THE EFFECT OF COMMODITY PRICE CHANGES ON FIRM VALUE: STUDY OF FOOD AND DRINKS SERVICE INDUSTRY IN NIGERIA

Alao, Esther Monisola, Ph.D and Oloni, Elizabeth Funlayo, Ph.D
Landmark University, Omu-Aran.
P.M..B 4132, Ilorin, Kwara State.

ABSTRACT: *This paper examines the effect of commodity price changes on firms' value in the food and beverage industry in Nigeria given the frequent changes in the prices of raw materials and inflation. Using the descriptive survey research design, the study focused on secondary data obtained from the annual reports of 11 firms registered on the stock exchange, whose records provided the information required for the study. Revenue, cost of sales, and stock price were computed in order to represent company price of commodity from 2009 to 2013; while firm value comprises Earnings per Share, Earnings before Interests and Taxes and Total Assets. Findings indicate, a significant positive relationship between commodity price and firm value (p<0.05); a joint relationship between revenue, cost of sales, stock price and firm value (p=0.000); a positive slope (B= 0.221) suggesting that an increase in commodity price between 2009 and 2013, led to a proportional increase in firm value. This implies that due attention has to be paid to the issue of raw material sourcing and pricing in Nigeria. Conclusively, price fluctuation, no matter how little or much, will directly impact the price of raw materials and production of goods and services. Government and management of these industries need to pre-empt raw material price fluctuations in order to have a stable and progressive returns from investment. Arbitrary pricing of products is detrimental to progressive firm performance where market is competitive.*

KEYWORDS: Price fluctuations, Firm Value, Relationship, Performance

THE EFFECT OF FOOD PRICE CHANGES ON FIRM VALUE: STUDY OF FOOD SERVICE INDUSTRY IN NIGERIA.

Every investor aims at increasing the value of the firm than earlier recorded. This is possible where firm's performance is indicated in profitable yields on investment. This task rests on the firm's management efforts that are put in, to achieve the firm's goals. Several issues have to be considered in the process of management, one of which is price. Kotler (2006) in Donnelly (2009), affirmed that price is the amount of money charged for a product or service. According to Linton & Donnelly (2009), price is the marketing mix that generates revenue, income and profit for the organization. This refers to the supply price of goods meant for production or income generation. Where prices fluctuate, the tendency is that the firm's cost of sales will be affected and thus a necessary change takes place, which implies a possible change (up or down) in the firm's selling price. This however has an effect on the eventual value of the firm. Fagbemi & Abata (2013) argue that prices of demand and supply have influence on price determination, even though Kehinde (2012) in Fagbemi & Abata (2013), also suggested that there isn't conclusive evidence on there being a relationship between pricing and performance. Performance variables such as turnover, profit after tax, market share and so on are measures of firm's performance (Fagbemi & Abata 2013)

Statement of Problem

Nigeria is endowed with diverse investments in the food sector, which include canned food and drinks, seafood inform of fresh, canned or frozen, pastries, fruits, which are produced on either retail, wholesale or manufacturing. Each sector that engages in one form of food importation or production experiences volatility in price of their products. Frequent changes in prices of food stock however, have effect on the overall performance of the firm. It is against this background that the study investigates the effect of commodity price changes on firm value as indices of the firm's performance. The broad objective of the study is to investigate the effect of commodity price changes on firms' value. Other objectives arising there from are:

(i)   To consider the rate of commodity price changes between 2009 and 2013
(ii)   From the firms' annual performance indices, determine the impact created by the changes in price using the cost of sales as a measure on sales, Earnings before Interest and taxes.
(iii)   Suggest possible measures for pre-empting the attendant problems on company performance.

METHODOLOGY

This study adopts the descriptive survey research design using secondary data and it will be accomplished with the empirical analyses of obtainable food prices for each year. The number of Beverage industries on stock exchange is 30, while that of Food industries is 60 out of which 3 drinks industries and 8 food industries whose reports presented required data were selected for the study. The performance indices such as Earnings per Share (EPS), Earnings before Interest and Taxes (EBIT) and the Asset Turnover for 11 food and drinks industries in Nigeria for a period of five years (2009 to 2013), will be analysed using correlation and regression to highlight the effect of changes in prices of commodities on the value of the firm. Furthermore, secondary literatures such as Journals, Annual reports or Financial Statements of firms, Nigeria's Business directory, Central Banks information booklet and Bureau of Statistics that were consulted and reviewed will highlight additional supporting credence to issues raised in the discussion.

Research Gap

The food and beverage industry enjoy regular sales of their product as the demand for the product is fairly inelastic in spite of price changes. In reality, this might be due to the fact that people enjoy the products and the price relativity tends to insignificance due to people's taste, the acceptability of the products for parties and response to seasonal changes among others. Considering the persistent drop in naira value, prices of raw materials are expected to increase; this is expected to impact the cost of sales of the products and the value of the firm as well. However, to what extent could the industries be increasing products' **prices?** In actual fact, academic research in this area (pricing and the value of the firm) is virtually non-existent, probably due to the fore-going observation. However, there is no gainsaying the fact that analysts have contributed immensely to knowledge in this area though the regular update that is provided electronically as regards pricing issues in the food and drink sector. This is the motivation for this study.

Cost Elements in Determining the Prices of Goods

The absence of food and beverage product prices information is a challenge to obtaining individual product price for comparison, and the reason is not farfetched from the fact that the industry is highly competitive. There are three broad pricing strategies, the cost based pricing strategy in which a specific sum is added to the cost; another is the cost-plus in which a fixed percentage is added while the third strategy involves choosing a mark-up price in which price is calculated by adding a fixed value representing a percentage of cost. Whichever method the management chooses, what is important is achieving the overall goal of the organization considering the price elasticity of the product, stiff competition that products are exposed to and the nature of the product where it is easily perishable.

In determining the price of the firm's goods, the costs of materials, labour expended in production and other expenses are accumulated to guide in deciding the price to attach to the products of the firm. These costs put together are used to determine the overall costs of ringing the products to the point of sale before determining the value added through the products' sales. From economic theory, it is noted that with fluctuations in prices, the product or services demand also fluctuate, thus it is assumed that the prices of each of the companies included in this study are expected to vary given the changing factors in production. Aeppel (2007), opined that prices of goods and services should be done strategically and not based on a preconceived formula, especially when there is a new approach or improvement in production. Harper (2010) averred that firms fundamentals are among other numerous factors that contribute to the determination of the price of stocks as Chidi et al (2013), cited Bernard (1994) that the value of securities is determined by its rate of returns on equity (ROE), growth rate etc hence the use of stock prices, Earnings and total assets of relevant companies are used for analysis in this study. A business that is planned to attain growth and maximise revenue, will not charge minimum price for its products or services. This is because that price may not yield above the margin or break-even- point which is required as a basis for continuity. Variable costs have the tendency to change without prior notice whereas fixed costs may also change due to the effect of some policy changes. Business organizations make price decisions by taking advantage of possible monopoly situations in the market as a result of non-close competing products using a developed marketing mix. However, where there is competition and firms take advantage of multiple products, the firm can make use of other pricing methods such as may be suitable to the business, ranging from cost plus added margin, pricing based on mark up or a determined minimum price that would have taken care of possible changes in price (Jhingan & Stephens 2007). To influence positively the value of the firm, an effective investment decision making in relation to price volatility is in-evitable. This is corroborated by Shin (2013) that corporate investment is affected by managerial preference in the process of decision making.

Creating Values for Firm's Growth

Resources are deployed in structures, controls, and securing commitments to create the capabilities necessary for organizational success. Without effective resource deployments, requisite capabilities are unlikely to be developed; and resources are likely to be wasted due to ineffective structures, controls, and commitments. Value is also added by continuously probing whether resources are used effectively by organizations - in creating value for shareholders, customers or other stakeholders. In business organizations, added value materialises in creating business expansions, increase in firm's asset base and enhanced liquidity that can enable diversification in investments. Resources include – financial resources, innovative capacities, trained personnel, committed customers, strategic capabilities in areas of marketing, core

competences or intellectual capital, and work processes and systems. These alone cannot yield the goal of the firm if prices are erratic. According to Jackson & Schuller (1997), effectiveness is determined by the capabilities of the firm's management in delivering the set goals, cash flow to the business and the market values that enhance attainment of firm's performance goals. Effectiveness shows organizational performance plus the plethora of internal performance outcomes normally associated with more efficient or effective operations (Jhingan & Stephens 2007, Horngreen 2009, Richard et al 2009 & Roy 2012). Fagbemi &Abata (2013), Sivakumar & Waymire (1993) affirmed that earnings are positively related to stock returns which also impact the value of the firm even as Fama (1990) reported two-thirds of the variance of price changes can be explained by the variables representing corporate cash-flows.

 In Nigeria, available reports such as the Nigeria Business Directory, indicated that there is a large number of food manufacturers which range from small to medium entrepreneurs, while few companies are big conglomerates. Nigeria's statistics of food businesses indicated 252 food processing firms, while only 74 firms are situated in Lagos. Performance in these industries is determined by the returns from the production and marketing of the goods. Performance is not limited to this however, as the value generated in product/service markets (for customers) and capital markets (for shareholders), while satisfying the requirements of other key organizational stakeholders, enhance effective use of resources. With festive seasons taking place during the years, demand for refreshing drinks goes up, thus the Business Monitor International forecast that from 2009 to 2013, there would be 39.7% consumption growth in food and drinks. Oshundina & Oshundina (2014) also suggested that higher productivity as well as low product pricing could enhance growth in sales and increased market share. This leads to optimization of firm value in the long run which however depends on the effectiveness of decisions made in arriving at acceptable market prices for the firms' products.

Determination of firm's value
 Determining the value of the firm involves discounting the cash flow of the firm using the discount rate or the firm's cost of capital. The efficiency of the management will determine the rate of cash flow to the firm. High turnover rate tend to have a growing effect on the firm's Earnings per Share, and growth. Performance according to Amoako-Gyampaah & Acquaah (2008), can be determined using the firm's market share and growth in sales. Cash flows to the firm include depreciation adjustments and working capital. It is assumed that maintaining the firm's operating efficiency and sales growth will yield more capital outlay commitments. Pandey (2009) however, affirmed that firms enjoying constant growth may not need to incur high capital expenditure for operating efficiency. Thus, to enhance the value of the firm, high sales growth that will impact firm's earnings is required. This is an indication of a relationship between the firm's sales, capital expenditure commitments and the value of the firm (Ascher et al (2012), Rossi (2012). However, the cost of resource materials for foods and drinks has serious implications for the selling price of either product. According to Ascher et al (2012), high commodity prices translates to high capital for the firms which means only few materials may be bought from available resources. The study suggested that traders should act swiftly to prepare for the impact of global price changes, due to the fact that most of the resources for the food and beverage market are imported. Thus, a sudden change in import price implies a needed change in the price of the firm's goods such as food or drinks, other products such as beverages, flour and so on. Since this price change has a direct influence on the products' sales price, it is assumed that this would have an impact on the value of the firm in the short run. High level of investment leads to more revenue for the firm (Cleary et al, 2007), however, when the cost of

stock replenishment is affected by increase in prices, there is need for price determination especially on the selling price. Gautam 2010, argued that cash flow apart from signalling change in net-worth, may also signal investment opportunities for the firm. Likewise, constrained firms stock returns move together overtime, but reported no evidence of low performance affirmed Lamont et al (2001) and Kangarlouci (2012). However, it is expected that where the raw materials or other inputs can be obtained close to the firm, the tendency for a high price would be pre-empted.

Firms' Pricing Policy

The objectives of a pricing policy vary from one organization to the other. Pricing decisions are usually directed at specific goals such as price-profit satisfaction, sales maximisation and growth, discounts given to enhance prompt cash payments for purchases or services rendered, attract patronage for goods and services among others. According to Jhingan (2007), pricing decisions impact sales volume, revenue, marketing strategy and so on. He suggested therefore that management should assume a desired price – volume relationship for determining costs. Aeppel (2007), on the other hand, suggested major influences on pricing decisions to be customers, competitors and costs and every company should be aware of these factors in their pricing decisions. Gaimon (1987), in the study of simultaneous setting of price, production level and capacity overtime with the objective of profit maximisation, introduced an assumption that upgrading capacity lowers the firm's per unit production cost, thus creating change in the prices charged. Van-Mieghem & Dada (1999),in their study of firms' triad decisions bordering on capacity investment, production quantity and price, suggested that managers can make optimal capacity decisions by deterministic reasoning when allowed some level of price flexibility. Chan et al (2004) affirmed that firms are employing different tools such as dynamic pricing and target pricing to suggest that the benefits can be significant in increasing profit and recording more efficient supply chains. Allon & Assaf (2006) in the study of pricing and capacity investment strategies under uncertainty suggested that price changes and capacity are strategic substitutes in investment decisions; the same can be applied in determining the relationship of food price changes on firm value. It is pertinent that if firms are to attain overall objective of the organization, a favourable approach to pricing their products or services should be strategically determined and reviewed whenever the need arises.

Relationship between Pricing and Value of Firm.

Fishman et al (2012) in a study, concluded that efficient pricing leads to efficient decision making which creates increases in firms' values. This was also affirmed in the study of the changing relationships between commodity prices and other assets by Rossi (2012), she concluded that frequent commodity price increases affects the overall firm values as the composition of assets either improves or reduces. Umar & Musa (2013) however opined that the relationship between pricing and Earnings per Share is contestable like any other performance measures. Furthermore, they cited NSEC committee report (2007) as saying the predictive power of stock prices is not clear. As the EPS value goes up, prices of firm stock go down. Whereas, another group suggested that prices and EPS have related effect.

Theoretical Construct:

In considering the growth of the firm, Marris (1964) in 'The economic theory of managerial capitalisation' stated in the model that the manager chooses constant growth rate at which the firm's sales, profits and assets grow. The implication is that the choice of a higher growth rate implies higher capital commitments toward research and development, adverts and so on which

normally have an influence on the total value of the firm. This agrees with Cleary et al, (2007), Pandey (2009), Ascher et al (2012) and Oshundina &Oshundina (2014). The interest of the shareholders anchors on balanced growth that will ensure the returns to them. Thus, the manager has a dual responsibility of satisfying the firms' growth objectives and maximising the shareholders' returns. The assumptions of Marris model include a given price structure, production costs, constant factor prices, where-in firms are assumed to grow through diversification and variables such as sales, profits and costs are assumed to increase at the same rate.

The purpose of management has been described as making people capable of joint performance through common goals, common values, the right structure, and providing the training and development they need to perform and to respond to change. The central purpose, then, of the management process is to secure, as it experiences price changes, the vitality and endurance of the firm through the co-ordination of activities, efforts and resources. Thus, the management process includes, establishing organizational directions in terms of objectives and strategies; aligning organizational structures, processes and systems to support established directions; securing the commitment at a requisite level of those contributing essential skills and effort; and instituting controls that will guide the firm's progress towards the realization of its strategies and objectives. Crucial as these strategies are, if it does not contribute meaningfully to the value of the firm, those structures may soon cease to exist. For food industries, production of goods such as food and drinks, edible raw materials that are useful in the process of food production are used for income generation. Observably, commodity prices are facing rapid price changes which sometimes indicate a needed change in budgeted expenses, production prices as well as expected income. For example Nestle is reported to be risk challenged with raw materials price increases (Vanguard, 2013). Even though Cadbury Nig. Ltd returned to profitability in 2010, high cost of energy remained a cog in the wheel of the industries' progress with profit after tax dropping by 48.55%.

For Tantalizer, another food industry, purchasing power was said to be rapidly declining, resulting in negative company patronage and thus it recorded low profitability (Kakawa Asset Management, 2011), this inadvertently has implication on the products' output prices as well as the market prices of the products. Further reports indicated that Nestle Plc. recorded increasing costs of materials leading to a decline of 9.8 % at the current market price which is low compared to similar companies' reports. For Dangote flourmill, between 2012 and 2013, sales volume continue to be impacted by pricing pressures resulting from significant input cost inflation in the cost of raw materials (wheat). 17% increase to the year earlier which is 2012. Profitability was equally negatively affected by input cost inflation which could not be reversed through price increases. Turnover for period ending June 2013 increased by 6.6% but above inflationary cost resulted in operating loss ofN1.9bn (Annual Report 2013). The beverage industry is dominated by some of the key global brands. The main business constraints in Nigeria remain relatively low purchasing power and expensive operating environment as well as high import dependence for input. However, with a highly competitive market, and in order to secure high sales level, firms brand and rebrand their products especially in the drinks sector, in order to attract high level of demand. The branding, importation and expensive operating environment have implication for pricing; in fact prices arising from these activities are often high (Giddens 2010).
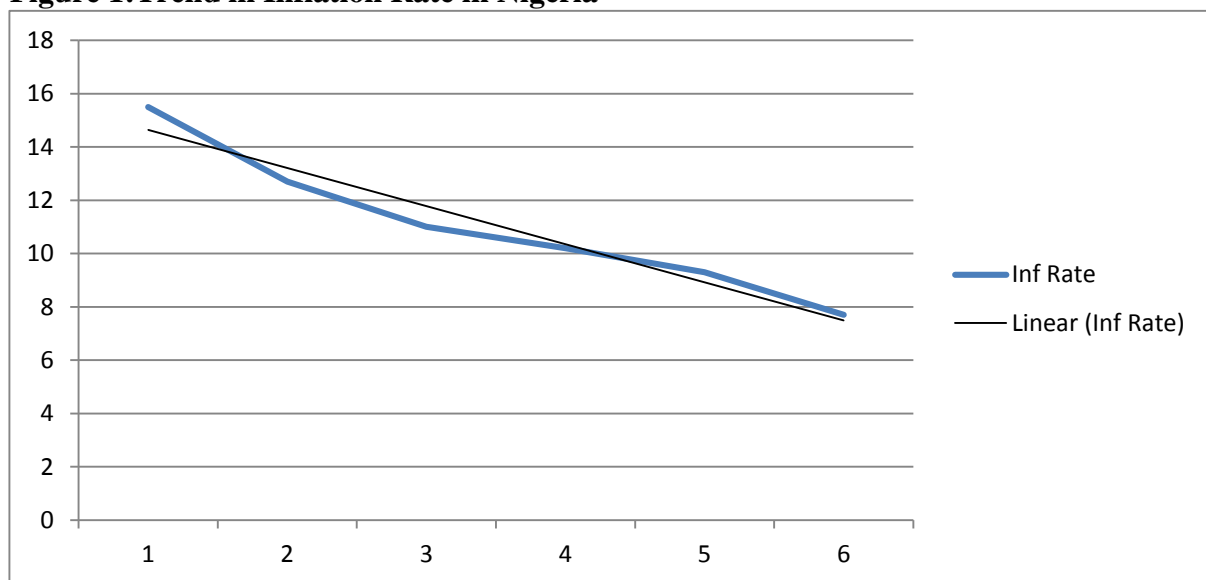
An important decision for management to make is the appropriate pricing of its goods as it is passed into the production process or issued out of store, and the price at which the goods are to be sold in order to add value to the firm. With the possibilities of price changes as a result of inflation, it becomes essential for management to proactively price their products in order to enhance the firm's value.

Table 1: Inflation rate for food items are as follows—

Year	2009	2010	2011	2012	2013
Inflation rate	15.5	12.7	11.0	10.2	9.3

Source: Central Bank of Nigeria (2014)

Figure 1:Trend in Inflation Rate in Nigeria

Source: Author's Computation (2015)

Given the inflation rate indicated above, the question that comes to mind is, to what extent has this translated to fall in the prices of food and drinks, having in mind that the rate in 2009 of 15.33 dropped to 14.86 in 2010 and in subsequent years it continued to drop till it reached 9.8 in 2013 and as at February 2014, inflation rate was 7.70. A review of the prices of the organizations in table 2 shows that commodity prices are on the increase in spite of the fall in inflation rate. In cases where there are close competing products, it is observed that commodity prices remained competitive as there is no significant difference in selling prices among the food vending firms. However, there is a need to determine the implication of these scenarios on the value of the firms. Another question that comes to mind is to determine if there is a relationship between the prices of food and drinks and the value of the firm. The following statistics were obtained from the financial reports of each of the organizations.

With reference to table 2, for Dangote Sugar, despite the impressive turnover growth of 19.26%, the growth in Earnings before tax remained flat at 4.44% which could be majorly attributed to high cost of inputs. Although, we note that raw sugar prices commenced a decline in February 2010 (from USc.28.94/lb in January to USc.$21.36/lb in March), the prices were still high compared to the same period in 2009 (Jan'09 - USc.$13.09/lb; Mar'09 - USc.$13.83/lb). This translates to 54% increase in cost from Q1'09 to Q1'10, which severely

32

impacted profitability in the period. Dangote sugar refinery recorded a reduction in cost of sales ratio from 87.32% to 80.25% between 2011and 2012. This was as a result of the decline in the price of raw sugar. (www.meristemregistrars.com).

Descriptive Analysis: This section provides an overview on the data set while presenting the variables of interest in this study.

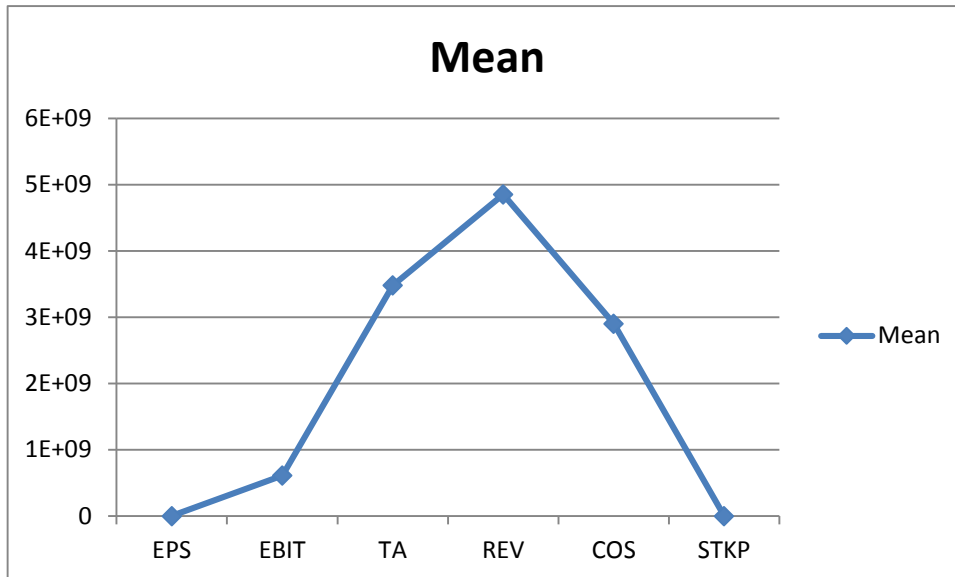**Table 2: Extracted Variables of Interest with Corresponding Companies, Values and Year**

			YEARS	EPS	EBIT	TA	REV	COS	STKP
Northern Nigeria Flourmill			2009	1.21	5,470.00	1,375,200,000	147,388,000	133,311,104	14.2
			2010	1.51	6,020,000	1,435,200,000	206,610,000		62
			2011	1.51	6,130,000	4,098,000,000	161,796,000	141,860.12	58
			2012	0.12	30,800,000	3,369,000,000	183,402,000	162,714.34	82.5
			2013	1.42	33,300,000	3,623,000,000	225,629,000	202,445.76	17.54
Dangote Flourmill			2009	111	1,041,900	27,214,200	41,858,929	51,842,724	22.09
			2010	54	5,481,100	30,263,400	42,695,343	33,654,684	16.8
			2011	14	5,156,800	29,606,100	38,629,844	31,752,957	5
			2012	0.09	749,000	77,449,000	285,635,278	106,326,020	5.45
			2013	0.46	3,773,000	75,595,000	371,551,567	127,937,261	6.55
Dangote Sugar Refinery Ltd.			2009	110	19586	41612	82395	61365	80
			2010	94	16146	43048	89920	71946	80.25
			2011	59	10553	43107	107218	92777	93.62
			2012	90	16332	82956	108868	83659	85.75
			2013	113	20099	87112	102467	75497	80.25
Guiness Nig Ltd			2009	918	18991	73868	89148	46509	129
			2010	931	19988	82558	109366	61672	190.56
			2011	1,216	26176	92227	123663	68619	250
			2012	964	20383	106009	116461	61278	200
			2013	793	17008	121060	122463	66385	168.01
Nestle Foods			2009	14.81	13,780	44,250	68317	39956	355
			2010	19.08	2763	41237	82726	46495	368.55
			2011	20.81	12050	77,728	97961	57368	445.66
			2012	26.67	13451	88,963	116707	66538	453.12
			2013	28	26,048	108,207	133084	76298	836
Cadbury Nig. Ltd			2009	37.5	12,860,000	25246	5.975,000	22.07	5.167,000
			2010	50	29,100,000	21281	29,170,000	20.9	19,920,000
			2011	40	34,100,000	26623	34,110,000	27.12	22,950,000
			2012	107	33,500,000	29385	33,550,000	54.59	22,450,000
			2013	112	35,800,000	33556	35,760,000	52.51	22,660,000
7 UP			2009	3.49	1,529,000	20,262,000	34,864,000	20631	47.5

Company			Year						
			2010	1.27	1,790,000	32,373,000	48,934,000	22771	39
			2011	83000	2,524,500	62,036,000	51,098,000	31894	46.47
			2012	2.62	2,558,600	61,869,000	59,864,400	38538.1	48.48
			2013	4.46	3,267,500	51,370,000	64,088,000	41,199.90	49
HONEYWELL FLOUR NIG. LTD.			2009	2.74	2,330,000	23,000,000	25,900,000	22,700,000	
			2010	14.83	687,000,000	30,000,000	28,500,000	22,600,000	9
			2011	31.43	3,515,000	29,140,000	29,300,000	24,100,000	4.84
			2012	34.08	3,665,000	44,900,000	38,100,000	31,600,000	2.17
			2013	35.86	3,815,000	55,400,000	45,700,000	37,800,000	2.94
Unilever			2009	1.3	4,500,000,000	27,000,000,000	44,480,000,000	27,090,000,000	24.5
			2010	1.3	4,600,000,000	30,000,000,000	44,260,000,000	23,050,000,000	26.9
			2011	1.48	8,000,000,000	35,000,000,000	54,730,000,000	34,720,000,000	29
			2012	1.54	8,180,000,000	40,000,000,000	56,540,000,000	30,900,000,000	47
			2013	1.46	6,900,000,000	45,000,000,000	60,000,000,000	37,550,000,000	54.7
Nigerian Breweries			2009	369	41399	64109	164206	88734	53.02
			2010	401	44580	69505	226228	117151	77.5
			2011	503	56397	237501	230123	120361	94.42
			2012	500	55624	253633	252674	127222	147
			2013	520	62240	252289	268613	132136	167.5
National Salt Company			2009	70000	2,712,000	18,700,000	8,767,000	5,390,000	
			2010	62000	2,058,000	14,700,000	8,890,000	6,070,000	
			2011	84000	3,138,000	6,492,000	9,680,000	5,640,000	
			2012	104000	4,038,000	10,680,000	13,414,000	8,320,000	
			2013	102000	4,038,000	11,431,000	10,840,000	6,240,000	

The following table illustrate the descriptive data of this study; these are in terms of minimum, maximum, mean, standard deviation, skewness and Kurtosis.

Table 3: Test Table (Minimum, Maximum, Mean, Standard Deviation)

Descriptive Statistics	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Earnings Per Share	54	.09	104000.00	9506.6413	27138.56712	2.718	.325	5.947	.639
Earnings Before Interest and Taxes	54	2763.00	8180000000.00	613203878.9630	1943082291.69617	3.194	.325	9.133	.639
Total Assets	54	21281.00	45000000000.00	3481333847.5926	10512046966.54196	3.059	.325	8.146	.639
Revenue	54	.00	60000000000.00	4853755351.2778	15331404061.26276	2.979	.325	7.331	.639
Cost of Sales	53	20.90	37550000000.00	2905043518.8991	9186355148.98559	3.013	.327	7.698	.644
Stock Price	48	.00	22950000.00	1833022.0688	6153546.71345	3.131	.343	8.183	.674
Valid N (listwise)	47								

34

Fig.2 Mean Representation Test variables

Table 4: Regression Analysis between Commodity Price Scale and Firm Value Scale

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	96939598.185	87092424.754		1.113	0.271
	Commodity Price	0.221	0.003	0.995	68.268	0.000
a.	Dependent Variable: FIRMVALUE					
b.	Adjusted R^2=0.990					

(Firm Value is indicated in EPS; EBIT; TA) (Price of Commodity is indicated in REV; COS; Stock Price)

The regression analysis depicted in Table 4.3 shows that computed commodity price scale made up of revenue, cost of sales, and stock price were computed in order to represent company price of commodity from 2009 to 2013; while firm value is made up of Earnings Per Share, Earnings Before Interests and Taxes and Total Assets.

The model in Table 4, illustrates that there is a significant positive relationship between commodity price and firm value ($p<0.05$). The model further shows a positive slope (B= 0.221) which suggests that an increase in commodity price between 2009 and 2013, led to a proportional increase in firm value during this period. The regression model further indicates that a reduction in commodity price will lead to a proportional reduction in firm value, which means that commodity price as measured in this model in an intricate measure of firm value and firm value is a reflection of the price of commodities. Finally, the coefficient of determination reflected in the model by adjusted R^2 indicates that commodity price predicts 99% of variation of influence in firm value between 2009 and 2013. This suggests that only 1% of variation of influence cannot be accounted for by this model which further means that

the model to a very large extent demonstrates a lot of usefulness and should be considered for policy direction, administration of firms and commodity price in Nigeria.

Table 5: Regression Analysis between Revenue, Cost of Sales, Stock Price and Firm Value Scale

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	95804907.629	88714051.816		1.080	0.286
	Revenue	0.0361	0.064	1.022	5.667	0.000
	Cost of Sales	-0.00016	0.107	-0.027	-0.150	0.881
	Stock Price	-3.380	13.197	-0.004	-0.256	0.799
a.	Dependent Variable: FIRMVALUE					
b.	Adjusted R^2=0.991					
c.	ANOVA Joint=0.000					

FINDINGS

Table 5 shows a model that indicates a joint relationship between revenue, cost of sales, stock price and firm value (p=0.000) This agrees with Rossi (2012); Fisherman & Musa (2012) while Umar & Musa (2013) opined that price relationship with firm value are contestable. However, the model further shows that revenue was the only predictor variable that was significant (p=0.000). Revenue also has a positive significant influence on firm value (B=0.0361) which suggests that a unit increase in revenue will lead to a proportional unit increase in firm value (Jhingan & Stephens 2009). However, cost of sales and stock price do not individually have an influence on firm value. The model consequently, predicts 99.1% of variation of influence on firm value between 2009 and 2013. This suggests that only 0.9% of variation of influence cannot be accounted for by this model which further means that the model to a very large extent demonstrates a lot of usefulness and should be considered for policy direction, administration of firms and commodity price in Nigeria. The regression analyses of the study however indicate that there is a significant positive relationship between commodity price and firm value (p<0.05). which suggests that an increase in commodity price between 2009 and 2013, led to a proportional increase in firm value during this period. The regression model further indicates that a reduction in commodity price will lead to a proportional reduction in firm value.

CONCLUSION AND RECOMMENDATIONS

The importance of price as a determinant of values cannot be overstressed as many young industries have had to die prematurely due to the effect of price hikes in the face of dwindling purchasing power of customers. From the findings of the study, there is a significant relationship between price and revenue and firm's value. This implies that due attention has to be paid to the issue of raw material sourcing and pricing in Nigeria. Moreso, the ever changing value of Nigeria's currency has had its toll on the particular type of goods that people go for. The implication of this is that price fluctuation, no matter how little or much, will directly impact the price of raw materials and goods being produced as well as services being rendered. This is applicable to almost all enterprises that invest in production of food materials and buying and selling. Since the slide in oil price in the international market and its expected effect

on the economy, attention has focused on the manufacturing sector, especially the food and beverage segment due to the sensitivity of the sector to consumers and the nation's economy. It is essential that the federal government and producers employ means that can influence production of more farm products that will enhance vast availability of raw materials to encourage industry growth. In fact, as manufacturers go into business, they need to imbibe the culture of establishing local feeder sources to meet production for the main industry. However, this will also hang on the extent to which needed funds are available to finance identified areas.

REFERENCES

Aeppel Timothy, (2007). Changing the formula: seeking perfect prices, CEO tears up the rules. Wall Street Journal, March, 27.

African financials. Annual reports: Nigeria. www.africanfinancials.com. 2009-2013

Allon Gad & Assaf Zeevi. (2006). On the relationship between pricing and capacity decisions in inventory systems with stochastic demand. North-Western University/ Columbia University

Ascher J., Laszlo P., & Quivig G., (2012). Commodity trading at strategic crossroad. International Journal of Economic Development Research and Investment. Vol. 3 No. 3

Bernard (1994). In Chidi S., Agu, D. & Ande H.(2013). To what extent did changes in stock prices influence Investors' confidence on the Nigerian's Stock exchange? Research Journal of Finance and Accounting www.iiste.org. Vol 4 No. 19

Central Bank of Nigeria (2009 -2013). Money and credit statistics: Inflation rate statistics. CBN Publication

Chan L.M.A; Max Shen Z. J., Simchi-Levi, David; & Swan J.L. (2004). Coordination of pricing and inventory decisions: A survey and classification. International Series in Operations & Management Science vol 74, 335-392.

Daneshvar Cost behaviour, Shahed University, No 17.

Donnelly, Ray & Linton Colin, (2006). CIM course book: Delivering customer value through marketing. Elsevier, Amsterdam.

Fagbemi A. O. & Abata M.A., (2013). Effects of organization performance on share price: an empirical study of the top performing manufacturing companies listed on Nigeria

Fama, E. (1990). Stock returns, expected returns and real activity. Journal of Finance, 45, 1089-1108

Fishman M. & Hagerty K., (2012).Disclosure decisions by firms and the competition for price efficiency. The Journal of Finance 44: (3) 633-646, doi: 10111

Gautam V., (2010).Firm investment, financial constraint and voluntary asset sales. Working Paper.http://ssrn.com/abstract

Giddens Nancy (2010). New Business development, marketing products and brands – Brand leveraging. Teaching File C5-53. IOWA State University.

Harper, D. (2010).Forces that move stock prices. In Chidi S., Agu, D. & Ande H.(2013). To what extent did changes in stock prices influence Investors' confidenceon the Nigerian's Stock exchange? Research Journal of Finance and Accounting www.iiste.org. Vol 4 No. 19

Huselid, Mark A., Jackson, Susan E., & Schuler Randall S. ,(1997). Technical and strategic human resource management effectiveness as determinants of firm performance. Academy of Management Journal. Vol. 40, No. 1, 171–188.New York University

In leveraged and capital intensive companies in Teheran stock exchange (TSE)

ISSN 2047-1278 http://scottishjournal.co.uk

Jahankani A. & Kanani M. (2006). Introduction of a model for determination of capital expenditure in TSE using accounting data, monthly scientific-research journal

Jhingan M. & Stephen K. (2009), Managerial economics, Delhi, Vrinda Publications Ltd.

Kakawa Asset Management (2014). Quarterly Market trail, Nigerian Business News.

Kale, Yemi (2014, Jan.). Nigeria's inflation rate goes up. National Bureau of Statistics.

Kangarlouci S.,Sanatkar R. And Montavassel (2012). The comparative investigation of the relationship between internal and external financial constraints

Kehinde S. J., (2012). Share price movement and white-noise hypothesis: the Algebraic approach. International Journal of information, business and information Technology, 2 (1) 10-15

Meristem Securities limited (2013). Earnings buoyed by other income as turnover decline. www. meristemregistrars.com

Rossi, Barbara (2012). The changing relationship between commodity prices and prices of other assets with Global market integration, ICREA, CREI, DUKE, UPF, BGSE

Shin-Hung Lin (2013). Managerial Optimism in investment efficiency and Firm Valuation. I-Ju Chen, Yuan Ze University, Taiwan

Sivakumar, K & Waymire G. (1993). The information content of earnings in a discretionary reporting environment:evidence from NYSE industrials, 1905-1910. Journal ofAccounting Research, 31 (1), 62-91

Spencer, S 2004, *Price Determination in the Australian Food Industry, A report*, Australian Government Department of Agriculture, Fisheries and Forestry,

Stock Exchange. Scottish Journal of Arts, Social Sciences and Scientific Studies.

Umar M.S. & Umar T.B (2013). Stock prices and Earnings per Share in Nigeria. JORIND 11(2) 187-193 ISSN 1596-2803.