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Influence of Merger and Acquisition as Survival Strategy and Return on Asset Evidenced From the Nigerian Banking Industry

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Abstract: Corporate finance manager must take economic and financial decision aimed at maximizing the value creation of the company and also shareholders wealth. Merger and acquisition have been identified as means of survival strategy and sustainable business growth in a distress economy rather than outright liquidation. The study employed an ex-post facto research design with a focus population of twenty four deposit money banks classified into two groups of ten trouble and fourteen sound banks. Six banks that have gone through the second round of consolidation were selected using purposive sampling technique for period of seven years (2008-2014). CAMEL indicators were used to proxy merger and acquisition input while business growth was proxied using performance measurement of ROA. The study employed both descriptive and inferential statistic using multiple regression analysis and analysis of variance to determine whether there is significant relationship between the pre and post-merger CAMEL indicator and performance measures. The study observed a mixed relationship of merger and acquisition proxy by CAMEL on business growth proxy by ROA across the sampled banks. The study concluded that merger and acquisition as survival strategy and sustainable business growth has failed to produce the desired synergistic effects among the sample banks. This negates the theoretical and financial believe that merger and acquisition automatically leads to synergistic gain and value creation for shareholders. The study recommended that the specific input into merger and acquisition in bank the CAMEL indicators should be managed better to have a positive relationship with business growth. Also the bank's management should be proactive in product diversification, risk management and enhancement of good corporate governance practices.

Keywords: Merger and acquisition; Shareholders wealth; Business growth; Performance; survival strategy; CAMEL.

1. Introduction

Businesses are mostly formed to please the interest of the external investors (shareholders) this is referred to as the concept of shareholders wealth maximization by finance experts which presumes that corporate finance managers must take financial decisions aimed at maximizing the value of the company and in addition the stake of the owners as opined by Van Horne (2000). Nevertheless, several issues have been recognized as hindrances toward shareholders wealth maximization intention/aim of the company among which include unskilled management, inefficiency, inflation, rapid pace of automation and technological change, rise in international competition, management fraud, liquidity problem, poor operating results, and bad government policy among others (Ekankumo and Braye, 2012; Pandey, 2005).

The common motive behind merger and acquisition are organization growth and sustainable profitability. Frear (1990) stated that the need to survive in a competitive business environment and at some time, create growth and development in this time of hard economic realities might also be informed by the need to maximize the opportunities available to a company by replacing its inefficient and incompetent management; the need to achieve economies of scale, resulting in the combined output of both enterprises; the need to select the production or market range of the company; the need to reduce competition, by acquiring a competitor as opportunity opens up new market, heavy fixed cost and operating expenses and sheer ambition on the part of management to achieve growth and market power of company. In area of hard economy situation, as we have seen today, a company which faces a threat of business failure has a possibility of been liquidated. Merger as an investment decision can serve as an effective means of reducing this possibility.

The objective of this study is to examine survival strategy for the achievement of sustainable business growth in the Nigerian Banking industry. In order to achieve this objective, we evaluate the extent to which CAMEL of merged Nigerian deposit money banks influence the post-merger return on asset evidenced from the Nigerian banking industry. The hypothesis of this study was tested through empirical data analysis in order to establish the basis of objective and provide answers to the research questions at 5% level of significance:

H₀: *There is no significant relationship between CAMEL of merged Nigerian deposit money banks and post-merger return on asset.*

The study concluded that merger and acquisition as survival strategy and sustainable business growth has failed to produce the desired synergistic effects among the sample banks. This is not in line with theoretical and financial believe that merger and acquisition will always and automatically leads to synergistic gain and value creation for shareholders. The study recommended that the specific input into merger and acquisition in bank the CAMEL indicators should be managed better to have a positive relationship with business growth. Also the bank's management should be proactive in product diversification, risk management and enhancement of good corporate governance practices. The remainder of the paper is organized as follows. Section 2 provides a review of extant literature; section 3 describes the methodology of the research and analysis of the data; and section 4 concludes the study.

2. Review of Extant Literature

2.1. Classification of Mergers and Acquisitions

A. Structure-wise Classification

1. **Amalgamation or consolidation**--This is where all the combining firms lose their separate identity and a new firm comes into being.
2. **Takeover** – it means the acquisition of such number of shares of an existing company as would enable the acquirer to obtain management control or consolidate existing control over such company. In a take-over, the entity of the amalgamating companies is not lost- both the acquiring company and the target company continue to exist.
3. **Strategic alliance** – it is an agreement between two or more independent firms to cooperate with a view to achieving some specific commercial objectives. The alliance or partnership may be to get the benefit of technology and/or market share or for other commercial reasons.
4. **Disinvestment** – it represents selling of shares to the public by the government companies to bring funds to the Government for carrying out its many programmes.
5. **Joint venture** – this is where two or more firms join together to perform a specific job or project only and share the profits and losses as per agreement. There is continuity of business relationship once the venture is over.

B. Economic Relation-Wise Classification

Basically under this classification, there are three major types of mergers and acquisitions; these are horizontal, vertical and conglomerate. However, [Gaugham \(2007\)](#) identified and mentioned the fourth type of merger and acquisition known as concentric merger and acquisition.

1. **Horizontal merger** - This is a combination of two or more firms in similar type of production, distribution or area of business ([Pandey, 2005](#)). [Aborode \(2005\)](#) stated that horizontal mergers are often used as a way for a company to increase its market share by merging with a competing company. Example is the merger between Exxon and Mobil which allow the both companies a larger share of the oil and gas market.
2. **Vertical merger** - This is a combination of two or more firms involved in different stages of production or distribution. Vertical merger may take the form of forward or backward merger ([Pandey, 2005](#)). [Aborode \(2005\)](#) affirmed that vertical mergers are often used as a way to gain a competitive advantage within the marketplace.
3. **Conglomerate merger** - This is the combination of firms engaged in unrelated lines of business activity ([Pandey, 2005](#)). Two firms in completely different industries merge and usually used as a way to smooth out wide fluctuations in earnings and provide more consistency in long-term growth ([Aborode, 2005](#)).
4. **Concentric merger** – This type of merger involves firms that have different business operation patterns, but may be highly related in production and distribution technologies ([Nwankwo, 2013](#)). The merger is termed as concentric when there is a carry-over of specific management functions or any complementarities in relative strength between management function. According to [Alao \(2010\)](#); [Ekankumo and Braye \(2012\)](#), this involves firms which have different business operation patterns, through divergent but highly related in production and distribution technologies. The acquired company represents an extension of the product lines, market participation or technologies of the acquiring.

C. Approach-Wise Classification

1. **Friendly takeover** – this is where the purchase consideration, mode of payment, results are based on cordial negotiations between two or more companies in the process.

2. **Hostile takeover or tender offers** – this is where the acquiring company makes the offer/ bid directly to the shareholders of the acquired company. The acquiring company attempts to get control of management without the knowledge and consent of the existing management.
3. **Leverage buyout (LBO)** – it is an American type of merger. It is the purchase of a company financed primarily by debt.

2.2. Component of Synergy

[Banerjee \(2009\)](#) highlighted the following five components of synergy:

1. Economies of scale – this gives rise to savings in cost due to economies of scale. It comes in two ways such as (1) utilization of excess capacity leading to reduction in average cost when the fixed cost is spread over the additional units and (2) the expansion of capacity in such a way that the larger capacity is more advantageous.
2. Economies of scope – cost advantage may also occur to the acquiring company due to economies of scope, i.e. diversification meaning it is cheaper to produce a number of different products jointly rather than producing them separately.
3. Economies due to competitive positioning – according to Michael Porter, a competitive positioning is characterized by opportunistic behaviour of the firm relative to its competitors. Diversification may enhance the combined firm's position in the marketplace compared to its competitors.
4. Economies due to corporate positioning – vertical integration is the traditional form of corporate positioning. A firm can be viewed as a nexus of contracts- many advantages will arise through effective utilisation of the nexus in different areas of its value chain.
5. Economies due to financial strategy – this will give the acquiring company the greater access to capital market for financing. Financial efficiency in the form of lower cost of capital may arise due to: more debt financing reducing the overall cost of capital, use of more internal capital because of increased (post-merger) profitability, and correcting imbalance in the capital structure.

2.3. Impact of Merger and Acquisition on New Organization

According to [Kent \(2004\)](#) merger and acquisition immediately impact organization with changes in ownership, an ideology, and eventually, in practice. Of the three root strategic assets noted by [Kent \(2004\)](#), cultural cohesion is most often the critical asset in the eventual success or failure of the overall deal and the one that impacts the extent to which qualitative talent retention can be attained. While a company might be acquired because of the synergies around brands, competencies or physical assets, the success of the merged firm may well depend on whether or not steps have been taken to identify and retain the organization's primary cultural underpinnings that support and maintain those valuable resources. The practice of cultural cohesion as a root strategic asset in merger and acquisition integration involves identifying the underlying disciplines, conditions, beliefs that make up the internal weight bearing structures of an organization and lead to the formation of outward cultural traits.

2.4. Financing Mergers and Acquisitions

The major challenge in merger and acquisition consummation is to finance the acquisition of the new firm and the ownership structure in the merged firm. According to [Pandey \(2005\)](#) the choice of the means of financing a merger may be influenced by its impact on the acquiring firm's capital structure, financial condition and liquidity position of the acquiring firm, the capital market conditions and the availability of long-term debt. Two methods of financing the acquisition can be identified, these are:

- (1) Cash offer method – a cash offer is a straightforward means of financing a merger. It does not cause dilution in earnings per share and the ownership of the existing shareholders of the acquiring company. The shareholders of the target company get cash for selling their shares to the acquiring company. this may involve tax liability for them.
- (2) Share exchange method – a share exchange offer will result into the sharing of ownership of the acquiring company between its existing shareholders and new shareholders (that is, the shareholders of the acquired company). The earnings and benefits would also be shared between these groups of shareholders. The precise extent of net benefits that accrue to each group depends on the exchange ratio in terms of the market prices of the share of the acquiring and the acquired companies. In an exchange of shares, the receiving shareholders would not pay any ordinary income tax immediately. They would pay capital gain tax when they sell their shares after holding them for the required period.

2.5. Valuation for Merger and Acquisition

In the consummation of merger and acquisition, the firms which are parties to agreement needs to be properly evaluated and investigated from number of perspectives. Engineering analysis will be require to estimate the extent of economies of scale while marketing analysis will be used to assess the desirability of the customer network. According to [Ashfaq \(2014\)](#) the most important of all is the financial analysis or financial evaluation of a target firm. An acquiring firm should pursue a merger only if it creates some real economic values. The shareholders of the target firm will ordinarily demand a price of their shares that reflects the firm's value and the financial evaluation of

a target firm includes the determination of the total consideration as well as the form of payment, cash or share consideration.

According to Ashfaq (2014) the principle of valuation starts with the determination of the purchase price which is the process of financial evaluation which starts with determining the value of the target firm, which the acquiring firm should pay. The total purchase price or price per share of the target firm may be calculated by taking into account a host of factors such as (i) tangible and intangible assets of the target firm (ii) Market/realizable value of the asset (iii) earnings of the firm. In order to have a realistic valuation of the firm, the whole situation is to be considered in its totality. The following valuation method may be undertaken such as

- (1) Valuation based on assets - the value of the firm is defined as (Value of all Assets – External liabilities = Net Assets or Value). The worth of the target firm depends upon both the tangible and intangible assets. The asset valuation may be based on book value, realization or replacement value of the assets. The asset price per share is arrived at by dividing the Net Asset value by the number of equity.
- (2) Valuation based on earnings – the target firm is value based on its earnings capacity. The acquiring firm generally prefers to consider the future expected profit for various obvious reasons. Therefore, these expected profit figure should be converted into future cash flows by adjusting for non-cash items. These cash flows are discounted at an appropriate rate of discount to find out the present worth. The present worth may be divided by the number of shares to arrive at the value per share which the acquiring firm should be ready to pay to the shareholders of the target firm.
- (3) Dividend-based Valuation – in this method, the cost of capital or expected rate of return of the investor should be taken into consideration. To calculate the value of the firm on the basis of dividend paid a number of models to determine the market price of the share are being used.

$$K_e = \frac{D_0(1+g)}{K_e - g}$$

Where K_e = expected rate of return by the equity shareholder. D_0 is the past dividend paid, and g =growth rate of dividend.

- (4) Valuation based on cash flow – the value of the target firm can also be made on the basis of cash flow. Here the value of target firm may be arrived by discounting the cash flows. The cash flow may be from the point view of total firm or from the point view of equity shareholders. The cash flow of the firm are the net operating profit after tax plus depreciation and other non-cash expenses. In this case, the valuation of the firm is equal to present value of all expected operating cash flows.
- (5) Economic Value Added (EVA) – this is based upon the concept of economic return which refers to excess of after tax return on capital employed over the cost capital employed. It is defined in terms of returns earned by the company in excess of the minimum expected return of the shareholders. EVA is calculated as net operating profit (earnings before interest but after Taxes) minus the capital charges (capital employed*cost of capital).
- (6) Market Value Added – MVA is another concept used to measure the performance and as a measure of value of a firm. MVA is determined by measuring the total amount of funds that have been invested in the company (based on cash flows) and comparing with the current market value of the securities of the company. The funds invested include borrowings and shareholders' funds. If the market value of securities exceeds the funds invested, the value has been created.

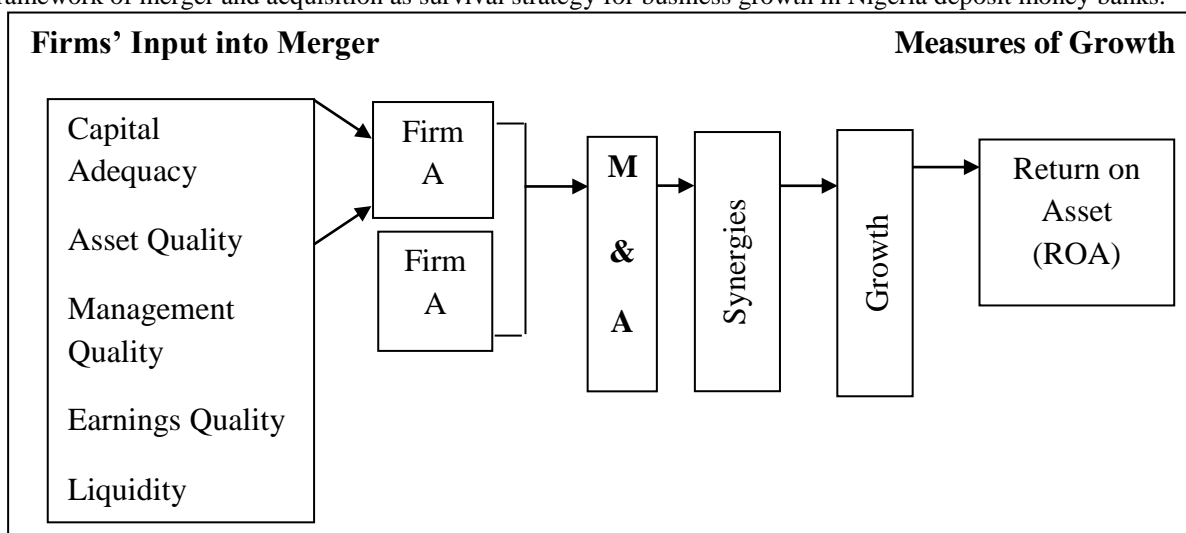
2.6. Regulatory Framework for Merger and Acquisition in Nigeria

Merger and acquisition in any country all over the world is being regulated by laws, edicts, statutes and court pronouncements. In Nigeria, the principal laws that regulate merger and acquisition are the Investments and Securities Act, (ISA) 2007, the Securities and Exchange Act, Nigeria Stock Exchange Rules and Regulations and the Companies and Allied Matters Act (CAMA, 1990). In addition to the above laws, other laws applicable to merger and acquisitions in a specific sector or industry are the Central Bank Act and the Banks and Other Financial Institutions Act (BOFIA), the Insurance Act which applies to mergers and acquisitions in the insurance sector, the Nigeria Communications Act which regulate mergers and acquisition in the telecommunication sector while the Electricity Power Sector Reform Act applies to mergers and acquisitions in the power sector.

2.7. Conceptual model of the study

According to Mugenda (2008) in Gatheru and Were (2014), a conceptual framework is a concise description of the phenomenon under study accompanied by a graphical or visual description of the major variable of the study. In order to guide the researcher, the model consisting of the variable was developed. This framework consisted of both independent and dependent variables. The independent variables are capital adequacy, asset quality, management quality, earnings ability and liquidity while the dependent variable is return on asset.

Framework of merger and acquisition as survival strategy for business growth in Nigeria deposit money banks.



Source: Researcher's Conceptual Framework for the Study, 2016

3. Methodology

3.1. Population

The population of this study is the twenty-four deposit money banks that were consolidated and operating in Nigeria in 2008. However, these banks population were classified into two groups which were ten troubled deposit money banks and fourteen sound/healthy banks as highlighted by central bank of Nigeria in year 2010 as a result of the special examination on banks carried out in 2009. These banks were:

The troubled Banks

| Name of Banks | Capital after merger and acquisitions |
|--------------------------------|---------------------------------------|
| Union Bank Plc | ₦ 95.70 billion |
| Intercontinental Bank Plc | ₦ 53.90 billion |
| Wema Bank Plc | ₦ 31.90 billion |
| Unity Bank Plc | ₦ 30.00 billion |
| Bank PHB Plc | ₦ 28.50 billion |
| Oceanic Bank International Plc | ₦ 37.70 billion |
| Afribank Nigeria Plc | ₦ 24.90 billion |
| Spring Bank Plc | ₦ 25.00 billion |
| Finbank Nigeria Plc | ₦ 25.40 billion |
| Equitorial Trust Bank Ltd. | ₦ 28.40 billion |

Sources: Ebimobwei and Sophia (2011)

The Sound/ healthy banks

| Post Merger/ Consolidated Bank | Capital Base In Billion (₦) | Pre Merger Consolidated Banks |
|--------------------------------|-----------------------------|---|
| Access Bank | 28.5 | Access Bank, Marina Bank, and Capital Bank |
| Diamond Bank | 33.25 | Diamond Bank and Lion Bank |
| Eco Bank Nigeria | 25.0 | Eco Bank Nigeria |
| First City Monument Bank | 30.0 | FCMB, Coop. Development and NAMB Limited |
| First Bank Plc | 44.62 | First Bank of Nig. plc, FBN Merchant Bankers, many Banks |
| Guarantee Trust Bank | 34.0 | Guarantee Trust Bank |
| IBTC Chartered Bank | 35.0 | IBTC, Chartered Bank, and Regent Bank |
| Nigerian International Bank | 25.0 | Nigerian International Bank (City Group) |
| Skye Bank | 37.0 | Prudent Bank, EIB International, Cooperative Bank, Bond Bank and Reliance Ban |
| Sterling Bank | | NAL |
| Stanbic Bank | 25.0 | Stanbic Bank |
| Standard Chartered Bank | 26.0 | Magnum Trust Bank, NAL Bank, Indo-Nigeria Bank and Trust Bank of Africa |
| United Bank of Africa | 50.0 | United Bank for Africa and Standard Trust Bank |
| Zenith Bank | 38.2 | Zenith Bank |

Source: Ebimobwei and Sophia (2011)

But, for the essence of this research, the researcher looked at the second phase of bank consolidation in Nigeria. This was in respect of six banks that had gone through second round of bank consolidation out of the ten classified troubled banks and fourteen sound banks in 2010. These banks were Intercontinental bank/Access bank to formed Access group, Oceanic bank/Eco bank to formed Eco group and Fin Inland bank/FCMB bank to formed FCMB group.

3.2. Sample Size and Sampling Technique

The purposive/judgmental sampling technique was used in selecting the six listed banks for this research from the ten troubled deposit money banks and the fourteen sound deposit money banks that arose from the special examination carried out by CBN on deposit money banks in 2009. Purposive sampling was adopted because of the need to select banks on second phase of consolidation which provides the requisite data or information for the study. Three banks each were selected from each classification for purpose of merger and acquisition. Access bank, FCMB and Eco bank were selected from sound/healthy bank's classification while Intercontinental bank, First-inland bank and Oceanic bank were selected from troubled bank's group. This sample selection technique had been used by researchers such as; [Ashfaq \(2014\)](#); [Olowoniyi and Ojenike \(2012\)](#); [Okpanachi \(2011\)](#). These banks were those that had gone for second phase of consolidation after the one of 2005 exercises.

3.3. Sources of Data

This research work made use of secondary data. These data were sourced from the financial statements of the six banks for a period of seven years (2008-2014) using Nigerian Stock Exchange (NSE) fact books, hard copies of published financial statements of banks and through internet sources. Ratios used as surrogates for business growth and survival strategy (merger and acquisition) were computed from the data extracted from the financial statements of the six banks.

The choice of secondary data for this study was because primary data is considered subjective for the measurement of surrogates used for survival strategy and business growth. The use of secondary data was adjudged appropriate for this research because the study is an enquiry in which the researcher has no direct control over the independent variables. This is because the financial data used for this research were historical. Some of the previous researchers who had made use of only secondary data in the past were: [Okpanachi \(2011\)](#); [Aruna and Nirmala \(2013\)](#); [Olowoniyi and Ojenike \(2012\)](#); [Kumar \(2013\)](#); [Onaolopo and Ajala \(2012\)](#); [\(Ebimobowei and Sophia, 2011\)](#); [Kouser and Saba \(2011\)](#).

4. Method of Data Analysis

This research work used both descriptive and inferential statistic to analyzed data collected from the published financial statement of banks. The descriptive statistics was used to analyze the mean, mean deviation and percentage of results of the research work. Furthermore, the data collected from the financial statements, account records and other means of secondary data were analyzed using Analysis of Variance (ANOVA). The multiple regressions were used to test hypotheses and to measure the significance of linear bi-variant between the dependent and independent variables in the study. The results derived from the regression were further analyzed to test the research hypotheses for the purpose of rejection or acceptance. This techniques had been used by [Gatheru and Were \(2014\)](#); [Onaolopo and Ajala \(2012\)](#).

4.1. Test of Hypothesis (H_01)

Hypothesis one tests the extent to which CAMEL of merged Nigerian deposit money banks influence post-merger ROA in the Nigerian banking industry. This hypothesis was tested using the model stated below:

4.2. Estimation of Regression Equation

$$y = f(x_1, x_2, x_3, x_4, x_5)$$

$$ROA = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \mu$$

Where:

y_1 = Return on Asset (ROA)

x_1 = Capital Adequacy Ratio (CAR)

x_2 = Asset Quality (AQ)

x_3 = Management Quality (MQ)

x_4 = Earning Quality (EQ)

x_5 = Liquidity (LIQ)

μ is the errors terms (stochastic variable)

β_0 the intercepts (constants) .

β_{1-5} are the coefficients for the CAR, AQ, MQ, EQ and LIQ respectively.

5. Data Analysis

Pre-Merger Panel Data Regression Coefficients of Return on Assets

Dependent Variable: ROA

Method: Stepwise Regression

Sample: 2008 2010

Included observations: 9

Number of always included regressors: 6

Selection method: Stepwise forwards

Stopping criterion: p-value forwards/backwards = 0.5/0.5

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|--------------------|-------------|-----------|
| C | 0.357440 | 0.313472 | 1.140263 | 0.3370 |
| CAR | 0.545353 | 1.025829 | 0.531622 | 0.6318 |
| AQ | 0.319044 | 0.791361 | 0.403158 | 0.7138 |
| MQ | -4.423082 | 3.453585 | -1.280722 | 0.2903 |
| EQ | 0.051935 | 2.226695 | 0.023324 | 0.9829 |
| LIQ | -0.314036 | 0.305930 | -1.026499 | 0.3802 |
| R-squared | 0.657239 | Mean dependent var | | -0.062661 |
| Adjusted R-squared | 0.085970 | S.D. dependent var | | 0.095041 |
| S.E. of regression | 0.090864 | Durbin-Watson stat | | 2.090619 |
| F-statistic | 1.150490 | | | |
| Prob(F-statistic) | 0.484666 | | | |

Source: Researcher's extracts from Panel Data analysis, 2016.

5.1. Interpretation of Result

The pre-merger panel data regression coefficients for ROA reveal that CAR, AQ and EQ are positively related to ROA, while MQ and LIQ are negatively related to ROA. This is signified by the signs of the partial regression coefficients of 0.545, 0.319, 0.052, -4.423 and -0.314 for CAR, AQ, EQ, MQ and LIQ respectively. This means that there is a positive relationship between explanatory variables with positive signs with ROA and negative relationship between the independent variables with negative sign with the regressand, ROA.

However, the p-values of the t-statistics of 0.632, 0.714, 0.290, 0.983 and 0.380 for CAR, AQ, MQ, EQ and LIQ respectively revealed that these mixed relationships is insignificant at 95% confidence level connoting a spurious relationship. Also, the p-value of the F-statistic of 0.485 implies that the combined effect of all the regressors on the regressand is also insignificant at 5% level of significant. All these are pointers to the effect that there is no significant relationship between the independent variables and performance measure, ROA. The Durbin Watson statistic of 2.09 suggests that there is no evidence of serial correlation in the time series of the data employed by this study.

The R^2 of 0.6572 implies that 65.72% of the changes in the value of ROA of the sampled firms can be explained by the changes in the explanatory variables (CAMEL) included in this study, while the remaining 34.28% can be attributed to other factors not included in this model.

Post-Merger Panel Data Regression Coefficients of Return on Assets

Dependent Variable: ROA

Method: Stepwise Regression

Sample: 2011- 2014

Included observations: 12

Number of always included regressors: 6

Selection method: Stepwise forwards

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---------------------|-------------|--------------------|-------------|----------|
| C | -0.025925 | 0.034694 | -0.747258 | 0.4832 |
| CAR | -0.170076 | 0.173214 | -0.981887 | 0.3641 |
| AQ | -0.006009 | 0.070969 | -0.084667 | 0.9353 |
| MQ | 0.020675 | 0.566269 | 0.036511 | 0.9721 |
| EQ | 0.661683 | 0.423788 | 1.561353 | 0.1695 |
| LIQ | 0.033066 | 0.023692 | 1.395628 | 0.2123 |
| R-squared | 0.389068 | Mean dependent var | | 0.010356 |
| Adjusted R-squared | -0.120042 | S.D. dependent var | | 0.011581 |
| S.E. of regression | 0.012256 | Durbin-Watson stat | | 1.882716 |
| F-statistic | 0.764211 | | | |
| Prob. (F-statistic) | 0.607190 | | | |

Source: Researcher's extracts from Panel Data analysis, 2016.

5.2. Interpretation of Result

The post-merger panel data regression coefficients for ROA reveal that MQ, EQ and LIQ are positively related to ROA, while CAR and AQ are negatively related to ROA. This is signified by the signs of the partial regression coefficients of 0.021, 0.662, 0.033, -0.170 and -0.006 for MQ, EQ, LIQ, CAR and AQ respectively. This means that there is a positive relationship between explanatory variables with positive signs with ROA and negative relationship between the independent variables with negative sign with the regressed, ROA.

However, the p-values of the t-statistics of 0.364, 0.935, 0.972, 0.170 and 0.212 for CAR, AQ, MQ, EQ and LIQ respectively revealed that these mixed relationships is insignificant at 95% confidence level connoting a spurious relationship. Also, the p-value of the F-statistic of 0.607 implies that the combined effect of all the regressors on the regressand is also insignificant at 5% level of significant. All these are pointers to the effect that there is no significant relationship between the independent variables and performance measure, ROA. The Durbin Watson statistic of 1.883 suggests that there is no evidence of serial correlation in the time series of the data employed by this study.

The R^2 of 0.3891 implies that 38.91% of the changes in the value of ROA of the sampled firms can be explained by the changes in the explanatory variables (CAMEL) included in this study, while the remaining 34.28% can be attributed to other factors not included in this model.

ANOVA Pre-Merger and Post-Merger Panel Data Regression Coefficients of Return on Assets

Test for Equality of Means between Series - Included observations: 6

| Method | df | Value | Probability | |
|---|--------------|------------|-------------|-------------------|
| t-test | 10 | -0.841444 | 0.4198 | |
| Satterthwaite-Welch t-test* | 5.233853 | -0.841444 | 0.4368 | |
| Anova F-test | (1, 10) | 0.708028 | 0.4198 | |
| Welch F-test* | (1, 5.23385) | 0.708028 | 0.4368 | |
| *Test allows for unequal cell variances | | | | |
| Analysis of Variance | | | | |
| Source of Variation | df | Sum of Sq. | Mean Sq. | |
| Between | 1 | 1.318240 | 1.318240 | |
| Within | 10 | 18.61846 | 1.861846 | |
| Total | 11 | 19.93671 | 1.812428 | |
| Category Statistics | | | | |
| Variable | Count | Mean | Std. Dev. | Std. Err. of Mean |
| PRE | 6 | -0.577225 | 1.907500 | 0.778734 |
| POST | 6 | 0.085658 | 0.291780 | 0.119119 |
| All | 12 | -0.245783 | 1.346264 | 0.388633 |

Source: Researcher's extracts from Panel Data analysis, 2016.

6. Decision

The test of equality of means between series as indicated by t and F-statistics of 0.4198 revealed that there is no significant differences between pre-merger and post-merger capital adequacy ratios, assets qualities, management qualities earnings qualities and liquidity ratios of the sampled banks employed by this study and by extension the pre-merger and post-merger return of assets. This implies that in the short run, the merger of the two banks has not produced the expected synergy. This is contrary to our a priori and theoretical expectations which predict that the merger will have synergetic performance influence on the post-merger performance of the merged banks. We therefore accept the null hypothesis (H_0) which states that there is no significant relationship between CAMEL variables and post-merger ROA of money deposit banks in Nigeria and reject the alternative hypothesis. The merging of the banks does not lead to growth and non-synergistic gain as being measured by ROA.

7. Discussion of Findings

The empirical findings from test of hypothesis one suggested that in the pre- merger data regression coefficient, CAR, AQ and EQ are positively related to ROA while MQ and LIQ are negatively related. The combination of positive and negative coefficients connote mixed relationships between the explanatory variables and the explained variable, ROA, although spurious as indicated by the p-values of the t-statistics which is greater than 0.05 in all the three models. The post- merger panel data partial regression coefficients for MQ, EQ and LIQ were positively related to ROA while CAR and AQ are negatively related.

The p-value of the F-statistic also revealed that the combined effect of all the regressors on the regressand was also insignificant at 5% level of significant. The test of equality of means between series as indicated by t and F-statistic of 0.4198 revealed that there was no significant difference between the pre-merger and post-merger CAMEL and by extension the pre and post-merger ROA. This implied that in the short run the banks merger had not produced the expected synergy. This is contrary to our a priori expectation and theoretical expectation that merger leads to synergy. These findings substantially align with the previous empirical studies such as Kumar (2013), and Adegbaaju

and Olokoyo (2008) and provide an evidence of negative relationship. This negates the value creation/ synergy theory and operating efficiency theory.

The study revealed that while merger and acquisition can lead to value creation and drive growth, the result shows that merger and acquisition as a survival strategy and sustainable business growth in the Nigerian banking industry has not yielded a very positive result as there is statistical indifference between the mean of the pre and post-merger results. The merger and acquisition had not improved the overall performance of the selected banks in the short run.

8. Summary of Findings

The summary of the empirical findings from this study is presented underneath:

- i. There is no significant relationship between the independent variables – CAMEL and performance measure ROA. There was no significant difference between the pre-merger and post-merger CAMEL and by extension the pre and post-merger ROA. This means that in the short run the banks merger had not produced the expected synergy. This is contrary to our a priori expectation and theoretical expectation that merger leads to synergy.
- ii. The CAR of all the banks merged and acquired in this study shows a figure lower than the percentage prescribed by CBN prudential guideline.
- iii. The study reveals that merger and acquisition fails to improve return on asset of the merged banks which failed to yield a very positive result compared with the pre-merger result.
- iv. The study negates the value creation theory which shows a statistical indifference between the mean of pre and post-merger bank performance.

9. Implications of the Findings

- i. The pre and post-merger statistic of the six banks reveals a CAR of 0.0880, -0.0932 and 0.1978 for mean, minimum and maximum measures. This reveals that the six banks fails to meet the minimum prescribe ratio of 0.1 or 10% at mean and minimum measure while exceed marginally at maximum measure. This shows that the post- merger capital was fundamentally weak.
- ii. The study reveals that all performance measures of ROA for the six banks were negatively skewed suggesting that individual items are lower than the median. The merging of the banks does not lead to growth and non-synergistic gain in the short period of post-merger performance.
- iii. Benefits from merger and acquisition require more years of operation to yield a positive results of synergistic gain and growth in all areas of performance.

10. Conclusion

The study examined survival strategy and sustainable business growth in the Nigerian banking industry. The study revealed that there was no significant difference between the pre-merger and post-merger CAMEL and by extension the pre and post-merger ROA. The study negates the theoretical and financial believed that merger and acquisition will lead to value creation and have synergistic effect on the merged bank.

This implied that in the short run the banks merger had not produced the expected synergistic gains and this fails to improve the return on asset of the merged banks which failed to yield a very positive result compared with the pre-merger result.

Recommendations

On the bases of the findings and conclusions derived from this study, the following recommendations are made:

- i. The CAMEL of the merged banks should be managed better in order to have a positive relationship with ROA for future synergistic gains and growth.
- ii. The banks should come up with more robust efficiency strategies that would improve their performance in order to have synergistic effect on ROA.
- iii. The banks management should be proactive in product diversifications which help in generating additional income for the banks which will have multiplier effect on performance.
- iv. The banks should improve on their risk management, corporate governance practices and top practices of professionalism in the course of banking operation to put confidence in the mind of customers for better performance.
- v. The policy makers and regulators should be more focus on best practices rather than promoting merger and acquisition as a solution to banks distress and increased post -merger performance.
- vi. In order to achieve a seamless integration, cultural differences in banks should be properly sorted out to avoid egoism and disharmony that may affect bank's operation and efficiency which can lead to poor performance and diminished synergistic benefit.

Contribution to Knowledge

The study's conceptual framework has extended the frontier of knowledge by adding to the understanding of the relationship between the independent (capital adequacy, asset quality, management quality, earnings ability and liquidity) and dependent ROA also the survival strategy and sustainable business growth model as developed for this

study has contributed to the existing literature on merger and acquisition based on the finding that growth in the banking industry proxy by ROA can be ascertained using the specific inputs (CAMEL) rather than using CAMEL as traditional performance measurement.

The study reveals that the theoretical and financial believe that merger leads to synergy and value creation did not work in all cases of merger. Therefore, synergetic gain and value creation can only be achieved when banks improves on their risk management, corporate governance practices and top practices of professionalism in the course of banking operation to put confidence in the mind of customers for better performance. This affirms that merger and acquisition are not the best solution to financial distress in banks as well as corporate organization.

The study has contributed to the existing literature by focusing on CAMEL as independent variables (banks input into merger) rather than the traditional performance indicator in banking environment and thereby provides a better understanding of the effect of CAMEL on the performance of banks proxy by ROA.

Limitation of the Study

The study has been limited in scope because not all banks are considered but only those that had gone for second round of consolidation. The initial idea was to use the eight banks that had gone for second round of consolidation but due to non-availability of financial data for equatorial bank, the study exclude the sterling group. Other financial institution and non -financial institution are not included in the study. Other factors such as cultural differences, age of the bank and goodwill, number of branches are not included. The study only considered three years of pre-merger period and four years of post-merger. All these notwithstanding, the results are good enough in showing the effect of survival strategy and sustainable growth in the Nigerian banking industry.

Suggestion for Further Study

The study has found a negative relationship between merger and acquisition proxy by CAMEL and growth proxy by performance measurement such as ROA in the money deposit bank. Future studies on merger and acquisition can be consider in the banking sector using age of the banks, number of branches, comparison with other financial institution such as insurance and also non-financial institution.

The use of other merger input parameters other than CAMEL can be considered. In addition sensitivity to market risk (S) can be added to CAMEL(S). This could be considered jointly with variables included and excluded from the scope of this study.

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