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**TÍTULO:** Ganar ventaja competitiva sobre las ruedas de la integración vertical: evidencia del sector financiero nigeriano.

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**RESUMEN:** The Nigerian financial industry has been in the throes of intense competition, with most companies stopping at nothing to gain a competitive market advantage. This study examines the nexus between vertical integration and gaining a competitive edge in the financial industry. The study adopted the quantitative design with a survey strategy. A sample frame of 753 was obtained from the management staff of 12 purposively selected financial institutions in South-West, Nigeria. Acquisition suppliers' firm reduced the overall operating cost of Nigeria's financial companies. The study recommends that financial institutions need to exploit the massive opportunity in vertical integration to grow and survive in that highly competing industry.

**PALABRAS CLAVES:** Tomar o comprar decisiones, integración vertical, instituciones financieras.

**TITLE:** Gain competitive advantage on the wheels of vertical integration: evidence of the Nigerian financial sector.

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**KEY WORDS:** make or buy decision, vertical integration, financial institutions.

**INTRODUCTION.**

Today's business world has become virtual and borderless as a result of globalization. As Maroof, Shah and Armad (2017) argue, the trend has changed market dynamics from geographical to global. The implication is that businesses are faced with intense competition from firms offering the same or similar services from elsewhere in the world. Responses to this unfolding business scenario by strategists, entrepreneurs and scholars have been sharp and diverse.

Fierce competition and increasing customer expectations have led suppliers, manufacturers and intermediaries to increasingly focus on delivery speed, enhanced quality, product reliability, and service flexibility (Boyer & Lewis, 2002; Flynn & Flynn, 2004; Hunger & Wheelen, 2009). As the scope to enhance these capabilities within a single organization decreases, many companies look beyond the organization's boundary for help (Bowersox, Closs & Stank, 1999).

Extant literature suggests that most organizations resort to outside help in improving competitiveness, which has been in the form of aligning and/or takeover of some of the business processes and activities hitherto provided by other members in the production value chain (David, 2000; Musso, 2009; Robert, Wallace & Moles, 2012). This alignment and takeover of independent but closely related and supportive services in the value chain are what is broadly referred to as integration. Integration is either vertical or horizontal (Robert, Wallace and Moles, 2012; Marrof et al., 2017), vertical integration may also be backward or forward as suggested by Perrault & McCarthy (2005).

Thomas (2010) argued that backward integration refers to a "firm diversifying closer to the sources of raw materials in the stages of production, allowing a firm to control the quality of the supplies being purchased. Forward integration, on the other hand, refers to the firm entering the business of distributing or selling of present product and moving upwards in the production/distribution process towards the consumer" (Hunger & Wheelen, 2009; Fan & Goyal, 2002; Robert, Wallace & Moles, 2012)

The debate about integration revolves around the probable inherent benefits associated with such an enterprise. This is especially the case where current thinking favours specialization in a restricted area of a firm's comparative advantage while relying on other firms for goods and services outside its area of jurisdiction. In this case, it is believed by proponents of the Theory of Comparative Advantage (Ricardo, 2009; Selcuk & Kiyamaz, 2013) that it will lead to overall benefits and

corporate wealth of the participating firms. The latter contradicts the concept of integration and thus begs the question as to why should firms integrate? There is general literature appreciation and documentation of importance of integration in achieving competitive advantage (Bowersox & Morash, 1989; Morris & Calantone, 1991; Lee & Billington, 1992) and enhancing performance (Narasimhan & Jayaram, 1998; Johnson, 1999; Ahmad & Schroeder, 2001; Frohlich & Westbrook, 2001; Stank, Keller & Closs, 2001; Jobber, 2006; Porter, 2008).

Liu (2013) suggests that vertical integration leads to better coordinating of the production process by eliminating hold-up problems of the integrating firm. While works by Slinger (1998), Fan & Gayol (2002) and Maroof et al. (2017) support that vertical integration leads to increased quality control of inputs, lower cost of production and ultimately improved profit and financial performance. Despite an avalanche of studies highlighting the importance and inherent benefits associated with vertical integration, there is; however, minimal studies showing how vertical integration leads to cost efficiency; or improves the quality of operating input supplies used by financial institutions in the operational milieu of a developing society like Nigeria.

The Nigerian financial system has evolved over time, with the industry operating what could be regarded as close to the perfect market. There has been an increased digitalization and automation of the process by firms in the industry, leading to a seamless flow of information by all the industry participants. There is a symmetry of services rendered to customers, rates charged and costs of doing business. The implication is that the post-consolidation era<sup>1</sup> of the Nigerian financial industry is fraught with heavy competition among firms with little to differentiate industry participants. Given the high level of competition in the Nigerian financial industry, it is expected that there will be more proclivity towards integration.

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<sup>1</sup> Bank consolidation was a policy of the Nigerian reserve bank called Central Bank of Nigeria that gave a uniform benchmark of the minimum capital base that every bank must possess to be adjudged healthy. This policy led to the reduction of the number of banks from 89 banks as at 2004 to 25 banks as 2007. Most of the smaller banks were merged or acquired by the big ones.

On the contrary, there seems to be wariness and lethargy in opting for vertical integration among firms in the industry (Anyanwu & Agwor, 2015). Presently most of the critical ancillary input supplies of the financial institutions in Nigeria (Automated Teller Machines (ATMs) and cards, internet services, cheques, deposit and withdrawal documents) are provided by independent organizations such as MasterCard, Verve, Interswitch and some other internet service providers (ISPs). These independent supplier organisations directly or indirectly affect the quality of financial services rendered by these financial institutions and by extension, their competitiveness. Generally, it is believed that some of the customers' complaints of slow response time to customer requests and poor service delivery may be traceable to the quality of supplies obtained from these collaborating firms.

The overarching research question that is motivating this study is: why is it that Nigerian financial firms are wary or slow to embark on integration in their bid to stay ahead of the competition? This is especially the case where prevailing industry factors seem to favour vertical integration. In seeking to provide answers to this question, the study specifically investigated the two following issues: (a) the impact of make rather than buy decision on the quality of operating input supplies used by Nigeria's financial institutions; and (b) the effect of acquiring suppliers' firm on the overall operating cost of a Nigeria financial firm.

## **DEVELOPMENT.**

### **Literature review.**

Existing literature abounds on vertical integration, the financial sector of different economies, and the impact of vertical integration on the financial sector. However, scholarly literature is scarce on the interplay between vertical integration and the Nigerian financial sector. This scarcity of academic research on vertical integration in the Nigerian financial sector makes this paper very significant.

This literature review section will, therefore, review existing articles using the following headings: Vertical Integration, The Financial Sector, and Vertical Integration in the Financial Sector, The Nigerian Financial Sector, and Vertical Integration in the Nigerian Financial Sector, Review of Theories of Vertical Integration, and Theoretical Framework for the study.

### **Vertical Integration.**

Vertical integration occurs when companies expand backwards to industries that supply their inputs or forward to industries that use, distribute, and sell their products (Jones & George, 2009). In vertical integration, a company will “integrate several activities in adjacent phases of the production and marketing chain located upstream (activities ranging from research and development to purchasing) or downstream (activities ranging from the sale and distribution of the final product)” (Loureiro, Brou, & Simoes, 2018).

Vertical integration is a corporate level strategy (Daft, 2014) pursued by strategic managers to promote differentiation and cost reduction. It is a fundamental concept in organizational economics (Bresnahan & Levin, 2012). Companies involved in vertical integration can have a competitive advantage over their competitors and achieve above-average returns (Bresnahan & Levin, 2012; McGowan, 2017), but may not be able to create value if the environment changes (Jones & George, 2009, p.284). Outsourcing and off-shoring can also reduce the prevalence of vertical integration (Rossini & Lambertini, 2003). Despite environmental changes, outsourcing and off-shoring, recent developments show that large corporations are more inclined towards vertical integration since it is the best way to have control over raw materials, manufacturing, and distribution of finished products (Worthen, Tuna, & Scheck, Wall Street Journal November 30, 2009 (Doherty, Barron’s, November 30, 2009, p.24-25).

Vertical integration can help companies gain market power (Baker, Bundorf, & Kessler, 2017). Market power gives firms a competitive advantage through reduced operational and market costs, quality improvement, and elimination of imitation of the firm's technology (Hitt, Ireland, & Hoskisson, 2007, p.179). Crane (2017) argued that companies like Tesla, in the United States, can integrate forward to sell their cars directly to the customers to gain more market power and the intra-brand competition will not be able to stop them. In other words, Tesla's forward vertical integration would be the best way for the disruptive organization to gain the highly competitive US auto industry. Fan, Huang, Morck, & Yeung (2014) support Crane's argument. They argue that vertical integration can circumvent market forces and extend market powers.

In a technological world, vertical integration is giving way to virtual integration. Virtual Integration is vertical integration run by today's information technologies. In 1998, Michael Dell shared the information on how Dell used information technology to close traditional value chain boundaries between suppliers, manufacturers, and end-users (Magretta, 1998). Dell defined virtual integration as stitching "together a business with partners that are treated as if they are inside the company". Virtual integration technologies connect all value chain components and functions in real time. Snell (2013) argues that virtual integration, not vertical integration, is the future of supply chain management. The latest term for this concept is virtual vertical integration. There is a need for further research in this area.

### **The Financial Sector.**

The financial sector of any country is the branch of the economy comprising of different firms and institutions, which provide financial services to all customers (Kenton, 2019). These customers may include commercial and retail customers. The financial sector, therefore, is made up of banks, investment companies, money markets, insurance companies, real estate firms, etc. Kenton (2019) opines that countries with active financial sectors have healthy economies; those countries that do

not have active financial sectors do not have strong economies. However, where skilled labour prefers to work in financial institutions, the real economy suffers (Cecchetti & Kharroubi, 2015). Cecchetti & Kharroubi (2015) contend that there is a significant relationship between the financial sector and economic growth; this relationship needs further scholarly research.

The financial sector is essential; therefore, to any economy, whether for good or bad. This sector manages short term debts, which it uses to fund risky and illiquid assets (Krishnamurthy & Vissing-Jorgensen, 2015).

Apart from managing risks, it informs the public about investments, makes sure that capital is allocated for such investments, and monitors the management of such investments. It is the engine that enables exchanges within the economy (Kurronen, 2012, p.5). Destabilization of the financial sector can lead to financial and economic crises (Schleer & Semmler, 2015).

### **Vertical Integration in the Financial Sector.**

Vertical integration, as it concerns the financial sector, describes “the practice where banks make and sell financial products” (Moran & Best, 2019). In vertical integration banks couple the core banking tasks with the selling of insurance, mortgages, wealth management services, and others. In some countries, Australia is an example; this coupling of services means a conflict of interest (Moran & Best, 2019), which the Royal Commission must fight. However, as in other nations, vertical integrations in the financial sector have come to stay though regulated. Vertical integration helps the banks to keep control of all banking roles of supplying, producing and retailing financial products and services (Corradi & Peacock, 2019).

Information systems and technologies could disrupt the implementation of vertical integration in the financial sector as it has done in other areas of the economy. Alt, Beck, & Smits (2018) found out that despite IT diffusion within the financial sectors of different economies, vertical integration is still the norm, especially in the banking industry. Alfaro & Charlton (2009) restricted vertical

integration, erroneously, to manufacturing, but recent studies have shown that vertical integration, across time, can also be applied to the financial sector (Herger & McCorrison, 2016).

Vertical integration with firms in a host country will expand suppliers' activities, and therefore, benefiting the host country (Kersting & Gorg, 2014). Damjanovic, Damjanovic, & Nolan (2017) argued that vertical integration leads to higher consumption and welfare because it results in higher production and lower prices. However, in competitive economies with low monopolistic tendencies, vertical integration may not always lead to welfare.

### **The Nigerian Financial Sector.**

The Central Bank of Nigeria (2017) includes the following as part of the Nigerian financial sector:

(1) Financial Markets (Money and Capital Markets), (2) Financial Institutions, which regulates, and supervises the financial sector, (3) Development Finance Institutions, e.g., Urban Development Bank, Nigerian and Rural Cooperatives Bank, (4) Other finance institutions such as insurance companies, pension funds, Bureau de change, primary mortgage institutions, (5) Financial instruments like treasury bills, treasury certificates, and central bank certificates.

Structurally, the Nigerian financial sector has both formal (banks and non-bank financial institutions) and informal (e.g., local money lenders and loan associations) sections (Central Bank of Nigeria, 2017). The loosely organized informal branch of the financial sector has little or no regulations. The formal component of the financial sector provides payment systems, pools surplus financial resources from savings to fund productive investments, and builds a platform for Nigeria's financial infrastructure (Central Bank of Nigeria, 2017).

Below are a few of the conclusions of the International Monetary Fund (2013) assessment of Nigeria's financial sector:

(1) Nigeria's financial sector suffers from weak governance, non-transparent ownership structures, poor financial reporting, and endemic corruption.

- (2) There are regulatory and supervisory gaps and weaknesses.
- (3) Non-Bank financial institutions need reform.
- (4) Though Nigeria's financial system seems to be stabilizing, especially in the banking component, it needs a long-term rather than a short-term crisis prevention framework.
- (5) Poor access to financial resources has hampered the economic development of Nigeria. "There is negligible intermediation to small and medium-sized enterprises (SMEs) by the formal financial sector" (Central Bank of Nigeria, 2017, p.9).

### **Vertical Integration in the Nigerian Financial Sector.**

Scholarly literature on vertical integration in the Nigerian financial sector is scarce. However, in 2009, Onodje in his argument for a reformation of the Nigerian Financial Sector opined that there would be a move from the vertical integration of the banking sector to a horizontal integration of the Nigerian Financial System (Onodje, 2009). Adeleke, Uzochukwu, & Akanji (2018) also concluded that mergers, acquisitions, and strategic alliances were fundamental strategies of Nigerian financial firms. Yusuf & Raimi (2019) disagree. They found out mergers and acquisitions (horizontal integrations) within the financial sector, underperformed when compared with stand-alone financial institutions. They discovered that mergers and acquisitions are not able to solve multiple problems bedeviling the Nigerian financial system. These problems include but not limited to "poor corporate governance compliance, poor credit risk policy management and ineffective allocation of capital to businesses" (Yusuf & Raimi, 2019, p.133).

Vertical integration could still be the best approach for the Nigerian financial sector since it will allow the firms to control all areas of their businesses. This integration will lead to profitability if appropriately regulated. However, as Nigeria becomes more IT-friendly, vertical integration in the financial sector might give way to virtual vertical integration.

## **Theoretical Review.**

### ***Neoclassical Theories of Vertical Integration.***

There are many neoclassical theories of vertical integration, and these theories postulate that fundamental to understanding vertical integration is a firm's reaction to or its effort to create market power (Joskow, 2010; Post, Buchmueller, & Ryan, 2018). Neoclassical theories of vertical integration include the following: vertical externalities (Roelofs & van Vuuren, 2017; D'Alfonso & Nastasi, 2014); price discrimination (Wolfe, 2014; Herz & Taubinsky, 2018); Horizontal externalities (Grazzini & Petretto, 2014; Joskow, 2010); and vertical foreclosure (Joskow, 2010).

- i. *Vertical Externalities.*** This neoclassical theory postulates that vertical externalities arise when there are inefficiencies due to market power in both upstream and downstream markets (Joskow, 2010). The issue addressed here is double marginalization (Ghili & Schmitt, 2018; Janssen & Shelegia, 2015). The problem of double marginalization is due to the non-cooperative setting of prices by upstream and downstream firms, which hurts both the firms and their customers. Bryan & Hovenkamp (2016) argued: "that double marginalization both injure consumers and erodes joint profits relative to integration." This theory explains that it is preferable for upstream and downstream monopolies to integrate vertically in order to become more profitable to firms and consumers (Hans, 2015).
- ii. *Price Discrimination.*** Price discrimination occurs when a firm sets different prices for the same product or service (Depoorter & Meurer, 2018). Firms have many reasons for price discrimination. An example is a train ticket. Some people purchase tickets late and therefore may pay more for the same service, or they pay more because they wish to sit in the first-class section of the train. All travellers will have the same service as being moved from one station to another. Price discrimination could be first degree, second degree or third degree (Depoorter & Meurer, 2018).

First-degree price discrimination involves identical goods or services being sold at different prices to different individuals. Second-degree price discrimination involves different prices for different quantities, e.g., if one is purchasing large quantities, the one pays less. Third-degree price discrimination involves segmentation of markets, and the different segments of the market being charged different prices for the same products. Price discrimination leads to arbitrage. "Arbitrage is buying a security in one market and simultaneously selling it in another market at a higher price, profiting from the temporary difference in prices. This is considered a risk-free profit for the investor/trader" (Lioudis, 2019).

Arbitrage can lead to several lawsuits that will prevent a firm from focusing on why it was created (Chowdhury, Antuca, & Lauer, 2018). These lawsuits result when the government feels that a firm is anticompetitive. Vertical integration could help firms to operate without arbitrage issues. Upstream monopolies can be involved profitably in third-degree price discrimination by charging different prices to downstream firms depending on the elasticity of derived demands (Joskow, 2010). However, this price discrimination could lead to firms that bought at a low price to resell to the firms that purchased at a higher price defeating the third-degree price discrimination strategy. The theory of price discrimination explains the way out of this dilemma; the firm must integrate downstream to maximize profit (Andreou, Louca, & Panayides, 2015; Joskow, 2010).

**iii. *Horizontal Externalities.*** Upstream firms' products and services may be affected by downstream sales and after-sale services. The benefits seem to accrue to the downstream firms. This situation could lead downstream firms to disinvest in retail. The solution to this problem is for the upstream firm to integrate downstream vertically. Horizontal externalities have been found to strengthen the networks, which aid the success of development banks (Noman & Stiglitz, 2016)

and private companies. These integrations could lead to antitrust scrutiny (Post, Buchmueller, & Ryan, 2018), and even an increase in prices (Cooper, Craig, Gaynor, & Van Reenen, 2015).

**iv. Vertical Foreclosure.** Another neoclassical theory is vertical foreclosure. “The predictions of vertical foreclosure are clear: Market competitiveness will decline, and competitor costs and market prices will increase as their access to inputs decrease” (Post, Buchmueller, & Ryan, 2018). In vertical foreclosure, a downstream firm can foreclose an upstream competitor by vertically integrating with the firm and thereby creating a high barrier to entry either in the upstream or downstream industry.

### **Contractual Theories of Vertical Integration.**

Apart from the neoclassical theories of vertical integration, there are also contractual theories of vertical integration. The contractual theories of vertical integration include the following: Transaction Cost Theory, The Property Rights Model, Decision Rights Model, Incentive Rights Models, and Capabilities Theories.

**i. Transaction Cost Theory:** Market contracts are complex, uncertain, sometimes inefficient, and opportunistic, and could lead to disputes, holdups, and costly litigations (Bresnahan & Levin, 2012). The transaction cost theory postulates “integration can be an effective response when these features are present” (Bresnahan & Levin, 2012, p.4). It assumes that since transaction costs are insensitive to the above-stated issues, vertical integration is the optimal step to resolve them. It predicts that uncertain and complex market conditions favour vertical integration.

**ii. The Property Rights Model:** In this theory, “integration changes the incentives to make specific investments” (Bresnahan & Levin, 2012, p.7). This theory claims that “transactions are incomplete” (Driffield, Mickiewicz, & Temouri, 2016); therefore, ownership is emphasized. The theory stresses that ownership and the control of it rest on those firms with the most significant impact on the venture (Milgrom & Roberts, 1992; Slaev, 2017; Holden, 2017). In the Property

Rights Model, firms are viewed as physical assets; therefore, integration downstream or upstream is dependent on changes in ownership of assets. Bargaining becomes very important. "A move toward integration increases the investment incentives of the acquiring party but lowers the incentives of the acquired party" (Bresnahan & Levin, 2012, p.7).

*iii. Decision Rights Model:* In this model, it is assumed that bargaining is incomplete and inefficient. This model postulates that ownership is directly proportional to decision making rather than on assets (Baker, Gibbons, & Murphy, 2011). "The approach taken in recent decision rights models may be a promising framework for empirical research, particularly for studies where it is possible to observe decision processes and outcomes in integrated and non-integrated situations" (Bresnahan & Levin, 2012, p.10).

*iv. Incentive Rights Model:* The core of this theory is on how vertical integration affects the financial incentives of employees and their managers. This model is most applicable to franchising. Shifts impact integration in incentives rather than shifts in ownership (Songqin & Lei, 2017; Bresnahan & Levin, 2012).

*v. Capabilities Theory:* The capabilities theory moves beyond the ownership of assets or transaction costs to the acquisition of human capabilities. Organizational competencies are embedded in the employees and managers. These capabilities are not easily transferred across firm boundaries. "Firms differ in managerial know-how, and this difference is important for production" (Bresnahan & Levin, 2012, p.12). Hart & Holmstrom (2010) argue that "managerial authority tends to coincide with firm boundaries.

### **Summary of theories.**

Neoclassical theories and contractual theories explain why vertical integration should be applied in the financial sector. Neoclassical theories include vertical externalities, price discrimination, horizontal externalities, and vertical foreclosure. Contractual theories include the following:

transaction cost theory, property rights model, decision rights model, and capabilities theory. None of these theories, on its own, can adequately explain vertical integration in the Nigerian financial sector. It is, therefore, important that a unique theoretical framework based on the factors or variables affecting vertical integration in the Nigerian financial sector be developed.

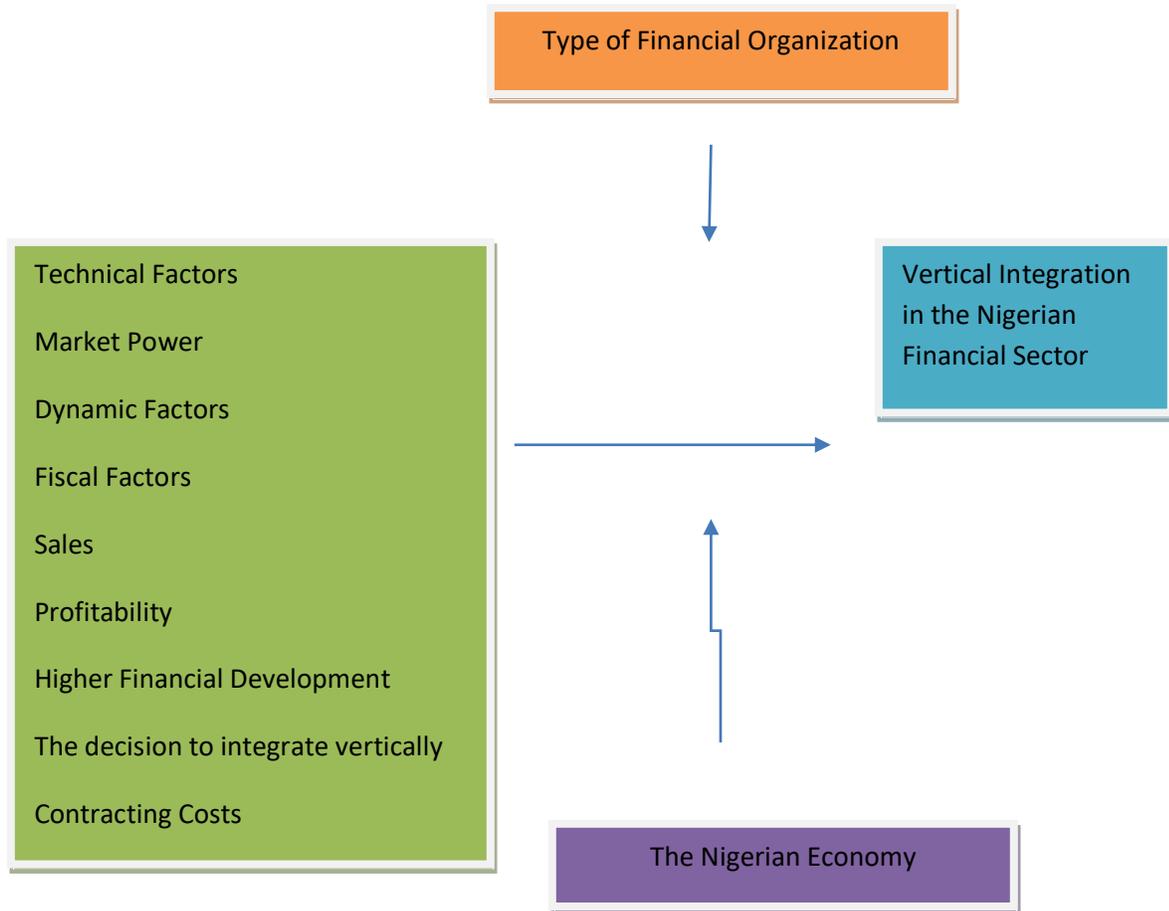
### **Factors Affecting Vertical Integration in the Financial Sector.**

Buckley (2008) gave four factors that affect vertical integration; they are: technical factors (e.g. high fixed costs, continuous flow technology, inventory, economies of scope, etc), market power (e.g. downstream substitution, upstream substitution, monopsony, entry-deterrence, etc.), dynamic factors (e.g. division of labor), and fiscal factors (e.g. transfer pricing, price regulations, foreign equity participation, etc.). Sales and profitability are factors that impact vertical integration positively, whereas, costs will impact vertical integration negatively (Korhonen, Zhang, & Toppinen, 2014).

Macchiavello (2009) argued that higher financial development leads to an increase in vertical integration. An excellent financial environment, production and firm organization, financial constraints and financial contracts are, therefore, essential factors that influence vertical integration. Acemoglu, Johnson, & Mitton (2009) agree that companies in countries with higher contracting costs and financial development, especially, in capital-intensive industries are more prone to integrate vertically.

### **Theoretical Framework of Vertical Integration in the Nigerian Financial Sector.**

The uncertainties within the Nigerian Financial Sector do not allow anyone theory to explain the vertical integration behaviour of the financial organizations within the sector. The best would be to develop a theoretical framework based on the factors affecting vertical integration in the Nigerian Financial Sector. A schematic diagram representing the theoretical framework is given below:



**Fig 1: Theoretical Framework of Vertical Integration in the Nigerian Financial Sector.**

In this theoretical framework, vertical integration in the Nigerian financial sector (dependent variable) is influenced or impacted by a hybrid of factors (independent variables) including: technical factors, market power, dynamic factors, fiscal factors, sales, profitability, higher financial development, decision to integrate vertically (make or buy decisions and others), and contracting costs. The intervening variables are types of financial organization (formal or informal), and the moderating or modifying variable is the Nigerian economy.

This paper dwells on one of the independent variables, which is, how the decision to integrate vertically (make or buy decisions) impact vertical integration in the Nigerian financial sector. It is

recommended that further research be completed to understand how the rest of the variables impact vertical integration in the Nigerian financial sector.

### **Variables clarifications and hypotheses formulation.**

Integration is thought of a situation where related productive activities that used to be performed by different organizations are now being undertaken by one organization. Before integration, you have one firm (Principal) that outsources or buys products from another firm (ancillary) which the former uses in its productive activities. There are several considerations in the literature to justify such interdependence between the principal and the ancillary. Three of such considerations are quality of inputs, cost and availability.

If the Principal considers it cheaper to buy the products from the ancillary firms without compromising the quality and availability; they will buy (outsource) rather than make (produce it in-house) the products. If on the other hand, it is cheaper or there is a tendency of getting a better quality or being available if it is made in-house, then the Principal will be more willing to integrate. So the key variables used to capture integration in this study are make (in-house provision) or buy (outsource). This leads us to the first hypothesis, which is:

$H_{01}$ : There is no significant impact of make rather than buy decision on the quality of input supplies used by Nigeria's financial institutions.

$H_{a1}$ : There is a significant positive impact of make rather than buy decision on the quality of input supplies used by Nigeria's financial institutions

Another way, albeit radical, of undertaking integration, is by acquiring the firm (ancillary) that used to supply resource inputs to the principal firm. This is usually the case if the time, expertise and resources required to produce in-house are humongous, and yet the principal still wants to dictate the quality, availability and costs of supplies. This acquisition may not always be easy, but it could

come in the form of outright purchase of the firm or partial equity holding in the business. This leads us to the second hypothesis that captures the second variant of integration in this study:

H<sub>02</sub>: Supplier's acquisition does not significantly reduce the overall operating cost of a financial firm.

H<sub>a2</sub>: Supplier's acquisition significantly reduces the overall operating cost of a financial firm.

### **Methods.**

This study adopted a quantitative design with a cross-sectional survey strategy. This approach is apt because it provided an opportunity to obtain data from key stakeholders about the backward integration of financial services. The South West of Nigeria was selected because it houses the financial capital of Nigeria, which is Lagos, and its neighbouring cities of Ibadan and Shagamu.

The South West region of Nigeria comprises six states: Ekiti, Lagos, Ogun, Ondo, Osun and Oyo states. Registered formal financial institutions (money deposit banks and insurance companies) in Southwest, Nigeria constituted the population of the study. The total population is 37 firms comprising 22 money deposit banks (MDB) and 15 composite insurance firms registered and supervised by the regulatory agency National Insurance Commission (NAICOM).

A multi-stage method was used in drawing the required sampling frame from the total population. First, out of a population frame of 22 MDBs registered by the Central Bank of Nigeria (CBN) as at 2016 (i.e. Access Bank, CitiBank, Diamond Bank, EcoBank, Enterprise Bank, Fidelity Bank, First Bank, FCMB, GTBank, Heritage Bank, Keystone Bank, Mainstreet Bank, SkyeBank, Stanbic IBTC Bank, Standard Chartered Bank, Sterling Bank, SunTrust Bank, Union Bank, UBA, Unity Bank, Wema Bank, Zenith Bank), a total of 7 MDBs were purposively selected as sample for this study and out of the population frame of 15 registered composite insurance firms under NAICOM as at year 2016 (i.e. AIICO Insurance, Cornerstone Insurance, Axa Mansard Insurance, IGI, Leadway Insurance, Niger Insurance, Ensure Insurance, NICON Insurance, Goldlink Insurance,

NSIA Insurance, Great Nigeria Insurance, LASACO Assurance, Standard Alliance Insurance, Royal Exchange Insurance) a total of 5 insurance institutions was purposively selected.

The criteria for selecting the sample were age, asset and customer base, respectively. The selected 12 financial institutions were Fidelity Bank, GTBank, Access Bank, Diamond Bank, First Bank, Zenith Bank, United Bank, AIICO Insurance, Leadway Assurance, Royal Exchange General Assurance, Cornerstone Insurance and Niger Insurance.

The total population of the management staff of the selected firms was 2,553. A sample size of 753 was derived using the Trek (2012) formula. To select the respondents from the population, random sampling technique was adopted. The rationale for this is that respondents at the level of management share equal access to the information being looked for. A well-structured questionnaire was used for the data collection. The 5-point Likert scale with SA – Strongly Agree, A – Agree, U – Uncertain, D – Disagree, SD – Strongly Disagree was used to develop the answer options for the questionnaire. This study adopted descriptive statistics to analyze the responses of respondents while test of the validity of formulated hypotheses was done using least square regression.

## **Results.**

A total of seven hundred, fifty-three copies of questionnaire were administered to the management staff of twelve selected financial institutions. Six hundred, ninety-nine copies of the questionnaire were retrieved, which amounted to a 92.8% response rate. A total of fifty-four copies of the questionnaire were not retrievable, which amounted to 7.2%.

All the six hundred and ninety-nine copies of the questionnaire retrieved were useable. Based on the copies of the questionnaire retrieved, the demographic information showing the demographic distribution based on age, gender and educational qualifications are as follows: The age distribution of the respondents are: 18-24y (201=28.8%); 25-34y (227=32.5%); 35-44y (134=19.2%); 45-54y

(77=11.0%); 55-64y (49=7.0%); while 65y and above (11=1.5%). The result reveals that most of the respondents were between the ages of 25-34 years (227). This number represents 32.5% of the total number of respondents. However, respondents within the 65 years and above were the least in terms of number (11=1.5%). This implies that most respondents in the Nigeria financial institutions are young people. This also shows that majority of the respondents are young adults who can independently give an informed opinion.

Data reveals the fair sex distribution of the respondents: male (336-48.1%) and female (363-51.9%). In spite of the 3.8% difference between the two sex categories, data obtained represents a rich and balanced opinion of both genders. Information provided by respondents on educational qualification reveals the following distribution: PhD holders (3-0.4%); MBA/MSc (231-33.1%); BSc/HND holders (305-43.6%); and ND/NCE holders (160-22.9%). Data show that more respondents hold a first degree or Higher National Diploma (HND) (305), 231 hold MBA/MSc and the least were PhD holders with three respondents.

Hypotheses formulated were tested using the z-test and ordinary least regression.

$H_{01}$ : There is no significant impact of make rather than buy decision on the quality of input supplies used by Nigeria's financial institutions.

$H_{a1}$ : There is a significant positive impact of make rather than buy decision on the quality of input supplies used by Nigeria's financial institutions.

**Table 1a: One-Sample Statistics.**

	N	Mean	Std. Deviation	Std. Error Mean
Decisions on Make/Buy & input Quality	699	28.4100	22.12101	4.91221

**Table1b: One-Sample Z-Test.**

	Test Value = 0					
	z	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Decisions on Make/Buy & input Quality	27.910	698	.003	28.4100	17.7400	46.1500

Source: SPSS Analysis of Field Data 2018.

Table 1a presents the mean value and standard deviation (SD) of the responses received. The analysis revealed that a grand mean score of 28.41 and standard deviation of 22.12. In the second table, the z-value was given as 27.910 with a significant value of 0.003. Since the significant value (0.003) as shown in table 1b is less than 0.05 and the Z-value (27.910) is high, the null hypothesis is rejected. The inference drawn, therefore, is that make rather than buy decision significantly improved the quality of input supplies used by Nigeria's financial institutions.

$H_{02}$ : Supplier's acquisition does not significantly reduce the overall operating cost of a financial firm.

$H_{a2}$ : Supplier's acquisition will reduce the overall operating cost of a financial firm.

Regression model:  $Y = \alpha + \beta X + \mu \dots$  (For all observations  $i, = 1, 2 \dots n$ )

Where Y = Overall operating cost

X = Supplier's acquisition.

$\mu$  = error term of random variable

$\alpha$  = a constant amount

$\beta$  = effect of X hypothesized to be positive

Hence, the regression (predict) equation will be  $Y = 99.331 + 0.114X$

**Table 2a: Model Summary.**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.661	.422	.433	28.22119

a. Predictors (Constant): supplier's acquisition.

**Table 2b: ANOVA<sup>b</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	22166.221	1	22166.221	15.131	.003 <sup>a</sup>
	Residual	4722.979	698	1464.954		
	Total	26889.200	699			

a. Predictors: (Constant), supplier's acquisition.

b. Dependent Variable: overall operating cost.

**Table 2c: Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	99.331	44.811		2.113	.004
	supplier acquisition	.114	.336	.939	3.552	.003

a. Dependent Variable: overall operating cost.

Table 2a, b & c show that the supplier's acquisition reduced the overall operating cost of a financial firm. The F-value is calculated as the Mean Square Regression (22166.221) divided by the Mean Square Residual (1464.954), yielding  $F=15.131$ . This shows a statistically significant relationship (Sig =0.003). The implication is that supplier acquisition accounted for 42.2% reduction on the overall operating costs ( $R = .042$ ,  $F(1, 698) = 15.131$ ,  $p < .05$ ).

Since the results of the ANOVA in table 2b show a significant level of 0.003, and F value of 15.131 being high, the alternate hypothesis which states that 'supplier's acquisition had reduced effect on the overall operating cost of a financial firm' is therefore accepted.

### **Discussion.**

The result of the study shows that make rather than buy decision significantly improves the quality of input supplies used by Nigeria's financial institutions. This result implies that it is better for financial organizations to provide its inputs within the organizations rather than to outsource such services to external firms. When this is done, the integrity of the quality and the speed of delivery are guaranteed.

This finding agrees with that of Mamman, Aminu and Adah (2013) who suggested that the making of the needed input materials have a multiplier effect on both the quantity and quality of operating supplies used by any firm and it certainly will improve productivity significantly. Dorsey and Boland (2009) corroborated this position when they assert that the provision of the raw materials in-house goes a long way in controlling supplier opportunism and exploitation and it has implications for the development of business growth in the face of uncertainties. Jones and Miskell (2007), as well as Hunold, Röller, and Stahl (2012) in their respective findings showed that the business creation of make decision allows such organization to build on their internal competencies and reliability.

Conversely, Köhler (2014) supported by Hill (2015) have contended that the in-house production of inputs has an adverse effect on the quality of input supplies used by organizations. The process of spending time and resources to make the inputs that it will use for production will spread its competencies and resources too lean to maintain high quality consistently. In some cases, the input production may fall outside their primary area of comparative advantage, thereby leading to inefficiency of operations. The deviation of these findings from the mainstream study finding may be due to variation in approaches used or the differences in cultural settings. Kohler (2014) seemed to have worked in an advanced economy that is different from developing economy like Nigeria that is bedevilled by several challenges.

The second finding shows that the supplier's acquisition positively affected (i.e. minimized) the overall operating cost of Nigeria financial firms. The implication is that, by integrating backwards to acquire firms that used to provide supplies to it will have a long run reduction effect on the overall operating cost of a financial firm. This supports the work of Jones and Miskell (2007), who postulated that there is considerable evidence for acquiring suppliers in the value chain. Although many acquisitions fail, often because of post-acquisition problems, this nevertheless does not jeopardize the cost benefits associated with it. Mutura, Nyairo, Mwangi and Wambugu (2016) in support of the work of Mamman, Aminu and Adah (2013) found that business organizations can learn on cost efficiency management strategies if the source of the input is created or taken over. The findings also support the result of Arikian and Stulz (2011) which revealed that setting up of input creating units or buying over of an established source of supply will be better tactics to minimizing the cost of operating in a business dominated by competitors. This may be because most of these studies were conducted within a similar socio-cultural context.

On the other hand, Hunold, Röller, and Stahl (2012), supported by Gil (2012) argued that exposure and taken over of supply might not necessarily affect the cost of production due to the perceived potential uncertainties associated with backward integration. Further, our result diverged from the outcome of Milliou and Sandonis (2014) who have conducted a study on manufacturers' merger and product varieties and explained that backward acquisition and merger with the supplier has little or no impact on the cost of producing needed input. The differences in the result of this work with that of Gil (2012) may be because a quantitative approach was adopted by the latter unlike triangulation method used by Hunold, Röller, and Stahl (2012).

## **CONCLUSIONS.**

This study investigated the effect of verticals integration on the quality of output and the production cost. Though, it was discovered that the dominant growth and competitive strategy used by most firms in the financial industry is mainly horizontal integration.

This study confirms that merger, acquisition and strategic alliances among companies in the Nigeria financial sector, for the most part, have yielded positive result; it, however, found out that continued reliance on horizontal integration will not guarantee long-run growth in the financial industry.

The study establishes the efficacy of backward and forward integration in the realization of the long-run benefits of firms in the Nigerian financial industry. It has encouraged firms in the industry, which hitherto, have shied away from using it due to risks and huge costs associated with its implementation in the short run, to embrace it for long-run strategic growth.

Following the findings of this study, Nigerian financial organizations are advised to shore up their competitiveness by setting up a subsidiary where needed inputs could be developed in order to enhance the input quality and reliability. Alternatively, financial institutions could seek out non-performing supplier organization to wholly acquire or substantially invest in. Despite the short run

substantial financial outlay of this strategic move, it will no doubt yield long-run production cost efficiency and competitiveness for organizations that embark on it.

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