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Optimizing the Capital Structure of Acquiring Banks in Nigeria through Merger and Acquisition Schemes

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Abstract: The study examined whether or not merger and acquisition schemes can optimize the capital structure of acquiring listed banks in Nigeria. The study used secondary source of data; and the data were gathered from the audited financial statements of the sampled banks. The study focused on banks industry and covered nineteen (19) years from 2004 to 2022 to select ten (10) banks out of total population of fifteen (15) acquiring banks based on the available data using targeted sampling technique. The data collected were analyzed using multiple regression model of fixed effect, random effect and pooled ordinary least squares. Finding from the research disclosed that the coefficient of financial synergy (0.0487) is positive and has a significant effect ($p=0.3612>0.05$) in optimizing the banks' capital structure; while the beta value of realized profit (-1.962) is negative and insignificant effect ($p=0.0001<0.05$) in optimizing the capital structure of the acquiring banks in Nigeria. The study concluded that gaining more financial synergy through the merger and acquisition schemes will optimize the capital structures of the acquiring banks, while any profit on realization through the business combination may not optimize the capital structures of the acquiring banks in Nigeria.

Keywords: Optimizing Capital Structure; Merger and Acquisition Schemes; Banks

JEL Classification: G32; G34; G21

1. Introduction

One of the strategic financial focuses of every business organization especially banks is to optimize their capital structure. Some business entities optimize their mixed of capital in order to improve their performances while some focus on the financial synergy to be derived from merger and acquisition schemes. Recently, merging of one bank with one another or acquiring of one bank by other became the order of the day when the Central Bank of Nigeria (CBN) compelled them to increase their capital base

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(Abeywardhana & Magoro, 2017). Many banks merged together and or acquired one another when they could not meet up with the CBN directives on banks recapitalization. Thus, optimizing capital structure by blending together the equity capital and debt capital is also achievable through merger or acquisition of companies. Merger may be direct like when the target firm and the acquiring firm come together directly; or indirect if the formal merged with subsidiary of the latter. Optimization of capital structure of a business is the fusing up the equity and debt to maximize the present value of the firm and minimize the cost of capital. If a firm's optimal (target) capital structure is 63.8% equity and 37.2% debt, while current capital composition is 66.8% equity and 34.2% debt, the firm is still operating towards its target capital structure. However, increasing equity or reducing debt may require additional transaction costs which could be significant. In optimizing capital structure, many firms do engage enough capital from equity sources to quit the effect of financial risk to avoid their illiquidity, while some with enough cash flows will be tolerance to use more of debt capital while firms which insufficient cash flows will be volatile and definitely have less amount of debts but significant amount of equity in their capital structures (Abubakar & Olowe, 2019). Many business organizations merged together by combining both their debt and equity to optimize their capital structures and achieve the synergy advantages of business combination, but are essential to empirically confirm this. That is why this study is examining optimizing the capital structure of acquiring listed banks in Nigeria through merger and acquisition schemes.

1.2. Statement of the Problem

Many factors like financing problems have caused the failure of many firms and this could be resolved through proper merger and acquisition schemes (Sufian & Fadzlan, 2004). Merging-up some businesses to manage their financial resources is imperative as to gain the synergy of business combination. Thus, determining the firms' optimal financial structures may be difficult as this involves the analysis of different factors like business merger and acquisition, risk management, liquidity and profitability because some times, many firms' managers might fail to put in place proper finances and strategies that could maximize their firms (Obaid & Sabeeh, 2010). Additionally, the poor combination of firms' capital may affect the outcome of their combinations. Thus, examining whether or not merger and acquisition schemes recently embarked upon by the banks in Nigeria has positive or negative effects on the optimization of their capital structures has been an issue of continuous debate in finance literature (Sufian & Fadzlan, 2004) which require further research. Also, the criteria that determine the

effect of merger and acquisition on the optimization of the acquiring companies' capital structures are becoming wider as the review of previous related studies such as Sufian and Fadzlan (2004); McDonald, Coulthard and Lange (2005); Obaid and Sabeeh (2010); Abeywardhana and Magoro (2017); Cheema, Mahboob, Farooq and Yousaf (2017); Edori, Ekweozor and Ohaka (2020) indicated that most of these studies only concentrated on the effects of capital structure on firms' financial performance instead of on the effect of merger and acquisition schemes on the firms' optimal capital structures. For an example, Babalola (2012) studied the effect of optimal capital structure on firms' performance in Nigeria. This research has filled the identified gap by discovering the influential variables among other alternatives that can be employed to identify the effects of firms' merger and acquisition in optimizing the capital structures of the acquiring banks in Nigeria.

1.3. Objectives of the Study

The broad objective of this study is to investigate the effects of merger and acquisition schemes in optimizing the capital structures of acquiring banks in Nigeria. Specifically, the research:

- a. determine how financial synergy optimize the capital structure of acquiring listed banks in Nigeria;
- b. evaluate the effect of realized profit/ on capital structure of acquiring listed banks in Nigeria.

1.4. Research Hypotheses

The following null hypotheses guide this study:

- a. Financial synergy does not optimize the capital structure of acquiring listed banks in Nigeria;
- b. There is no effect of realized profit/ in optimizing capital structure of acquiring listed banks in Nigeria;

2. Conceptual Review

2.1. Optimizing Capital Structure

Optimizing the capital structure is a process involving maximization of firms' present values while at the same time minimizing the average cost of capital. Equity and debt are the main forms of firms' capital structure representing interest of both loan holders and shareholders' investments in a business. Optimal capital structure means that with a minimum cost of capital, the value of a firm is maximized (Aramvalarthan, Kannadhasan and Babu, 2018). Capital structure is the firms' mix of finance. It is the company's combination of equity and debt capital. The capital sources through which firms are being financed are the retained earnings, share capital, short and long-term debts (Adenugba, Ige and Kesinro, 2016). Equity capital is the combination of retained earnings and share capital. The profits reinvested for future reinvestment are the retained earnings, while the share capital is the capital raised by issuing shares and converting loan to shares (Ali, 2020). Equity capital is means the residual assets of the company possessed by the shareholders after all the liabilities have been deducted (Aziz and Abbas, 2019). Equity is the net value of the monetary assets belonging to the shareholders after settling all the liabilities. It is the difference between the assets values and liabilities. Equity capital is the owners' investment in a business owing by the business. It is the left over capital in a business after liquidating its assets and settling its liabilities (Bandyopadhyay and Barua, 2016).

Unlike equity, debts are repayable as at when due. Since every debt requires interest payments, debt capital may be cheaper than equity. The ratio of debt to equity is a measure of the percentage of creditors' funds provided to the funds provided by the shareholders (Cheema, Mahboob, Farooq and Yousaf, 2017). Funds providers will admire the lower of this ratio because the smaller this ratio the bigger the proportion of the firms source of financing provided by the shareholders and the wider the protection margin in the event of outright losses or asset values shrinking (Chechet and Olayiwola, 2014). Debt to equity ratio determines the amount committed by the firms' suppliers, creditors, lenders or obligors to the firm to the amount committed by the shareholders (Dai, 2017). It is the ratio of debt capital to equity sources of capital of a business (Denis, 2017). But firms with a higher ratio of debt-equity are too geared and such situation is risky to lenders and investors than those with a smaller debt-equity ratio.

2.1.1. Banks Merger and Acquisition in Nigeria

Merger and acquisition are a mechanism for firms' expansion and restructuring with a view to facilitate corporate growth and improved performance (Sufian, 2004). Merger is a union of two or more firms to become one, while acquisition is the purchase of one or more firms by another company to exercise control over the acquired firms (McDonald, Coulthard and Lange, 2005). Acquisition is the taking over of one or more company by another to gain control (Obaid and Sabeeh, 2010). The major distinction between the two schemes is that in merger a new bigger entity will emerge after ending-up the existence of the merged firms, whereas in acquisition, the two companies will continue to exist by the acquiring firms will have control over the acquired firm (McDonald et al 2005). Nigerian banking industry has become a long-term financial institution since around 1883 (Obaid and Sabeeh, 2010). Many banks in Nigeria were merging together and acquiring each other or one another ever since year 2004 due to Central Bank of Nigeria (CBN) directives (Cheema et al, 2017). The enacted law of the CBN during that era forced them to merge, while some acquired by other banks. This is because the CBN's banking industry reform in 2004 was to restore the global and public confidence in Nigerian banks and Nigerian economy (Sufian, 2004). CBN directed those banks that could not meet up with the minimum required capital base of 25billions to go into a merger and or acquisition schemes for effective performance of the industry (Obaid and Sabeeh, 2010). For instance, Access bank merged with Marina Bank in 2005, acquired Intercontinental Bank in 2013, and in 2019 merged with Diamond Bank to form Access Bank plc. Besides, United Bank for Africa (UBA) merged with two banks to become a better alliance; and later UBA acquired Standard Trust Bank and Continental Bank; Union Merchant Bank, Universal Trust Bank Nigeria Ltd and Broad Bank of Nigeria merged together to become Union Bank plc. Indo Nigeria Bank, NBM Bank, Nal Bank PLC Magnum Trust Bank and Trust Bank amalgamated to form Sterling Bank plc. In year 2005, First bank of Nigeria acquired Intercontinental bank. In year 2006, nine (9) banks such as Unity Bank BDC, Unity Capital & Trust Limited, Hexali Properties Limited, Pelican Prints Limited, Unity Kapital Assurance plc, Northlink Insurance Brokers Limited, Caranda Management Services Limited, Unity Registrars Limited and Newdevco Investments & Securities Limited merged to form Unity Bank. Wema Bank acquired with National bank. Ocean Bank acquired International Trust Bank in 2005. IMB International Bank Plc merged with NUB International Bank Ltd to become First Inland Bank Plc. Bank PHB was acquired by Keystone Bank Limited in 2011. Habib Nigeria Bank Ltd merged with Platinum Bank Ltd to form Bank PHB in 2005. Afribank international merged with Afribank Nigeria and to become Afribank Nigeria

PLC but the merger was later terminated. Spring Bank was formed after the merger of six banks which include ACB International Bank Plc, Citizens International Bank Plc, Fountain Trust Bank Plc, Omega Bank Plc, Trans International Bank Plc and Guardian Express Bank Plc. In 2007, Stanbic Bank merged with IBTC Bank to form Stanbic IBTC Bank Nigeria. First Bank Nigeria (FBN) plc acquired Merchant Bank (Obaid & Sabeeh, 2010).

From the above, it is obvious that there are strong relationship between the merger and acquisition schemes, and the firms' capital structure. This is because the schemes were conducted by the affected banks when in 2004 in Nigeria the CBN issued a financial guideline compelling all the banks in the country to recapitalize with at least a minimum capital base of twenty-five billions naira (N25 billions).

2.2. Theoretical Review - Theory of Corporate Financing

Tirole (1956) propounded the theory of corporate financing. The theory is one of the oldest theories of capital structure (Edori, Ekweozor & Ohaka, 2020). The Theory explained that the structure of a firm's capital should be optimized by increasing equity to reduce debt or reducing equity to increase debt in order to optimize its net present value and minimize its cost of capital (Edori, et al., 2020). The main focus of the theory is the achievement of optimal capital mix of financing for the firms (Edori, et al., 2020). Optimal financing however means choosing the appropriate debt-equity financing that will affect positively the firms' profitability (Edori, et al., 2020). The theory established that the aim of a financing decision of a corporate organization is to maximize its value and resolve its financial constraints (Kariuki, Maina & Njagi, 2017). Theory of corporate financing disclosed two related decisions namely the identification of optimal mix of capital structure and streamlining the long-term financing-mix with the financed assets. Meaning that management must be able to discover the optimal financing-mix of the capital structure that will lead to the maximization of firms and shareholder values (Kariuki et al., 2017).

From the above theoretical review, there are all indications that corporate financing is the choice of the right combination of capital to achieve the firms' financial objectives which may also be achieved through the merger and acquisition schemes. Thus, the theory of corporate financing is fit in this research as it appears that merger and acquisition schemes can create financial synergy which is two plus two is equal to five not four. Besides that, there is an expectation that the combination of two more

companies will bring out additional profit called profit on realization despite that the scheme may involve additional cost of acquisition called purchase consideration.

2.3. Empirical Review

Akingunola, Olaniyan and Olawale (2017) investigated the relationship between the capital structure decision and firm's financial performance in Nigeria by covering the periods between 2011 and 2015. The outcome of the research showed that short-term loan and long-term loan have positive significant effect on return on equity (ROE) and return on assets (ROA) of the company during the periods under review. Dai (2017) examined the relationship between capital structure and performance of banks in Thailand between 1997 and 2016. The research used random effect model to measure firms' size, capital structure, credit risk, firms' growth and liquidity risk. The results found a negative and significant relationship between the capital structure and the profitability of the banks implying that pecking order theory is valid for the data employed.

3. Methodology

This research work covered banking industry to determine the effects of merger and acquisition schemes in optimizing the capital structures of the acquiring banks in Nigeria. Secondary source of data was used to obtain panel data from the accounting records of the selected banks. The choice of secondary data sources is adequate as it was not easy to get the required data set through the primary sources. The study's population is made up nineteen (19) acquiring and merging banks from 2004 to 2022. The banks includes: Wema Bank plc, Unity bank plc, Polaris (Skye) bank plc, Access Bank (AB) plc, United Bank of Africa (UBA) plc, Union Bank (UBN) plc, Sterling Bank (SLB) plc, First Bank of Nigeria (FBN) plc, First City Menument Bank (FCMB) plc, Spring Bank plc, Ocean Bank plc, First Inland Bank (FIB) Plc, Keystone Bank Limited, Bank PHB (BPHB), Afribank Nigeria PLC (Later terminated) and Stanbic IBTC Bank Nigeria (SIBTCBN) and First Bank Nigeria (FBN) plc. The study employed targeted sampling technique to draw the sample of ten (10) acquiring banks data for analysis. The sampled banks are AB, FBN, UBA, WEMA, FCMB, UBN, SLB, SIBTCBN, FIB and BPHB. The data gathered were analyzed through the Gnu Regression, Econometric and Time Series Library (GRET) using multiple regression model of the random effect, fixed effect and pooled ordinary least square together with some post data tests like busman test. The models used for data analysis were considered appropriate as they capable of determining the causes of effects of

independent variables on dependent variable. The study' independent variable is merger and acquisition proxy by the two (2) explanatory of financial synergy (FSNG) measured in term of combined equity capital to combined total assets, and the realized profit (RPT) measured in term of combined profits on realization to combined total assets of the firms as used by McDonald, Coulthard and Lange, (2005). Also the dependent variable is proxies by debt-equity ratio (DER) measured in term of combined total debt to combined equity capital of the acquiring companies as used by Mwangi (2018) and Mutie, Willy and Agnes (2019)

3.1. Model Specifications

This study's model comprises two explanatory variables of financial synergy (FSNG) and the realized profit (RPT), and the response variable of debt-equity ratio (DER) The model is specified below:

$$DER_{it} = f(FSNG_{it}, RPT_{it}) \tag{3.1}$$

Where

DER_{it} = Return on assets of acquiring banks in Nigeria I in year t;

$FSNG_{it}$, = The financial synergy of acquiring banks in Nigeria I in year t;

RPT_{it} , = The realized profit of acquiring banks in Nigeria I in year t.

f = function

4. Results and Discussion of Findings

This section consists of the results of data estimation.

Table 4.1. Diagnostic Test Results

Tests	Result (P-value)	Decision	Fitted Model
F- Test (FE VS POLS)	1.96035 (0.014 < 0.05)	Reject H_0	Fixed effect (FE)
Lagrange Multiplier: (RE VS POLS)	5.54393 (0.018 < 0.05)	Reject H_0	Random effect (RE)
Hausman: (RE VS FE)	0.147743 (0.928 > 0.05)	Accept H_0	Random Effect
Cross-section Dependence Test: Pesaran CD	:Z= -0.948124 (0.041067 < 0.05)	Reject H_0	No CD

Source: Analysis from GRETL (2023)

From table 4.1, the result of F-test of 1.96035 ($0.014 < 0.05$) show a rejection of the null hypothesis that fixed effect (FE) is not appropriate in favor of pooled ordinary least square (POLS). Thus, FE is considered fitted. The result of Lagrange multiplier test of 5.54393 ($0.018 < 0.05$) also rejected the null hypothesis of no random effect and the model is considered appropriate. More so, the result of Hausman's test of 0.1477 ($0.928 > 0.05$) accepted the null hypothesis that fixed effect is not appropriate, therefore, considered random effect model as the most fitted data estimated among the three. The result of Peseran CD test -0.948124 ($0.041067 < 0.05$) shows the rejection of null hypothesis implying that there is no fundamental error that required correction in the 5% level of significant used for data analysis.

Table 4.2. Fixed Effect Model Analysis Result

SERIES: DER, FSNG, RPT

190 observations 10 cross-sectional units and time-series length				
Const	0.9940	0.0126	79.30	0.0001
FSNG	0.0497	0.0657	0.756	0.4505
RPL	-1.964	0.0203	-96.8	0.0001
Const	0.9939	0.0125	79.30	0.0001
R ² = 0.990931 R ² Adjusted = 0.988646 Durbin-Watson = 2.167				

Source: Analysis from GRETL (2023)

Table 4.2 disclosed the results of fixed effect model showing that the coefficient of financial synergy (0.0497) is insignificantly positive ($p=0.4505 > 0.05$) indicating that a unit increase in the financial synergy of the firms will insignificantly increase the optimal capital structures level of the banks by 5%. Also, the beta value of realized profit (-1.964) is significantly negative ($p=0.0001 < 0.05$) implying that a unit increase in the profit realized through the merger and acquisition schemes will decrease the optimal capital structure optimum level of the acquiring banks' by 2%.

Table 4.3. Random Effect Model Analysis Result**SERIES: DER, FSNG, RPT**

190 observations 10 cross-sectional units and time-series length				
Variables	Coefficient	Std. Error	z	p-value
Const	0.9933	0.0113	87.240	0.0001
FSNG	0.0487	0.0533	0.9130	0.3612
RPL	-1.962	0.0177	-110.7	0.0001

Source: Analysis from GRETL (2023)

The results in table 4.3 revealed that the financial synergy's coefficient (0.0487) is significantly positive ($p=0.3612>0.05$). This means a unit increase in the financial synergy of the banks will lead to 5% insignificant increase in the optimal level of the banks; capital structure. The beta value of realized profit (-1.962) is significantly negative ($p=0.0001<0.05$) meaning that a unit increase in the profit realized through the business combination will drop-down the optimal capital structure levels of the acquiring banks in Nigeria by 2%.

Table 4.4. POLS Analysis Result**SERIES: DER, FSNG, RPT**

190 observations 10 cross-sectional units and time-series length				
Variables	Coefficient	Std. Error	z	p-value
Const	0.9927	0.0099	100.30	0.0001
FSNG	0.0475	0.0475	1.0010	0.3180
RPL	-1.960	0.0168	-116.8	0.0001

Source: Analysis from GRETL (2023)

The results in table 4.4 showed that the financial synergy's coefficient (0.0475) is significantly positive ($p=0.0001<0.05$) meaning that a unit increase in the financial synergy of the banks will lead to 5% increase in the optimal level of the banks' capital structure. The beta value of realized profit (-1.960) is significantly negative ($p=0.0001<0.05$) meaning that a unit increase in the profit realized through the merger and acquisition schemes will reduce the optimal capital structure levels of the acquiring banks in Nigeria by 2%.

5. Conclusions

Based on the results obtained through the fitted random effect model, the study discovered that gaining more financial synergy through the merger and acquisition schemes will optimize the capital structures of the acquiring banks, while any profit on realization through the business combination may not optimize the capital structures of the acquiring banks in Nigeria. From these results, it can be concluded that synergy is a beauty of merger and acquisition of business entity around the world. Gaining synergy, the combination of businesses will optimize the capital composition of listed banks in Nigeria.

References

- Abeywardhana, D.K.Y. & Magoro, K.M.R. (2017). Debt capital and financial performance: a comparative analysis of South African and Sri Lankan listed companies. *Asian Journal of Finance & Accounting*, 9(2), pp. 103-127.
- Abubakar, Y. & Olowe, G. J. (2019). Capital structure and financial performance of selected quoted firms in Nigeria. *International Journal of Research and Scientific Innovation*, 6(2), pp. 75-85.
- Adenugba, A.A.; Ige, A.A. & Kesinro, O.R. (2016) Financial leverage and firms' value. A study of selected firms in Nigeria. *European Journal of Research and Reflection in Management Sciences*, 4(1), pp. 14-32.
- Ahmed, M.; Ahmed, I. & El-Maude, M. (2016). Capital structure and financial performance: evidence from Nigeria. *Journal of Economics and Business*, 2(1), pp. 1- 23.
- Ali, M. (2020). Impact of leverage on financial performance: evidence from Pakistan Food and Fertilizer Sectors. *Journal of Critical Reviews*, 13(7), pp. 447-456.
- Aramvalarthan, S.; Kannadhasan, M. & Babu, A. (2018). Capital structure and corporate performance. *International Business Management*, 12 (3), pp. 262-267.
- Aziz, S. & Abbas, U. (2019). Effect of Debt Financing on Firm Performance: A Study on Non-Financial Sector of Pakistan. *Open Journal of Economics and Commerce*, 2(1), pp. 8-15.
- Bandyopadhyay, A. & Barua, N. M. (2016). Factors determining capital structure and corporate performance in India: Studying the business cycle effects. *The Quarterly Review of Economics and Finance*, 61, pp. 160-172.
- Chechet, I. L. & Olayiwola, A. B. (2014). Capital structure and profitability of Nigerian quoted firms: The agency cost theory perspective. *American International Journal of Social Science*, 3(1), pp. 139-158.
- Cheema, M. H.; Mahboob, H.; Farooq, N. & Yousaf, A. (2017). Capital structure impact on financial performance of Sharia and non-Sharia complaint companies of Pakistan stock exchange. *International Journal of Business and Management Review*, 5 (1), pp. 54-70.

- Dai, T. B. (2017), Relationship of the capital structure and financial performance. *European Journal of Accounting, Auditing and Finance Research*, 5 (5), pp. 18-28.
- Denis, W. N. (2017). The effect of debt financing on financial performance of private secondary schools in Kajiado county. *Master Dissertation*, University of Nairobi, pp. 1-52.
- Edori, D. S.; Ekweozor, U. C. & Ohaka, J. (2020). Debt financing and firms' financial performance in Nigeria, *Account and Financial Management Journal*, 5(2), pp. 2106 -2113.
- Kariuki, S.; Maina, K. E. & Njagi, I. K. (2017). Equity financing and financial performance of small and medium enterprises in embu town, Kenya. *International Academic Journal of Economics and Finance*, 2(3), pp. 74-91.
- McDonald, Coulthard & McDonald, Lange (2005). Planning for a Successful Merges or Acquisition: Lessons from an Australian Study. *Journal of Global Business and Technology*. Vol 1(2).
- Mutie, J. M.; Willy, M. & Agnes, N. (2019). Effect of equity finance on financial performance of Small and Medium Enterprises in Kenya. *International Journal of Business and Social Science*, 10(7), pp. 112-130.
- Mwangi, L. (2018). Relationship between capital structure and performance of non- financial companies listed in the Nairobi Securities Exchange, Kenya. *Global Journal of Contemporary Research in Accounting, Auditing and Business Ethics*, 1(2), pp. 72-90.
- Obaid & Sabeeh (2010). Post-merger Performance of Atlas Investment and Al- Faysal Investment Bank Ltd. In Pakistan. *International Journal of Economics and Finance*. Issue 60, pp. 168-174.
- Sufian, F. (2004). The Efficiency Effects Of Bank Mergers And Acquisitions In A Developing Economy: Evidence From Malaysia, *International Journal of Applied Econometrics and Quantitative Studies*. *International Journal of Applied Econometrics and Quantitative Studies*, Vol. 1-4. pp. 53-74.
- Tirole, J. (1956). *The theory of corporate finance*. New Jersey: Prentice Hall Publisher.