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RESEARCH ARTIC

Impact of Mergers and Acquisitions of Exploration of Oil and Gas Companies on Shareholder Returns in Nigeria

Nwariaku, Ihechiluru Samuel[1] and Okoroiwu, Kemdi Iugard[2]
[1&2]University of Nigeria Enugu Campus (UNEC), Nigeria

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ABSTRACT

This study examined the impact of mergers and acquisitions of exploration of oil and gas companies on shareholder returns in Nigeria. the specific objective sought; is to examine the effect of the falling price of oil and gas on the shareholder equity in Nigeria and to evaluate the effect of increased oil prices on the return on equity in Nigeria. The secondary data adopted were obtained from CBN statistical bulletin. A statistical test (ANOVA) and multiple comparisons were used to analyze the data. The result revealed that the return on asset ROA has a significant positive level of 0.486 is not less than 0.05. while return on equity ROE has a significant positive level of 0.021 is less than 0.05. We conclude that mergers and acquisitions of exploration of oil and gas companies have a significant positive impact on the shareholder returns in Nigeria. We recommended that shareholders should continue with mergers and acquisitions because they added more value to their shares.

Keywords: *Mergers and Acquisitions, Exploration of Oil and Gas Companies, Shareholder Returns*

1. Introduction

As a preamble, the term "mergers'' can be seen as the process by which two or more companies join together to form another company. Similarly, "acquisition'' is the process by which a company takes over the activities of another company. At the corporate level, Acquisition has been seen by most firms as the most favored non-organic strategy for achieving their growth objectives (Anderibom & Obute, 2015). Mergers and acquisitions constitute the major ways Oil and Gas companies achieve their operational efficiency (Deloitte, 2015). Such operational efficiency includes cost-cutting and various merger talks. Major examples include the merger talks between Halliburton and Baker Hughes. Halliburton's share slumped due to the fear of reduced contracts and a sharp decline in the price of Oil and Gas in the international market.

The mergers and acquisitions concept is unique to non-renewable resource industries, and so is exploration activity. Oil and gas reserves are not readily available in well-functioning input markets as the case is for traditional inputs. Rather, oil and gas companies have to invest in risky exploration activities, simply to maintain and grow their base of oil and gas reserves, and to sustain subsequent production activity over the longer term. At the same time, reserve additions are the result of a production process of its own, and both the efficiency of this process and the implied accumulation of oil and gas reserves contribute significantly to the value of an oil company (Mohn, 2008). In other words, company exposure to exploration activities represents a source of idiosyncratic risk that should also be reflected in both the cost of equity and shareholder returns.

The fall in the price of Oil and Gas has reduced the profitability of Oil and Gas companies across the globe (Deloitte, 2015). The price fall has in effect increased asset impairment. It has also affected asset valuation in the Oil and Gas sector of the economy.

The Oil & Gas industry is divided into two sectors: the upstream sector and the downstream sector. The upstream sector deals with oil and gas exploration and production while the downstream sector deals with the activities after the production phase, refining, and marketing of petroleum products. Even if there are different sectors in the industry, some companies are engaged in all phases of the business as well as transportation, petrochemical, and renewable fuels operations. This study focused on the impact of mergers and acquisitions of exploration of oil and gas companies on shareholder returns in Nigeria.

Problem Statement

Several studies posit that mergers and acquisitions do not increase shareholder returns. One of such studies conducted by Douglis (2002) on the success of mergers argues that 60% of share returns fail to improve after two years of mergers and acquisitions. Two-thirds of these mergers and acquisitions would have made more profits if the mergers had not occurred (Douglis, 2002). Another study conducted on different firms around the world for 15 years suggests that most mergers decrease profit (Gugler et al 2003). Most studies done on mergers and acquisitions opined that mergers and acquisitions increased the returns of target companies. Overall, the impact of declining oil price rises on the Stock market tends to be negative for Oil exporting countries because of the reduction in revenue generation. Part of the justification for undertaking this study is to ascertain whether it was the case with Nigeria's Oil and Gas companies and to what extent it impacts shareholders' older returns More relevant literature would be identified and consulted to determine the impact on shareholders' returns. The decline in the price of Oil and Gas has made some investors dispose of their shares while others are optimistic that things will come back to normal.

Objectives of the Study

The main objective is to examine the impact of mergers and acquisitions of exploration of oil and gas companies on shareholder returns in Nigeria. the specific objective sought;

i. To examine the effect of the falling price of oil and gas on the shareholder equity in Nigeria
ii. To evaluate the effect of an increase in oil prices on the return on equity in Nigeria

Statement of Hypotheses

i. The falling price of oil and gas has no significant positive effect on shareholder equity in Nigeria.
ii. Increase in oil prices has no significant positive effect on the return on equity in Nigeria.

2. Review of Related Literature

2.1 Conceptual Review

Mergers and Acquisitions

Mergers and acquisitions (M&A) is a general term that describes the consolidation of companies or assets through various types of financial transactions, including mergers, acquisitions, consolidations, tender offers, purchase of assets, and management acquisitions. In corporate finance, **mergers and acquisitions** (**M&A**) are transactions in which the ownership of companies, other business organizations, or their operating units are transferred or consolidated with other entities. As an aspect of strategic management, M&A can allow enterprises to grow or downsize, and change the nature of their business or competitive position. From a legal point of view, a merger is a legal consolidation of two entities into one, whereas an acquisition occurs when one entity takes ownership of another entity's share capital, equity interests, or assets. From a commercial and economic point of view, both types of transactions generally result in the consolidation of assets and liabilities under one entity, and the distinction between a "merger" and an "acquisition" is less clear. A transaction legally structured as an acquisition may have the effect of placing one party's business under the indirect ownership of the other party's shareholders, while a transaction legally structured as a merger may give each party's shareholders partial ownership and control of the combined enterprise. A deal may be euphemistically called a *merger of equals* if both CEOs agree that joining together is in the best interest of both of their companies, while when the deal is unfriendly (that is, when the management of the target company opposes the deal) it may be regarded as an "acquisition".

Types of Mergers and Acquisitions

The following are some common transactions that fall under the M&A umbrella:

Mergers

In a merger, the boards of directors for two companies approve the combination and seek shareholders' approval. For example, in 1998, a merger deal occurred between the Digital Equipment Corporation and Compaq, whereby Compaq absorbed the Digital Equipment Corporation. Compaq later merged with Hewlett-Packard in 2002. Compaq's pre-merger ticker symbol was CPQ. This was combined with Hewlett-Packard's ticker symbol (HWP) to create the current ticker symbol (HPQ).

Acquisitions

In a simple acquisition, the acquiring company obtains the majority stake in the acquired firm, which does not change its name or alter its organizational structure. An example of this type of transaction is Manulife Financial Corporation's 2004 acquisition of John Hancock Financial Services, wherein both companies preserved their names and organizational structures.

Report on Merger and Acquisition Performance

Scholarly studies on mergers and acquisitions have disagreed as to whether mergers and acquisitions create value for shareholders. According to Negash and Wimberley (2004), the short-term impact of mergers and acquisitions shows that they do create value. Studies on USA and UK companies show that shareholders of the target company experience a gain of 16% and 45% after mergers and acquisitions deals. Furthermore, acquirers on the other hand had an abnormal return of -1.1% to 7.9% (Negash and Wimberley, 2004). Studies in South Africa are in tandem with international findings. It indicates that target (these are the acquired companies) companies had abnormal returns of 30% and 44% in the short term while the acquirer shareholders had abnormal returns of -2% and 11% (Negash and Wimberley, 2004). Although there is no reliable research in South Africa concerning the long-term impact of mergers and acquisitions, research performed in the US and UK shows that the shareholders of the acquiring company have negative abnormal returns (Negash and Wimberley, 2004). For instance, Bieshaar et al (2001) argue that neither the size nor the number of mergers and acquisitions performed by a company had a positive impact on the market capitalization of a company. Despite these studies that indicate that mergers and acquisitions do not create value for shareholders, Watson and Head (2007) posit that when two or more companies with complementary assets and operations merge, synergy is created. Thus, the synergy theory advocates that the output of two combined companies is higher than the output of a single company. Companies merge based on different reasons, the principal of which is to increase the value of the company.

The availability of quality assets for production and reserves combined with structure synergies, economies of scale, and fast growth capabilities are the key determinants that influence the decision on Oil and Gas. Company to acquire (Energy Institute, 2012). Saunders et al (2012) argue that ‘‘Executives make decisions to influence the value of their holdings’’ (Saunders et al, 2012). Another reason for mergers, acquisitions, and divestment of assets by Oil and Gas companies is to realize cash so that companies can invest in more promising parts of the industry, by quitting

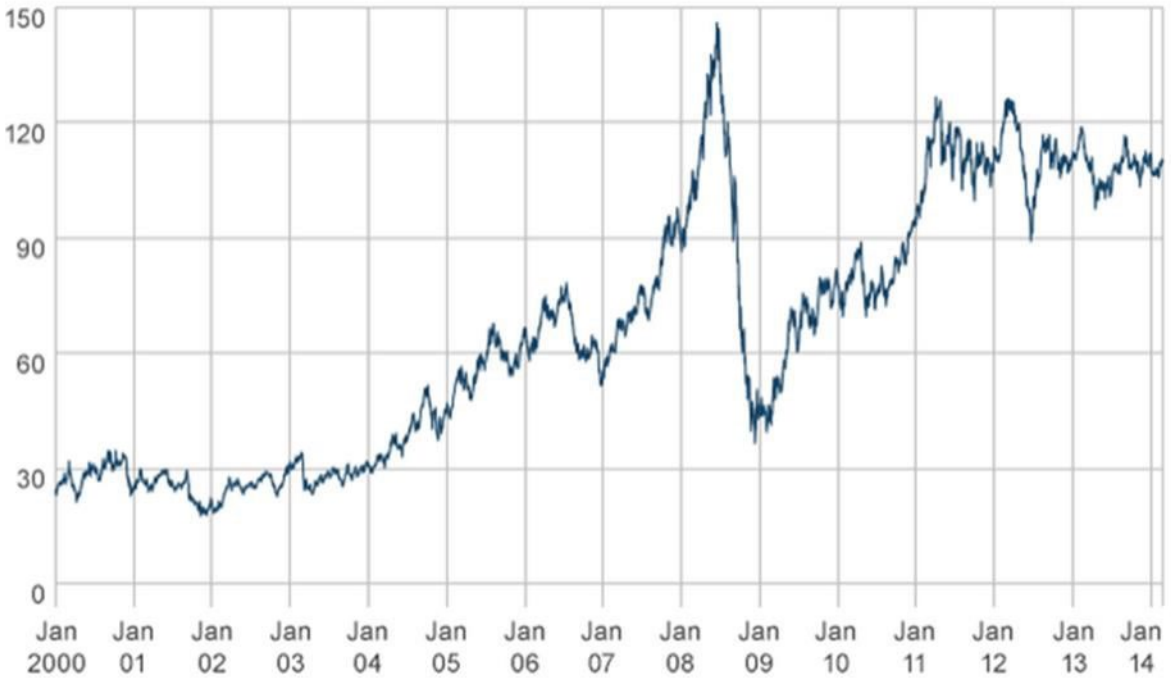
activities that do not give them any competitive or financial advantage. A typical example is the divestment of Anasuri Nelsonlso and Sean's assets in the North Sea by Shell. The aim of the divestment according to the Vice President of Shell UK and Ireland was to increase greater focus on sectors where value could be created and to ensure a long-term future for Shell in the North Sea (The Telegraph, 2014). Wide choices of buyers highly discovered these assets to be an excellent feat with their stories (Accenture, 2012). This has encouraged Asian National Oil and Gas companies to accumulate upstream assets to resources.

Believing in the theory that mergers and acquisitions increase assets, Petro China has been pursuing deals in areas as diverse as Scotland and Latin America. The unexpected aspect of it is that airlines have entered the game, as observed by Delta's 2012 acquisition of the Trainer refinery located on the outskirts of Philadelphia (Accenture, 2012). It has been previously stated that although there are some previous studies on mergers and acquisitions of companies in the UK, albeit sparse, yet, there is still the existence of knowledge gap in this area, especially; the actual impact of mergers and acquisitions on UK exploration, production, and servicing Oil and Gas companies have on shareholders' returns (Share Price Appreciation plus Dividend). The year 2002 involved a lot of mergers and acquisitions across several countries. One important characteristic of mergers and acquisitions waves is that they occur in times of recession and reduces when the economy booms or begins to peak (Gaughan, 2001). In 2000, approximately 9300 mergers and acquisitions valued at $1.8 trillion occurred. In 2004, 5800 deals amounting to $500 billion occurred and by mid-July 2005, an estimate of 5300 deals with a value of $660 billion was completed. There was no reduction in USA mergers and acquisition activities (Knowledge Emory, 2005). According to Cartwright and Schoenberg (2006), 30,000 mergers and acquisitions deals were completed globally in 2004 and the total value of these deals was $1900 billion, greater than the GDP of several countries.

Impact of Falling Oil Price on Oil and Gas Companies

About two-thirds of the global energy requirement is provided by the Oil and Gas industry. Today, Oil is produced in millions of barrels and has transformed from a common resource to a strategic commodity (Report SURE, 2004). Oil accounts for about 10% of world trade, more than any other commodity. Currently, the price of Oil and Gas has reduced drastically by 40% and this has given rise to various mergers and acquisitions. Hotten in BBC News (2014) opined that most Oil and Gas Companies do not have the financial muscle to withstand the continuous fall in the price of Oil and Gas. This has culminated in various strategic moves by these Oil and Gas companies. Such moves include cost-cutting and various merger talks. Examples include merger talks between Halliburton and Baker Hughes. Halliburton's share slumped due to the fear of reduced contracts and a sharp decline in the price of Oil and Gas in the international market. Talisman a Canadian Oil and Gas company that owns several assets in the North Sea has also been approached by Repsol a Spanish Company concerning possible deals (Hatton, 2014). From the foregoing, it is evident that opinions are diverse as to the reasons, advantages, and cost-benefit implications of mergers and acquisitions. Whereas several open the views sider mergers and acquisitions as the bedrock of corporate financial growth in the Oil and Gas sub-sector, others present a financial critique that holds mergers and acquisitions responsible for the fiscal woes of Oil and Gas transactions.

Figure 1: Price of Oil since 2000-2014



Source: Bloomberg, 2014

The diagram above shows the price of Brent crude from 2000 to 2014. The price of Brent crude has been rising steadily until 2008 when it experienced a peak. From 2009, Brent crude experienced a decline in price as a result of the economic recession. It has been rising steadily since then until the discovery of the American shale Gas, cheap Oil pumped by Russia, and the unwillingness of OPEC to reduce output to drive up the price of crude oil in the international market. This has impacted adversely Oil and Gas companies across the world.

Analysis of Oil Price and Stock Markets

Filis et al (2011) performed studies on six different countries and discovered that non-economic issues cause a strong negative relationship between oil prices and stock markets while economic issues such as booms result in a stronger positive relationship between oil prices and stock markets. Therefore, Lagged Oil price increased the risk to stock markets (Filis et al, 2011). Studies done by Bjornland (2008) analyzed the impact of oil prices on stock returns in Norway and discovered that the Norwegian economy reacted to increased Oil prices through the increment of aggregate wealth and demand. As a result, the unemployment rates were reduced and inflation increased significantly. The reverse would be the case should the price of Oil decline. Studies by Barsky and Kilian (2004), Hamilton (2008), Hammondo and Odeh et al. (2010) contend that Oil price volatility influences the global economy by increasing the cost of production of goods and services that make use of Oil and Gas, reducing demand for some consumer goods, and adverse effect on financial markets. Oil companies usually respond to persistent falls in Oil prices by reducing or cutting down capital spending, research and development, and employment (Inikori et al. 2001).

Similarly, when the price of Oil declines, Oil and Gas companies, namely Royal Dutch Shell and BP, make low revenues and may have to cut their dividends. Russ Mould of AJ Bell in Telegraph (2014) is of the view that companies will certainly turn off the dividend tap when they are faced with volatility in price.

This will also affect other groups that may not have shares with these Oil and Gas companies but whose pensions are exposed to these companies. Looking back at what happened in 1998 when Oil prices stopped at $20 a barrel, and Oil companies were booming until price decline occurred between 1999 at $10 per barrel which gave rise to a wave of mergers and acquisitions that created the supermajors of today: Exxon and Mobil in 1998; BP, Amoco, and ARCO in 1998 and 1999; Total, Petrofina, and Elf in 1999 and 2000; and then Chevron and Texaco in 2000. Oil and Gas groups make up 15% of the FTSE 100 index hence, will certainly impact negatively on returns on investment. Other proponents suggest Oil and Gas companies will not cut dividends until the price of crude oil remains below $70 for many months. Mould in Telegraph (2014) suggests that Shell has not reduced its dividend since 1945.

Therefore, it is likely not to reduce it now. Shell and BP have started cutting costs and disposing of their assets to focus more on shareholder- returns. Therefore, there is not likely to be any reduction in dividends. Investors can invest in Oil and Gas companies at a much lower price than they did in the last six months (Telegraph, 2014).

Comparatively, also, Oil companies listed on the Nigerian Stock Exchange are facing the same challenges faced by UK Oil and Gas companies. The decline in the price of Oil and Gas has made some investors dispose of their shares while others are optimistic that things will come back to normal. To downturn is affecting both the Oil companies and the producing countries across the globe. Meanwhile, the world price of crude oil has been dropping continuously. The prices are as follows: January was $48, February $54, March $52, April-$57d May $62, June $60, July $54, and August $48 (Energy News, 2015).

Overall, the impact of declining oil and gas prices on the Stock market tends to be negative for Oil exporting countries because of the reduction in revenue generation. This can lead to declining returns to UK shareholders if the price continues to fall. Other countries such as Nigeria, and Venezuela are having serious economic problems as a result of a declining price of Oil and Gas. Nigeria has gone to the extent of devaluing the Naira and curtailing importation to maintain the economy. On the other hand, Oil importing countries namely Japan and India are enjoying cheap Oil prices which is positive for their economy. Therefore, Oil price volatility encourages different forms of mergers and acquisitions by Oil and Gas companies in order strong and maintain shareholder value. This study shall identify Oil and Gas companies in the UK that have embarked on mergers and acquisitions and try to establish their impact on shareholder- returns.

2.2 Theoretical Review

The Synergy Theory

The synergy theory of merger or acquisition which was mentioned by Ansoff in 1965, states that organizations embark on mergers or acquisitions in expectation of positive return for both the acquirer and the target. It then means that the main reason for merger or acquisition is synergy, where the two combined firms are expected to be greater than their entities, owing to reasons such as improvement in efficiency, financial and market power for the merged or acquired firms (Willamson in Oghurwu & Omoye 2016). It is assumed that the reason for a merger or acquisition is value creation through synergy. It can be explained further in the following headings:

i. **Differential Managerial Efficiency**
   This is the most general theory of mergers or acquisitions that can be formulated. In everyday language, such a theory operates where the management of firm A is more efficient than the management of firm B and if after firm A acquires firm B, the efficiency of firm B is brought up to the level of efficiency in the acquiring firm. Differential efficiency would most likely be a factor in mergers or acquisitions between firms in related industries where the need for improvement could be more easily identified thus; it is more likely to be a basis for horizontal mergers or acquisitions.

ii. **Operating Synergy**
   This theory assumes that economies of scale exist in the industry and that before the merger; the firms are operating at levels of activity that fall short of achieving the potential of economies of scale. It included the concept of complementary capabilities. Operating Synergy may be achieved in horizontal, vertical, and even conglomerate mergers. For example, one firm might be strong in research and development (R&D) but weak in marketing while another has a strong marketing department without the R&D capability. Merging or acquiring both firms will result in operating synergy.

iii. **Financial Synergy**
   This theory hypothesizes complementariness between merging or acquiring firms, not in management capabilities, but the availability of investment opportunities and internal cash flows. A firm in a declining industry will produce large cash flows since there are few attractive investment opportunities. A growing industry has more investment opportunities than cash with which to finance them. These conditions will provide a basis for merging or acquiring. The merged firm will have a lower cost of capital due to the lower cost of internal funds as well as possible risk reduction, savings in floatation costs, and improvements in capital allocation.

2.3 Empirical Review

Coontz (2004), in the study „Economic Impact of Corporate Mergers and Acquisitions on Acquiring Firm Shareholder" stated that the companies failed to perform well after mergers and acquisitions in all parameters under study; the performance was different in the different industries, and the performance of a company depends on the type of industry in which mergers and acquisitions take place.

Martynova, Oosting, and Renneboog (2006), in the paper „The Long-Term Operating Performance of European Mergers and Acquisitions" analyzed the extent to of European companies improved their profitability following the completion of takeover transactions of 155 European M&As completed during 1997–2001 and found that the profitability of the combined firm decreased significantly following the takeover. Means of payment, geographical scope, and industry relatedness did not have significant explanatory power on profitability. Companies with excessive cash holdings are negatively related to performance while acquisitions of relatively larger targets result in better profitability of the combined firm after the takeover.

Ashfaq et al. (2014) investigated the effects of M&A on corporate performance, using descriptive statistics and paired sampled t-tests. Their study revealed that performance declined following mergers and acquisitions. They further observed that organizations tend to lose strategic focus after the business combination.

Njogo & Nwankwo (2016) studies the impact of mergers and acquisitions on the performance of deposit money banks in Nigeria. The research made use of secondary data, obtained from the bank's annual reports and statements of accounts covering a period of 2001-2010, Using nine (9) variables; Return on Assets, Return on Equity, Net Profit Margin, Asset Utilization, Equity Multiplier, Earnings per share, Debt-Equity ratio, Debt Asset ratio & Leverage ratio, the study evaluated the performance of the banks before and after mergers and acquisitions using pair sample t-test. The results showed that there is a significant difference in the performances of Deposit Money Banks in the pre and post-merger periods using the ROA, ROE, and LR as a yardstick but show no significant impacts on the performances of Deposit Money banks using other variables as a yardstick.

3. Methodology

This study adopted *Ex-post facto* research design on the premise that the study depends on phenomena that had already been recorded, therefore, are beyond the manipulation of the researcher. The reason for using secondary data is because most of the data will be coming from annual reports of Oil and Gas companies that were involved in mergers and acquisitions which are available. The statistical test for the analysis is the ANOVA test and this is dependent on whether the data satisfies the appropriate test requirement. ANOVA is a statistical method for determining the existence of differences among several population means. ANOVA aims to detect differences among several population means, and the technique requires the analysis of different forms of variances associated with random samples (Nwachukwu, 2005). ANOVA tests and multiple comparisons were used to analyze the data.

4. Results

Tests for Differences Between Pairs of Means

When we reject the null hypothesis, it follows that not all the population means are equal. However, since ANOVA does not reveal in what way these means differ, other statistical tests have been developed which enable us to determine which of these means are different from the rest by making a pairwise comparison of all the possible pairs of means Nwachukwu (2005).

Tukey Test

This method involves calculating the Tukey criterion T, which is given by

T = $q\alpha\sqrt{\overline{MSW}a}$

Where q is the studentized range distribution, with r and n-r degrees of freedom, r is the number of treatments (population), MSW is the mean square within which is obtained from the ANOVA table, and n is the total number of observations in all samples combined, a represents the size of each sample critical points for q with a specified degree of freedom is thus computed.

The Tukey standard criterion is then compared with each of the test statistics, which is the absolute difference between each pairwise comparison of sample means for our three treatments

$|\bar{X}_1 - \bar{X}_2|$, $|\bar{X}_1 - \bar{X}_3|$, and $|\bar{X}_2 - \bar{X}_3|$

Where $\bar{X}_1$ - mean for I year before acquisition

$\bar{X}_2$ - mean for one year after the acquisition

$\bar{X}_3$ - mean acquisition for three years after acquisition

If any pair of sample means has an absolute difference greater than the T-value we can conclude that their respective population means are not equal.

The Least Significant Difference Between LSD Test

$$LSD = \sqrt{\frac{2MSW\ F_\alpha}{a}}$$

Where F is F_{ratio} with 1 and n-r degrees of freedom, a, n, and r is as defined for Tukey Test. The LSD criterion is then compared with each of the test statistics (i.e the absolute differences in sample means) and any pair with a difference greater than the LSD value indicates inequality of the respective population means.

Table 1: Descriptive Statistics of Return on Equity

	N	*Mean*	*Std. Deviation*	*Std. Error*	*95% Confidence Interval for Mean*		*Minimum*	*Maximum*
					Lower Bound	Upper Bound		
1.00	34	17.3176	17.01220	2.91757	11.3818	23.2535	-11.70	87.90
2.00	34	4.6559	25.24656	4.32975	-4.1531	13.4648	-73.80	51.20
3.00	34	14.6529	14.13942	2.42489	9.7195	19.5864	-10.20	60.10
Total	102	12.2088	19.95343	1.97568	8.2896	16.1280	-73.80	87.90

Researcher's computation from SPSS 20

Table 1 gives the descriptive Statistics for Return on Equity (ROE). A total of 34 companies were collected with one representing ROE one year before mergers and acquisitions, two representing ROE one year after mergers and acquisitions, and three representing ROE three years after mergers and acquisitions. Table 10 shows the mean, standard deviation, and standard error with their respective 95% confidence interval for the mean. The minimum and maximum values are equally displayed in Table 10. The ANOVA Table for comparing the mean effect of the companies one year before mergers and acquisitions, one year after mergers and acquisitions, and three years after mergers and acquisitions is displayed in Table 1. By comparing these treatment means we will be able to see how the acquisition has affected the Return on Equity.

Table 2: ANOVA For Return on Equity

	Sum of Squares	*Df*	*Mean Square*	*F*	*Sig.*
Between Groups	3030.104	2	1515.052	4.034	.021
Within Groups	37181.978	99	375.576		
Total	40212.082	101			

Researcher's computation from SPSS 20

From the ANOVA Table 2, the significance level of 0.021 is less than 0.05. Thus, the researcher rejects Ho_3 that there is no significant relationship between the Return on Equity of UK Oil and Gas companies before and after mergers and acquisitions tested within three years. We conclude that the return on equity one year before acquisition, return on equity one year after acquisition and three years after acquisition differ significantly. This implies that the return on equity of the companies will change over three years after mergers and acquisitions that is the return on equity one year before, one year after, and three years after mergers and acquisitions are significantly different.
To know the pairs that are different multiple comparisons are applied. Multiple comparison tables are shown in Table 3, this is used to find out whether individually any pair differs, since overall, they are all not the same.

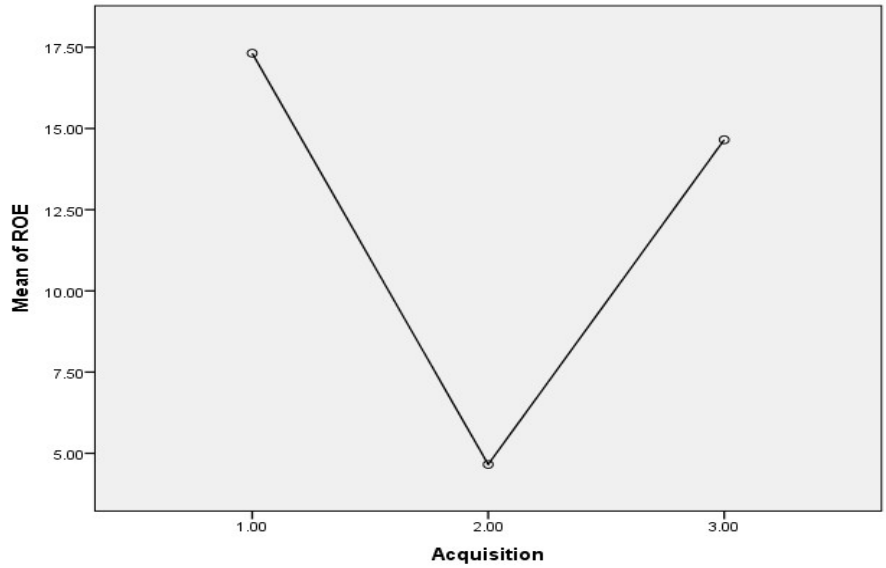
Table 3: Multiple Comparisons of Return on Equity

	(I) Acquisition	*(J) Acquisition*	*Mean Difference (I-J)*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
						Lower Bound	Upper Bound
Tukey HSD	1.00	2.00	12.66176*	4.70028	.022	1.4776	23.8460
	2.00	3.00	2.66471	4.70028	.838	-8.5195	13.8489
	3.00	1.00	-12.66176*	4.70028	.022	-23.8460	-1.4776
	1.00	3.00	-9.99706	4.70028	.090	-21.1813	1.1871
	2.00	1.00	-2.66471	4.70028	.838	-13.8489	8.5195
	3.00	2.00	9.99706	4.70028	.090	-1.1871	21.1813
LSD		2.00	12.66176*	4.70028	.008	3.3354	21.9881
		3.00	2.66471	4.70028	.572	-6.6617	11.9911
		1.00	-12.66176*	4.70028	.008	-21.9881	-3.3354
		3.00	-9.99706*	4.70028	.036	-19.3234	-.6707
		1.00	-2.66471	4.70028	.572	-11.9911	6.6617
		2.00	9.99706*	4.70028	.036	.6707	19.3234

*. The mean difference is significant at the 0.05 level.
Researcher's computation from SPSS 20

From Table 3 we can see that using the Tukey test the pair (one year before against one year after and one year after against three years after) mergers and acquisitions differ significantly at a 5% level of significance. All the pairs marked * are significant at a 0.05 level of significance also, the LSD test shows that the pairs (one year before against one year after and one year after against three years after mergers and acquisitions) were all significant. Both statistics gave the same result. This result affirms that mergers and acquisitions will affect the Return on Equity of a firm positively especially one year after mergers and acquisitions and three years after mergers and acquisitions. It has been shown by the test above that the Return on Equity will increase significantly within this period, it could be seen that the Return on Equity will differ even between one year before and one year after mergers and acquisitions. From the foregoing, it could be seen that mergers and acquisitions have an effect on the Return on Equity of the companies.

Figure 2: Mean Plots of Return on Equity



The mean ROE against mergers and acquisitions is displayed in figure 2.
It further collaborates that there is a significant difference between the means of ROE, one year before mergers and acquisitions, one year after mergers and acquisitions, and three years after mergers and acquisitions.

Table 4: Descriptive statistics of Return on Asset

	N	*Mean*	*Std. Deviation*	*Std. Error*	*95% Confidence Interval for Mean*		*Minimum*	*Maximum*
					Lower Bound	Upper Bound		
1.00	34	11.2265	7.79799	1.33734	8.5056	13.9473	-2.10	36.20
2.00	34	9.0941	7.59294	1.30218	6.4448	11.7434	-14.80	20.90
3.00	34	9.9647	6.54522	1.12250	7.6810	12.2484	.00	21.60
Total	102	10.0951	7.31275	.72407	8.6587	11.5315	-14.80	36.20

Researcher's computation from SPSS 20

Table 4 gives the descriptive Statistics for Return on Asset (ROA). A total of 34 companies were collected with one representing ROA one year before mergers and acquisitions, two representing ROA one year after mergers and acquisitions, and three representing ROA three years after mergers and acquisitions Table 4 shows the mean, standard deviation, and standard error with their respective 95% confidence interval for the mean. The minimum and maximum values are equally displayed in Table 4. The ANOVA Table for comparing the mean effect of the companies one year before mergers and acquisitions, one year after mergers and acquisitions, and three years after mergers and acquisitions is displayed in Table 5. Comparing these treatments means we will be able to see how mergers and acquisitions have affected the return on assets.

Table 5: ANOVA For Return on Asset

	Sum of Squares	*Df*	*Mean Square*	*F*	*Sig.*
Between Groups	78.165	2	39.082	.727	.486
Within Groups	5322.943	99	53.767		
Total	5401.108	101			

Researcher's computation from SPSS 20

From ANOVA Table 5 the significance level of 0.486 is not less than 0.05. Thus, the researcher accepts Ho_1: that there is no significant relationship between the Return on Assets of Oil and Gas companies before and after mergers and acquisitions tested within three years. To go further, the implthe above finding implies accepting the null hypothesis and rejecting the alternate hypothesis. We conclude that the returns on Assets one year before mergers and acquisitions, one year after mergers and acquisitions, and three years after mergers and acquisitions are all the same. This implies that the Return on Assets of the Oil and Gas companies will not change three years after mergers

and acquisitions (that is the Return on Assets one year before mergers and acquisitions, one year after mergers and acquisitions and three years after mergers and acquisitions are not significantly different). This is further confirmed using multiple comparisons shown in Table 6 to find out whether individually any pair differs.

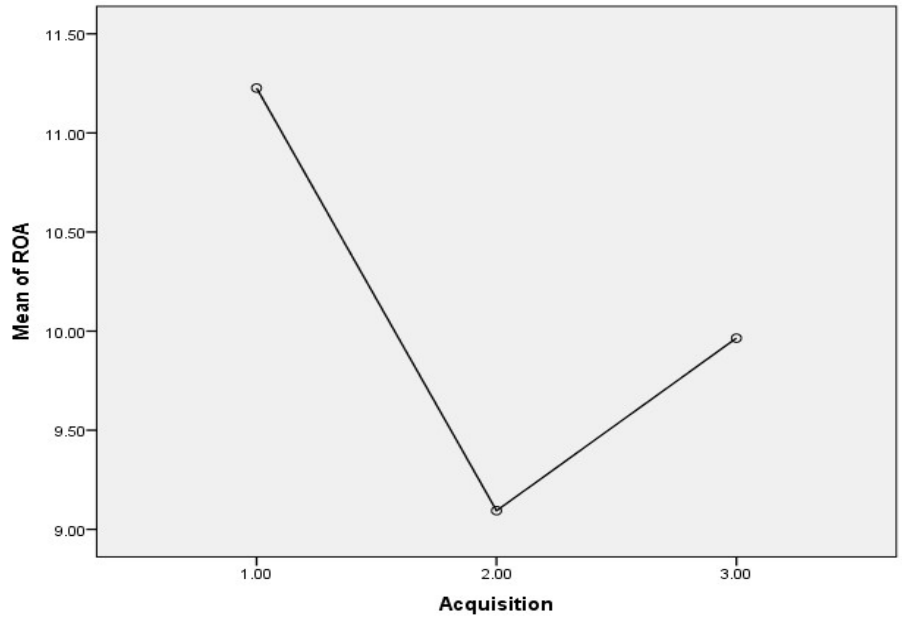
Table 6: Multiple Comparisons

	(I) Acquisition	*(J) Acquisition*	*Mean Difference (I-J)*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
						Lower Bound	Upper Bound
Tukey HSD	1.00	2.00	2.13235	1.77842	.457	-2.0993	6.3641
	2.00	3.00	1.26176	1.77842	.758	-2.9699	5.4935
	3.00	1.00	-2.13235	1.77842	.457	-6.3641	2.0993
	1.00	3.00	-.87059	1.77842	.876	-5.1023	3.3611
	2.00	1.00	-1.26176	1.77842	.758	-5.4935	2.9699
	3.00	2.00	.87059	1.77842	.876	-3.3611	5.1023
LSD		2.00	2.13235	1.77842	.233	-1.3964	5.6611
		3.00	1.26176	1.77842	.480	-2.2670	4.7905
		1.00	-2.13235	1.77842	.233	-5.6611	1.3964
		3.00	-.87059	1.77842	.626	-4.3994	2.6582
		1.00	-1.26176	1.77842	.480	-4.7905	2.2670
		2.00	.87059	1.77842	.626	-2.6582	4.3994

Researcher's computation from SPSS 20

From Table 6 we can see that none of the pairs (one year before against one year after, one year before against three years after, and one year after against three years after) mergers and acquisitions differ significantly at 5% a levels of significance shown by the significant values on Table 6 which were all greater than 0.05

Figure 3: Mean of Return on Assets



The mean of ROA against acquisition is displayed in figure 3. It further collaborates that there is no significant difference between the means of Return on Asset, one before mergers and acquisitions, one year after mergers and acquisitions, and three years after mergers and acquisitions.

Discussion of Finding

After a full analysis, the research made the following findings on ROA. Firstly, there is no significant relationship between the falling price of oil and gas and the Return on Assets of Oil and Gas company's mergers and acquisitions tested. From the ANOVA Table 5, the significance level of 0.486 is not less than 0.05. Thus, the researcher accepts Ho_1: that falling price has a significant relationship between ROA Oil and Gas company's mergers and acquisitions tested, the above finding implies that we accept the null hypothesis and reject the alternate hypothesis.

The researcher made the following findings increase in oil prices has on ROE. From the ANOVA Table 11, the significance level of 0.021 is less than 0.05. Thus, the researcher rejects Ho_2: that an increase in oil prices has a significant relationship between the Return on Equity of Oil and Gas company's mergers and acquisitions tested. To go further, the above finding implies that we reject the null hypothesis and accept the alternate hypothesis.

5. Conclusion

The findings are reliable, consistent, and generalizable, considering the paucity of standardized statistical instruments employed in data analysis and the myriads of authorities and scholarly opinions consulted for the work. Doubtlessly, therefore this research provides a veritable launch pad for further research in the field of impact of mergers and acquisitions of exploration of oil and gas companies on shareholder returns in Nigeria. We conclude that mergers and acquisitions of exploration of oil and gas companies have a significant positive impact on the shareholder returns in Nigeria.

6. Recommendation

i. We recommended that shareholders should continue with mergers and acquisitions because they added more value to their shares.
ii. Government should endeavor to make a policy that favours the shareholders on mergers and acquisitions for the value of their share to have great value on the economy.

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