MARKET SHARE AND PROFITABILITY RELATIONSHIP: A STUDY OF THE BANKING SECTOR IN NIGERIA

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ABSTRACT
This study examined the relationship between market share and profitability of the banking sector in Nigeria. The study involved ten banks listed on the Nigerian Stock Exchange (NSE). Secondary data was collected from the NSE covering a period of nine years from 2003 to 2011. The multiple regression analysis was used to test the hypotheses. The dependent variable in the regression model is profitability represented by profit after tax (PAT), while the independent variables are two components of market share for banks: deposit customers (DC) and loan customers (LC). The results of the study revealed that market share represented here by deposit customers (DC) and loan customers (LC) have positive relationship with profitability (PAT) of the banking sector in Nigeria. The researchers recommended that management of banks in Nigeria should entreat quality of management as an important part of market share effect because superior management causes banks to operate at a higher level of effectiveness and efficiency in managing the deposit portfolio and loan volume which in turn will boost profitability.

Keywords: Market share, Profitability, Deposit customers, Loan customers, Profit after tax.

1. INTRODUCTION
The relationship between market share and profitability continues to be a critical research issue in business strategic management in the world. There is growing pressure to make the right decisions quickly and one of the challenges facing managers is how to increase business profits in the competitive business world today. In order to do this, managers need to understand the factors that increase profitability. Several previous studies have linked market share with profitability Buzzel et al. (1975); Rumelt (1991) and McGahan and Porter (1997).

Woo (1981) stated that though the correlation between market share and profitability has been sustained over the years, it remains a generalization which has been over-extended and accepted without acknowledgement of all
its attributes. The general question has always been whether establishing a high market share would ensure greater profits. Researchers who have investigated this question have not succeeded in resolving this dilemma and therefore the question remains. The close association between market share and profitability is strongly acknowledged by managers and management scholars as a basic premise of business strategy. Given the high cost and high risk associated with share building, it is necessary that managers have clearer evidences of the benefits and chances of success for such commitments and it is sufficiently vague to warrant caution against a market share strategy to enhance profitability.

O'Regan (2002) defines market share as a company’s sales in relation to total industry sales for a certain period. Pearce and Robinson (2003) also use the same definition that market share is sales relative to those of other competitors in the market. Market share is usually used to express competitive position. It is also generally accepted that increased market share can be equated with success whereas decrease market share is a manifestation of unfavorable actions by firms and usually equated with failure.

The most common explanation as to why market share leads to higher profitability are higher economies of scale, experience and market power (Buzzel, 2004). Economies of Scale provide larger firms with cost advantages (Sharp et al., 2002). However, most studies indicate that economies of scale dissipate at a small percentage of the market. According to the efficiency hypothesis, market share is the consequence of efficiency rather than its cause. Differences in profitability among firms are due to higher efficiency. Efficient firms obtain large market share and earn high profits to induce a causal association between size and profitability. Firms offering products that offer customers greater value enjoy gains in market share. Better managed firms that have a competitive advantage grow faster than rival firms. Firms with superior skill and foresight gain market share through lower prices or through better products.

Some researchers suggest that the observed positive relationships between market share and profitability may be the result of the quality of management (Jacobson and Aaker, 1985). Superior management causes firms to operate at a higher level of effectiveness and efficiency than their competitors. Higher effectiveness and efficiency include the capability to design and execute better strategies and plans, better control of cost, maintain efficient operations, having innovative products and market strategies, meeting customer needs better than competitors as well as the ability to achieve higher productivity through training and motivation of employees. The positive relationship between market share and profitability may be a direct result of the stability in the economics and competitive environment (Mueller, 1986).

The main objective of this study was to examine the relationship between deposit customers, loan customers (proxy for market share) and profit after tax (proxy for profitability) of the Banking Sector in Nigeria. Several scholars in the past have examined the relationship between market share and profitability. But there has been a lack of consensus in their findings, indicating the existence of a research gap. This study was therefore aimed at filling this gap and by so doing contribute to existing knowledge.

The rest of the paper is structured as follows: section two provides the review of related literature followed by the methodology of the study in section three. The succeeding section presents the findings and discussion, while section five provides the conclusion and recommendations.

2. REVIEW OF RELATED LITERATURE
2.1. Theoretical framework

Buzzel et al. (1975) sees market share as determinant of return on investment and therefore an increase in market share will lead to an increase in profitability. Pearce and Robinson (2003) also see market share as sales
relative to those of other competitors in the market. Market share is usually used to express competitive position. It is also generally accepted that increased market share can be equated with success, whereas decreased market share is a manifestation of unfavorable actions by firm and usually equated with failure. However, high market share has been associated with higher profits. Three outstanding theories emerge and present a clear direction and firm behavior about market share and its impact on profitability. These are Market power theory, Product quality assessment theory and Efficiency theory, Strategic management theory and Contribution theory.

2.2. Market Power Theory

Market share and profitability can be expressed as market power advantages. Market power is present when a firm is able to raise its prices or offer inferior products because its rivals are not able to offer customers a reasonable alternative (Jacobson, 1988). Therefore, it is now obvious that market power would enable a company to make higher profits as they are able to charge a premium for their products.

2.3. Product Quality Assessment

Another explanation linking market share to profitability is that customers use market share as a signal of product quality. Therefore, a high market share, product provides a level of customer confidence in an environment of uncertainty and imperfect information about product performance. As a result, these products are able to command high prices and therefore receive higher returns (Jacobson, 1988).

Newton (1983) and Jacobson (1988) agreed that the way market share is correlated with profitability is through their common association with product quality. This was confirmed by Fraering and Minor (1994) after studying 1,245 corporations in the 63 industries in South African, who states that if a corporation attempts to force market leadership with a low mark-up, profitability will be diminished.

2.4. Efficiency Theory

The rationale most commonly given to explain the association is that higher market share enables companies to utilize economies of scale to reduce costs and give companies market power (Jacobson, 1988). Jacobson and Aaker (1985); Rumelt and Wensley (1981) and Buzzel et al. (1975) also identified possible reasons why larger market share leads to higher profitability. They suggest that the observed positive relationship between market share and profitability may be the result of quality management. Superior management causes firms to operate at a higher level of effectiveness and efficiency include the capability to design and execute better strategies and plans, better control of costs, maintain efficient operations, having innovative products and market strategies, meeting customer needs better than competitors as well as the ability to achieve higher productivity through training and motivation of employees.

Firms with large market share can exploit increasing economies of scale from different areas such as procurement, manufacturing, marketing and research and development (R & D). Similarly, the “experience curve” theory pronounces that companies who attain greater cost efficiency through experience gained from managing companies with greater market share. Gale and Branch (1982) concluded that the role of market share in reducing cost, rather than increasing market power generates the association between market share and profit.

2.5. Strategic Management Theory

According to Weetman (2010) the profitability of a business depends on having a successful business strategy. He further argued that if the business strategy gives the firm its competitive edge, then the market share should
reflect that strategy adopted by the firm clearly. This traditionally lays emphasis on profitability and market share. Norreklit and Mitchell (2007) argued that a satisfactory financial result may be obtained by first supplying a good product at low prices, making customers very satisfied and gaining a market share and an image, and then later reducing the level of satisfaction by raising prices. This strategy leads to increased market share by the creation of loyal customers.

The achievement of profitability in the firm is a function of market share, market prospect, etc. That is, an increase in market share will lead to higher profits of organizations. Business strategy usually includes planning to achieve a better performance than competitors.

2.6. Contribution Theory

The contribution theory could be traced to the works of Weetman (2006) he posited that beyond the break-even point of a business entity the sales of further units of products as a result of the business strategy adopted would make a contribution to profit. This implies that the higher the contribution per unit of a product sold, the greater the profit generated by the firm from any particular level of activity. Thus the expansion of market share beyond the break-even level of sales would increase the profit of the firm. However, this theory is to be applied with a little caution considering the basic assumptions surrounding this theory.

From the foregoing, this study considers the market power theory, product quality assessment theory, efficiency theory, strategic management theory and contribution theory as the cornerstone of utilizing the resources related to the study of the relationship between market share and profitability of the banking sector in Nigeria.

2.7. Review of Empirical Studies

Leverty (2001) carried out a study on market Share Profit and Strategies of listed companies in South Africa. He used the multiple regression technique to analyze the data for a period of five consecutive years from 1996 to 2000. The study revealed that there is a positive relationship between Market Share and Profitability. That Market share should be treated as an indicator of performance. He also states that the success of market share requires more fundamental focus.

Venkatraman and Prescott (1990) studied the association between Market Share and Profitability of quoted firms in United States. The researchers used the multiple regression technique to analyze the data, using a sample of 65 companies listed in United States observed for the period 1986 to 1990. The study revealed that there is a positive and significant relationship between market share and profitability. But the positive relationship between market share and profitability is not the same across different environmental contexts.

Buzzel et al. (1975) examined the relationship between Market Share and Profitability in New York. They used the ordinary least square method to analyze the data on a sample of 45 quoted firms for the period 1970 to 1975. The study revealed that there is a positive relationship between Market Share and Profitability. They found that higher market shares leads to greater profits, because of market power and lower cost resulting to economies of scale effects.

Hagigi et al. (1990) carried out a study on assets efficiency and market share of listed companies in South Africa. The researcher analyzed the data using the statistical linear regression method. He deduced that it is a long standing view that Market Share and Profitability cannot be pursued in tandem. That is, an increase in market share mostly requires more investment which might diminish the profitability in the short term. He suggested that for a company to pursue market share, it will have to forgo some profits. This literature, therefore, suggests a negative relationship.
O’Regan (2002) carried out a study on the relationship between Market Share and Profitability in Europe. He used the Ordinary Least Square (OLS) method to analyze the data for the years 1997 to 2001 of 148 listed companies. The study revealed that Market Share and Profitability is negatively related.

Woo (1981) examined market share leadership in listed South African Companies. The researcher tested the hypothesis via Pearson correlation and simple linear regression method. The study revealed that there is a negative relationship between Market Share and Profitability. The researcher found out that market share does not always translate into profitability, as evidenced by a sizable 41 market leaders all earning a pre-tax return on investment of less than ten percent.

Hergert (1984) carried out a study on the relationship between Market Share and Profitability of listed companies in United States of America. The researcher used the Pearson correlation and linear regression to analyze the data of a sample of 65 listed companies for the year 1979 to 1983. The study revealed that there is non-linear relationship between Market Share and Profitability. He concluded that the alleged association between Market Share and Profitability is not strong enough to warrant strategic marketing and management decisions to press for market leadership.

Jacobson (1988) examined the market share effect on profitability of listed South Africa Companies. The researcher used simple and multiple regressions to analyze data on a sample size of 95 listed companies for the period 1983 to 1987. The study revealed that there is no relationship between Market Share and Profitability. He argued that the dominant explanation of Market Share and Profitability relationship ignores factors such as management skills, company culture, access to scarce resources and luck. He also argued that strategic intentions, such as investing to expand market share cannot results in abnormal profits under equilibrium because companies will continue to invest until the return premium diminishes.

3. METHODOLOGY

3.1. The Study Variables

The primary purpose of this study is to investigate if any, relationship exists between market share and profitability in the banking sector of Nigeria. Using a modified model of market share (the total value of customers' deposits with banks and the total value of credits extended to loan customers by banks) to study their impact on profitability in the Banking Sector of Nigeria. Two components of market share identified as the independent variables are Deposits made by customers (DC) and Loans granted to customers (LC). The dependent variable which is banks' profitability was measured by the returns due to shareholders, profit after tax (PAT).

3.2. Measure of Profitability

There are many profitability measures that can be used. Previous studies had widely used return on assets (ROA); return on equity (ROE) and return on capital employed (ROCE) also known as return on investment (ROI). Szymanski et al. (1993) stated that ROI and ROA can be viewed collectively. While these measures of profitability are widely accepted as reliable and strong measures of profitability they have certain shortfalls. Most commonly, that they are based on accounting information and thus accounts for neither the time value of money nor the investment risks faced by the shareholders. Selling and Stickney (1989) viewed ROA as a measure of a firm’s success in using assets to generate profit without looking at how the assets were financed. They observed that the behavior of ROA is affected by both operating leverage and product life-cycle phenomena, and that firms with high proportion of fixed cost usually experience greater variability in their ROAs than firms with lower levels of leverage. They concluded that as products move through their life cycles, their ROAs should move in a north-
easterly direction. Return on assets or return on investment is a measure of profit per round of assets invested in the firm (Firer et al., 2008). It can thus be classified as an indicator of operating performance. Stead (1995) comments that return on capital employed which is the return on the assets less general credit received by the company, is the essential prerequisites for profitability. Unless this is a healthy rate of return, the return on the equity investment cannot really be satisfactory whatever degree of debt gearing the company has. Firer et al. (2008) uses the following equation; \( \text{ROA} = \frac{\text{Profit margin}}{\text{Total assets}} \). However, this study adopted profit after tax as proxy for profitability as this measure take into account the interest of all stakeholders after paying tax due to government.

The study involves ten commercial banks out of the sixteen listed on the Nigerian Stock Exchange (NSE). The banks include: Access Bank Plc, Diamond Bank Plc, First Bank of Nigeria Plc, First City Monument Bank Plc, GT Bank Plc, Sterling Bank Plc, Union Bank of Nigeria Plc, United Bank for Africa Plc, Wema Bank Plc and Zenith Bank Plc. The study used annual data of the banks for the period 2003 to 2011, collected from the Nigerian Stock Exchange (NSE). However, these ten banks were selected for the study due to availability of their Annual Report and Accounts in the Nigerian Stock Exchange for the period 2003 to 2011.

A multiple regression analysis was conducted with profitability (PAT) as the dependent variable and independent variables are Deposit Customers (DC) and Loan customers (LC); two components of market share.

### 3.3. Model Specification

A regression model was developed to capture the inter-relationship between the two components of Market Share and Profitability as follows:

\[ \text{PAT} = f(\text{DC, LC}) \]

Therefore the regression equation is given as follows:

\[ \text{PAT} = B_0 + B_1 \text{DC}_t + B_2 \text{LC}_t + \text{U}_t \]

The regression equation can further be expressed as follows:

\[ Y = B_0 + B_1 X_1 + B_2 X_2 + U_t \]

Where,

- \( Y \) represents profit after tax (PAT) that is the measure of the profitability of banks, the dependent variable
- \( X_1 \) represents Deposit Customers (DC) defined as the total value of depositors’ funds held by banks, one component of market share
- \( X_2 \) represents Loan Customers (LC) defined as the total value of loans granted to customers by banks, the second component of market share
- \( B_0 \) is the constant
- \( B_1 \) and \( B_2 \) are the unknown coefficients to be estimated
- \( U_t \) is the error term
- \( t \) is the time period

### 3.4. Analysis Technique

The multiple regression technique was used for the analysis. The multiple regression technique possesses the desirable qualities of un-biasness, consistency and efficiency. The statistics tested for in the regression equations for the variables includes coefficient of determination (\( R^2 \)), T- test, F-test and Durbin Watson (DW) statistics. The Statistical Package for Social Sciences (SPSS) windows version 19 is the statistical computer software used to run
the analysis. Where, Coefficient of Determination (R²) measures the explanatory power of the independent variables on the dependent variable.

Student T-Test: Measures the individual significance of the estimated independent variables.
F-test: Test for the overall statistical significance of the models. It is used to generalize the hypotheses.
Durbin Watson (DW) Statistics test. This statistics tests for the auto correlation of the independent variables in the regression equation.

4. FINDINGS AND DISCUSSION

Table: 1 Average aggregate value of profitability (PAT) and market share (DC & LC) of selected 10 banks in Nigeria for the period 2003-2011.

<table>
<thead>
<tr>
<th>Year</th>
<th>PAT (£ billions)</th>
<th>DC (£ billions x10)</th>
<th>LC (£ billions x10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>30</td>
<td>77</td>
<td>28</td>
</tr>
<tr>
<td>2004</td>
<td>37</td>
<td>95</td>
<td>39</td>
</tr>
<tr>
<td>2005</td>
<td>44</td>
<td>121</td>
<td>58</td>
</tr>
<tr>
<td>2006</td>
<td>57</td>
<td>249</td>
<td>93</td>
</tr>
<tr>
<td>2007</td>
<td>69</td>
<td>559</td>
<td>142</td>
</tr>
<tr>
<td>2008</td>
<td>98</td>
<td>542</td>
<td>257</td>
</tr>
<tr>
<td>2009</td>
<td>102</td>
<td>620</td>
<td>393</td>
</tr>
<tr>
<td>2010</td>
<td>122</td>
<td>653</td>
<td>413</td>
</tr>
<tr>
<td>2011</td>
<td>144</td>
<td>797</td>
<td>464</td>
</tr>
</tbody>
</table>

Source: Annual Report and Accounts of selected banks collected from Nigerian Stock Exchange (NSE) for the period 2003 to 2011.

4.1. Interpretation

Table 1 above depicts the average aggregate value of market share in terms of tens of billions of Nigerian Naira (£): represented by Deposit customers (DC) and Loan customers (LC) of banks. These as independent variables were matched against the trend of profitability (PAT) of banks expressed in billions of Nigerian Naira (£) of the ten banks selected for the study for the years 2003-2011.

Table: 2 Regression result of profitability (PAT) on DC and LC of 10 selected banks in Nigeria 2003-2011

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>B</td>
<td>Beta</td>
</tr>
<tr>
<td>constant</td>
<td>21.818</td>
<td>4.397</td>
</tr>
<tr>
<td>DC</td>
<td>.129</td>
<td>.041</td>
</tr>
<tr>
<td>LC</td>
<td>.027</td>
<td>.064</td>
</tr>
</tbody>
</table>

Source: SPSS version 19 for windows.
a. Dependent variable: PAT

R² = 0.983
R² (Adj.) = 0.977
Sig. F Change = .000
DW = 1.795
Table 2 above shows that the total value of depositors’ funds held by banks (DC) has a positive influence on profitability (PAT), that is, + 0.129. Also, the total value of loans granted by banks to customers (LC) has a positive impact on profitability (PAT), that is, + 0.027.

Overall, the explanatory power of the independent variables (that is, market share) on the dependent variable (profitability), otherwise known as the coefficient of determination (R²) at 0.983 or 98% shows that the regression model is a good fit.

The summary of the regression results revealed that there is a positive relationship between Market share and Profitability. From the result it was found out that all the independent variables are positively related to the dependent variable. Thus the two hypotheses stated above are rejected.

The explanatory power of the model as informed by the R² 0.983 or 98% is statistically significant combined with the adjusted R² of 0.977 or 97% demonstrates that the regression model is a good fit. This means that about 97% of the variation in the dependent variable (PAT) is jointly explained by changes in the behavior of DC and LC.

The Durbin Watson (DW) value of 1.795 falls within the acceptable range of autocorrelation. The coefficient of determination – adjusted R² shows that the independent variable (market share) explained approximately 97% of the variation is profitability.

Deposit customers (DC), has statistically positive relationship with the profitability of banks in Nigeria. That is, a unit increase in the value of customer deposits will lead to .129 units increase in the profitability of banks in Nigeria.

Also, Loan customers (LC) has statistically positive relationship with profitability; that is, a unit increase in the value of loans advanced to customers will lead to .027 units increase in the profitability of banks in Nigeria. This result does conform to a prior expectation because theoretically performing loans are expected to be positively related to banks’ profitability through efficient management and increased output.

However, this calls for an efficient management of the banks’ liquid and risk assets as well as the deposits/loans ratio in line with prudential requirements by the managers of banks in Nigeria.

5. CONCLUSION AND RECOMMENDATIONS

This study examined the relationship between Market share and Profitability of Banks in Nigeria. Following the statistical analysis of the data, the findings revealed that market share has a statistically positive relationship with profitability of banks in Nigeria.

The results of this study supports both theoretical and empirical evidence of prior studies that returns generated from deposits by bank customers (market share) impact positively on the profitability of banks in Nigeria Leverty (2001); Venkatraman and Prescott (1990) andBuzzel et al. (1975). Also, the researchers concluded that loans granted to bank customers are capable of increasing the profitability of banks in Nigeria. Whereas, this study employed the multiple regression technique for the analysis of data, other modeling methods such as MARS, CMARS, RCMARS, etc could be used in future studies.

From the findings and conclusion of this study, it is the opinion of the researcher to make the following recommendations:

i. Management of banks should understudy their market share position; consider what their strengths and weaknesses are, and what drives profitability in the industry.

ii. Management of banks should ensure that before adoption of market strategy the context of their business environment should be carefully studied to establish if the desired step or option is an appropriate strategy to be successful in the industry.
iii. Management of banks should see quality of management as an important part of market share effect because superior management causes banks to operate at a higher level of effectiveness and efficiency that will in turn improve profitability, paying close attention to the efficient management of risk assets as well as loans/deposit ratio. That bank managers pay close attention to their deposit liabilities and risk exposure to loan customers. Consequently, the impact of the efficient management of bank risk assets and profitability of the banking sector in Nigeria can be a subject of future study.

iv. Also, the study of the relationship between market share and profitability can be extended to cover other sectors like the foods and beverages, manufacturing, oil and gas, etc, to be able to make a general statement on the subject for the Nigerian economy.

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