Related Party Transaction and Income Smoothing in Nigerian Listed Commercial Banks: The Moderating Effect of Capital Adequacy

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Authors’ contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

There has been increasing concern over the effect of related party transactions on the credibility of reported earnings. This is more so in sectors that are associated with opaque practices such as the banking industry where insider loans sometimes degrade the quality of loan assets. This study investigated the association between related party transaction (measured by deposits from related parties) and income smoothing, and evaluated the moderating influence of capital adequacy on the relationship. The study was premised on signalling theory and institutional theory, and data from eleven listed commercial banks in Nigeria for nine years were analysed using Pearson correlation and multivariate regression model. Results showed that deposits from related party were positively and significantly associated with income smoothing, suggesting that as deposits from related party increase, the level of income smoothing also increases. Further results showed that capital
adequacy significantly moderated this relationship by changing the direction of the relationship from positive to negative. The findings of this study add to the scanty literature on related party transactions (RPT) and income smoothing in Nigeria, and provide first-time evidence on the effect of regulatory capital on the relationship between related party transaction and income smoothing. The results also have implication for regulators, especially those in search of solutions to the problem of poor quality earnings.

Keywords: Related party transaction; deposit from related party; income smoothing; capital adequacy.

1. INTRODUCTION

Investors (and potential investors) are usually interested in the revenue and profitability of businesses as these numbers affect the value of the firm [1]. This explains why security analysts usually focus on earnings in their financial analyses and forecasting [2]. Earnings are important to banks and regulators because banks are required to maintain a minimum regulatory capital and regulatory capital includes accounting profits. Banks therefore face regulatory monitoring that is explicitly tied to accounting numbers. The quality of earnings reported in financial statements is one of the most important indicators of capital market efficiency in any economic jurisdiction [3].

Earnings may be volatile, swinging from positive values to losses, or relatively stable from year to year. Investors are usually wary of volatile earnings, and negatively value firms with such income profile [4]. To avoid this situation, managers may alter accounting estimates using the flexibility inherent in accounting standards to choose from a set of accounting methods, and in so doing report a smoothed income stream [5]. Such actions usually may also present the managers in good light before other stakeholders who will perceive the management as effective. Alteration of accounting numbers may also be undertaken by managers to satisfy regulatory requirements [5], and to avoid decline in periodic earnings [6-8]. Whatever the motivation, manipulation and adjustments of fluctuations in income numbers present a false picture of the economic reality of the entity. To protect investors and ensure that financial reports are not misleading, regulators usually require that financial reports represent faithfully the underlying transactions of the reporting entity.

In Nigeria, the major banking regulator, the Central Bank of Nigeria (CBN) has implemented several reforms to improve the stability and service quality of Nigerian banks. CBN also wields the regulatory hammer over banks that fail to comply with its reporting requirements. For instance, the Central Bank of Nigeria (CBN), on the 29th of April 2021, removed of the board of directors of Nigeria’s oldest bank, First Bank of Nigeria, as well as that of its holding company, FBN Holdings Plc on grounds of regulatory infractions, stating that the bank’s Capital Adequacy Ratio (among other fundamentals) was in serious financial conditions. Related party transactions in the banks were among the factors associated with the bank’s poor performance [9].

IAS 24 defines related-party transaction ((RPT) as a transfer of resources, services, or obligations between related parties, regardless of whether a price is charged or not [International Accounting Standards Board [10]. IAS 24 defines a related party as a person or organisation that is related to the reporting entity. Based on the examples in IAS 24, Mirza and Holt [11] stated that a person or a close member of that person’s family is related to the reporting entity if that person: (a) has control or joint control over the reporting entity, (b) has significant influence over the reporting entity, (c) is a member of the key management personnel of the reporting entity or the parent of the reporting entity.

Prior studies on related party transactions (RPTs) focused on the effect of such transactions on firm financial performance and how corporate governance can be used in curbing RPTs [12-14]. A limited number of studies examined and found a link between RPTs and earnings management (or earnings quality) [15,16]. In Nigeria, empirical literature on RPTs in the banking industry is limited [17], and available studies have not considered how capital adequacy affects the relationship between RPT and other variables. The current study fills gap in literature by examining how related party transaction is associated with income smoothing, and how capital adequacy moderates this relationship.
2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1 Related Party Transaction and Income Smoothing

In the view of IAS 24, a related party refers to a person or entity that is related to the reporting entity. To assist the identification of such a party, the standard provides some guidance. (a) A person or the person’s close family member is related to a reporting entity when the person can exercise control or significant influence over the reporting entity; or where the person holds a managerial position in the entity or its affiliate. (b) An entity is regarded as a related party if the entity is a fellow subsidiary, associate or joint venture with the reporting entity, or one of them is a subsidiary, associate or joint venture of the other; or one entity is a provider of retirement benefit plan of the other; or provides key management to the other entity. The standard defines close family members as ‘those family members who may be expected to influence, or be influenced by that person in their dealings with the entity’. Such persons include the person’s spouse, children, dependents and domestic partner.

Related party relationships and transactions between related parties are a normal feature of commerce and business. Gordon et al. [18] carried out an analysis of related party transactions using 112 publicly listed firms in the U.S. operating mainly in the manufacturing, wholesale and retail industries in 2000 and 2001. The analysis revealed 878 RPTs in 224 firm-years thereby confirming the pervasiveness of RPTs in the sampled firms.

Transactions between related parties are diverse and sometime complex. They include but not limited to sales and acquisitions of assets, sales of goods and services, cash payments, loans and loan guarantees, borrowings, key management personnel compensation and directors’ remuneration, rendering or receiving of services, rental of software, agency arrangements, leasing arrangement, transfer of research and development or shared R&D arrangements, licence agreements, and overhead reimbursements, purchase of contract services from related parties including: management, legal, marketing, real estate, accounting, investment banking and other. An example of related party is the deposit received by a bank from related parties. Such deposits include demand, savings, time and term deposits. In a bank’s financial statement such deposits are liabilities and interest is paid on them. Banks mobilize deposits for onward lending to the deficit unit so as to promote economic growth and earn income for the maximization of shareholders’ wealth.

Ebirien et al. [19] have documented that related party transactions affects market valuation in Nigeria. Related party transactions can be used as a vehicle for income smoothing so as to present the firm as one that should be desired by investors [20]. Income smoothing, a process of managing earnings so as to minimize long run variability in earnings [21], thrives because of information asymmetry between managers and investors [22]. Given that earnings constitute a measure of managerial capability and firm performance [23], and investors will prefer smoother earnings as they will lead to less cash flow variability [4], managers have incentive to smooth income. Income smoothing is motivated by the desire to manipulate earnings to portray the reporting entity as one with consistent earnings and thereby convey a favourable perception of the entity to stakeholders [24]. The favourable signal conveyed by income smoothing is expected to attract better market valuation for the reporting entity. Signalling theory explains that managers of firms performing well will have incentive to report the good news to stakeholders, and managers of firms not performing so well will also want to present a favourable position to stakeholders so that their managerial capability will not be questioned [25]. Studies that examined the association between related party transaction (RPT) and earnings quality (EQ) are few, and they present inconsistent results. The inconsistent evidence provided by prior studies is possibly because of differences in the proxies used in measuring RPT and EQ. El-Halaly [16] studied the relationship between RPT and EQ in Greece but found no significant association between the two variables, while Chen et al. [15] reported a positive association between RPT and EQ when RPT is related to product or sales.

Given the foregoing, the following hypothesis was formulated.

Ho1. Deposits from related parties (DEPOR) are positively related to income smoothing (INCS) of commercial banks in Nigeria.
2.2 Related Party Transaction, Income Smoothing and Capital Adequacy

Banks in Nigeria have been associated with producing attractive financials that are not supported by their underlying economic realities. While they reported positive earnings, CBN investigations revealed that some of these banks had capital adequacy ratio issues, significant negative capital, high non-performing loans, and various corporate governance concerns [26]. Related party transactions (such as loans to top board members) have contributed substantially to regulatory reprimands; including the dissolution of governing board [9]. To enhance the quality of financial reporting of Nigerian banks, the Central Bank of Nigeria (CBN) imposes a number of regulations on the determination of key performance indicators. One such key indicator is capital adequacy ratio. The CBN determines how a bank should compute capital adequacy ratio (CAR) at both tier 1 and tier 2 levels. At the Tier 1 level, CAR is determined by adding to share capital the amount of share premium, statutory reserve, SMEES reserve, retained earnings; and deducting deferred tax/goodwill, and investment amount in subsidiaries. For Tier 2 CAR, the bank must record reserve from fair value adjustments, add to it other borrowings, deduct investment in subsidiaries, and add assets classified as risk-weighted. Banks are constrained to use the format prescribed by the CBN to determine their capital adequacy ratios as the banking law in Nigeria empowers the CBN to license banks, regulate their activities and penalize (and even de-license) erring banks. When an entity can exert pressure on firms to adhere to certain rules, changes in the behaviour of the firms will substantially depend on actions of the regulator. Coercive institutional theory suggests that a powerful entity on which other entities depend can exert pressure on the dependent organisations to conform to certain rules and practices [27]. In context of a regulator and the regulated, coerced behavioural changes (coercive isomorphism) will occur in the activities and practices of the regulated based on the actions of the regulator. Given the powers of the CBN, banks in Nigeria must obey the guidelines issued by the CBN. One of the areas regulated by the CBN (the apex bank in Nigeria) is the determination of what constitutes capital adequacy in the Nigerian banking system. Accordingly, the computation of capital adequacy ratio must conform to the dictates of the apex bank to preclude deceptive presentation of accounting numbers. A study on Nigerian banks reported a correlation between income smoothing and capital adequacy [28]. In a foreign study, Lim and Yong [29] who examined how regulatory pressure based on Basel II rules are associated with income smoothing, reported that income smoothing was greater for low-capital banks than for high-capital banks. Given the above discussion and research evidence, the second hypothesis was formulated as follows:

Ho2. The association between deposits from related parties (DEPOR) and the income smoothing (INCS) of listed commercial banks in Nigeria is moderated by capital adequacy (CAPAD).

3. METHODOLOGY

The study adopted the ex-post facto research design - a type of research design which focuses on after-the-fact events and utilizes data that were existing at the time of investigation in analysis [30]. In this design, the variables and data used are not under the control of the researcher since they were in existence before the research was conducted. Financial data of banks are typically published in their financial statements. The study manually collected data from the annual reports of the sampled banks from 2012 to 2020. The annual reports were sourced from the Nigerian Exchange Group in Port Harcourt and from the websites of the sampled banks. Banks’ financial statements are subjected to a battery of regulations to ensure that users of such reports are not misled. Thus the instrument of this research (the published annual reports) is valid. The financial statements used are audited, making the instrument reliable. The study introduced a control variable, capital adequacy, which was selected based on prior studies which showed that the variable is a determinant of income smoothing of firms [31]. The CBN mandates banks to maintain a minimum capital adequacy ratio. Capital adequacy enables banks to ensure sustained operations and indicates the financial power and soundness of the bank. Banks with capital adequacy ratio below the set benchmark may be vulnerable to minor financial shocks during a financial crisis and may face possible failure. Inadequate regulatory capital is capable of stirring regulatory sanctions and possible interventions with drastic consequences for the firm. This provides strong incentive for banks to manage earnings to achieve regulatory capital.
Table 1. Definition of Variables in the Model

<table>
<thead>
<tr>
<th>Notation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCS</td>
<td>Income smoothing</td>
</tr>
<tr>
<td>DEPOR</td>
<td>Deposits from related parties</td>
</tr>
<tr>
<td>CAPAD</td>
<td>Capital adequacy</td>
</tr>
<tr>
<td>DEPOR*CAPAD</td>
<td>Interaction term</td>
</tr>
<tr>
<td>ε</td>
<td>Error term</td>
</tr>
<tr>
<td>δ₀</td>
<td>Intercept</td>
</tr>
<tr>
<td>λ₁, λ₂, λ₃</td>
<td>Regression coefficients</td>
</tr>
</tbody>
</table>

Source: Adapted from George [17]

Table 2. Measurement of Variables

<table>
<thead>
<tr>
<th>Variable Notations</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCS</td>
<td>The negative value from standard deviation of income scaled by the standard deviation of cash flows from operations [33]</td>
</tr>
<tr>
<td>DEPOR</td>
<td>Natural logarithm of total deposits from related parties.</td>
</tr>
<tr>
<td>CAPAD</td>
<td>Capital adequacy ratio as disclosed in the audited financial statements.</td>
</tr>
</tbody>
</table>

Source: Adapted from George [17]

[31,32]. Related party transactions provide a ready means of managing earnings.

The population for this study is the fifteen commercial banks listed in the Nigerian Exchange Group as at 31st December 2012 through 31st December to 2020. Not all the commercial banks traded continuously throughout the study period as some banks such as Skye bank failed within the period. After eliminating such banks, the final sample was made up of 11 banks for nine years, giving rise to 99 firm year observations. Data collected from the sampled firms were analysed using Pearson correlation and moderated regression analysis.

The regression model is stated below.

\[
\text{INCS}_{it} = \delta_0 + \lambda_1 \text{DEPOR}_{it} + \lambda_2 \text{CAPAD}_{it} + \lambda_3 \text{DEPOR}^*\text{CAPAD}_{it} + \epsilon_{it}
\]

Where, for bank at year \(it\), the variables are defined as in Table 1.

The measurement of the variables for bank at year it is as presented in Table 2.

4. RESULTS

4.1 Correlation of Variables and Test of Hypothesis 1

Table 3 presents the correlations of the variables in the study. The two key variables of the study are income smoothing (INCS) and deposits from related parties (DEPOR). From the Table, the relationship between income smoothing (INCS) and deposit from related parties (DEPOR) is positive and significant at the 10 per cent level. What this means is that as deposits from related party (DEPOR) increases, income smoothing (INCS) in Nigerian banks also increases. Thus, hypothesis 1 (which proposes a positive relationship between the two variables) is supported.

The coefficient of the correlation between income smoothing (INCS) and capital adequacy (CAPAD) is approximately 20 per cent. The relationship is positive and significant at the 5 per cent level. The relationship between deposit from related parties (DEPOR) and capital adequacy (CAPAD) is similarly positive and significant at the 5 per cent. Contrarily, the relationship between income smoothing (INCS) and depcap (the interaction term in the study) is negative and significant, suggesting that the interaction between capital adequacy (CAPAD) and deposit from related parties (DEPOR) may be negatively associated with income smoothing. The coefficient of the correlation between capital adequacy (CAPAD) and depcap (the interaction term) is very high at 99 per cent. This suggests the existence of multicollinearity. This situation is usually not uncommon when two predictor variables are multiplied to create an interaction term. Multicollinearity in this setting is not considered a serious statistical problem [34,35].
Table 3. Pearson Correlations

<table>
<thead>
<tr>
<th></th>
<th>INCS</th>
<th>DEPOR</th>
<th>CAPAD</th>
<th>depcap</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCS</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>0.192*</td>
<td>0.199**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.057</td>
<td>0.048</td>
<td>0.054</td>
</tr>
<tr>
<td>DEPOR</td>
<td>Pearson Correlation</td>
<td>0.192*</td>
<td>1</td>
<td>0.252**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.057</td>
<td>0.012</td>
<td>0.173</td>
</tr>
<tr>
<td>CAPAD</td>
<td>Pearson Correlation</td>
<td>0.199**</td>
<td>0.252**</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.048</td>
<td>0.012</td>
<td>0.000</td>
</tr>
<tr>
<td>Depcap</td>
<td>Pearson Correlation</td>
<td>-0.194*</td>
<td>-0.138</td>
<td>-.989***</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.054</td>
<td>0.173</td>
<td>0.000</td>
</tr>
<tr>
<td>N</td>
<td>99</td>
<td>99</td>
<td>99</td>
<td>99</td>
</tr>
</tbody>
</table>

*, **, *** Correlation significant at the 0.10, 0.05 and 0.01 level (2-tailed), respectively

Table 4. Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error</th>
<th>R Sq Change</th>
<th>F Change</th>
<th>Sig. F Change</th>
<th>Durbin Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.292</td>
<td>0.085</td>
<td>0.056</td>
<td>0.045</td>
<td>0.085</td>
<td>2.948</td>
<td>0.037</td>
<td>1.861</td>
</tr>
</tbody>
</table>

Predictors: (Constant), depcap, DEPOR, CAPAD; Dependent variable: INCS

Table 5. Coefficients from regression analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>-0.845</td>
<td>0.026</td>
<td>-</td>
<td>0.000</td>
</tr>
<tr>
<td>DEPOR</td>
<td>0.008</td>
<td>0.004</td>
<td>0.355</td>
<td>32.167</td>
</tr>
<tr>
<td>CAPAD</td>
<td>-0.179</td>
<td>0.125</td>
<td>-1.589</td>
<td>2.1630.033</td>
</tr>
<tr>
<td>Depcap</td>
<td>-0.027</td>
<td>0.017</td>
<td>-1.717</td>
<td>1.4280.157</td>
</tr>
</tbody>
</table>

Dependent variable: INCS

4.2 Regression Analysis Results and Test of Hypothesis 2

Tables 4 and 5 present the results from the regression of income smoothing (INCS) on the independent variables (DEPOR, CAPAD and depcap). The model summary in Table 4 shows that the model fits the data with a significance level that is less than five per cent, although the level of adjusted R square is low. The low R square is not a problem since the basis of decision making is the coefficient of each predictor. The Durbin-Watson statistic of 1.861 indicates that there is no statistical problem with autocorrelation. Given that the model fits the data, the model is therefore useful for statistical analysis.

Table 5 presents the coefficients of the predictors in the study. The coefficient of DEPOR is positive and statistically significant at 5 per cent. This means that deposits from related parties (DEPOR) is positively associated with income smoothing (INCS), suggesting that income smoothing increases with deposits from related parties.

The coefficient of capital adequacy (CAPAD) is negative, and not significant statistically. Similarly, the coefficient of the interaction term (depcap) is negative and statistically insignificant. The coefficient of the interaction term (depcap) is used to determine the effect of the moderator (CAPAD) on the relationship between income smoothing (INCS) and deposit from related parties (DEPOR). A moderator affects the size of a relationship between two variables, and/or the direction of the relationship between the variables [36]. Given that the coefficient of DEPOR (deposit from related parties) is positive and significant, while the coefficient of the interaction term (depcap) is negative (though statistically insignificant), it is reasonable to conclude that capital adequacy moderated the relationship between deposit from related parties (DEPOR) and income smoothing (INCS), because there is change in the direction of relationship between DEPOR and INCS from positive to negative, and there is change in the
level of significance. While there was a positive and significant relationship between deposit from related party (DEPOR) and income smoothing (INCS), the introduction of the moderator resulted in a negative relationship between the two variables (as shown by the coefficient of the interaction term, depcap). Given that the p value of depcap (the interaction term) is more than the 10 per cent, the extent of negative moderation is not statistically significant. However, given the definition of a moderator by Koeske [36], it is clear that capital adequacy moderated the relationship between deposit from related party (DEPOR) and income smoothing (INCS). Accordingly, Hypothesis 2 which states that capital adequacy moderates the relationship between deposit from related parties (DEPOR) and income smoothing (INCS), is supported.

5. DISCUSSION

Results from test of hypothesis 1 showed that deposits from related parties (DEPOR) and income smoothing (INCS) are positively and significantly correlated. r(97) = .19, p=.057. This means that as deposits from related party (DEPOR) increases, there will be increase in the level of income smoothing (INCS) by commercial banks in Nigeria. The possible reason for the increase in income smoothing may be because managers would like these depositors (and investors generally) to have confidence in the management of the bank. This is in consonance with signaling theory which proposes that a firm would like to send a favourable signal of its performance to obtain desirable perception of its stakeholders. Income smoothing can be used as a vehicle for achieving such favourable perception [24]. Investigations by the CBN have revealed that some Nigerian banks reporting huge profits were actually in grave financial position, such that the going concern assumption would be questionable for some of them [26]. Since RPT is a pervasive business practice [18], it is not surprising that it is positively correlated with income smoothing in Nigerian banks. The result of this study is not consistent with related studies such as El-Halaly [16] who found no significant association between RPT and earnings quality, and Chen et al. [15] who reported a positive association between RPT and earnings informativeness. The inconsistency in the findings may be attributed to the earnings quality variables used.

Results from test of hypothesis 2 showed that the positive relationship between deposit from related parties (DEPOR) and income smoothing (INCS) was moderated by capital adequacy, which turned the relationship from positive, although the extent of negative reversal is not statistically significant as shown by the coefficient of the interaction term (depcap). As noted above, a moderator is a variable that changes the magnitude and/or direction of the relationship between two variables. Accordingly, the change in relationship between deposits from related parties (DEPOR) and income smoothing (INCS) from positive to negative shows that capital adequacy effectively moderated the relationship between the two variables. Coercive institutional theory suggests that an entity which has authority over other entities can exert pressure on the other entities to conform to certain rules and practices. Capital requirements imposed on banks by the CBN help to ensure that each bank has sufficient resources to absorb losses. In complying with CBN’s capital rules, the need for reporting reliable income numbers to ensure stability becomes more compelling. This consciousness could degrade the incentive to smooth income. This situation explains the moderating effect of capital adequacy on the relationship between the RPT and income smoothing. This study reinforces the need for strict banking regulation, given the experience of the banking industry in Nigeria where poor quality reporting, inadequate capital and poor governance have misled investors and led to bank failure. The study also fills gap in literature as studies on the association of RPT and income smoothing are very few.

6. CONCLUSION AND RECOMMENDATION

This study examined the relationship between deposit from related parties (DEPOR) and income smoothing (INCS) in Nigerian banks, using ninety-nine firm-year observations from annual reports of eleven listed commercial banks over a period of nine years, 2012 to 2020. The study also considered the moderating effect of capital adequacy on the relationship between deposit from related parties (DEPOR) and income smoothing (INCS) of the sampled firms. Two hypotheses were formulated and tested using Pearson correlation and moderated regression analysis. Findings showed a positive association between DEPOR and INCS in Nigerian banks. The study also revealed that capital adequacy moderated the relationship between DEPOR and INCS by changing the direction of the relationship. Accordingly, the
study concluded that income smoothing in Nigerian banks is associated with deposits from related party, possibly to portray managers as using related party resources effectively. This is in consonance with signaling theory where firms convey signals to stakeholders to obtain favourable perception and support. The study also concluded that complying with capital adequacy requirements moderates the positive relationship between deposits from related party and income smoothing, confirming coercive institutional theory which states that regulators can use the authority available to them to influence the behaviour of regulated firms. The implication of these findings is that bank regulators should develop and enforce policies that will ensure that RPTs are not misused, and reported income is represented by the underlying economic conditions of banks in Nigeria.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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