EMPIRICAL BANK SYNERGY ANALYSIS

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Abstract

The Central Bank of Nigeria (CBN) outlines the banking sector reforms to guarantee an efficient and sound financial system. The changes enable the banking system to develop the required strength to support the country's economic development by efficiently performing its functions as the center of financial intermediation. The reforms are designed to build a reliable banking industry that is robust, diversified, ensures the safety of depositors' money, position banks to play active developmental roles in the Nigerian economy, and become significant players in the sub-region, including the global financial markets. The reforms necessitate the increase of the least capital base of ₦25 billion with a deadline of the last day of December 2005 and the consolidation through mergers and acquisitions. Before the CBN's banking sector consolidation program, the Nigerian banking system is characterized as highly oligopolistic with remarkable features of leadership and market concentration. Small-sized fringe banks characterize the system with massive overhead costs and a low capital base averaging about less than ₦1.4 billion or about USD 10 million, with a heavy reliance on government patronage. In this article, measurements of the synergy of merged banks are practically analyzed using cash and cash equivalent, deposits, operating income, operating expenses, and profit before and after-tax. However, the overall result, according to the theory of synergy, is in the negative.

Keywords: Synergy, Mergers, Financial Institutions, Profit Before Tax, Capital Assets, Regulatory Body, Economies of Scale, Customer Deposits, Operating Expenses, Cash and Cash Equivalent.

JEL classification: D43, H21, D22, G21, G34, J24

1. INTRODUCTION

As of 2004, the Central Bank of Nigeria (CBN) introduced an increase in Nigerian banks' capital asset deposit (Adeyemi 2006). The CBN recapitalization policy led to a rise in merger activities (Oluitan, Ashamu & Ogunkenu, 2015).

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Subsequent to the CBN increase of the capital base from $6 million to $70 million through mergers, the Nigerian economy has been witnessing instability in the financial sector according to Bakare & Olubokun (2011), and Adegbie & Adeniji, (2010). In a strategic maneuver to survive the apex bank policy, business organization leaders adopted mergers as a strategy to maximize revenue (Angwin, Gomes, Mellahi, Peter & 2012; Grant, 2016). Bank leaders use the tool of mergers to combine resources to create financial synergy and improve productivity (Wu, Luo, Wang, & Birge, 2016). Although the number of Nigeria's business mergers increased, many failed (Adeyemi, 2006). About 70 % of mergers fail to meet financial synergies (Early, 2004; Ikpefan, & Kazeem, 2013). According to Soludo (2004), in Europe, North America, and Asia, mergers play a significant role in creating financial synergy, growth, and business survival for many firms.

Synergy is classified into the cost of related capital (resulting in financial synergy), related price (resulting in collusive synergy), and cost of related production, resulting in operational synergy (Chatterjee, 1986). According to Beck and Cull (2014), Nigeria's banking system is entirely different from Western countries. In Nigeria, financial synergy is one of the gains expected from mergers (Enyi, 2007). The synergy hypothesis stream considers financial synergy or cost savings as mergers' primary motive (Garzella & Fiorentino, 2017). Financial synergy is the benefit realized, which is greater than the sum of the combined benefits gained from firms operating individually (Chen, King, & Wen, 2015; Pandey, 2005). The word synergy is not peculiar to business combinations alone (Damodaran, 2005). Chemistry first used the word synergy (Enyi, 2007). In business, the word synergy analyzes business operation behavior, yet, it does not follow the same law mathematically as it does with chemical reactions in chemistry (Van Horne, 1977). Business mergers should translate mathematically into 2 + 2 = 5 (Ansoff, 1988). The latter is the subject of investigation in this article with regards to Nigerian banks.

Financial synergy can emerge from the cooperation between the organization's departments, functional integration, and deployment of resources (Andrushko, 2012). According to Jemison (1985), the nature of multi-business companies creates strong interdependencies among business divisions. Also, Porter (1985) narrates how the development of interrelationships between different business units can result in a competitive advantage. Financial synergy expectations are the intangible benefits such as access to new markets, skills, or culture (Ficery, Herd, & Pursche 2007). Conventionally, the value of synergy is identifiable as the net present value of the incremental cash that the merger produces, minus the net present value of the costs of attaining those incremental cash flows (Pursche, 1988). However, Marks and Mirvis (2011) concluded that the combination of resources, people, or processes in a merger results in an adverse effect or reverse synergy.

A merger initiative's primary purpose is to achieve synergies and create additional value for a newly developed organization (Chatterjee, 2007). According to Owolabi & Ajayi (2013), significant potential synergies are recognized during pre-mergers. In addition, although there is no guarantee of the realization of the anticipated synergies, in the final analysis, leaders will attempt the merger for sustainability (Lauser, 2010). Mergers are considered an attractive means of market share expansion and acquiring new products and technology resources (Gomes, Weber, Brown, & Shlomo, 2011). Cusumano, Kahl, and Suarez (2015) determine that business mergers have become surviving strategies for many companies.

See Appendices A, B, and C for examples of Chief Executive Officer's (CEO) letters to shareholders or the merger scheme stating synergy as the benefit of proposed company mergers in Nigeria. Also, in Access Bank's statement of account for 2005, which represents the year of the merger with Marina and Capital Bank, under the "Capitalization plan." Cost savings or financial synergy is described as one of the benefits of the merger plan and is included as Appendix D.

2. SYNERGY IN MERGERS

Synergy is the ability to combine an organization with being more profitable than the individual parts of the business that were combined (Gaughan, 2007). Additionally, Sirower (1997) defines synergies as increases in competitiveness resulting in cash flows beyond what the two companies are expected to accomplish independently. Öberg and Holtström (2006) determine the Greek word for synergy is 'synergos,' meaning that "separate parts work together." Synergy is an expected significant gain from company mergers (Bena & Li, 2014). Synergy is the expected result of any business combination exercise (Lubatkin, 1987). However, synergy is not peculiar to business combinations and business operational behavior (Poelmans et al., 2010). According to Fluck and Lynch (1999), and Van Horne (1977), synergy includes the realization of operating economies.

Furthermore, the merged firm should be of higher value than the sum of the firms that made up the merger, implying that the consolidation's effect should translate mathematically into a 2 + 2 = 5 result (Enyi, 2007). The anticipation of synergy by management results in a positive net merger value. Additionally, for business leaders, the expectation is that the synergistic effect is more than the sum of the premium paid for the acquired firm and the merger process (Creane & Davidson 2004). In multi-business companies, there is an additional challenge of managing multiple divisions (Fulghieri & Hodrick, 2006). This cost, however, is different from the concept of dis-synergy. According to Van Gerven and Stankiewicz (2009), costs are encountered in implementing the steps that lead to the achievement of synergy. The factors of dis-synergy are quite distinct influences that may result in post-merger diminishing of a firm's value due to changes in interactions with suppliers, customers, employees, and other stakeholders (Cording, Harrison, Hoskisson, & Jonsen, 2014). Additionally, synergy includes creating benefits by maximizing resources and adding value that otherwise would not have been possible (Rahman & Lambkin, 2015). Synergies can be found and used throughout an organization and have different forms depending on the mergers.

The following depicts examples of the process of synergy. For example, the synergy to the shareholders of A and B is Synergy = VAB - [VA + VB] (Madalina, Elena, & Alexandra, 2015). If the synergy is positive, that means the combination of the two firms (VAB) is more valuable than the sum of the separate companies (Adu-Darko & Bruce-Twum, 2014). Furthermore, from the finance principles, the value of an asset is the present value of discounted future cash flows (Shrieves & Wachowicz Jr., 2001). Additionally, the cash flow from synergy is: ΔCFt = CFABt - [CFAt + CFBt] (Damodaran, 2005). Therefore, if positive synergy occurs, then the combined firm results in greater cash flow than the independent firms' sum. If there is no value created through the combination of A and B then, synergy = 0, implying that the merger is a zero-sum gain and the gain to B shareholders is equal to the cost to A shareholders (Gurung, 2013). If VAB > VA + VB, both parties may benefit from the mergers (Berry & Rachwal, 2017; Jensen, 1988). Therefore, mergers are interwoven with value creation or synergy, as separating the businesses removes the intention behind the revenues within the business venture that both parties sought to create.

Companies merge because of the high potential to create synergy (Petitt & Ferris, 2013). Mergers are attractive when the value of operating as a combined firm to maximize shareholders' wealth is greater than operating an individual company (Grinblatt & Titman, 2004). According to Damodaran (2005), the existence of synergy implies that the combined firm will be more profitable and grow at a faster rate after the merger. The rationality of synergy is that the merged companies maximize productivity and lower costs to improve cash flow, which outweighs the individual companies' combined cash flow (Grinblatt & Titman, 2004). However, in several cases, synergies have been used as the main incentives for justifying bad mergers. Mergers are not successful when the formed company does not increase shareholder value or achieve the financial, strategic, or commercial objectives set at the time of consolidation (Rankine, 2001). Merger deals made by organizations without a clear understanding of price factors and integration costs cause the assumption that synergy does not exist (Perry and Herd, 2004). According to Early (2004), synergies' valuation is one of the significant challenges in a merger deal. While valuing synergy requires making assumptions about future cash flows and growth, the lack of precision in the process does not mean business leaders cannot obtain an unbiased estimate of value (Damodaran, 2005). Therefore, the concepts of diseconomies of scale describe the undesired results of negative synergies (Harding & Rovit, 2004). The contagion effect and the capacity effect are the main negative effects in the merger integration phase due to synergies' implementation (Shaver, 2006).

3. THEORY OF SYNERGY

Synergy is derived from the Greek, “synergos,” which means working together (Barrios, 2016). Synergy is when two or more companies generate more excellent value working as one business than working separately (Cartwright & Cooper, 2014). In mergers, synergy refers to the financial synergy gained through conglomerates merging (Rahatullah, 2014). In economics, synergy is the economies of scale that lead to cost savings (Benecke, Schurink, & Roodt, 2007). Synergy can be expressed mathematically as 2+2=5 (Cartwright & Cooper, 1993). Operational synergy appears in the form of revenue enhancements and cost reductions (Gaughan, 2015). Synergy is the rise in the combined firm's performance above what the two companies are expected to accomplish as independent businesses through an increase in competitive advantage (Rahman & Limmack, 2004). According to the synergy theory, when an organization is formed as a result of a merger, benefits are generated from the unification of cost reduction, resources, improving the efficiency of management and production diversification. According to Motis (2007), synergies are the efficiencies that can be achieved through merging. Synergy is the additional value created by combining two companies and creating opportunities that would not have been available to the organizations operating separately (Cabiddu, Lui, & Piccoli, 2013). Synergy is mathematically expressed as $V(AB) > V(A) + V(B)$ where $V(AB)$ stands for the value of the combined companies and $V(A)$ and $V(B)$ for the standalone value of company A and B (Seth, 1990). The value of synergy is the difference in the value of the combined businesses and the standalone value of the two companies: $S = V(AB) – (V(A) + V(B))$ (Adu-Darko & Bruce-Twum, 2014; Damodaran, 2005). Synergy is incremental wealth to both merging firms' shareholders due to the merger (Motis, 2007). Synergy motives are the most mentioned reasons when management embarks on merger projects (Mensah & Onumah, 2017). Synergy can take revenue enhancement, cost savings, and operating efficiency (Malik et al., 2014). Furthermore, Huyghebaert and Luypaert (2013) state that synergies can be divided into financial, operating, and managerial synergy.

3.1. FINANCIAL SYNERGY

Financial synergies are related to decreased capital costs through better cash flows, lowered risks, increased financial marginal increase, and economies of scale (Hamza, Sghaier, & Thraya, 2016). Financial synergy occurs when the cost of capital reduces through the combination of two companies (Lubatkin, 1987). The firm reduces unsystematic risk by diversifying operations (Gomez&Mejia, Makri, & Kintana, 2010). Also, financial synergy involves combining both the acquirer and target organization balance sheets to achieve a reduction in the average cost of capital or a better gearing ratio of other improved financial parameters (Gupta, 2012). This applies to non-related mergers as the diversification effect is higher. The process of financial synergy creates the opportunity to adopt the method of transferring the losses of a company in the future periods to decrease the profit before taxes (Marples & Gravelle, 2014). Financial synergies can result from an increase in the combined firm's debt ratio when two companies with less than perfectly correlated cash flows merge, the default risk declines due to a co-insurance system (Brooks, 2014). In a similar vein, the borrowing capacity grows larger by relying more on debt to finance operations. Additionally, the company can realize a giant debt tax shield from interest expenses (Huyghebaert & Luypaert, 2013). Combined firms may reduce the cost of debt when the revenue from the combined entity is less risky than that of a single company. The cost of capital is reduced because of the increased debt tax shield.

3.2. OPERATING SYNERGY.

Operating synergy involves rationalizing combined operations by sharing facilities such as transportation, warehouses, and software, including human resources, accounts and finance, and administration (Ogada, Achoki, & Njuguna, 2016). Duplication of services is avoided, or logistics are improved, leading to substantial cost savings.

3.2.1. ECONOMIES OF SCALE

The synergy that decreases business operation costs is termed economies of scale (Wells, 2016). For example, administrative costs, overhead costs, resources, and competencies that do not utilize their full capacity or are not working are better used by way of a merger and other related activities to decrease average costs. Synergies capable of increasing the revenues are often linked to economies of scale (Riboldazzi, 2016). The economies of scale include the extensions of customers, products, and cross-selling or bundling. Production-related economies of scale indicate that the higher the operations' similarity, the higher the probability is in the realization of lowering cost synergies (Henningsson, 2015). Economies of scale result in lower operating expenses (Barraclough, Robinson, Smith, & Whaley, 2013). Mergers are seen as the sources of efficiency gains from the realization of economies of scope and economies of scale. According to Baumol and Blinder (2015), the fundamental principle of the economies of scale is the bigger the operations of an entity, the lower the costs of goods per unit produced. Company leaders obtain cost advantages due to the scale of operations or increased size of production. Costs per unit of output are minimized by spreading fixed costs over a larger quantity of units.

3.2.2. MARKET SYNERGY

Market synergy describes the ability of a participating organization in a market to control the quantity, price, or the nature of products sold within that market (Hoberg & Phillips, 2010). Market synergy can be deployed by competitors to generate profit in a market or supply chain management (Bena & Li, 2014). These benefits are a value that is transferred from one market participant to another market participant with higher market power. Synergies from market power give rise to a possible monopoly (Gugler & Siebert, 2007). Mergers are most likely to capture market power synergies in the case of related businesses joining because of the higher interdependence of operations within the merging companies (Sheen, 2014). Additionally, Hakkinen and Hilmola (2005) explain that vertical and conglomerate mergers can increase market power by preventing market entry competition. Therefore, according to Weber and Dholakia (2000), market synergies occur when the market is consolidating due to overcapacity.

3.2.3. COMPLEMENTARY RESOURCES

Complementary resources occur when two companies combine different sets of resources that are assumed mutually supportive in a merger deal (Stahl et al., 2013). The strategic goal is to ensure the acquiring firm gains the competitive advantages for business and unique, innovative technologies through alliance (Ianenkova & Solesvik, 2016). From a resource-based view, the combination of a complementary set of resources is thought to be beneficial to a company to mitigate threats and create opportunities. Cost-reducing synergies resulting from combining two firms with complementary resources are referred to as economies of scope (Delgado, Parmeter, Hartarska, & Mersland, 2015).

3.3 MANAGERIAL SYNERGY

The concept of managerial synergy is based on the premise that different companies have varying efficiency levels due to management expertise, which is higher in one organization than others. The corporate control theory market suggests that management teams are frequently in competition for the right to manage a firm (Weir, Laing, & Wright, 2005). If the particular management within an organization performs below expectations, a more efficient management team will acquire the company and replace the inefficient managers. The components of strategic agility correspond closely to the stages of the mergers process (Brueller, Carmeli & Drori, 2014). Leaders within an organization may become significantly more agile if the capacities are focused on the most promising potential targets. The deal-making capabilities of a business leader are tuned to synergy or value creation, and the resources or management reassembly and redeployment capabilities enable the realization of value (Hollen, Van Den Bosch, & Volberda, 2013). Larger groups can afford to become active acquirers by benefitting from high capacities to handle merger activities (Brueller et al., 2014). Small firm leaders lack the quality workforce required to facilitate the merger programs efficiently. They may not need workers since facilitation may inherently be more agile due to the business's size. However, the process of developing the necessary capabilities to handle the merger is lengthy and requires an organizational culture of openness subject to time compression diseconomies.

4. EMPIRICAL SYNERGY ANALYSIS

Synergy is the principle in business which states that the value of two merged companies is higher after merging compared to the addition of values if there was no merger (Oduro & Agyei, 2013). Synergy results from the efficiency and elimination of duplicate costs that ensure profit levels are increased, and the firm's total value increased. The standard of synergy is measured by comparing the bank's value after the merger with the projected value of the individual banks if there had been no merger with the three values combined. In this article, the individual banks' values are projected using a time series where the trend of growth in the financial statement elements of Access, Marina, and Capital Bank are used to estimate the values from 2005 to 2009. The synergy is measured with some critical elements of the financial statements where changes affect the firm's value. For example, cash and cash equivalent, deposits, operating income, operating expenses, and profit before and after-tax (see Table 1).

Table 1. *Customer Deposits*

Year	Customer Deposits	
	Post-Merger	Access + Marina + Capital Bank without merger
2005	32,607,703	52,172,324
2006	110,879,330	179,624,514
2007	205,234,734	336,584,963
2008	355,389,876	553,393,295
2009	405,657,055	669,334,140

Source:(MegaStat Output.

Hypothesis Test - Paired Observations: hypothesized value = 0.000, mean (post-merger) = 221,953,739.60, mean (Access + Marina + Capital bank without merger) = 358,221,847.20, mean difference (post-merger - Access + Marina + Capital bank without merger) = -136,268,107.60, std. dev. = 97,784,879.61, std. error = 43,730,727.59, n = 5, df = 4, t = -3.11, p-value (two-tailed) = .0357, confidence interval 95% lower =-257,684,072.18, confidence interval 95% upper = -14,852,143.01, margin of error = 121,415,964.58.

Deposits are key elements to the survival of banks in competitive markets, as it indicates how many assets the bank can build concerning loans to generate interest income (Berger & Bouwman, 2013). The total deposits for Access Bank are below the projected deposit levels of the individual banks if there was no merger. Synergy is not realized using the deposits indicator. The level of deposits between 2003 and 2009 for Access Bank is below the combined deposits level for Access, Marina, and Capital banks if there is the absence of a merger. The latter outlines the absence of synergy from the merger and is further confirmed by the mean of the deposit level of the merger, which fell short of the average deposits for no merger (see Table 2).

Table 2. *Profit before Taxation*

Year	Customer Deposits	
	Post-Merger	Access + Marina + Capital Bank without merger
2005	751,033	1,201,652
2006	1,119,449	1,813,507
2007	8,043,165	13,110,359
2008	19,042,106	31,419,475
2009	28,105,815	46,374,595

Source: MegaStat Output.

Hypothesis Test - Paired Observations: hypothesized value = 0.000, mean post-merger = 11,412,313.60, mean(Access + Marina + Capital bank without merger) = 18,783,917.60, mean difference (post-merger - Access + Marina + Capital bank without merger) = -7,371,604.00, std. dev. = 7,771,841.60, std. error = 3,475,673.22, n = 5, df = 4, t = -2.12, p-value (two-tailed) = .1012, confidence interval 95% lower = -17,021,619.91, confidence interval 95% upper = 2,278,411.91, margin of error = 9,650,015.91.

Financial experts prioritize cash over profits because money is needed to support a business entity (Graham, Hanlon, Shevlin & Shroff, 2013). Business entity leaders may realize huge profits but be forced into liquidation if these managers are unable to meet obligations when creditors request payment. In the case of a bank, cash becomes more relevant since banking includes working with customer deposits. Failure to honor such deposits upon demand tends to lead to liquidation. The results of the analysis show that Access bank could not achieve synergy in their merger exercise concerning cash and cash equivalents (see Table 3).

Table 3. *Cash and Cash Equivalent*

Year	Cash and cash equivalent	
	Post-Merger	Access + Marina + Capital Bank without merger
2005	11,893,383	19,029,413
2006	46,263,777	74,947,319
2007	158,433,251	261,414,864
2008	585,809,897	960,728,231
2009	135,323,258	216,517,212

Source: MegaStat Output.

Hypothesis Test - Paired Observations: hypothesized value = 0.000, mean (post-merger) = 187,544,713.20, mean (Access + Marina + Capital bank without merger) = 306,527,407.80, mean difference (post-merger - Access + Marina + Capital bank without merger) =

-118,982,694.60, std. dev. = 148,198,083.98, std. error = 66,276,197.98, n = 5, df = 4, t = -1.795, p-value (two-tailed) = .1470, confidence interval 95% lower =

-302,994,920.08, confidence interval 95% upper = 65,029,530.88, margin of error = 184,012,225.48.

The use of operating expenses can affect the value of the business, depending on if the profit is more significant (Wright, Gardner, & Moynihan, 2003). An increasing level of operating expenses potentially reduces the value of a firm while decreasing operating costs can increase the value of a business, therefore showing an inverse relationship (Mauer & Triantis, 1994). The analysis indicates that the bank achieved efficiency and synergy in operating expenses, probably due to economies of scale and spending reduction. The operating costs for Access Bank between 2003 and 2009 are lower than the level of expenditures that would have been incurred by the two banks separately with the merger. This is a sign of economies of scale. The results work in an inverse way where lower values are better than larger values because of expenses. The MegaStat analysis also indicates a significantly lower mean for the merger depicting that the comparative efficiency is better with the alliance than without the merger (see Table 4).

Table 4. *Operating Expenses*

	Operating Expenses	
Year	Post-Merger	Access + Marina + Capital Bank without merger
2005	4,182,839	10,875,381
2006	8,383,807	13,581,767
2007	13,110,924	21,501,915
2008	20,112,197	33,185,125
2009	32,167,558	53,076,470

Source: MegaStat output

Hypothesis Test - Paired Observations: Hypothesized value = 0.000, mean (post-merger) = 15, 591,465.00, mean (Access +Marina + Capital Bank without merger = 26, 444, 131.60, mean difference (post-merger - Access + Marina + Capital bank without merger) =

-10,852,666.60, std. dev. = 2,840,772.97, std. error = 2,840,772.97. n = 5, df = 4, t = -3.82, p-value (two-tailed) = .0188, confidence interval 95% lower = -18,739,916.83, confidence interval 95% upper = -2,965,416.36, margin of error = 7,887,250.23.

Operating income levels affect a firm's value by ensuring business profits; thus, an increase in operating income has the potential of increasing the value of the company (Lohse & Riedel, 2013). Access Bank leaders do not see the effects of synergy until the third year after the merger from a synergy analysis viewpoint. During the first two years, the worth of Access Bank is below the expected value.

The operating income is below what the three banks could have achieved separately. However, synergy is realized in the third year only but not overall, which might be attributed to challenges faced after the merger and overcoming the challenges. The issues during the merger, attributed to the friction that might have existed during the harmonization process, reduced the level of efficiency in the initial period of the merger. (see Table 5).

Table 5. *Operating Income*

	Operating Income	
Year	Post- Merger	Access + Marina + Capital Bank without merger
2005	5,335,313	8,536,500
2006	12,965,544	21,004,181
2007	10,955,830	17,967,561
2008	19,042,106	31,419,474
2009	28,105,815	46,374,594

Source: MegaStat Output

Hypothesis Test - Paired Observations: hypothesized value = 0.000, mean (post-merger) = 15,280,921.60, mean (Access + Marina + Capital bank without merger) = 25,060,462.00, mean difference (post-merger - Access + Marina + Capital bank without merger) =

-9,779,540.40, std. dev. = 5,761,556.37, std. error = 2,576,646.34, n = 5, df = 4, t = -3.79,

p-value (two-tailed) = .0192, confidence interval 95.% lower = -16,933,457.51, confidence interval 95% upper = -2,625,623.28, margin of error = 7,153,917.11.

The synergy analysis using cash and cash equivalent, customer deposits, operating income, operating expenses, and profit before and after-tax shows “NO SYNERGY” based on:

Value of new Access bank > Value of (old Access + Marina + Capital) = SYNERGY

Value of new Access bank < Value of (old Access + Marina + Capital) = NO SYNERGY

5. CONCLUSION

Customer deposits, profit before taxation, cash and cash equivalent, operating expenses, operating income, and operating expenses are the tools used to show that the Access Bank merger with Marina and Capital banks does not achieve synergy in Nigeria. With the analysis, the customer deposits mean calculated, indicate the absence of synergy in the five years after the merger between 2005 and 2009, and deposits dropped below the combined deposits for Access, Marina, and Capital banks, assuming there was no merger. The customer deposits of Access Bank indicate the lack of synergy from the merger exercise. Operating expenses analysis indicates that the bank achieves efficiency and synergy in operating costs, probably due to economies of scale and spending reduction. The operating expenses for Access Bank between 2005 and 2009 are lower than the level of expenditures that would have been incurred by the two banks separately if there was no merger. This is a sign of economies of scale. This result works in the inverse where lower values are better than larger values because economies of scale are expensive. The lower mean indicates the comparative efficiency is better with the alliance than without the merger. The cash and cash equivalent analysis is an indication that Access Bank did not achieve synergy in the merger exercise concerning the availability of cash in money to support customers' demand and other operational needs. The operating income, as analyzed, is below what the three banks could have made separately. However, synergy is realized in the third year after the merger in 2008. Yet, in the other years after the alliance, there is no synergy. The measurement of synergy using the operating income indicates a lack of synergy in Access Bank. Availability of cash is critical since banks work with customer's deposits, and a failure to honor such deposits upon request can easily lead to liquidation (Ibe, 2013). The results of the profit before taxation analysis indicate that Access Bank does not achieve synergy. The outcome of the Access Bank merger case can be generalized with other financial sector mergers in the Nigerian economic space to conclude that mergers in Nigerian banks have not achieved the synergy principle.

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