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Financial Meltdown on The Capital Market:A Study of The Nigerian Stock Market Exchange

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ABSTRACT

A major engine of economic growth and development of any nation is its capital market. Until quite recently, the Nigerian capital market was the toast of many enlightened Nigerians both home and abroad. This research study investigated the impact of financial meltdown on the capital market with particular reference to the Nigerian Stock Exchange (NSE). In carrying out the study, survey research design was adopted and thirty (30) observations were drawn each from the periods before the crash and after the menace. Using Z test statistical analysis, two hypotheses tested with respect to NSE All Share Index (ASI) and market capitalisation were rejected implying that the tests were statistically significant. On the contrary, the hypothesis tested on NSE market turnover was accepted meaning that the observed difference in the values was statistically insignificant. Similarly, using market model, it was discovered that there were significant changes in individual quoted securities and expected returns in the period under consideration. Above all, the findings of the study revealed that the financial meltdown impacted negatively on the operational performance and efficiency of the Nigerian stock market. It was recommended that the Nigeria government should inject physical cash into the stock market as a way of bail out in order to restore the lost confidence in the market and also the investors and stock market operators should play the games according to the rule.
Keywords: Nigerian stock exchange, All Share Index, Financial meltdown, Bubbles, Crashes

INTRODUCTION

The occurrence and existence of bubbles have gained reasonable attention from researcher and academic gurus (Froot and Obstfeld, 1992; Allen and Gorton, 1993; Biswanger, 1999; Abreu and Brunnermeier, 2003). The existence of stock market bubbles and crashes dates back to the 1600s.The Dutch Tulip Mania of 1630s, the South Sea Bubble of 1719-1720 and more recently, The Internet Bubble, which peaked in early 2000, are some cases (Abreu and Brunnermeier, 2003). Time and again, both pundits and makers have had difficulty in accurately foreseeing the direction of the market even in the medium term.

Investors sometimes, albeit temporarily, show excessive optimisms and pessimism which end in pulling stock prices away from their long term trend levels to extreme points. Just before a major burst, experience has shown that the market will always look so promising and attract some late comers who are also somewhat new and inexperienced in the business. Unfortunately, they are the most vulnerable in crisis times. Bubbles are often identified only in retrospect, when a sudden drop in prices appears. Such a drop is known as a crash or a bubble burst. To date, there is widely accepted theory to explain the occurrence of bubbles or their burst. Meristem (2008) observed that the existence of stock market bubbles is at odds with the assumptions of Efficient Market Theory (EMT) which assumes rational investor behaviour. Behaviour Finance attributes stock bubbles to cognitive biases that result in group- think and herd behaviour. But, often, when the phenomenon appears, pundits try to find a rationale, so as not to be against the crowd. Thus, sometimes, people will dismiss concerns about overpriced markets by citing a new economy where the old stock valuation rules may no longer apply. The burst of this bubble results in a market crash which is every investor's nightmare. By the end of the first quarter of 2008, the Nigerian stock market has witnessed a persistent bull ride, flanked by escalating gurgles and bubbles which some stakeholders said would soon burst.

CONCEPTUAL FRAMEWORK

The capital market has been identified as an institution that contributes to the socio-economic growth and development of emerging and developed economies. Osaze (2000) described capital market as the driver of any economy to growth and development because it is essential for the long-term growth capital formation. It is crucial in the mobilization of savings and channelling of such savings to profitable self-liquidating investment. According to Wikipedia (2010) capital market is a market for securities (debt or equities), where business enterprises (companies) and government can raise long-term funds. The capital market includes the stock market (equity securities) and the bond market (debt).

Capital market may be classified as primary markets and secondary market. In primary market, new stock or bond issues are sold to investors via a mechanism known as underwriting. In secondary markets, existing securities are sold and bought among investors or traders, usually on a securities exchange, over-the-counter, or elsewhere.

STOCK MARKET BUBBLES AND BURST

Meristem (2008) described stock market bubble as a type of economic bubble taking place in stock markets when price of stocks rise and become overvalued by any measure of stock valuation. Andrew (2010) described a bubble as a type of investing phenomenon that demonstrates the frailty of some facets of human emotion. A bubble occurs when investors put so much demand on a stock that they drive the price beyond any accurate or rational reflection of its actual worth which should be determined by the performance of the underlying company. Like the soap bubbles a child likes to blow, investing bubbles often appear as though they will rise forever, but since they are not formed from anything substantial, they eventually pop. And when they do, the money that was invested into them dissipates into the wind. According to Andrew (2010), a crash is a significant drop in the total value of a market, almost undoubtedly attributable to the popping of a bubble, creating a situation wherein the majority of investors are trying to flee the market at the same time and consequently incurring massive losses. He maintains that the relationship between bubbles and crashes is similar to the relationship between clouds and rain. Since one can have clouds without rain but it may not rain without clouds, bubbles are like clouds and market crashes are like the rain. As a general rule, a correction should not exceed a 20% loss of value in the market. Surprisingly, some crashes have been erroneously labelled as corrections, including the terrifying crash of 1987. But a correction, however, should not be labelled as such until the steep drop has halted within a reasonable period.

OVERVIEW OF NIGERIAN CAPITAL MARKET

Nigerian capital market started rolling from 1960 when the Nigerian stock exchange (Lagos Stock Exchange) was opened. At present the market is gaining depths and becoming steady. This stock exchange is the pinot of the Nigerian capital market. This exchange is providing different types of funds to bring the accumulated public wealth into the stock market. At the same time large-scale industries of Nigerian are listed on this exchange. There is also another stock exchange in Nigeria that is working with the medium and small-scale industries of the country and providing good support to strengthen the Nigerian capital market. A number of Nigerian banks are investing in the Nigerian stock market so that they can roll the money and can earn some good profit from the market. The recently introduced minimum capital requirement for the banks has encouraged the banks to choose the stock markets. The Nigerian capital is still gaining depth and so that it was a bit risky for the banks to take the decision but they took the risk and the results are very positive. It has not only encouraged the individual investors but at the same time provided some good support to the growth of the Nigerian capital market. The main participants of the Nigerian capital market are the Securities and Exchange Commission (regulator) Nigerian Stock Exchange, stock brokers, trustees, issuing houses, registrars. The investments are done by the insurance companies, pension funds, institutional investors and the individual investors (Mapsofworld, 2009).

THE NIGERIAN STOCK MARKET CRASH

Amedu (2010) observed that for ten years (1999-2008) The Stock market grew, soared and gained extreme strength. The market experienced a period of record expansion and boom. Investors, market operators, regulators and market analysts were all pleased with this development. The NSE All share index grew from 5,672.76 on January, 1999 to 58, 579.77 on January 2, 2008, a 933% increase. The marker hit a new high on March 5, 2008 when the NSE All share index hit a record 66,371.20 points or an increase of 1070%. Then, the index started to head down. The NSE All share Index dropped by 45.8% or 26,537.44 points to close at 31, 450.78 on December 31, 2008. From March 5, 2008 to December 31, 2009 the NSE All share index dropped 69% (20,827.17). Between 1999 to early 2008, total return on most stocks was over 1000%. The Nigerian stock market emerges as the world's best performing stock market in 2007 with a return of 74.73%. However, as at 31st December, 2008, it earned the enviable record as one of the world's worst performing stock market in 2008 after losing about ₦ 5.7 trillion in market capital and 46% in the NSE All share index. What could have gone so wrong that great stocks that sold for over ₦50 in less than a year were in the first quarter of 2009 struggling to keep above ₦ 10.

CAUSES OF NIGERIAN STOCK MARKET CRASH

Olisaemeka (2009) and Amedu (2010) separately give a detailed account of essential factors that fuelled the occurrence of financial meltdown in the Nigerian stock market. These include the following:

■**Deluge of public offers and private placement**

The 2005-2006 Banking reforms which led to consolidation of the Banks heightened public awareness of investment opportunities in the Nigerian capital market. The banks marketing activities during that period helped to increase the level of investment education and number of shareholders in Nigerian.

■Pull-out of foreign investors

Many foreign portfolio investors that already had troubles in their home economies pulled out of the Nigerian stock market leading to dumping of shares beyond the ability of domestic investors to contain. Supply of equity, as in consequence of this, overwhelmed demand leading to price fall. According to the Director- General of the NSE, "…. available statistic shows purchase by foreign investors during 2008 to be in excess of N150.135 billion representing 6.3% of the aggregate turnover". This is a decline when compared with the N256 billion recorded in 2007. As at 2009, total sales were in excess of N556.93 billion, culminating in a net outflow of about N406.8 billion.

■Over-valued stock

Several penny stocks, banking and insurance stocks were overpriced. Companies that indicated interest in doing Public offers or Right Issues suddenly enjoyed an unprecedented meteoric rise in share prices before stock is placed on technical suspension. The market prices of most stocks were well above the fair values. Despite this development, the market seemed to enjoy the game but for a few stock brokers and Regulatory Officials that frowned at it and also voiced their concerns.

CONSEQUENCES OF THE MARKET MELTDOWN.

The meltdown of the Nigerian capital market characterised by the crash of the market capitalisation from a record high of N13.5 million in early 2008 to less than N4.5 trillion in the corresponding period of 2009 has manifested the under- listed cost and consequences as pointed out by Amedu (2010).

- Erosion of investors' confidence and the vaporization of investors' real wealth
- Psychological Pains
- Loss of Job

STOCK MARKET CRASHES

■The Tulip and Bulb Craze

The Tulip and Bulb Craze erupted in Holland between 1634 and 1637. In 1593 tulips were brought from Turkey and introduced to the Dutch. The novelty of the new flower made it widely sought after and therefore fairly pricey. After a time, the tulips contracted a non-fatal virus known as mosaic, which did not kill the tulip population but altered them causing "flames" of colour to appear upon the petals. The colour patterns came in a wide variety, increasing the rarity of an already unique flower. Thus, tulips, which were already selling at a premium, began to rise in price according to how their virus alterations were valued, or desired. Everyone began to deal in bulbs, essentially speculating on the tulip market, which was believed to have no limits. The true bulb buyers began to fill up inventories for the growing season, depleting the supply further and increasing scarcity and demand. Soon, prices were rising so fast and high that people were trading their land, life savings, and anything else they could liquidate to get more tulip bulbs. Many Dutch persisted in believing they would sell their hoard to hapless and unenlightened foreigners, thereby reaping enormous profits. Somehow, the originally overpriced tulips enjoyed a twenty-fold increase in value - in one month! Needless to say, the prices were not an accurate reflection of the value of a tulip bulb. As it happens in many speculative bubbles, some prudent people decided to sell and crystallise their profits. A domino effect of progressively lower and lower prices took place as everyone tried to sell while not many were buying. The price began to dive, causing people to panic and sell regardless of losses.

■The South Sea Bubble

The South Sea Bubble took place in United Kingdom in 1711. For the amount the market declined from peak to bottom, stocks in the South Sea Company were traded for 1,000 British pounds (unadjusted for inflation) and then were reduced to nothing by the later half of 1720. A massive amount of money was lost.

■Mississippi Bubble

The Mississippi bulb took place in France from 1715- 1721. At peak, the worth of the Mississippi Company's stock was worth 80 times more than all the gold and silver in France at bottom were reduced to nothing by the end of 1721. A massive amount of money was lost. Kin 1720, at the same time as England's South Sea Bubble, France experienced its very own financial crisis. The South Sea Bubble shares a striking similarity to the South Sea Bubble (Amedu, 2010).

■The Florida Real Estate Craze

The crash broke out in Florida in 1926. The amount the market declined from peak to bottom: Land that could be bought for $800,000 could, within a year, be resold for $4 million before crashing back down to pre-boom levels. The prices were so inflated that to buy a condo-style property in 1926, one would have had to pay the same as he/she would now have to pay for a luxury home in the guard-gated communities in Miami ($4,500,000) – without adjusting for inflation.

■The Great Depression (1929)

The Great Depression cropped up in USA on October 21, 24 and 29, 1929. As per the amount the market declined from peak to bottom, a string of terrible days led to a more than 40% drop in the market from the beginning of September 1929 to the end of October 1929. In fact, the market continued to decline until July 1932 when it bottomed out, down nearly 90% from its 1929 highs. Despite the Florida crash, Americans were as bullish as ever. The stock market was guaranteed to make everyone rich as the First World War had been won, and industrialization was resulting in previously-unimaginable luxuries. It was a good time. Since the stock market was believed to be a no-risk, no-brain world where everything went up, many people poured all their savings into it without learning about the system or the underlying companies. With the flood of uneducated investors, the market was ripe for some manipulation and swindling. Investment bankers, brokers, traders, and sometimes owners banded together to manipulate stock prices and get out with gains. They did this by subtly acquiring large chunks of stock between them and trading them between each other for slightly more each time. When the public noticed the progression of price on the ticker tape, everyone would buy the stock. So, the market manipulators would then sell off their overpriced shares for a healthy profit.

■The Crash of 198

The incident took place in United State of American on October 19, 1987. The amount the market declined from peak to bottom: 50832 points, 22.6% or $500 billion lost in one day being the largest one-day percentage drop in history.

MEASURES AND RESPONSES TO THE MARKET CRASH

In the view of Amedu (2010), a study of the Nigerian stock market crash reveals the following measures:

1.The Nigerian Stock Exchange took the following measures to stabilise the market:
   a.Introduction of a circuit breaker – Daily Upward Price Movement of 5% and 1% downward movement.
   b.Reviewed the volume required to move price to 50,000 Units.
   c.Rolled Out the Modality for Market Makers
   d.Delisted 30 Securities
2.The Central Bank of Nigeria took steps to:
   a.Reduce Monetary Policy Rate (MPR) from 10.25% to 9.75%.
   b.Minimum Liquidity Ratio from 40% to 30%. c. Reduce Cash Reserve Ratio (CRR) from 4% to 2%.
   d.Banks to buy back 15% of their shares. e. Extend lending window to 365 days opposed to overnight.
3.The CBN in June 2009 rolled out their reform package for the banking sector aimed at sanitizing and stabilizing the banks.
   a.CBN carried out an audit of the existing banks.
   b.The CBN sacked 8 MD's/CEO's of banks
   c.The CBN injected fresh capital of N620B ($4.23billion).These measures rather than lifting up the market plunged it down further closing 2009 stock market on a decline of 34%.
   d.CBN also announced the plans to establish an Asset Management Company (AMC) to buy all Bank's toxic assets or non-performing loans (NPL) and free up their balance sheets with a view to restoring some lending momentum by banks to the domestic economy. (Amedu, 2010)

THEORETICAL FRAMEWORK

Akinsulire (2010) identifies three basic theories of share valuation and Efficient Market Hypothesis (EMH) with its three basic forms. These are:

■The Traditional/ Fundamental Theory

The theory states that at any point in time a share (debenture) has an intrinsic value which is the discounted resent value of the expected future cash receipts from share (debenture).

■The Technical Theory/ Chartist Theory

This states that future patterns of share prices are a repetition of the same patterns of movements which has occurred in the past i.e. historical price patterns are repeated in the future

■Random Walk Theory

William F. shape, Michael Jensen and Eugene Fame- the protagonists of this theory believe that the new market price of a share relates to expectations about the future (thereby arguing against technical theory but consistent with fundamental theorist) but that investors will have different ideas about future expectation of a business.

EMPIRICAL STUDIES

Leon (2007) investigated the relationship between expected stock market returns and volatility in the regional stock market of the West African Economic and Monetary Union called BRVM. Using weekly data over the period 4th January 1999 to 29th July, 2005, he found that expected stock return has a positive but not statistically significant relationship with expected volatility. He also discovered that volatility is higher during market booms than when market declines.

Olowe (2009) examined the relationship between stock returns and volatility in Nigeria using E-GARCH-in-mean model in the light of banking reforms, insurance reform, stock market crash and the global financial crisis. He used daily returns over the period 4th January 2004 to 9th January, 2009 to evaluate the volatility persistence, asymmetric properties and risk – return relationship for the Nigerian Stock Market. The results of his empirical findings indicate that banking reform in July, 2004 and stock market crash since April, 2008 negatively impact on the stock return while insurance reform and the global financial crisis have no significant effect on stock return.

In another related study which focuses on the crash of Nigerian stock market, Tella (2009) examines the inter-relationship between the word financial crisis and its impact on the Nigerian stock market. In particular, the study attempted to generate empirical evidence on the issue of contagion between the Nigeria stock market and stock markets in developed countries using the Dow Jones in the United States. Using bivariate analysis, co-integration and Granger causality tests, the results of the findings reveal that there is co-movement between the Nigerian stock market index and that of the Dow Jones. Also, the studies indicate that there is no long-term relationship between the two stock markets.

STATEMENT OF THE PROBLEM

The current state of the Nigerian capital market brings to fore the strong reign of bearish mood and the general perception of a falling market. The crash in the Nigerian stock market has been unprecedented in its historic evolution since 1960. Its market capitalization has nose-dived from an all time high of N13.5 trillion in March, 2008 to about N7.89 trillion by the beginning of 2nd week of November, 2010. Besides, the All-share index (a measure of the magnitude and direction of general price movement) has slumped from about 66000 basis points to about 24,728 points in the same period. Also Falling stock prices are sometimes a hard pill to swallow but long-term value investors should not be perturbed. Many investors have a hard time dealing with falling stock prices most especially margin traders who are caught in the web of bearish run. No matter how often the virtues of the buy-and-hold method are preached, the true test of courage comes when investors watch their holdings nose dive 5% consecutively for several weeks without any end in sight. Anyone who has experienced a bear market knows that it takes tremendous discipline and dedication to stick to one's guns while everyone else liquidates their holdings. Given the above problem, the main objective of this study is to provide a scientific investigation into the impact of financial meltdown on the Nigerian capital.

RESEARCH HYPOTHESES

Hypothesis One

H_0: There is no significant difference in stock index between the bubble period and crash period.

Hypothesis Two

H_0: There is no statistical significant relationship between total market capitalisation of the Nigerian Stock Exchange in the pre and post economic meltdown.

Hypothesis Three

H_0: There is no fundamental change in the total market turnover in the NSE between the bubble period and crash period.

The study was restricted to the Nigerian Stock Exchange. Also, the period covered was divided into bubble era which is October, 2005 to March, 2008 and post crash period which is between April, 2008 to September, 2010.

METHODOLOGY

Ideally, taking a complete census of the population is the best but this is hardly done in practice due to the cost involved and the dynamic nature of the population subjects. Thus, apart from studying the entire market performance indicators such as market turnover, market capitalisation and All-share index, the researcher took a step further to pry into the behavioural patterns of equity shares of four quoted companies which were selected randomly using stratified sampling method from four major subsectors into which the Stock Exchange has been divided. These companies are First Bank of Nigeria Plc (banking sector), African Petroleum Plc (Oil and Gas Sector), Nigerian Bottling Company Plc (Food and Beverages) and Niger Insurance Company Plc (Insurance Sector). Also, as part of efforts to ensure representativeness in drawing the sample, 30 observations were taken from the Bubble period and 30 observations from the post crash period.

MODEL SPECIFICATION

In calculating the returns on the individual securities and market returns the following model was adopted:

$$R_{jt} = \frac{P_t - P_{t-1}}{P_{t-1}} \times \frac{100}{1} \quad \ldots\ldots (3.1)$$

Where R_{jt} = Actual return on a share at time t

P_t and P_{t-1} = Prices of a share at times t and t-1

$$R_{mt} = \frac{NSEI_t - NSEI_{t-1}}{NSEI_{t-1}} \times \frac{100}{1} \quad \ldots\ldots (3.2)$$

R_{mt} = Actual return on the market at time t

NSEI = Nigerian Stock Exchange Index

To determine the degree of responsiveness of individual equity shares to changes in the market, the Market Model developed by Shape (1963) as found in Pandey (2005) is found fit for the study and is given by:

$$R_j = \alpha + \beta_j R_m + e_j \quad \ldots\ldots (3.3)$$

Where R_j = Expected return on security j,

R_m = Expected return on the market

α = Intercept

β_j = Slope of the regression

e_j = Error term

β_j can be broken down as follows.

$$\beta_j = \frac{covar_{j,m}}{\sigma^2_m} \quad \ldots\ldots (3.4)$$

$$Covarj_{,m} = \sigma_j\, \sigma_m . \rho_{j,m} \quad \ldots\ldots (3.5)$$

If R_{jt} and R_{mt} are represented by Y and X respectively, $\rho_{j,m}$ can be obtained as follows:

$$\rho_{j,m} = \frac{N\Sigma XY - (\Sigma X)(\Sigma Y)}{[\{(N\Sigma Y^2) - (\Sigma Y^2)\}\ \{N\Sigma X^2 - (\Sigma X)^2\}]^{1/2}} \quad \ldots\ldots (3.6)$$

It is pertinent to note that in estimating the actual returns, the time frame used is one month horizon. Hence, the dividend (D_t) that ought to have been added to equation (3.1) had been assumed to be zero since the dividend is not declared on a monthly basis but rather on a yearly basis. The justification for this is that the stock market crash investigated occurred about thirty four months ago.

METHODS OF DATA ANALYSIS

For systematic analysis of the data collected, the researcher took used both descriptive and inferential statistical tools of analysis. The descriptive statistics consist of mean, variance and standard deviation. The essence of this tool is to describe the basic features of the data for the study and provide summaries about the sample and the measures. On the other hand, the inferential statistics used was parametric statistics. In this regard, both regression analysis and z test were carried out. The justification for this choice of statistical tool lies in the largeness of the number of observations under consideration.

ANALYSIS OF PERFORMANCE OF NIGERIAN STOCK MARKET

TABLE 1:NIGERIAN STOCK EXCHANGE ALL SHARE INDEX IN THE PRE AND POST CRASH

Statistics	Pre crash	Post crash
Observation	30	30
Opening	25,873.81	59,440.91
Closing	63,016.56	23,050.59
Maximum	65,562.38	59,440.91
Minimum	23,301.22	19,851.89
Mean	39,438.77	30,375.53
Std deviation	13,720.84	12,394.59

Source: Research Survey, 2011

Table 1 indicates that the Nigerian stock exchange recorded an average all-share index of 39,438.77 in the pre crash period while an average point of 30,375.53 was recorded in the post crash period. This shows that the market witnessed a decline of 9,063.24 or 22.98% in all-share index. Between October, 2005 and March, 2008 (pre-crash period), the Nigerian Stock Exchange

All-share index appreciated by 143.55% whereas the Exchange recorded a drastic fall of 61.22% in the All-share index between April, 2008 and September,2010.

Figure 1: Graphical analysis of the trend in the NSE all-share index between September 2005 and September 2010

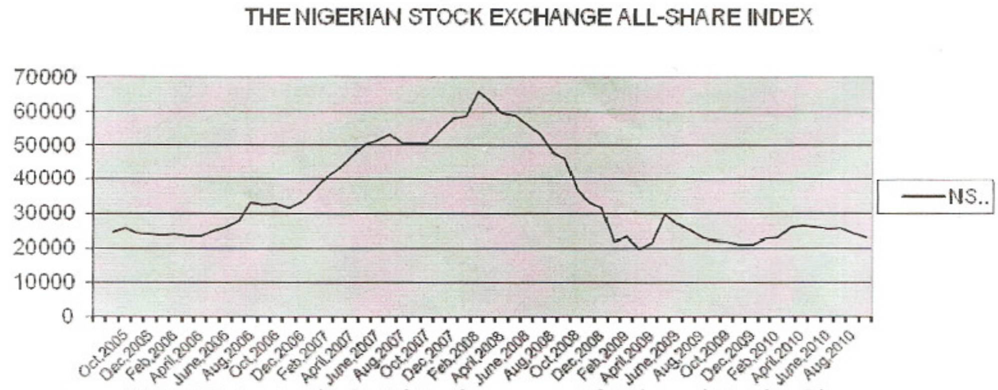

TABLE 2: Analysis Of Performance Of Selected Equity Shares

Statistics	Market		FBN PLC		AP PLC		NBC PLC		NIGER .PLC	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
α	-	-	0.869	-0.424	4.511	-4.303	1.720	-1.683	-0.160	-0.481
β	-	-	0.403	1.125	1.057	0.375	0.688	0.798	1.480	1.394
R	-	-	0.172	0.785	0.331	0.216	0.297	0.577	0.416	0.668
r^2	-	-	0.030	0.616	0.110	0.047	0.088	0.332	0.173	0.446
$\bar{R}_j$	3.33	-2.66	2.21	-3.42	8.03	-5.30	0.57	- 0.44	4.77	-4.13
σ^2	31.20	128.43	171.08	263.55	317.12	387.42	167.68	246.28	395.59	559 91
σ	5.59	11.33	13.08	16.23	17.81	19.68	12.95	15.69	19.89	23.66
Cov.	31.20	128.56	12.56	144.43	32.98	48.10	21.48	102.55	46.18	179.08

Source: Research Survey, 2011

Table 2 shows the expected market return in the pre crash period was 3.33% with a standard deviation of 5.59% while that of post crash period was -2.66% with a standard deviation of 11. 33. This implies that the market witnessed a drop of 179.88% in terms of expected return and despite this; the degree of market risk was up by 102.68% in the post crash period.

Another look at the table 4.3 indicated returns on First Banks Plc, African Petroleum Plc, Nigerian Bottling Company Plc and Nigerian Insurance Company Plc in the pre crash period were 2.21%, 8.03%, 0.57% and 4.77% in that order whereas these companies respectively recorded negative returns of 3.42%, 5.30%, 0.44% and 4.13% in the post crash period. In terms of risk associated with their returns, the standard deviations of the selected quoted shares were up in the post crash period by 24.08%, 10.50%, 21.16% and 18.95% respectively. As per the coefficient of determination, table 4.3 shows that 3%, 11%, 9% and 17% of variations in equity shares of the selected companies were accounted for by the market in the pre crash period while 62%, 5%, 33%, and 45% changes in shares of First Banks Plc, African Petroleum Plc, Nigerian Bottling Company Plc and Niger Insurance Company Plc respectively were explained by variability in the Nigerian stock market. This connotes that the extent to which the Nigerian stock market affected the performance of quoted equity shares was higher in the post crash period. See Appendix III for actual return on the market and selected equity shares.

TABLE 3:Z -Test For Differences Of Means

Statistics	NSE All-Share Index		Market Capitalisation		Market turnover	
	P re	Post	Pre	Post	Pre	Post
Mean	39.438.77	30,375.53	6.854	9.404	120.589	88.441
Variance	188261447.7	15625780	15.320	6.157	1098.19	3426.35
Observations	30	30	30	30	30	30
Z cal	2.58		-3.01		1.42	
Z tal	±1.96		±1.96		±1.96	

Source: Research Survey, 2011

From table 3, it is clear that the Z calculated of 2.58 for hypothesis one is not within the range of ±1.96, hence the null hypothesis that there is no significant difference is stock index in the bubble and crash period is hereby rejected at 0.05 level of significance. Also, Table 3 indicates that Z calculated of -3.01 falls outside the range of ±1.96, hence the hypothesis that there is no statistical significant difference in market capitalisation of the NSE in the pre and post crash period has to be rejected at 0.05 level of significance. Finally, table 3 above reveals that the calculated value of Z test of 1.42 is within the range of ±1.96, therefore calling for the acceptance of the hypothesis that there is no fundamental change in the market turnover of the NSE between the pre and post crash period.

CONCLUSION

It can therefore be concluded that the financial meltdown on the Nigerian stock market impacted adversely on the operational performance and efficiency of the Nigerian Stock Exchange. In the first place, the study reveals that the Nigerian stock market recorded a drastic fall in all share index, market capitalization and stock turnover in the post crash period. Also, it was found out that the market activities in the post crash period were characterized by bearish transactions.

The results of the findings make it clear that the stock return seriously suffered huge decline while there was high degree of volatility in terms of risk in the market as a result of crash. This means that investors in the stock market were made to bear high degree of risk in the post crash period without a commensurate return to compensate them. This is similar to the results obtained by Olowe (2009) where it was found that volatility tends to be higher during market crash than market booms. We also come to a logical conclusion that there was statistical significant difference in the NSE All-share index in the pre and post crash period. The same conclusion also goes for the market capitalization in the periods under consideration. On the contrary, the difference in market turnover in the pre and post financial meltdown was not statistically significant.

Finally, the study brings to light that there was higher degree of positive relationship between the expected market return and that of individual securities in the post crash period than in the pre crash period. This will suffice to say that whatever happens to the market will equally affect the securities quoted on the Exchange. Hence, the individual securities on the Nigerian Stock Exchange are not immune from the devastating effects of the meltdown.

RECOMMENDATIONS

Based on the results of the findings of this study, the following constructive suggestions are considered appropriate for efficient and effective capital market in Nigeria.

- **Potential Investors**

  Notwithstanding the financial meltdown on the Nigerian Stock Exchange, the fundamentals of the stock market are still strong in terms of high earnings per share, high dividends per share. There appears to be no better time to buy shares than now.

- **Government**

  The position of the stock market can be made better if the Nigerian Government can inject physical funds into the market in form of bailout as done by governments of other countries of world. Therefore, the Nigerian government should not see the capital market as purely a private affair.

- **Market Operators**

  Capital market operators such as stock brokers and issuing houses should have learnt their lessons from the recent meltdown. Priority should be given more to intrinsic value of shares. The operators should not imbibe the culture of stock overvaluation. They should play the game according to the rule.

- **Investors in the stock market are advised to desist from hard mentality**

  There is need for them to acquire sufficient knowledge of capital market transactions before placing their investible funds in any capital market financial securities.

- **Proper Supervision**

  The Securities and Exchange Commission as well as Nigerian Stock Exchange should be more alive to their responsibilities of regulation and supervision of the activities in the stock market in order to enhance public confidence in the Nigerian stock market.

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