Evaluating profitability strategies and the determinants of the risk performance of sectoral and banking institutions

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EVALUATING PROFITABILITY STRATEGIES AND THE DETERMINANTS OF THE RISK PERFORMANCE OF SECTORAL & BANKING INSTITUTIONS

Purpose

This study helps in evaluating the need to incorporate the Loan Loss provisions and risk measures in order to examine the repercussions on advancing approach and profitability.

Design/methodology/approach

The study investigates the effect of explanatory variables on profitability and advancing approach of the banks. The variables used in this study were determined, based on the review of relevant literature and established according to the availability of data for measurement purposes. Inspired by previous research, Hausman test is used in this study to determine whether a random or fixed effects generalized least squares model is best. The linear regression model is applied to strongly balanced panel data obtained from the ten commercial banks.

Findings

The findings demonstrates that Nigeria Banking sector considers LLPs in terms of its decision making of Advancing approach, while proper inclusion of Credit, Market and Operational risk is more important for South Africa's banks rather than the maintenance of Provisions.

Keywords: Profitability strategies; bank sector; performance management, experimental studies; risk management; business administration; financial research;

JEL codes : F29; F36; G19 ; G29 ; M00; P00.

1. Introduction

Profitability is essential for a well-functioning banking sector which leads to a progressive and well-functioning country with the aid of economic growth. There is no doubt that a well-established and flexible banking system is one of the leading pillars for economic growth of any country (Inequality, Punjab, View, & Tahir, 2015). This study investigates the influence of Risks and Loan Loss Provisioning on the profitability and advancing approach of commercial banks in Nigeria and South Africa for the period 2011-2015. This exploratory study is supported by the factual finding from two countries by considering some variables in the banking sector. Although both countries have a different culture, growth rate, inflation rate, interest rate and exchange rate still this work is used to identify significant factors that demand to be combined for well-functioning of these critical institutions.

This study is mainly motivated by the fact that Loan Loss Provisions do impact the Profitability of Banks as also studied in the previous research (Inequality et al., 2015) in which authors concluded that Loan Loss provisions have a negative relationship with the Profitability. Basically, LLP's impact negatively the income and so Profitability ratio tends to decrease mechanically: the highest they are, the lowest is profitability. But the avenue which provoked towards this study was to understand the relationship of Loan Loss provision with risk and its impact on Profitability and resultant consequences on Advancing Approach of banks. And as far as policymakers are concerned they can correlate the provision policies and risk measures[1] adopted by the foreign banks as a guidance and benchmark to stabilize and further strengthen the banking sector of our economy, Nigeria.

Loan Loss provisions are a buffer to preserve a bank's solvency by absorbing current and estimated future credit losses in its business (Cummings & Durrani, 2016). State Bank of Nigeria governs banking sector of Nigeria (SBP), and all scheduled banks are bound to follow the guidelines prescribed. The Prudential Regulations guidelines are mentioned in SE-8: Classification and Provisioning for Loans/Advances (Sme Sbp, 2011). An Adequate level of provisions for possible loan losses is also required in the banking sector of South Africa. The Central Bank of South Africa (CBSA) is responsible for maintaining monetary and financial stability in the Kingdom of South Africa and is a public corporate entity established by the Central Bank of South Africa and Financial Institutions Law 2006. It was created on 6th September 2006. It is also the single integrated regulator of South Africa's financial industry ("Central Bank of South Africa -South Africa," n.d.).

Capital adequacy ratios are a measure of the amount of a bank's capital expressed as a percentage of its risk-weighted credit exposures (Reserve Bank Of New Zealand, 2007). As per CBB guidelines ("Central Bank of South Africa -South Africa," n.d.) Capital Adequacy

[1] There are five principal risk measures, and each measure provides a unique way to assess the risk present in investments that are under consideration. The five measures include the alpha, beta, R-squared, standard deviation and Sharpe ratio. Risk measures can be used individually or together to perform a risk assessment. When comparing two potential investments, it is wise to compare like for like in order to determine which investment holds the most risk. The risk of loss resulting from inadequate internal procedures or staff, systems or external events (includes legal risk, but excludes strategic risks or reputation as well as indirect losses). In our methods, the exposure indicator is total gross income, which is not totally satisfactory, but contra-cyclic. In all cases, the banks in our sample are equipped with a database and set up a surveillance and risk management function.

Ratio (CAR) components must meet or exceed the following minimum ratios relative to total risk-weighted assets:

(a) CET1 must be at least 6.5% of risk-weighted assets at all times;
(b) T1 Capital must be at least 8% of risk-weighted assets at all times;
(c) Total Capital (T1 Capital plus T2 Capital) must be at least 10% of risk-weighted assets at all times;
(d) In addition, conventional bank must meet the minimum Capital Conservation Buffer (CCB) requirement of 2.5% of risk-weighted assets. The CCB must be composed of CET1 and so this gives an aggregate 9% CET1 including the CCB minimum capital requirement;
(e) A minimum 10.5% T1 Capital Adequacy Ratio including the above CCB requirement; and
(f) A 12.5% minimum Total Capital Adequacy Ratio including the above CCB requirement.

State Bank of Nigeria (SBP) requires Banks to maintain regulatory capital for credit, market and operational risks which should at least be equal to 10% of total risk-weighted assets. As per SBP BPRD (Bank Policy and Regulation department) Circular no 06 dated August 15, 2013, wherein SBP has asked banks/DFIs (Development finance institutions) to implement Basel III reforms issued by the Basel Committee on Banking Supervision (BCBS) to further strengthen the capital related rules ("State Bank of Nigeria," n.d.).

This study helps in evaluating the need to incorporate the Loan Loss provisions and risk measures to examine the repercussions on advancing approach and profitability. The findings demonstrate that Nigeria Banking sector considers LLPs regarding its decision making of Advancing approach, while the proper inclusion of Credit, Market, and Operational risk is more important for South Africa's banks rather than the maintenance of Provisions. Moreover, the Credit risk proves to be a more needed factor of consideration for Nigerian instead of the South African Banks. This is an answer to the strong economy of South Africa as compared to Nigeria and more chances of default faced by Nigerian banks. The study contributes researchers and academicians so that they further understand the link between LLPs and Advancing approach. Also, Government is likely to be attracted to the information related to cross-comparison of the banking sector with another country which gives an insight into better fiscal decision making. A secure connection that exists between the lending ability of a bank and the risks associated with borrower could be understood by the person not having specific finance-related knowledge. The rest of the paper gives particular objective focused throughout, which is met by driving research questions and relevant hypotheses after studying relevant literature, to conclude this study.

2. Literature Review[2]

In a study by Andries, Gallemore, & Jacob (2017) regressions were estimated using OLS. A research investigated the effect of the corporate tax system on bank financial reporting choices. It was examined that whether loan loss provisioning behaviour and timely loan loss recognition are affected by tax incentives. Resultantly it was found that loan loss provisions are increasing in the tax rate for countries that permit general provision tax deductibility. Furthermore, the findings of the study suggested that this effect is driven not by increased risk-taking, but by the corporate tax system encouraging timelier loan loss recognition. A recent study (Andreou, Cooper, Louca, & Philip, 2017) linked conditional conservatism and banks' future crash risk. The critical channels of influence from conservatism to crash risk examined were the discretionary treatments of loan loss provisions in the income statement and loan loss allowances in the balance sheet. The paper showed that conditional conservatism reduces crash risk of small banks during periods of credit contraction and boom. Interestingly, for large banks, collision risk was not found to be reduced by more conservative accounting even for those with higher levels of opacity.

Researchers found robust evidence consistent with banks using realized available for Sale securities gains and losses to smooth earnings and increase low regulatory capital. They also found evidence consistent with banks with negative profits avoiding or reducing losses or engaging in significant bath earnings management, with regulatory capital constraining substantial bath earnings management (Barth, Gomez-Biscarri, Kasznik, & López-Espinosa, 2016). A panel regression approach was used to examine the effects of credit risk, capital adequacy and earnings on loan loss provisioning practices on 23 banks operating in Australia and found evidence that: (i) banks increase provisions in anticipation of future lending growth, (ii) banks allocate part of surplus capital above regulatory requirements to pre-fund future credit losses through provisions, and (iii) banks accumulate additional provisions when their earnings are higher (Cummings & Durrani, 2016). The results of a study (Hamadi, Heinen, Linder, & Porumb, 2016) in which hypotheses were tested using a panel data method with firm fixed effects in pooled ordinary least squares (OLS) estimations, showed that new prudential regulation leads Internal Ratings Based banks to recognize lower income-increasing Discretionary Loan Loss Provisions (DLLP) and rely less on DLLPs to smooth their income in comparison to Standardized banks. This makes the DLLPs of IRB (Internal ratings based) banks more informative about, both, future loan losses and banks' ability to meet capital solvency requirements.

[2] For the purposes of this paper, specific criteria were used in the selection of approaches. The criteria used are : technical skill; details on how concepts have been defined, included or excluded, and why; the quality of the assessment of knowledge in the field highlighting the strengths and weaknesses of previous work; innovation and relevance of the tools and measures convened; inclusion of how research has developed in the field (sub-categories, concepts or themes that can provide a more holistic interpretation and promote re-conceptualization); complete analysis in terms of discussions on contrasting methodologies used, strength and weakness of particular approaches to studying the problem; the quality of field studies; the general conclusions drawn; reasoned conclusions; the clear contribution made to theory and practice. In other words, only the quality conceptual and methodological rigor are retained and not their date of publication. Many new articles in the field do not contribute anything to the existing literature: they only corroborate existing results and adjust themselves methodologically.

Another study compared the predictive ability of loan loss provisions concerning actual losses under International Financial Reporting Standards (IFRS) and local Generally Accepted Accounting Principles (GAAP). The 'incurred loss model' of IAS 39 is a model that requires a relatively low level of judgment by preparers compared to alternative models that exist under local GAAP. The findings include that loan loss provisions in IFRS bank years predict future credit losses to a lesser extent than in local GAAP bank years, consistent with the incurred loss model reducing the timeliness of provisions (Marton & Runesson, 2015). A paper by Pool, de Haan, & Jacobs (2015) examined how credit risk affects bank lending and the business cycle. Their macroeconomic model predictions and empirical findings confirmed that evidence found in their empirical finance literature that loan loss provisions are mostly pro-cyclical and backward-looking, hence they were able to suggest a policy implication that a forward-looking loan loss provisioning practice rather than a backward-looking one is called for to avoid pro-cyclicality.

In a Research, sample was constructed to examine two questions: (1) a bank's choice as to whether or not to lay off the credit risk of a specific loan and (2) a bank's decision of which Credit Risk Transfer (CRT) mechanism to use if it chooses to lay off its credit risk, using data from seven different databases to explain banks' decision to lay off a loan's credit risk, they were able to recommend, that, if a bank is viewed as an extensive seller of its loans it indicates that it is either capital and liquidity constrained and/or making high-risk loans. Thus the volume of loan sales may be viewed as a signal of bank risk exposure for bank examiners and regulators (Beyhaghi, Massoud, & Saunders, 2014). Cho & Chung (2016) applied Regression model and the Fisher's F-test and found that firms with Internal Control Weaknesses (ICW) tend to have inflated loan loss reserves and provisions, indicating that internal control effectiveness is an important factor of loan loss estimates. The researcher also found that ICW firms continue to have greater loan loss reserves and provisions in the following year if their material weaknesses are not remedied. A study of Glen & Mondragón-Vélez in 2011 summarized that higher banking system capitalization and penetration are positively correlated with loan performance; high private sector leverage and poor loan portfolio quality are associated with higher loan loss provisions. The results of the study (Bouvatier & Lepetit, 2012) showed that backward-looking provisioning systems exacerbate banks' lending fluctuations in both developed and Emerging countries, but with a stronger impact on emerging countries.

2. Rationale of the study

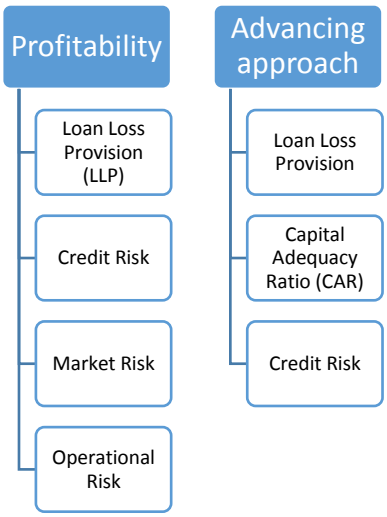
The Africa states of Nigeria, South Africa, Equatorial Guinea and Angola had decidedly lesser recognition till the 1970s after which until today this area is considered essential for a world based on their strategic location and valuable resource, oil. Due to this and other factors, South Africa plays a vital role towards banking sector of Africa and occupies a prominent position as a critical offshore banking hub. On the other hand, Nigeria have a significant role in the African market both in the conventional and Islamic banking systems and its financial markets are usually seen as a precondition for an efficient allocation of resources and can foster long-term economic growth. The study is mainly motivated by the fact that Loan Loss Provisions do impact the Profitability of Banks as also studied in the

previous research (Inequality et al., 2015) in which authors concluded that Loan Loss provisions have a negative relationship with the Profitability. But the avenue which provoked towards this study was to understand the relationship of Loan Loss provision with risk and its impact on Profitability and resultant consequences on Advancing Approach of banks.

3. Research approach

The focus of this paper is to study the bank-specific determinants of the conventional banking system in Nigeria and South Africa to highlight and identify the significant factors that influence bank's profitability and advancing approach, keeping in view the risk associated and the provisions required. These structural elements are vital in reviewing the connection between the profitability of banks and variations in the business cycle of these financial institutions. The banking sector plays a crucial role as financial mediators to facilitate the transfer of wealth from savers to borrowers. The financial performance of banks creates an impact on the depositors, institutional shareholders, regulators, potential investors, corporate owners and other stakeholders.

As finance, related people are aware that incorporating Loan loss provisions and risks effectively, plays a pivotal role. So, the primary objective of this study is to discover how efficiently banks manage these critical disclosures. The risks are caused by some bank-specific factors that are Advancing approach, market conditions and operations of the bank itself; the impact due to these effects can be mitigated by analysing their relationship and to account for the required disclosures. For this study, a Panel analysis is carried out to find the impact of Explanatory variables on the dependent variables of selected banks from both countries Nigeria and South Africa. The study is valuable to layman investors, policy makers, academicians, and bankers as it fills the gap related to previous research (Inequality et al., 2015). By further incorporating the effect of advancing approach related to banks of Nigeria and South Africa.



The following research questions are devised to reach conclusion of this study.

1. Does the effect of LLPs intend to increase profitability as a result of more investors' confidence?

2. Does investors' confidence enhance in response to proper incorporation of Market and Operational Risk?
3. Is recognition of LLP a signal of risk aversion related to advancing policy?
4. How Advancing approach of a bank is affected by the quantification of LLP. Does adequate CAR mean the bank is more in a position to increase its lending?

The study focuses on reflecting that more accurate measures for LLP, CAR, and Risks the more banks can enhance their profitability and cater the need of their target audience, and hence sufficient disclosures prevails as an important factor which needs to be considered to support profitability and advancing approach. Study-related questions identified, shall be tested using hypotheses developed and to reach the findings of this report.

Five most significant banks[3] of South Africa ("Biggest Banks In South Africa - Africa Business," n.d.) and five largest banks of Nigeria (Securities, 2014) by asset size have been selected through Convenient Sampling. Furthermore, the data of South African banks are converted from South African ** (SA**) to Nigerian ** (NG**) for like to like comparison. The study consists of Balanced Panel secondary data extracted from annual reports of five Nigerian and five South African banks of five years period.

Following are the names of all banks used:

Nigeria	South Africa
Nigeria Bank 1 (ENL)	South Africa Bank 1 (CBSA)
Nigeria Bank 2 (NEIB)	South Africa Bank 2 (IBSA)
Nigeria Bank 3 (ICAL)	South Africa Bank 3 (SBSA)
Nigeria Bank 4 (LBN)	South Africa Bank 4 (NSA)
Nigeria Bank 5 (NUBL)	South Africa Bank 5 (CBSA)

This work tested the following research hypotheses contrived to conclude.

H1: LLPs have a significant relationship with ROA.

H2: Consideration of Market and Operational Risk creates an impact on ROE.

H3: LLPs have a significant impact on Advancing approach of banks.

[3] The determination of the banks in this study implied a number of arbitrations, including the number of banks to be retained. We could have conducted our research on a single case basis. This case would be limited to variations within a single context.
Conversely, we would have been able to integrate more banks. The research would then have been considerably modified: the challenge would not have been to highlight the characteristics of the problem under study, but the way in which the context determines the broad lines of the latter. Indeed, since we can only integrate a small number of representations for each bank, we would have been unable to draw a certain trend at best. On the other hand, it would doubtless have been possible to bring out a more generalizable model.
We finally chose to work on a homogeneous group of banks. Indeed, it is preferable to limit oneself to the variations existing in such a restricted and reasonable case, which favors an in-depth development of each of them while allowing comparative analysis. However, the quality of this group does not lie in the intrinsic quality of the banking sector, but in the variety of aspects of the problems encountered and the extent of the possibilities that this variety allows us to study.

H4: CAR has a significant relationship with Net Loans.

ROE and ROA are used to measure Profitability, whereas Gross Loans to total assets are used to evaluate Advancing Approach, which are our dependent variables to assess their relativity with the explanatory Variables. We include several bank-level independent variables in our regression to account for dependent variables. In this study, Loan Loss Provisions are taken into account as LLP to Consumer loans. The loan loss provision is a balance sheet account that represents a bank's best estimate of future loan losses ("How to Calculate a Loan Loss Provision Coverage Ratio | Chron.com," n.d.).

The reason why it is taken as a percentage of a Consumer loan is this that these provisions are specifically related to consumer loans. Hence this is a suitable approach to measure the change more accurately regarding different banks covered in this study. Credit, market, and operational risks, all of these are considered as a percentage of total risks (Credit, market and operational) to identify differences related to different banks accurately. Further details of all variables are mentioned in the table below.

Table of Variables

Variable	Formula	Definition
ROE (Profitability)	Net Income to Total Equity	ROE shows the return earned by banks by employing its total equity.
ROA (Profitability)	Net Income to Total Assets	ROA reflects the efficiency of bank's management towards earning profits by utilizing its asset base.
Advancing Approach (AA)	Gross Loans/Advances to Total Asset	It shows the variations in lending that also reflects assets of bank in terms of riskiness as compared to other assets held.
Loan Loss Provisioning	LLP to Consumer Loans	This is the expense which is set aside for factors including bad loans, as an allowance related to loans given to borrowers, also referred as consumer loans.
Credit risk	Credit Risk to Total Risk	Credit risk is a risk of default due to borrower failing to make required payments. This variable is chosen since it significantly affects the decision of Gross Loans/Advances of a bank.
Market risk	Market Risk to Total Risk	This also relates to systematic risk, which is faced by overall financial market, and it seems to have a strong connection with the profitability of every bank.
Operational risk	Operational Risk to Total Risk	This related to the risk of loss due to internal procedures, policies, failures or errors and significantly effects the profitability, if adequately not taken care of.

Capital Adequacy Ratio (CAR)	Total Capital to Total Risk Weighted Assets	CAR is a measure of Bank's capital as a percentage of total risk weighted assets. The purpose of this ratio is to increase stability and efficiency of banking sector.

The study investigates the effect of explanatory variables on profitability and advancing approach of the banks. The variables used in this study were determined, based on the review of relevant literature and established according to the availability of data for measurement purposes. Inspired by previous research, Hausman test is used in this study to determine whether a random or fixed effects generalized least squares model is best (Waqar, Naqvi, & Khan, 2016).

The linear regression model is applied too strongly balanced panel data obtained from top ten commercial banks in Nigeria and South Africa according to asset base, from 2011 to 2015. The econometric models devised to aid this study are mentioned below.

1. ROA = B0 + B1(Loan Loss Provision) + B2(Credit Risk) + B3(Market Risk) + B4(Operational Risk) + E
2. ROE = B0 + B1(Loan Loss Provision) + B2(Credit Risk) + B3(Market Risk) + B4(Operational Risk) + E
3. AA = B0 + B1(Loan Loss Provision) + B2(Credit Risk) + B3(Capital Adequacy Ratio) + E

4. Findings from Comparison of Nigerian and South African Banks

Model 1: ROA = B0 + B1(Loan Loss Provision) + B2(Credit Risk) + B3(Market Risk) + B4(Operational Risk) + E

The results of Hausman Test applied, recommended the Random Effect model in terms of both Nigerian and South African Banks, where ROA has been analyzed in terms of Loan Loss Provision (LLP), Credit Risk (CR), Market Risk (MR) and Operational Risk (OR).

Table 1: ROA of Nigerian Banks

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Random-effects GLS regression                   Number of obs      =        25
Group variable: Year                            Number of groups   =         5

R-sq:  within  = 0.3536                         Obs per group: min =         5
       between = 0.1857                                        avg =       5.0
       overall = 0.3309                                        max =         5

                                                Wald chi2(4)       =      9.89
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0423
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ROA	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
LLP	.0770299	.1164932	0.66	0.508	-.1512925	.3053524
CR	.3526701	.1656646	2.13	0.033	.0279735	.6773667
MR	.3640703	.1768495	2.06	0.040	.0174516	.710689
LOR	.0607283	.0301362	2.02	0.044	.0016623	.1197943
_cons	-.1641309	.0848647	-1.93	0.053	-.3304627	.0022009

The significance value of Random Effect model (Table 1) regarding dependent and independent variables indicate the relevance. The results reflect significant relationship of ROA and total Risks (CR, MR, and OR), which indicates that risks incorporated by Nigerian banks have a notable impact on Profit after tax, hence need to be adequately accounted for.

Also, these institutions also face market risk related to their assets in terms of fair value gain and loss. Although LLPs are related to Advances which are part of total assets, still we are unable to prove a relationship between them. ROA and LLP. This leaves an avenue for further research related to assets and LLP and resultant strategy of Risk attitude.

Table 2: ROA of South African Banks

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Random-effects GLS regression                   Number of obs      =        16
Group variable: Banks1                          Number of groups   =         4

R-sq:  within  = 0.0054                         Obs per group: min =         1
       between = 0.9825                                        avg =       4.0
       overall = 0.7067                                        max =         5

                                                Wald chi2(4)       =     26.50
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0000
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ROA	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
LCR	.139695	.0837073	1.67	0.095	-.0243683	.3037584
LMR	.0034415	.0015027	2.29	0.022	.0004962	.0063868
LOR	.022415	.0088533	2.53	0.011	.0050629	.0397672
LLLP	.0000886	.0010738	0.08	0.934	-.002016	.0021933
_cons	.1018224	.0368449	2.76	0.006	.0296077	.174037

Based on the results of Hausman Test, the usage of Random Effect regarding South African banks proved to be significant (Table 2). The test was able to determine the significance of LMR (Log-Market Risk) and LOR (Log-Operational Risk) concerning ROA.

This proved to be much relevant as Market Risk has strong connection with assets in terms of their market value, whereas, the operational risk has a significant effect on Profit after tax. Both contribute heavily towards ROA hence need to be carefully incorporated in terms of decision making.

The insignificance of LLP (log-loan loss provision) indicates a minimal or unproven relationship in terms of Returns that are earned using asset base of South African Banks, hence failed to reject H0 in favour of H1.

Model 2: ROE = B0 + B1(Loan Loss Provision) + B2(Credit Risk) + B3(Market Risk) + B4(Operational Risk) + E

The second model of the study covers the responsiveness of ROE in terms of three risk factors included in the research and the Loan Loss Provision. The Hausman rejected the use of Fixed effect model due to insignificant results; hence Random Effect is used in terms of both Nigerian and South African Banks.

Table 3: ROE of Nigerian Banks

Random-effects GLS regression — Number of obs = 25
Group variable: Year — Number of groups = 5

R-sq: within = 0.5393 — Obs per group: min = 5
between = 0.1964 — avg = 5.0
overall = 0.5338 — max = 5

Wald chi2(4) = 22.90
corr(u_i, X) = 0 (assumed) — Prob > chi2 = 0.0001

ROE	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
LLP	-2.39051	.8671531	-2.76	0.006	-4.090099	-.690921
CR	1.884728	1.233176	1.53	0.126	-.5322524	4.301708
MR	2.075963	1.316434	1.58	0.115	-.5042015	4.656127
LOR	.3029057	.2243285	1.35	0.177	-.1367702	.7425816
_cons	-.7978526	.631717	-1.26	0.207	-2.035995	.44029

Loan Loss Provision indicates a significant relationship with the returns earned on the basis of capital employed by Nigerian banks as reflected in Table 3. This signifies the investors' confidence in terms of Provisioning maintained by Nigerian Banks.

Nigeria, being a risky banking market demands for proper integration of Provisions in terms of bad or risky loans to earn investor's confidence and attain returns based on their investment.

Table 4: ROE of South African Banks

Random-effects GLS regression — Number of obs = 16
Group variable: Banks1 — Number of groups = 4

R-sq: within = 0.0824 — Obs per group: min = 1
between = 0.9887 — avg = 4.0
overall = 0.8149 — max = 5

Wald chi2(4) = 48.41
corr(u_i, X) = 0 (assumed) — Prob > chi2 = 0.0000

LROE	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
CR	24.60133	4.899624	5.02	0.000	14.99824	34.20441
MR	28.18652	6.084056	4.63	0.000	16.26199	40.11105
LLP	.0521158	.2005037	0.26	0.795	-.3408643	.4450959
LOR	2.743177	.4684106	5.86	0.000	1.825109	3.661245
_cons	-17.67469	3.323214	-5.32	0.000	-24.18808	-11.16131

However, regarding South African banks, ROE reflected strong connection concerning risks rather than loan loss provision (Table 4), Hence rejecting null hypothesis related to H2.

This demands attention towards different banking markets of Nigeria and South Africa, as South Africa banks play a notable role in term of whole Africa's banking sector.

These varied results also reflect the different banking markets of both countries and their different priorities, related to provisioning or incorporation of risks. Results also suggest that better integration of CR, MR, and OR plays a proper role in covering the risk factors related to South African banking sector hence lesser reliance on LLP can be understood in contrast. Although this does not mean that LLPs are to be ignored based on proper accommodation of relevant risk of South Africa Banks to improve or maintain ROE.

Model 3: AA = B0 + B1(Loan Loss Provision) + B2(Credit Risk) + B3(Capital Adequacy Ratio) + E

The motive of the third model is to evaluate the responsiveness of Advancing approach, adopted by Nigerian and South African banks based on LLPs maintained, incorporation of CR and the sufficiency of Capital Adequacy ratio for the stability of financial systems. The relevance of fixed effect was noted based on insignificant results of Hausman test regarding both Nigerian and South African Banks.

Table 5: AA of Nigerian Banks

Random-effects GLS regression — Number of obs = 25
Group variable: Year — Number of groups = 5

R-sq: within = 0.2523 — Obs per group: min = 5
between = 0.8381 — avg = 5.0
overall = 0.2960 — max = 5

Wald chi2(3) = 8.83
corr(u_i, X) = 0 (assumed) — Prob > chi2 = 0.0316

AA	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
LLP	-5.155837	2.080828	-2.48	0.013	-9.234184	-1.077489
CR	.1271077	.1123324	1.13	0.258	-.0930599	.3472752
CAR	-.0196581	.0560458	-0.35	0.726	-.1295058	.0901896
_cons	.3303097	.084842	3.89	0.000	.1640225	.496597

Based on results from test applied it can be inferred that banks of Nigeria need to be adequately aware of current status of their lending to be in a position to lend further. In short, further lending based on previous experience. Also, it is derived that Nigerian banks' decision making in terms of lending policy is validly impacted by the factor of LLPs which gives a positive signal to the shareholders.

Table 6: AA of South African Banks

Random-effects GLS regression — Number of obs = 25
Group variable: Banks1 — Number of groups = 5

R-sq: within = 0.0575 — Obs per group: min = 5
between = 0.8596 — avg = 5.0
overall = 0.5148 — max = 5

Wald chi2(3) = 10.70
corr(u_i, X) = 0 (assumed) — Prob > chi2 = 0.0135

LAA	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
LCAR	-.4832288	.1570481	-3.08	0.002	-.7910374	-.1754203
LLLP	.0152456	.0658613	0.23	0.817	-.1138401	.1443313
LCR	-.1244184	.87921	-0.14	0.887	-1.847638	1.598802
_cons	-1.560284	.3230574	-4.83	0.000	-2.193465	-.9271034

On the contrary, Advancing approach of South African banks indicates a significant relation with Capital Adequacy ratio rather than LLP or CR which rejects H0 in favor of H4 but only related to South African Banks. CAR which itself accounts for risk exposure and the capital, again contrasted a relation with the Advancing Approach of South African Banks. The results of ROE and Advancing approach in terms of South Africa banks shows strong correlations as both respond significantly towards risks rather than LLP, hence double checking the results of the study.

Concluding the findings based on the results obtained from tests, it is clearly reflected that Nigeria Banking sector has more biased towards LLPs in terms of its decision making related to Advancing approach and winning confidence of Investors thereafter; which seems a reactive approach and the rejection of null hypothesis in favour of H3 but only in terms of Nigerian banking sector. While the proper inclusion of Credit, Market, and Operational risk also stands as a relevant to continue enhancing profits. However, South Africa seems to exhibit a proactive approach in terms of Advancing and earning investors' confidence because of its reliance on the incorporation of risk beforehand rather than the maintenance of Provisions after the determination of risky or bad loans. Furthermore, the Credit risk proves to be a more needed factor of consideration for Nigerian instead of South African Banks. This reflects the high economy of South Africa as compared to Nigeria and more chances of default faced by Nigerian financial institutions. This, answers the reactive approach adopted by Nigerian banks, and it is more reliance on Loan Loss Provisions due to more chances of default faced by Nigerian banks. Hence decision making incorporates the factor of LLP which is not similar in case of South Africa.

5. Comments[4]

Nigerian Banks also need to consider the Credit, Market, and Operational risk which in turn give a more accurate idea of LLPs that should be incorporated to have responsive and relevant Advancing approach. Also, South Africa being a competitive market need to take extra care of Market risk and Loan Loss provision since it proves a healthy relationship in regard to Profits of the South African banking sector. Although LLPs are related to Advances which are part of total assets, still we are unable to prove a relationship between ROA and LLP concerning both Nigeria and South Africa. Which leaves an avenue for further research related to assets and LLP and resultant strategy of Risk attitude. Nigeria could be compared with a similar developing country for analyzing sectorial growth by finding ways of improvements, that should be incorporated, and best practices already included that need is maintained.

However, based on the finding mentioned above, the study is helpful for researchers and academicians to understand the importance of LLP and its impact on Advancing approach and

[4] The addition is not desirable because these variables would make the analysis disappear and the original problem would be out of step. In short, this will not bring anything new to the literature in the field. Also, it is very important not to lose sight of the fact that the study is firmly in sectoral strategies and not in the dynamics of structural and cyclical policies. In this respect, adding a broader policy impact discussion for impact on Basel, IMF/World Bank and Capital Foundations or other regulatory policies to avert future 2008 economic crises would only make the analysis more cumbersome and remove all scientific validity: in this type of study, in addition to clarity, the specificity of data and analysis is indispensable.

Profitability, provoking further research. Government is likely to be attracted to the information that relates to the banking sector of their economy with the other country, as this gives an insight of better fiscal decision making of a nation. This study also helps a layperson to understand a secure connection that exists between the responsiveness of lending of a bank and the risks associated with a particular borrower. Note that, a bank that has a relatively large amount of liquid assets is better equipped to deal with unforeseen events. In addition, liquidity "Stored" in banks' balance sheets serves as a cushion and avoids sales of off-balance sheet assets required to meet liquidity needs. Liquidity therefore protects against the losses associated with these sold sales. Introducing the notion of liquidity risk, the authors go on to explain that a sufficient level of liquidity reduces the liquidity risk. This lower risk is translated by lower loan premiums, and as a result by reducing interest margins.

In future research, it may be possible to identify ' a broader policy impact discussion for impact on Basel, IMF/World Bank and Capital Foundations or other regulatory policies to avert future 2008 economic crises '. If so, it should be possible for financial organizations to use the results of research examining antecedents to better manage their experiences so as to foster the development of the desired strategies.

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Compliance with Ethical Standards:

The authors declare that they have no conflict of interest.

The authors of this article have not made their research dataset openly available. Any enquiries regarding the dataset can be directed to the corresponding author.

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