPS and EPS were positive; however, only BVPS was significant. The study recommends a sectorial approach in formulating accounting standards and more stringent monitoring of application of accounting rules.

Nguyen (2016) conducted a study titled 'The relationship between financial information and the price of stock of listed firms'. The sample comprised of 147 listed firms on Ho Chi Minh City stock exchange (HOSE) and 179 firms on Hanoi stock exchange (HNX). The study relied on secondary data for the year 2008 to 2014. The data were analysed using multiple regression technique, i.e., the adjusted Ohlson (1995) model. The results showed that book value and profit positively affected stock price.

Oliveira and Taques (2016) undertook a study titled 'Relation between share price and financial indicators in the Brazilian stock market'. The sample consisted of 194 companies across 9 sectors as defined according to the BM &FBovespa. The study relied on secondary data from quarterly financial reports of the companies listed on the website of BM&FBovespa from 2009 to 2013. The data were analysed using panel data regression technique. The results showed that EPS and book value per share had a positive significant effect on share prices.

Angahar and Malizu (2015) conducted a study titled 'The relationship between accounting information and stock market returns on the Nigerian stock exchange'. The study used the ex post facto research design; and, the sample included 40 firms purposively drawn from quoted firms on the NSE. The study used secondary data obtained from financial statements for 2011-2017. The data were analysed using multiple regression technique. The results showed that earnings per share (EPS) had a positive significant effect on stock returns; while, earnings change had a non-significant effect on stock returns of the sampled firms. The study recommended that companies should strive to increase their earnings and investors should critically examine the earnings figure prior to investment decisions. The study was limited to earnings per share and change in earnings.

Camodeca, Almici, and Brivio (2014) undertook a study titled 'The value relevance of accounting information in the Italian and UK stock markets'. The sample comprised of 100 companies listed on the Milan and London stock exchanges ranked by market capitalization. The study relied on secondary data obtained from annual reports and the London/Milan stock exchange for the period 2011 to 2013. The data were analysed using multiple regression technique. The results showed that net income before extraordinary items and operating cashflows have a positive significant effect on market capitalisation for Italy. However, net income before extraordinary items was positive but non-significant; while, operating cashflows was positive and significant in the U.K. The results also showed that book value of equity for both Italy and the U.K. was positive and significant. The study concludes that in the UK cash flows possess greater explanatory power than earnings, while in Italy it is the opposite. However, the authors offered no recommendation

Vijitha and Nimalathasan (2014) conducted a study titled 'Value relevance of accounting information and share price: A study of listed manufacturing companies in Sri Lanka'. The sample comprised of 20 firms on the Colombo stock exchange selected using convenience sampling. The study relied on secondary data obtained from financial statements from 2008 to 2012. The data were analysed using multiple regression technique. The results showed that EPS and Net Assets Value per Share (NAVPS) had a significant positive effect on market price per share at 5 and 10% respectively. ROE had a positive non-significant effect; while, Price Earnings Ratio (P/R) had a negative non-significant effect on market price per share. The study concludes that the value relevance of accounting information has a significant impact on share price; however, the authors offered no recommendation.

Wang, Fu, and Luo (2013) undertook a study titled 'Accounting information and stock price reaction of listed companies - Empirical evidence from 60 listed companies in Shanghai stock exchange'. The sample comprised of 60 listed companies in Shanghai stock exchange. The study relied on secondary data obtained from annual report and websites for the year 2011. The data were analysed using Pearson correlation analysis and multiple regression technique. The results showed a positive correlation between accounting information (Earnings Per Share, Price to Earnings Ratio, Income from main operation ratio, Rate of Return on Common Stockholders' Equity, Receivables Turnover Ratio, Inventory Turnover Ratio, Liquidity Ratio, and Quick Ratio) and stock price; however, only EPS and ROE were significant. The multiple regression results also showed a positive effect of EPS and ROE. The study recommended that the Chinese government strengthen the supervision of listed companies so that the disclosure of information is more true and normative. The study however focused on a single year.

Kalhor, Hosseini, and Alipour (2013) undertook a study titled 'The relationship between the quality of accounting information disclosure and corporate performance in the capital market of Iran'. The study used the quasi-experimental research design. The sample comprised of 130 companies listed in Tehran stock exchange. The study relied on secondary data from 2006 to 2010. The data were analysed using multiple regression technique. The results showed a positive significant relationship between selected accounting ratios (ROE, ROA, EPS, and stock prices) and quality of accounting information disclosure.

IV. METHODOLOGY

The study adopt the *ex-post facto* research design as the most appropriate design. The sample was drawn from the consumer goods manufacturing firms on the Nigerian Stock Exchange. The study relied on secondary data extracted from annual reports of the selected companies. The firms included in the final sample was twenty one and shown below.

Table 1: Firms included in the final sample

Company	Sector	Panel ID
PZ Cussons Nig. Plc.	Consumer goods	1
Vitafoam	Consumer goods	2
International Breweries Plc.	Consumer goods	3
Flour mill of Nigeria Plc.	Consumer goods	4
Guinness Nig. Plc.	Consumer goods	5
Nestle Nig. Plc.	Consumer goods	6
Nigerian Breweries Plc.	Consumer goods	7
Champion Breweries Nig. Plc.	Consumer goods	8
Union Dicon Salt Plc.	Consumer goods	9
Nasco Allied Industries	Consumer goods	10
Unilever Nig. Plc.	Consumer goods	11
Honeywell Flour Mill Plc.	Consumer goods	12
McNichols Plc.	Consumer goods	13

7-Up bottling	Consumer goods	14
Dangote Flour Mills Nig. Plc.	Consumer goods	15
Cadbury Nigeria Plc.	Consumer goods	16
Northern Nigeria Flour Mills Plc.	Consumer goods	17
DN Tyre and Rubber Plc.	Consumer goods	18
Nig. Enamelware Plc.	Consumer goods	19
Dangote Sugar Refinery Plc.	Consumer goods	20
Golden Guinea Brew. Plc.	Consumer goods	21

4.1. Methods of Data Analysis

The study employs descriptive and inferential techniques such as the mean, median, standard deviation, and Skewness-Kurtosis statistics, etc. Secondly, correlation analysis was used to examine the relationship among the variables. Lastly, multiple regression technique to validate the hypotheses. The study used the Pooled OLS (Ordinary Least Squares).

4.2. Model Specification

$$SP_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 Z\text{-}Score_{it} + \beta_5 ETR_{it} + \varepsilon_t \quad \ldots\ldots\ldots\ldots 1$$

$$SP_{it} = \beta_0 + \beta_1 GROWTH_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 Z\text{-}Score_{it} + \beta_5 ETR_{it} + \varepsilon_t \quad \ldots\ldots\ldots\ldots 2$$

$$SP_{it} = \beta_0 + \beta_1 OCFR_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 Z\text{-}Score_{it} + \beta_5 ETR_{it} + \varepsilon_t \quad \ldots\ldots\ldots\ldots 3$$

$$SP_{it} = \beta_0 + \beta_1 ROA_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 Z\text{-}Score_{it} + \beta_5 ETR_{it} + \varepsilon_t \quad \ldots\ldots\ldots\ldots 4$$

4.3. Description of Variables

Notation	Variable	Description
EPS	Earnings Per Share	Net earnings available to common shareholders divided by the weighted average number of common shares outstanding at the end of each year (Hassan & Haque, 2017).
GROWTH	Sales Growth Ratio	$[(\text{Revenue}_{t} - \text{Revenue}_{t-1})/ \text{Revenue}_{t-1}]x\ 100\%$
OCFR	Operating Cashflow Ratio	Operating cashflow scaled by revenue
ROA	Return on Assets	Net Income/Average Asset
SIZE	Firm Size	[(Opening Assets + Closing Assets)/2]
LEV	Leverage	Debt/Equity
Z-Score	Altman's Z-Score	$1.2*R_1 +1.4*R_2 +3.3*R_3 +0.6*R_4 +1.0*R_5$ Where: R_1 = working capital to total assets ratio R_2 = retained earnings to total assets ratio

		R_3 = Profit before interest & tax to total assets R_4 = market value of equity to book value of total liabilities R_5 = Revenue to total assets
ETR	Effective Tax Rate	Current Tax Expenditure /Earnings before Tax Heitzman and Ogneva (2019) showed evidence that equity returns increase with the propensity for tax planning in a firm's industry.

Source: Kachchhy (2015); Wang, Fu, and Luo (2013); Wu (2000).

V. DESCRIPTIVE STATISTICS

Table 2a: Descriptive statistics of independent variables in the study

	EPS	EXPECTED_GROWTH	OCFR	ROA
Mean	-7.329665	394.6328	6.037922	0.068636
Median	0.284491	6.443184	0.239822	0.038726
Maximum	66.71743	29329.08	220.0643	1.973652
Minimum	-269.8721	-99.98572	-1.412857	-3.021770
Std. Dev.	42.82106	2723.568	26.61771	0.390232
Skewness	-4.917129	9.207484	5.825239	-0.712220
Kurtosis	27.75574	90.65306	39.25238	34.33127
Jarque-Bera	4937.350	55820.93	10089.36	6844.756
Probability	0.000000	0.000000	0.000000	0.000000
Sum	-1224.054	65903.68	1008.333	11.46229
Sum Sq. Dev.	304384.8	1.23E+09	117611.4	25.27860
Observations	167	167	167	167

Source: E-Views 9

The average value of EPS was approximately negative 7.330 (because some of the firms in the sample had losses during the period of the study); the average value of sales growth ratio was 396 (i.e., approximately 400% revenue spike during the period). The average value of the operating cashflow to sales ratio was 6.038 (i.e., the operating cashflow exceeded revenue approximately 6 times); while, the average value of ROA of firms in the sample was low approximate 6%. This suggests that the firms earned less on the total level of investment during the study period.

Table 2b: Descriptive statistics of control variables in the study

	SIZE	LEV	Z_SCORE	ETR
Mean	1.27E+11	0.410464	-19.34150	0.258438
Median	6.59E+10	0.106977	1.482828	0.000000
Maximum	6.87E+11	12.95956	229.6943	52.88251

Minimum	1.04E+08	0.000000	-675.4436	-5.825693
Std. Dev.	1.57E+11	1.409647	99.01394	4.429993
Skewness	1.618162	6.978775	-4.959214	10.11854
Kurtosis	4.838224	55.79872	31.21369	120.2242
Jarque-Bera	96.97000	20877.62	6260.712	99057.37
Probability	0.000000	0.000000	0.000000	0.000000
Sum	2.13E+13	68.95800	-3249.372	43.41763
Sum Sq. Dev.	4.10E+24	331.8463	1637228.	3277.347
Observations	168	168	168	168

Source: E-Views 9

The mean value of average asset for the firms in the sample was approximately ₦127 billion. The average value of LEV was 0.410; indicating that the capital structure of the firms in the sample were approximately 41% financed by Debt. The average value of Altman's Z score was -19.341; indicating that on average the financial health of the firms in the sample were worsening. The average value of the ETR was approximately 0.258% (i.e., 25.8% for firms in the sample), i.e., lower than the statutory income tax rate.

Table 3: Correlation matrix of the selected variables

	EPS	GROWTH	OCFR	ROA	SIZE	LEV	Z-score	ETR
EPS	1.000000							
GROWTH	0.033150	1.000000						
OCFR	0.021361	-0.030013	1.000000					
ROA	0.005111	-0.002652	0.142320	1.000000				
SIZE	0.150906	0.008900	-0.079122	-0.047928	1.000000			
LEV	0.032084	0.020883	0.102762	0.022837	-0.137564	1.000000		
Z-score	0.135684	0.031266	-0.417487	-0.486096	0.167436	-0.153075	1.000000	
ETR	0.068627	0.006633	-0.052097	-0.058757	0.232847	-0.040601	0.092074	1.000000
VIF	1.04	1.00	1.21	1.32	1.12	1.04	1.06	1.06

Source: E-Views 9

EPS was positively correlated with all other independent variables, i.e., sales growth ratio, operating cashflow ratio, and ROA. EPS also positively correlated with firm size, leverage, Z-score and ETR. Sale growth negatively correlated with operating cashflow ratio and ROA; and, positively correlated with firm size, leverage, Z-score and ETR. The operating cashflow ratio positively correlated with ROA; and, negatively correlated with firm size, Z-score and ETR. However, operating cashflow ratio positively correlated with leverage. The ROA negatively correlated with firm size, Z-score and ETR; but, positively correlated with leverage. Firm size negatively correlated with leverage, and, positively correlated with Z-score and ETR. Leverage negatively correlated with Z-score and ETR; while, Z-score positively correlated with ETR.

VI. Test of Hypotheses

6.1. Hypothesis One

H_{1A}: There is a significant relationship between earnings per share and stock price of quoted consumer goods manufacturing firms.

Table 4: Pooled OLS output for earnings per share and stock price information

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	28.06788	42.99640	0.652796	0.5148
EPS	-0.227291	0.727851	-0.312277	0.7552
AVERAGE_ASSET	-1.42E-11	2.05E-10	-0.069361	0.9448
LEVERAGE	53.22032	22.04148	2.414553	0.0169
Z_SCORE	-1.338013	0.316722	-4.224566	0.0000
ETR	-1.258776	7.077417	-0.177858	0.8591

R-squared	0.151479	Mean dependent var	75.31728
Adjusted R-squared	0.125290	S.D. dependent var	420.4969
S.E. of regression	393.2737	Akaike info criterion	14.82195
Sum squared resid	25055604	Schwarz criterion	14.93352
Log likelihood	-1239.044	Hannan-Quinn criter.	14.86723
F-statistic	5.784074	Durbin-Watson stat	0.974864
Prob(F-statistic)	0.000061		

Source: E-Views 9

Interpretation:

The adjusted R-squared value was .125; thus, the model explains approximately 12.5% variation in the dependent variable. The value of the F-statistic was 5.784 ($p < .05$); thus, the hypothesis that all the regression coefficients are zero is rejected. Both the F-statistics and adjusted R^2 for the regression suggest that the overall model is a good fit and explains the variation in stock price. The *coefficient* and *t-statistic* of our variable of interest (EPS) is negative and statistically insignificant [*t-statistic* (-0.312277), *p* (0.7552, >.05)]; thus, the alternate hypothesis is rejected and null accepted. Therefore, "There is no significant relationship between earnings per share and stock price of quoted consumer goods manufacturing firms". The table shows that the test of the following control variables Leverage and Z-Score were significant in the regression output. The results from Table 4 show that Leverage ($p = 0.0169$) and Z-Sore ($p = 0.0000$) showed *p-values* less than .05 and therefore significant. The variable Z-Score was also negative. The variables Size ($p = 0.9448$) and ETR ($p = 0.8591$) were insignificant because the p-values exceeded the .05 threshold; and, the coefficients of both variables were negative.

6.2. Hypothesis Two

H_{2A}: There is a significant relationship between sales growth ratio and stock price of quoted consumer goods manufacturing firms.

Table 5: Pooled OLS output for sales growth ratio and stock price information

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	31.60407	42.33686	0.746491	0.4565
EXPECTED_GROWTH	-0.002250	0.011217	-0.200596	0.8413
AVERAGE_ASSET	-2.22E-11	2.03E-10	-0.109208	0.9132
LEVERAGE	52.83042	21.99468	2.401964	0.0174
Z_SCORE	-1.347933	0.314625	-4.284248	0.0000
ETR	-1.318732	7.075722	-0.186374	0.8524

R-squared	0.151179	Mean dependent var	75.31728
Adjusted R-squared	0.124981	S.D. dependent var	420.4969
S.E. of regression	393.3432	Akaike info criterion	14.82230
Sum squared resid	25064460	Schwarz criterion	14.93387
Log likelihood	-1239.073	Hannan-Quinn criter.	14.86758
F-statistic	5.770581	Durbin-Watson stat	0.974492
Prob(F-statistic)	0.000063		

Source: E-Views 9

Interpretation:

The adjusted R-squared value was approximately .125; thus, the model explains approximately 12.5% variation in the dependent variable. The value of the F-statistic was 5.771 ($p < .05$); thus, the hypothesis that all the regression coefficients are zero is rejected. Both the F-statistics and adjusted R^2 for the regression suggest that the overall model is a good fit and explains the variation in stock price. The *coefficient* and *t-statistic* of our variable of interest (Sales Growth Ratio) is negative and statistically insignificant [*t-statistic* (-0.200596), *p* (0.8413, >.05)]; thus, the alternate hypothesis is rejected and null accepted. Therefore, "There is no significant relationship between sales growth ratio and stock price of quoted consumer goods manufacturing firms". The table shows that the test of the following control variables Leverage and Z-Score were significant in the regression output. The results from Table 5 show that Leverage ($p = 0.0174$) and Z-Sore ($p = 0.0000$) showed *p-values* less than .05 and therefore significant. The variable Z-Score was also negative. The variables Size ($p = 0.9132$) and ETR ($p = 0.8524$) were insignificant because the p-values exceeded the .05 threshold; and, the coefficients of both variables were negative.

6.3. Hypothesis Three

H_{3A}: There is a significant relationship between operating cash flow ratio and stock price of quoted consumer goods manufacturing firms.

Table 6: Pooled OLS output for operating cashflow ratio and stock price information

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	20.79041	41.81461	0.497205	0.6197
OCFR	3.008837	1.244572	2.417567	0.0167

AVERAGE_ASSET	-2.52E-11	2.01E-10	-0.125791	0.9001
LEVERAGE	52.05206	22.01635	2.364246	0.0193
Z_SCORE	-1.009099	0.339503	-2.972287	0.0034
ETR	-1.078508	6.970378	-0.154727	0.8772

R-squared	0.181420	Mean dependent var	75.71016
Adjusted R-squared	0.155998	S.D. dependent var	421.7307
S.E. of regression	387.4422	Akaike info criterion	14.79228
Sum squared resid	24167942	Schwarz criterion	14.90430
Log likelihood	-1229.155	Hannan-Quinn criter.	14.83775
F-statistic	7.136402	Durbin-Watson stat	0.853917
Prob(F-statistic)	0.000005		

Source: E-Views 9

Interpretation:

The adjusted R-squared value was approximately .156; thus, the model explains approximately 15.6% variation in the dependent variable. The value of the F-statistic was 7.136 ($p < .05$); thus, the hypothesis that all the regression coefficients are zero is rejected. Both the F-statistics and adjusted R^2 for the regression suggest that the overall model is a good fit and explains the variation in stock price. The *coefficient* and *t-statistic* of our variable of interest (Operating Cashflow Ratio) is positive and statistically significant [*t-statistic* (2.417567), *p* (0.0167, <.05)]; thus, the alternate hypothesis is accepted and null rejected. Therefore, "There is a significant relationship between operating cash flow ratio and stock price of quoted consumer goods manufacturing firms". The table shows that the test of the following control variables Leverage and Z-Score were significant in the regression output. The results from Table 6 show that Leverage ($p = 0.0193$) and Z-Sore ($p = 0.0034$) showed *p-values* less than .05 and therefore significant. The variable Z-Score was also negative. The variables Size ($p = 0.9001$) and ETR ($p = 0.8772$) were insignificant because the p-values exceeded the .05 threshold; and, the coefficients of both variables were negative.

6.4. 4.2.4 Hypothesis Four

H_{4A}:There is a significant relationship between return on assets and stock price of quoted consumer goods manufacturing firms.

Table 7: Pooled OLS output for return on assets and stock price information

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	28.12420	42.02825	0.669174	0.5043
ROA	102.2464	89.39620	1.143745	0.2544
AVERAGE_ASSET	-3.09E-11	2.03E-10	-0.152466	0.8790
LEVERAGE	54.07140	21.93460	2.465119	0.0147
Z_SCORE	-1.150432	0.358537	-3.208682	0.0016
ETR	-1.118659	7.050432	-0.158665	0.8741

R-squared	0.157769	Mean dependent var	75.31728

Adjusted R-squared	0.131774	S.D. dependent var	420.4969
S.E. of regression	391.8133	Akaike info criterion	14.81451
Sum squared resid	24869861	Schwarz criterion	14.92608
Log likelihood	-1238.419	Hannan-Quinn criter.	14.85979
F-statistic	6.069254	Durbin-Watson stat	0.991148
Prob(F-statistic)	0.000035		

Source: E-Views 9

Interpretation:

The adjusted R-squared value was approximately .132; thus, the model explains approximately 13.2% variation in the dependent variable. The value of the F-statistic was 6.069 ($p < .05$); thus, the hypothesis that all the regression coefficients are zero is rejected. Both the F-statistics and adjusted R^2 for the regression suggest that the overall model is a good fit and explains the variation in stock price. The *coefficient* and *t-statistic* of our variable of interest (ROA) is positive but statistically insignificant [*t-statistic* (1.143745), *p* (0.2544, >.05)]; thus, the alternate hypothesis is rejected and null accepted. Therefore, "There is no significant relationship between return on assets and stock price of quoted consumer goods manufacturing firms". The table shows that the test of the following control variables Leverage and Z-Score were significant in the regression output. The results from Table 7 show that Leverage ($p = 0.0147$) and Z-Sore ($p = 0.0016$) showed *p-values* less than .05 and therefore significant. The variable Z-Score was also negative. The variables Size ($p = 0.8790$) and ETR ($p = 0.8741$) were insignificant because the p-values exceeded the .05 threshold; and, the coefficients of both variables were negative.

VII. Conclusion and Recommendations

The study concludes that accounting information has varying effects on stock prices. The empirical data analysis showed a non-significant negative effect of earnings per share information and sales growth ratio on stock price. However, operating cashflow ratio and return on assets had a positive relationship; while, return on assets remained insignificant. The study therefore makes the following recommendations:

1. Investors should pay closer attention to information from the statement of cashflows as they tend to portray the true state of affairs in most companies. This would help investors in carefully selecting stocks for their investment portfolio.
2. Profitability should not be used as the only yardstick in stock purchase decision: This is due to the fact that some managers may engage in earnings manipulative practices just to appear profitable to market, e.g. Enron and WorldCom, while suffering from a deeper internal crisis.
3. The use of supporting documents such as the corporate governance report may reveal otherwise information not obtained from the quantitative counterpart and vital for investment decisions. Such documents provides investors with complementary information sources other than just published financial accounting reports to become more information efficient.

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