

Assessing the Performance of Nigeria's Bank through Camel Model

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Abstract

The paper accessed the performance of banks in Nigeria using CAMEL rating. 19 years data were collected and analyzed through ordinary least square and result shows that capital adequacy, management efficiency, Earning and liquidity have no significant impact on the profitability of the banks. Assets quality has a negative impact on that profit of the bank. We recommend that The banking industry in Nigeria should wake up and generate enough capital to run the business through sales of shares, debt, investment, retain earning etc. to boast their profit, they should also improve their quality of assets and ensure that their assets are more of performing rather than non performing assets etc.

Key Words: CAMEL, Banks, Performance.

Introduction

CAMEL is a ratio based model for evaluating the performance of banks. (Altan, Yusufazari and Beduk 2014). It is an on-site examination of banks officially known as the Uniform Financial Institutions Rating System (UFIRS). CAMEL is a supervisory rating system adopted by the Federal Financial Institutions Examination Council (FFIEC) on 1979. It stipulates the evaluation of financial institutions on the basis of five critical dimensions which are: capital adequacy, assets quality, management, earnings and liquidity (Ferrough 2014).

The annual on-site bank inspection was officially mandated for most deposit money banks under the adoption of the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA). Nevertheless, it is not necessary to conduct the bank examination every twelve to twenty four months according to their inspection priority (Dang 2011). Such priorities are given to financially problematic banks and thereby lower priority given to banks which are well-capitalized and have acceptable earnings.

However, the work of Gilbert et-al (2002) argue that despite the fact that on-site examination is an effective tool, it is costly and burdensome since the supervisors have to be involved in daily operations and it may take a long time. Thus, it is supported with the off-site surveillance.

Financial crisis has not only rocked big economies of the world but developing economies have been badly affected. Many financial institutions have either collapse and or facing near collapse.

Banking crisis in Nigeria has shown that not only do banks often take excessive risks but the risk differ across banks. Most banks quality of assets have deteriorated as a result of significant dip in equity market indices (Oluwafemi, Akeke, Adebisi and Oladunjoye 2014). The CBN governor in 2009 maintained that some banks were faced with liquidity constraints.

The paper therefore seeks to examine the performance of Nigerian banks using CAMEL model. The focus is to evaluate all the components of CAMEL and their impact on the profitability of the banks.

Objective of the Study

The main objective of the study is to assess the performance of Nigeria's banks using CAMEL model. The specific objectives are given as:

- a) To evaluate the impact of capital adequacy on banks' profitability
- b) To evaluate the impact of assets quality on banks' profitability
- c) To evaluate the impact of management efficiency on banks' profitability
- d) To evaluate the impact of earning on banks' profitability
- e) To evaluate impact of liquidity on banks profitability.

Test of Hypothesis

H₁: Capital adequacy has no significant impact on bank's profitability

H₂: Assets quality has no significant impact on banks profitability

H₃: Management efficiency has no significant impact on bank's profitability

H₄: Earning has no significant impact on banks profitability

H₅: Liquidity management has no significant impact on banks' profitability

Literature Review

Concept of CAMEL Model

CAMEL Model is a system for on – site examinations of banks officially known as the Uniform Financial Institution Rating System (UFIRS) (Ferrouhi 2014). CAMEL is a supervisory rating system adopted by the Federal Financial Institutions Examination Council (FFIEC) on 1979. CAMEL stipulates the evaluation of financial institutions on the basis of five critical dimensions which are: capital adequacy, Asset quality, management, Earning and Liquidity. Sensitivity to marketing risks, a sixth dimension was added in 1997 and the acronym was changed to CAMELS (Opez 1999). These components are used to reflect financial performance, operating soundness and regulatory compliance of financial institutions.

COMPONENTS OF CAMEL

According to Uyen (2011), the CAMEL's components are:

Capital Adequacy

Capital adequacy is the capital expected to maintain balance with the risks exposure of the financial institution such as credit risk, market risk and operational risk, in order to absorb the potential losses and protect the financial institution's debt holder. "Meeting statutory minimum capital requirement is the key factor in deciding the capital adequacy, and maintaining an adequate level of capital is a critical element"(The United States Uniform Financial Institutions Rating System 1997, p. 4).

Karlyn (1984) defines the capital adequacy in term of capital-deposit ratio because the primary risk is depository risk derived from the sudden and considerably large scale of deposit withdrawals. In 1930, FDIC created a new capital model as capital-asset ratios since the default on loans came to expose the greatest risk instead of deposit withdrawals. To gauge the capital adequacy, bank supervisors currently use the capital-risk asset ratio. The adequacy of capital is examined based upon the two most important measures such as Capital Adequacy Ratio (CAR) or Capital to Risk-weighted Assets ratio, and the ratio of capital to assets.

Assets Quality

According to Grier (2007), “poor asset quality is the major cause of most bank failures”. A most important asset category is the loan portfolio; the greatest risk facing the bank is the risk of loan losses derived from the delinquent loans. The credit analyst should carry out the asset quality assessment by performing the credit risk management and evaluating the quality of loan portfolio using trend analysis and peer comparison. Measuring the asset quality is difficult because it is mostly derived from the analyst’s subjectivity.

Frost (2004) stresses that the asset quality indicators highlight the use of non-performing loans ratios (NPLs) which are the proxy of asset quality, and the allowance or provision to loan losses reserve. As defined in usual classification system, loans include five categories: standard, special mention, substandard, doubtful and loss. NPLs are regarded as the three lowest categories which are past due or for which interest has not been paid for international norm of 90 days. In some countries regulators allow a longer period, typically 180 days. The bank is regulated to back up the bad debts by providing adequate provisions to the loan loss reserve² account. The allowance for loan loss to total loans and the provision for loan loss to total loans should also be taken into account to estimate thoroughly the quality of loan portfolio.

Management Efficiency

Management quality is basically the capability of the board of directors and management, to identify, measure, and control the risks of an institution’s activities and to ensure the safe, sound, and efficient operation in compliance with applicable laws and regulations (Uniform Financial Institutions Rating System 1997, p. 6).

Grier (2007) suggests that management is considered to be the single most important element in the CAMEL rating system because it plays a substantial role in a bank’s success; however, it is subject to measure as the asset quality examination.

Earning

This rating reflects not only the quantity and trend in earning, but also the factors that may affect the sustainability of earnings. Inadequate management may result in loan losses and in return require higher loan allowance or pose high level of market risks. The future performance in earning should be given equal or greater value than past and present performance (Uniform Financial Institutions Rating System 1997, p.7).

In accordance with Grier (2007)’s opinion, a consistent profit not only builds the public confidence in the bank but absorbs loan losses and provides sufficient provisions. It is also necessary for a balanced financial structure and helps provide shareholder reward. Thus

consistently healthy earnings are essential to the sustainability of banking institutions. Profitability ratios measure the ability of a company to generate profits from revenue and assets.

Liquidity Management

There should be adequacy of liquidity sources compared to present and future needs, and availability of assets readily convertible to cash without undue loss. The fund management practices should ensure an institution is able to maintain a level of liquidity sufficient to meet its financial obligations in a timely manner; and capable of quickly liquidating assets with minimal loss (Uniform Financial Institutions Rating System 1997, p. 8).

Rudolf (2009) emphasizes that “the liquidity expresses the degree to which a bank is capable of fulfilling its respective obligations”. Banks make money by mobilizing short-term deposits at lower interest rate, and lending or investing these funds in long-term at higher rates, so it is hazardous for banks mismatching their lending interest rate.

EMPIRICAL REVIEW

Barr et al. (2002) show that “CAMEL rating criteria has become a concise and indispensable tool for examiners and regulators” and found that there is “a significant relationship between CAMELS ratings and efficiency scores”. Thus, various studies have focused on the application of CAMEL approach to financial institutions.

Said and Saucier (2003) used CAMEL rating methodology to evaluate Capital adequacy, Assets and Management quality, Earnings ability and Liquidity position of Japanese Banks.

Prasuna (2004) analyzed the performance of 65 Indian banks using CAMEL model and concluded that better service quality, innovative products and better bargains were beneficial because of the prevailing tough competition.

Sarker (2005) examined Bengali Islamic banks using CAMEL model which enabled the regulators to get a Shariah benchmark to supervise and inspect Islamic banks and financial institutions from an Islamic perspective.

Nurazi and Evans (2005) show that Adequacy ratio, Assets quality, Management, Earnings, Liquidity and bank size are statistically significant in explaining bank failure.

Gupta (2008) analyzed the performance of 30 Indian private banks using Camel Model for the period 2003-2007 and gave rating to top five and bottom five banks.

Siva and Natarjan (2011) tested the applicability of CAMEL norms and its consequential impact on the performance of SBI Groups. The authors found that CAMEL scanning helps banks to diagnose its financial health and alert the bank to take preventive steps for its sustainability.

Olweny and Shipo (2011) analyze the determinants of bank failures in Kenya. They found that Asset quality and liquidity are the determinants of Kenyan bank failures.

Reddy and Prasad (2011) analyzed the performance of rural Indian banks using CAMEL model.

Chaudhry and Singh (2012) analyzed the impact of the financial reforms on the soundness of Indian Banking through its impact on the asset quality. The study identified the key players as risk management, NPA levels, effective cost management and financial inclusion.

Mishra (2012) analyzed the performance of different Indian public and private sector banks over the decade 2000-2011 using CAMEL approach and found that private sector banks are at the top of the list, with their performances in terms of soundness being the best.

Mishra and Aspal (2013) evaluated the performance and financial soundness of State Bank Group using CAMEL approach and rated different banks using through Capital adequacy, Asset quality Management efficiency, Earning Quality, and Liquidity.

Ongore and Kusa (2013) concluded that the financial performance of commercial banks in Kenya is driven mainly by board and management decisions, while macroeconomic factors have insignificant contribution.

Barker and Holdsworth (1993) predicting banks failure, they find evidence that CAMEL ratings are useful, even after controlling a wide range of publicly available information about the condition and performance of banks.

Cole and Gunther (1998) conducted a study on “A CAMEL Rating's Shelf Life” and their findings that CAMEL ratings contain useful information. Nevertheless,

Hirtle and Lopez (1999) stress that the bank’s CAMEL rating is highly confidential, and only exposed to the bank’s senior management for the purpose of projecting the business strategies, and to appropriate supervisory staff. Its rating is never made publicly available, even on a lagged basis.

Barr et al. (2002) viewed that “CAMEL rating has become a concise and indispensable tool for examiners and regulators”. This rating ensures a bank’s healthy conditions by reviewing different aspects of a bank based on variety of information sources such as a financial statement, funding sources, macroeconomic data, budget and cash flow.

Derviz et al. (2008) investigated the determinants of the movements in the long term Standard & Poor’s and CAMEL bank ratings in the Czech Republic during the period when the three biggest banks, representing approximately 60% of the Czech banking sector's total assets, were privatized (i.e., the time span 1998-2001).

Kabir and Dey (2012) examined the performance Private, Commercial of Bangladesh banks by adopting the CAMEL Model. The author concluded that the central banks of all around the world have improved their supervision quality and techniques.

Research Methodology

The researcher adopted an empirical design for the study. Here, the researcher wants to assess the performance of deposit money banks operating in Nigeria using CAMEL model.

The data was sourced purely from secondary sources. The manipulative data was sourced from NDIC annual report and account 2014.

Twenty one (21) deposit money banks operating in the country constitute the population of the study. Purposive sampling method was employed by the researcher and the sample size is (19) years (1996-2014).

The techniques for data analysis is ordinary least square multiple regression and the data specification is given as:

$$PBT = a + b_1CA + b_2AS + b_3ME + b_4E + b_5LQ$$

Where

PBT = Profit before tax

CA = Capital adequacy

AS = Asset quality

ME = Managerial efficiency

E = Earning

LQ = Liquidity management

a = Constant intercept

b_1, b_2, b_3, b_4, b_5 = Coefficient of the independent variable

Presentation, Analysis and Discussion

The data used for the analysis is presented below:

PBT (N'M)	CA (%)	AS (%)	ME (%)	E (N'M)	LQ (%)	
71.24		30.87	33.90	61.23	168.62	41.45
65.86		22.41	25.81	55.81	155.89	36.45
61.24		16.24	19.30	51.57	144.95	30.33
67.37		21.55	25.60	57.91	159.46	35.72
63.25		17.52	21.50	54.96	151.04	32.38
95.12		17.68	16.90	63.92	299.75	55.55
93.20		17.75	21.27	58.78	393.57	69.15
82.32	14.78	21.59	65.09	348.69		47.40
88.60	13.16	23.08	63.13	410.75		50.44
57.88		20.78	20.13	65.14	449.87	61.11
181.04		22.57	7.92	75.60	306.18	62.19
619.16		20.94	8.30	81.02	905.11	64.83
658.10		21.91	6.25	85.20	1937.84	44.17
-1373.33	10.24	32.80		84.20	2125.58	44.45
607.34		4.06	15.04	59.23	824.62	51.77
-6.71	17.71	4.95		55.95	817.14	69.29
458.04		18.07	3.51	54.29	1107.68	68.01
539.97		17.18	3.23	57.95	1298.59	50.63
601.02		15.92	2.81	68.11	1296.92	53.65

Source: NDIC Annual Report and Account 2014

Data Analysis

N	Variables	t-statistics	Prob
19	A	1.731	0.107
19	CA	0.487	0.634
19	AS	-4.190	0.001
19	ME	0.174	0.864
19	E	-1.504	0.157
19	LQ	-1.003	0.334

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R	0.790
R ²	0.624
F- Statistics	4.307
Prob (f-statistics)	0.016
Durbin Watson.	2.948
Level of significance	5%

From the table above, we can see that capital adequacy, management efficiency, Earning and liquidity have no significant impact on the profitability of the banks. Assets quality has a

negative significant on that profit of the bank. The R which is the coefficient of correlation shown the extent to which the dependent and independent variables interrelate, i.e 79%, R^2 is 62.4% shows that the independent variables - CAMEL index have fully explain the dependent variable i.e PBT. The F-statistic 4.307 with the probability of 0.16 shows that the model is useful for prediction.

The implication here is that Nigeria's banking sector operates below expectation and therefore need to wake up else face the problem of being distressed. The assets quality which is negative shows that the assets used in generating income for the banks is negatively affecting the profit of the banks. This means that the assets quality of the banks is poor and therefore need improvement.

Conclusion

From the result, we discovered that CAMEL model has been adequately used to assess the performance of Nigeria banking industry. We therefore based on the analysis conclude the following:

- a) Capital adequacy of Nigeria's banks has no significant impact on the profitability
- b) Assets quality of Nigeria's banks has negative impact on the profitability
- c) Management efficient of Nigeria's banks has no significant impact on the profitability
- d) Earnings of Nigeria banks has no significant impact on the profitability
- e) Liquidity management of Nigeria's bank has no significant impact on the profitability

Recommendations

Base on the findings, we recommend that:

- i) The banking industry in Nigeria should wake up and generate enough capital to run the business through sales of shares, debt, investment, retain earning etc. to boast their profit
- ii) They should also improve their quality of assets and ensure that their assets are more of performing rather than non performing assets. This will improve generation base and enhance profit
- iii) The managerial efficiency should be to boast the business rather than personal pocket. A lot of the managers do not have the interest of the industry at heart but personal interest hence inefficiency in management.
- iv) Banks should improve their earning ability by investing in profit generating ventures and avoid giving loans that will lead to bad debt, doubtful debt etc.
- v) The liquidity of the banks should be well managed to avoid mismatch. The banks should ensure professionalism in managing liquidity since it has parallel movement with profitability.

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