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## **FINANCIAL PERFORMANCE OF “THE BEST AFRICAN BANKS”: A COMPARATIVE ANALYSIS THROUGH CAMEL RATING**

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### **ABSTRACT**

This study analyzed the financial performance of the African banks. Only seven banks were observed among the 30 African best banks as identified by the Global Finance Magazine. These banks have complete and consolidated financial statements for a period of the recent three fiscal years (i.e. 2012 to 2014). It has applied the CAMEL composite and component rating. The study found that the banks are rated as strong and satisfactory when rated in terms of capital adequacy ratio and earnings ability. Conversely, they were rated as less satisfactory, deficient and critically deficient when rated in terms of asset quality, management quality and liquidity. All the banks were aggregately rated as composite 3 (i.e. Fair). Standard Bank of South Africa Ltd. (South Africa) ranked last among the banks under study, but it was selected as the winner best regional bank by the Global Finance Magazine in 2015. The banks are recommended to employ the CAMEL composite and component rating on a periodic basis in order to withstand business fluctuations and vulnerability to outside influences. Similarly, institutions like the Global Finance Magazine are recommended to apply the CAMEL composite and component rating while ranking best banks. Finally, further research is worth pursuing for constructing a complete ratio's rating scale and weight for all ratios that constitute the composite CAMEL components.

**Keywords:** *Banking, Component, Composite, Evaluation, Ratio.*

## 1. INTRODUCTION

This study dealt with the comparative analysis of the financial performance of the African commercial banks. Commercial bank mainly plays an intermediary role between the depositor and borrower. It helps attain optimum allocation of scarce national resources through accumulation of savings in the form of deposits from surplus economic units and provide this deposit to deficit economic units in the form of loans and advances. This indicates that commercial bank is at the heart of an economy's success.

Jha and Hui (2012) explain that;

*"Financial sector is the backbone of the economy of a country. It works as a facilitator for achieving sustained economic growth through providing efficient monetary intermediation. A strong financial system promotes investment by financing productive business opportunities, mobilizing savings, efficiently allocating resources and makes easy the trade of goods and services (p. 7601)."*

Conversely, the Asian financial crisis in the 1990s and the world financial crisis in the 2007-2009 that is followed by the economic crisis learned that commercial banks are not only at the heart of economic success but also they are at the heart of the financial and economic crisis. It is, thus, obligatory to undertake periodic monitoring, supervision and regulation of commercial banks in order to make sure that they are financially healthy and sound.

Evaluation and analysis of the financial performance of banks are important for all internal and external users such as the bank managers, depositors, creditors, investors, employees, and regulators. Banks are expected, among others, to attain their short-term profit maximization, which is often measured by return on equity (ROE), return on asset (ROA) or net interest margin (NIM) and long-term wealth maximization goals, which is usually measured by earnings per share (EPS) or market price per share (MPS).

Periodic financial performance evaluation is, thus, compulsory in order to prove whether the banks' short term and long term goals have been achieved and the stakeholders' interest, that is, relevant economic needs of various stakeholders. Periodic performance evaluation is meaningful as long as the trend analysis (intra analysis) is supported by the cross-sectional (inter analysis). Such type of analysis help banks takes reactive and proactive measures with regard to overcoming their shortcomings, sustaining their strengths, and lesson from similar firms.

Ongore and Kusa (2013) support that;

*"Commercial banks play a vital role in the economic resource allocation of countries. They channel funds from depositors to investors continuously."*

*They can do so, if they generate the necessary income to cover their operational cost they incur in the due course. In other words, for sustainable intermediation function, banks need to be profitable. Beyond the intermediation function, the financial performance of banks has critical implications for economic growth of countries. Good financial performance rewards the shareholders for their investment. This, in turn, encourages additional investment and brings about economic growth. On the other hand, poor banking performances can lead to banking failure and crisis, which have negative repercussions on the economic growth (p. 237)."*

Bank performance can be influenced by internal factors (bank specific) and macroeconomic (external) factors such as GDP and inflation. This study is based on the bank specific factors that affect the performance of commercial banks (Ongore & Kusa, 2013). Among the widely used internal (bank specific) factors based performance measurements, *ceteris paribus*, are financial ratio analysis, data envelopment analysis (DEA), and CAMELS.

CAMELS rating is a financial performance evaluation system often applied to the banking industry, which is originally developed by the Uniform Financial Institutions Rating System (UFIRS). It is a composite rating system based on the financial ratios of the bank's financial statements. The banks under evaluation are rated from 1 (best) to 5 (worst) in each of the CAMELS dimensions in order to identify the best and worst banks. Accordingly, the stakeholders are expected to take necessary reactive and proactive measures towards the prosperity of the banks.

The CAMEL model is the most widely used model by researchers and the bank managers as well as the central banks have been implementing the CAMEL framework for evaluating the financial performance of banks (Baral, 2005; Dang, 2011). Dang (2011) argues that the CAMELS framework often used by scholars to proxy the internal (bank specific) factors. CAMELS refer to the portfolio of financial indexes that indicate the financial performance (health) of a firm. It stands for capital adequacy, asset quality, management efficiency, earnings ability, liquidity and sensitivity to market risk (CAMELS).

The purpose of this study is, thus, to evaluate and rate the financial performance of the selected African commercial banks for the period of 2012 - 2014 in order to help bank's stakeholders such as regulators, supervisors, owners and management identify and take corrective measures on emerging problems before they become out-of-bound.

The next sections present the review of literature that is related and relevant to the bank-specific factor based bank's financial performance measure opted for this study (i.e. CAMELS), the problem statement for undertaking this study, the objective of this study, the research methodology applied to this study, the re-

sults and discussions followed by the conclusions and recommendations that are driven from the research findings.

## 2. REVIEW OF LITERATURE

### 2.1. THEORETICAL LITERATURE

Ongore and Kusa (2013) state that;

*"Profit is the ultimate goal of commercial banks. All the strategies designed and activities performed thereof are meant to realize this grand objective. However, this does not mean that commercial banks have no other goals. Commercial banks could also have additional social and economic goals (p. 239)."*

The Corporate Annual Reports (CARs) comprise three reports: statutory, discretionary, and contextual report (Cronje, 2007:261-264). Among these reports, the statutory report (i.e. The financial statements) provides quantitative information that is helpful to measure the profitability of banks by using the alternative methods of financial performance measures such as the ratio analysis, DEA, and CAMELS.

This study applied the CAMELS model for evaluating and analyzing the financial performance of the African commercial banks. According to Sarker (2006:8), CAMELS ratings generally assess the overall soundness of the banks, and identify and/or predict different risk factors that may contribute to turn the bank into a problem or failed bank. The components of CAMELS are further described as follows (Athanasoglou et al., 2005; Dang, 2011; FDIC, 2015; Ilhomovich, 2009; Ong & Teh, 2013; Sangmi & Nazir, 2010; Sarker, 2006):

- *Capital adequacy* refers to the adequacy of the amount of own fund (capital) available to support the bank's business and act as a buffer in case of adverse situation or any shock. It is judged on the basis of capital adequacy ratio (CAR). CAR shows the internal strength of the bank to withstand losses during the crisis.
- *Asset quality* refers to the quality of the bank's loan which is the major asset that generates the major share of its income. It is measured by the nonperforming loan ratio (NPLR). It measures the risk facing a bank, i.e., the loss derived from delinquent loans. The lower the ratio the better the bank performing.
- *Management efficiency* refers to the quality of the bank's management in deploying its resources efficiently, income maximization, and reducing operating costs. Among others, it can be captured by different fi-

financial ratios like total asset growth, loan growth rate, and earnings growth rate.

- *Earnings ability* refers to how losses are absorbed and capital is augmented. Strong earnings profile of banks reflects the ability to support present and future operations.
- *Liquidity management* refers to the ability of the bank to fulfill its obligations, mainly of depositors. It can be measured by different ratios such as, *ceteris paribus*, customer deposit to total assets, total loan to customer deposit, and cash to deposit.
- *Sensitivity to market risk* reflects the degree to which changes in interest rates, foreign exchange rates, commodity prices, or equity prices can adversely affect a financial institution's earnings or economic capital.

The Uniform Financial Institution Rating System (UFIRS) which is commonly referred to as CAMELS rating was proved to be an effective internal supervisory tool for evaluating the soundness of a financial firm. The bank supervisory authorities assign each bank a score on a scale of one (best) to five (worst) for each factor. If a bank has an average score less than two it is considered to be a high-quality institution, while banks with scores greater than three are considered to be less-than-satisfactory establishments (UFIRS, 1997:1-9, as cited by Dang, 2011:16-25).

According to the Federal Deposit Insurance Corporation (FDIC, 2015), following is the detail of the CAMELS composite ratings range from 1 to 5:

- *Composite "1"*- Institutions in this group are basically sound in every respect.
- *Composite "2"*-Institutions in this group are fundamentally sound, but may reflect modest weaknesses correctable in the normal course of business.
- *Composite "3"*- Institutions in this category exhibit financial, operational, or compliance weaknesses ranging from moderately severe to unsatisfactory.
- *Composite "4"*- Institutions in this group have an immoderate volume of serious financial weaknesses or a combination of other conditions that are unsatisfactory.
- *Composite "5"*-This category is reserved for institutions with an extremely high immediate or near term probability of failure.

*Note that this study exempts the "sensitivity to market risk" ratio because of lack of information that is helpful to measure it. Therefore, the CAMEL model com-*

prising of the remaining five ratios (i.e. Capital adequacy, asset quality, management efficiency, earnings ability, and liquidity) were employed.

The American International Assurance (AIA) described the composite CAMEL rating as a tool to select the best banks among potential banks by evaluating the level of their financial performance (AIA, 1996). It also helps to propose bank's exposure to operational, financial and market risks based on the composite rating of an individual bank. The AIA's CAMEL ratios, formula and criteria are presented in *Table 1* below.

**Table 1:** AIA's CAMEL Approach for Bank Analysis

CAMEL	Ratios	Formula	Criteria
Capital Adequacy	Capital Adequacy Ratio	$\frac{(\text{Tier 1 Capital} - \text{Goodwill}) + \text{Tier 2 Capital}}{\text{Risk-Weighted Assets}}$	$\geq 8\%$
	Equity Capital to Total Assets	$\frac{\text{Total Capital}}{\text{Total Assets}}$	$\geq 4-6\%$
Asset Quality	NPLs to Total Loans	$\frac{\text{NPLs}}{\text{Total Loans}}$	$\leq 1\%$
	NPLs to Total Equity	$\frac{\text{NPLs}}{\text{Total Equity}}$	$\leq 1\%$
	Allowance for Loan Loss Ratio	$\frac{\text{Allowance for Loan Loss}}{\text{Total Loans}}$	$\geq 1.5\%$
	Provision for Loan Loss Ratio	$\frac{\text{Provision for Loan Loss}}{\text{Total Loans}}$	$\geq 100\%$
Management Quality	Total Asset Growth Rate	Average of Historical Asset Growth Rate	Nominal GNP Growth
	Loan Growth Rate	Average of Historical Loan Growth Rate	Nominal GNP Growth
	Earning Growth Rate	Average of Historical Earning Growth Rate	$\geq 10-15\%$
Earnings Ability	Net Interest Income Margin (NIM)	$\frac{\text{Net Interest Income}}{\text{Average Earning Assets}}$	$> 4.5\%$
	Cost to Income Ratio	$\frac{\text{Operating Expenses (Excludes Provision Loss)}}{\text{Net Interest Income} + \text{Non-Interest Income}}$	$\leq 70\%$
	Return on Assets (ROA)	$\frac{\text{Net Interest Income}}{\text{Asset Growth Rate}}$	$\geq 1\%$
	Return on Equity (ROE)	$\frac{\text{Net Interest Income}}{\text{Shareholder's Equity Growth Rate}}$	$\geq 15\%$
Liquidity	Customer Deposits to Total Assets	$\frac{\text{Total Customer Deposits}}{\text{Total Assets}}$	$\geq 75\%$
	Total Loan to Customer Deposits (LTD)	$\frac{\text{Total Loans}}{\text{Total Customer Deposits}}$	$\leq 80\%$

Source: AIA (1996), Babar and Zeb (2011) and Sarwar and Asif (2011)

Table 2 below presents the rating, rating range, rating analysis and interpretation of the CAMEL component and composite rating.

**Table 2:** The CAMEL's Composite Rating

Rating	Rating Range	Rating Analysis	Interpretation
1	1.0 - 1.4	Strong (or outstanding)	The bank is basically good in every aspect.
2	1.6 - 2.4	Satisfactory (or superior)	The bank is primarily good, but has several identified weaknesses.
3	2.6 - 3.4	Fair (or average), with some categories to be watched	The bank have financial, operational, or compliance weaknesses that would give reasons for supervisory concern.
4	3.6 - 4.4	Marginal (or under perform), with some risk of failure	The bank has serious financial weaknesses that could damage future capability to ensure normal growth and development.
5	4.6 - 5.0	Unsatisfactory (or doubtful), with a high degree of failure	The bank has critical financial weaknesses that will give a probability of failure to be extremely high in the near future.

**Source:** AAA (1996) and Sarker (2006)

*Table 3* and *Table 4* below demonstrate empirical evidences on the setting of the CAMEL ratio rating.

**Table 3:** Ratio Classification of Components of CAMEL Rating

CAMEL Component	Ratio's Ranking				
	1	2	3	4	5
Capital Adequacy	> 11%	8 - 11%	4 - 8%	1 - 4%	< 1%
Asset Quality	< 1.5%	1.5 - 3.5%	3.5 - 7%	7 - 9.5%	> 9.5%
Management Efficiency	< 25%	26 - 30%	31 - 38%	39 - 45%	> 46%
Earnings Ability (ROA)	> 1.5%	1.25 - 1.5%	1.01 - 1.25%	0.75 - 1.00%	< 0.75%
Earnings Ability (ROE)	> 22%	17 - 21.99%	10 - 16.99%	7 - 9.99%	< 6.99%
Liquidity	< 60%	60 - 65%	65 - 70%	70 - 80%	> 80%

**Source:** Majithiya and Pattani (2010) and Sarwar and Asif (2011)

**Table 4:** Ratio Classification of Components of CAMEL Rating

CAMEL Component	Ratio's Rating				
	1	2	3	4	5
Capital Adequacy Ratio	> 15%	12 – 14.99%	8 – 11.99%	7 – 7.99%	< 6.99%
Asset Quality Ratio (NPLs/TL)	< 1.25%	< 2.5 – 1.26%	< 3.5 – 2.6%	< 5.5 – 3.6%	> 5.6%
Management Efficiency (Cost/Income)	< 25%	30 - 26%	38 - 31%	45 - 39%	> 46%
Earnings Ability (ROA)	> 1%	0.9 – 0.8%	0.35 – 0.7%	0.25 – 0.34%	< 0.24%
Earnings Ability (ROE)	> 22%	17 - 21.99%	10 - 16.99%	7 - 9.99%	< 6.99%
Liquidity (TL/TD)	≤ 55%	62 - 56%	68 - 63%	80 - 69%	≥ 81%
Liquidity (Circulating Assets/TA)	≥ 50%	45% - 49.99%	38% - 44.99%	33% - 37.99%	≤ 32%
Sensitivity Ratio	≤ 25%	30% - 26%	37% - 31%	42% - 38%	≥ 43%

**Source:** Babar and Zeb (2011)

## 2.2. EMPIRICAL LITERATURE

The empirical evidences that are related and relevant to the measurement of a bank's financial performance through CAMEL rating are presented in this section.

Rozzani and Rahman (2013:40) find that management quality had achieved an overall best rating, which is inconsistent with the findings of Babar and Zeb (2011) and Sarwar and Asif (2011), where the component of capital adequacy achieved the best rating in Pakistan. Besides, Christopoulos et al. (2011:13-14) show a continuous decreasing trend in the capital ratio over the years. This means that its financial situation was not good and continued to get worse each year. Its bad and doubtful claims were very high while its access to capital markets was difficult for Lehman Brothers.

According to Christopoulos et al. (2011), the result of the asset quality ratio tended to increase over the years. It implies a low ability to detect, measure, monitor and regulate credit risks, while at the same time considering its bad and doubtful claims for the Lehman Brothers. The policy adopted in issuing loans was proven to be the worst. By granting loans to insolvent, high-risk borrowers, it led to an increase of its non-performing loans each year, namely its bad and doubtful loans.

Highest rating in the management quality displays a strong growth of these banks as well as high competency of its employees, which would help the bank grow in the future (Majithiya & Pattani, 2010). On the contrary, Christopoulos et al. (2011:14) show a continuous decreasing trend in the management ratio over the years. It infers that many of the loans were bad, approved as a result of the poor borrower assessment, a task that falls within the responsibilities of the management of the Lehman Brothers.

Earning quality is rated weak, which could be caused by the banks' rigid lending policies and strict lending criteria (Rozzani & Rahman, 2013:41; Sarwar & Asif, 2011). Besides, an assessment of the Lehman Brothers' earnings ratio reveals that its profits are low and insufficient. This ring a bell that the bank would face survival issues in periods of potential instability or unexpected risks should it not improve its profits and quality of profits (Christopoulos et al., 2011:15).

Moreover, Christopoulos et al. (2011:15) report that the Lehman Brothers' liquidity ratio computed by total loans to total deposits is satisfactory. This means that its loans were less than its deposits. This could indicate that the bank issued part of its loans using the funds available from its deposits and was in a position to withhold part of these funds as a reserve. To the contrary, the liquidity ratio computed by circulating assets to total assets is low. Therefore, in the event of an emergency, the bank would not be able to directly liquidate 60% of its total cash reserves, claims against other banking institutions and transaction portfolios, as well as, its investments in derivatives. In total, it is apparent that the bank's liquidity status, as compared with its liabilities was poor while its management had no contingency plan that could produce the required flexibility when needed.

Hasbi and Haruman (2011:74) find that an increase in capital adequacy ratio (CAR), nonperforming financing (NPF), level of efficiency (OEOI) and financing to deposit ratio (FDR) have increased, but return on asset (ROA) experience slow-down. The Islamic bank focuses excessively on higher profit sharing for attracting customers switching from the conventional banks through larger financing, such as lending to big companies. Besides, it uses all deposited funds added using internal equity to take profit-sharing or wide spread margin, instead of careful and prudent credit management and risk management.

Ongore and Kusa (2013:248), in their study on commercial banks in Kenya, report that the capital adequacy (measured by total capital to total asset) and management efficiency (measured by total operating revenue to total profit) have a statistically significant positive effect on the ROA and NIM, capital adequacy has a significant negative effect on ROE and asset quality (measured by non-performing loans to total loans) has a significant negative effect on the ROA, ROE, and NIM. But, the effect of liquidity (measured by total loans to total customer deposit) is not significant. The result on capital adequacy indicates an inconsistent effect on banks' financial performance, that is, it has a positive impact on the ROA and NIM, but it has a negative impact on the ROE.

In a study on commercial banks in Uganda, Frederick (2014:9-10) finds that management efficiency (measured by operating costs to total income) and asset quality (measured by loan loss provision to total loan) have a statistically significant negative effect and earnings ability (measured by net interest

margin to total assets) has a statistically significant positive effect on the performance of domestic commercial banks as measured by the ROA. However, capital adequacy (measured by equity capital to total assets) has no statistically significant effect on the ROA. On the other hand, capital adequacy, asset quality and management efficiency have a statistically significant negative effect and earnings ability has a statistically significant positive effect on the performance of domestic commercial banks as measured by ROE. This study demonstrates an inconsistent result of the explanatory variables when applied to the ROA and ROE; for instance, capital adequacy has a significant negative effect on ROE, but not on the ROA.

Cekrezi (2015:10-11) reveals that capital adequacy (measured by total equity to total assets) and liquidity (measured by total loans to total assets) have a statistically significant negative effect on the performance of commercial banks in Albania as measured by ROA.

Jha and Hui (2012:7609), in their study on Nepal's commercial banks, explain that (1) capital adequacy (measured by Tier 1 capital + Tier 2 capital/risk weighted assets) and management efficiency (measured by interest expense/total loans) have a statistically significant negative impact, earnings ability (measured by net interest income/total earning assets) has a significant positive effect, and asset quality (measured by non-performing loans/total loans) and liquidity (credit/deposit) have no significant impact on ROA; and (2) capital adequacy has a statistically significant positive impact, but asset quality, management efficiency, earnings ability, and liquidity have no significant impact on ROE. This finding shows that CAMEL has different results when applied to ROA and ROE. For example, the management efficiency and earnings ability have a significant effect on ROA, but not on ROE.

In an analysis on financial performance of Ethiopian commercial banks, Getahun (2015:51-52) reports that (1) asset quality (measured by provision for loan/total loan) and management efficiency (measured by non-interest expense/net interest income + non-interest income loan) have a statistically significant negative effect, earnings ability (measured by net interest income/total interest income) and liquidity (measured by total loan/total deposit) have a significant positive effect and capital adequacy (measured by gross capital/total assets) has no significant effect on commercial banks' ROA; and (2) capital adequacy and management efficiency have a significant negative effect, earnings ability and liquidity have a significant positive effect, and asset quality has no significant effect on commercial banks' ROE. This study demonstrates that the CAMEL model helps to rate banks' financial performance; however, it demonstrates a different result as applied to ROA and ROE. For example, asset quality has a significant effect on ROA, but not on ROE and capital adequacy has a significant effect on ROE, but not on ROA.

In summary, the above reviewed literature depicts that the CAMEL model can be applied to measure and evaluate the financial performance of commercial banks. However, the results were not consistent when the CAMEL components are applied to ROA, ROE and NIM. The literature also shows that the ratios that were used to compute the CAMEL components are not consistent, that is, different researchers employed different ratios. For instance, the researchers applied the total loans to total customer deposit, total loan/total deposit or total loans to total assets for computing the liquidity position of the commercial banks. Therefore, it can be concluded that commercial banks are rated differently when the CAMEL components are applied to ROA, ROE and NIM.

On the other hand, empirical studies revealed that Ferrouhi (2014), Ginevicius and Podvieszko (2011), Rozzani and Rahman (2013) and Sangmi and Nazir (2010) have employed the composite CAMEL ratings for comparative analysis of the financial performance of commercial banks in Morocco, Lithuania, Bangladesh, Malaysia and India.

Although the CAMELS composite rating has been used for internal control and for supervisory as well as regulatory purpose, the aforementioned empirical evidences confirmed that researchers have been employing the composite rating for identifying strong as well as the weak financial performance of commercial banks.

### **3. PROBLEM STATEMENT**

Commercial banks serve as an intermediation and one's nation money stock. Evaluation of their performance is indisputably important to depositors, owners, investors, managers and regulators. Periodic measurement and evaluation of their performance is vital for ensuring their financial soundness and management's quality.

As can be seen from the reviewed literature above, application of the CAMEL components to ROA, ROE and NIM for evaluating the financial condition and performance of commercial banks portrayed inconsistent results. However, Muhammad (2009) claims that the composite CAMEL rating has been used as a precursor for reflecting accurate and consistent evaluations of commercial bank's inner strength and exposure to market risks. Dang (2011:27) states that this rating was used by the American government during the financial crisis of 2008 for identifying which banks need special help.

Therefore, this study carried out periodic financial measures and evaluates the financial performance of the African commercial banks by employing the composite CAMEL ratings for a period of three years (i.e. 2012 – 2014). It helps examine how strong or weak they are and generate a composite index to

stakeholders such as management, owners, regulators and supervisors for the timely warning to minimize adverse effects on banks. For this reason, Barker and Holdsworth (1993) and Gaytan and Johnson (2002) argue that the composite CAMEL rating is very much popular among regulators due to its effectiveness. Besides, Dang (2011:39) confirms that the CAMEL rating is significant to banking supervision and is currently popular among regulators worldwide.

#### 4. METHODOLOGIES

Seven of the 30 best banks, as identified by the *Global Finance Magazine* (2015), were observed. These banks were purposively selected based on the following criteria: Identified as the best banks in Africa in 2015 by the *Global Finance Magazine* (2015), has complete (not partial) consolidated financial statement for the recent three years (2012 - 2014), that is, available as a public domain in the *Bureau van Dijk Bankscope* (2016) and guided by consistent common accounting reporting standards, that is, IFRS.

Congruent with the arguments made under the problem statement in section 3 above, the study employed the CAMEL composite ratings that range from 1 to 5 as applied by the AIA's CAMEL for bank analysis (Dang, 2011:16-26). The CAMEL's component, ratio, formula and criteria applied to this study are presented in *Table 1* above.

#### 5. RESULTS AND DISCUSSIONS

The following CAMEL components, ratios and rating are adapted and employed while rating the African bank's financial performance by taking into account *Table 1*, *Table 3* and *Table 4* as a reference. Accordingly, *Table 5* below presents the components and ratio's rating employed for this study.

**Table 5:** Ratio Classification of Components of CAMEL Rating

CAMEL Component	Ratio's Rating					
	1	2	3	4	5	
Capital Adequacy Ratio	> 15%	12 – 14.99%	8 – 11.99%	7 – 7.99%	< 6.99%	
Asset Quality Ratio (NPLs/TL)	< 1.25%	< 2.5 – 1.26%	< 3.5 – 2.6%	< 5.5 – 3.6%	> 5.6%	
Management Efficiency (Cost/Income)	< 25%	30 - 26%	38 - 31%	45 - 39%	> 46%	
Earnings Ability	(ROA)	> 1.5%	1.25 - 1.5%	1.01 - 1.25%	0.75 - 1.00%	< 0.75%
	(ROE)	> 22%	17 - 21.99%	10 - 16.99%	7 - 9.99%	< 6.99%
Liquidity (TL/TD)	< 55%	62 - 56%	68 - 63%	80 - 69%	> 81%	

**Source:** *Adopted from Babar and Zeb (2011) and Rozzani and Rahman (2013)*

The CAMEL ratio results are presented below in *Table 6* through *Table 9*.

**Table 6:** Banks' Ratio for the Year 2014

CAMEL Components	CAMEL Ratios	2014 (%)						
		AB-Morocco	BdK-Rwanda	BWL-Namibia	EGHL-Kenya	FRB-S. Africa	SB-S. Africa	SCB-Botswana
Capital Adequacy	CAR	12.63	26.30	14.10	21.00	16.10	14.60	16.10
Asset Quality	NPLs/TLs	6.75	6.57	0.68	4.31	2.42	3.74	0.73
Management Quality	C/I	30.30	34.95	48.07	48.62	48.51	42.08	61.87
Earnings Ability	RoA	1.29	4.05	2.39	5.50	1.57	1.10	2.76
	RoE	13.22	22.85	21.03	31.09	22.55	14.51	28.05
Liquidity	TLs/CD	105.36	76.00	108.51	90.22	107.61	99.36	81.60

Source: Author

**Table 7:** Banks' Ratio for the Year 2013

CAMEL Components	CAMEL Ratios	2013 (%)						
		AB-Morocco	BdK-Rwanda	BWL-Namibia	EGHL-Kenya	FRB-S.Africa	SB-S.Africa	SCB-Botswana
Capital Adequacy	CAR	12.72	23.70	14.90	26.00	14.90	15.50	19.80
Asset Quality	NPLs/TLs	6.26	6.94	0.86	5.21	2.95	3.82	0.62
Management Quality	C/I	34.25	31.64	49.01	43.61	47.93	40.21	55.02
Earnings Ability	RoA	1.33	3.51	2.23	5.10	1.48	1.04	3.33
	RoE	13.93	20.96	21.76	29.26	22.40	14.08	32.09
Liquidity	TLs/CD	109.94	75.53	131.00	90.88	104.54	97.78	80.72

Source: Author

**Table 8:** Banks' Ratio for the Year 2012

CAMEL Components	CAMEL Ratios	2012 (%)						
		AB-Morocco	BdK-Rwanda	BWL-Namibia	EGHL-Kenya	FRB-S.Africa	SB-S.Africa	SCB-Botswana
Capital Adequacy	CAR	11.94	23.20	12.60	32.00	14.80	14.80	22.40
Asset Quality	NPLs/TLs	5.05	6.53	1.08	3.08	3.45	3.71	10.24
Management Quality	C/I	37.90	43.15	52.91	44.43	47.58	42.45	54.87
Earnings Ability	RoA	1.47	3.86	1.98	5.49	1.41	1.25	2.93
	RoE	16.11	18.90	21.69	32.62	22.18	19.65	32.13
Liquidity	TLs/CD	112.94	91.56	128.32	83.37	111.80	94.92	69.77

Source: Author

**Table 9:** Aggregate Banks' Ratio for the Year 2012-2014

CAMEL Components	CAMEL Ratios	Aggregate for 2012 – 2014 (%)						
		AB-Morocco	BdK-Rwanda	BWL-Namibia	EGHL-Kenya	FRB-S.Africa	SB-S.Africa	SCB-Botswana
Capital Adequacy	CAR	12.43[2]	24.40[1]	13.87[2]	26.33[1]	15.27[1]	14.97[2]	19.43[1]
Asset Quality	NPLs/TLs	6.02[5]	6.68[5]	0.87[1]	4.20[4]	2.94[3]	3.76[4]	3.86[4]
Management Quality	C/I	34.15[3]	36.58[3]	50.00[5]	45.55[5]	48.00[5]	41.58[4]	57.25[5]
Earnings Ability	RoA	1.36[2]	3.81[1]	2.20[1]	5.36[1]	1.49[2]	1.13[3]	3.01[1]
	RoE	14.42[3]	20.90[2]	21.49[2]	30.99[1]	22.38[1]	16.08[3]	30.76[1]
	Combined	[2]	[1]	[1]	[1]	[1]	[3]	[1]
Liquidity	TLs/CD	109.41[5]	81.03[5]	122.61[5]	88.16[5]	107.98[5]	97.35[5]	77.36[4]
Combined Average Rate ( r/n)		3.33	2.83	2.67	2.83	2.83	3.5	2.67
Ranking		3	2	1	2	2	4	1
Composite Rating		3	3	3	3	3	3	3
Rating Analysis		Fair	Fair	Fair	Fair	Fair	Fair	Fair

**Source:** *Author*

\*  $\Sigma r$  = Sum of the six ratio ratings of a specific bank; n= Number of ratios (i.e. 6)

\*\* AB= Attijariwafa Bank (Morocco); BdK= Banque de Kigali (Rwanda); BWL= Bank Windhoek Limited (Namibia); EGHL= Equity Group Holdings Limited (Kenya); FRB= First Rand Bank Ltd (South Africa); SB= Standard Bank of South Africa Ltd. (South Africa) and Standard Chartered Bank Botswana Ltd (Botswana)

\*\*\* Note that the component ratios that are fitted to the ratios under Table 3 and Table 4 above are considered for this analysis. The specific ratings of the CAMEL components (i.e. Component ratings) are presented in the brackets. Moreover, the ratio rating is in line with Table 2 and Table 5 above.

The following discussions are in line with the Uniform Financial Institutions Rating System (UFIRS, 1997). The composite and component ratings are based on a 1 to 5 numerical scale as demonstrated in *Table 2 above*.

The results in *Table 9* above revealed that the banks' specific CAMEL components are rated from 1 to 5. Besides, the banks' overall CAMEL composite rating indicated that all the banks are rated as composite 3, that is, fair with some components to be watched, where their combined average composite rate falls within the 2.6 - 3.5 range (*Table 2*); however, the result shows a clear difference among the banks specific performance (i.e. Component rating) as discussed below.

According to the *Capital Adequacy's* rating, all banks fulfil beyond the Basel III's minimum total capital adequacy ratio (CAR) of 8%, yet, there is an undeniable difference among the specific bank ratings. Banque de Kigali (Rwanda), Equity Group Holdings Limited (Kenya), First Rand Bank Ltd (South Africa) and Standard Chartered Bank Botswana Ltd (Botswana) are rated 1, that is, they are maintaining *strong* capital level relative to their risk profile. Whereas, Attijariwafa Bank (Morocco), Bank Windhoek Limited (Namibia) and Standard Bank of South Africa Ltd. (South Africa) are rated 2, that is, they are maintaining a *satis-*

*factory* capital level relative to their risk profile. This result is consistent with the finding of Sangmi and Nazir (2010) who state that such strong and satisfactory capital level is the sign of banks' survival in times of crisis and also opportunities to expand in the future that reflects the inner strength of banks. The result shows that the banks are financially sound, complied with the statutory capital regulations and able to sustain reasonable losses. Thus, the banks may attract more future deposits and lift up their lending capacity.

The *Asset Quality's* rating indicated that Bank Windhoek Limited (Namibia) is rated 1, that is, it has strong asset quality, where its credit administration and risk management practice is strong; First Rand Bank Ltd (South Africa) is rated 3, that is, it has less than satisfactory asset quality, where its credit administration and risk management practice is less satisfactory and ; Equity Group Holdings Limited (Kenya), Standard Bank of South Africa Ltd. (South Africa) and Standard Chartered Bank Botswana Ltd (Botswana) are rated 4, that is, they have deficient asset quality, where their credit administration and risk management practice is deficient and Attijariwafa Bank (Morocco) and Banque de Kigali (Rwanda) are rated 5, that is, they have critically deficient asset quality, where their credit administration and risk management practice is critically deficient. In summary, the banks' quality of their credit is deficient and critically deficient (except for two banks). This implies that the banks are not good at detecting, measuring, monitoring and regulating credit risks, that is, probably caused by relaxing lending policies and lending criteria, and lenient credit control (Christopolous et al., 2011; Rozzani & Rahman, 2013; Sarwar & Asif, 2011). Thus, their future credit financing (i.e. Payment of interest on deposits as well as withdrawal of deposits), deposit mobilization and lending capacity will be adversely influenced.

The *Management Quality's* rating revealed that Attijariwafa Bank (Morocco) and Banque de Kigali (Rwanda) are rated 3, that is, their management and board performance is less than satisfactory, where their risk management practice is less satisfactory; Standard Bank of South Africa Ltd. (South Africa) is rated 4, that is, its management and board performance is deficient, where its risk management practice is deficient and its level of risk exposure is excessive and Bank Windhoek Limited (Namibia), Equity Group Holdings Limited (Kenya), First Rand Bank Ltd (South Africa) and Standard Chartered Bank Botswana Ltd (Botswana) are rated 5, that is, their management and board performance is critically deficient, where their risk management practice is critically deficient and their level of risk exposure is too excessive. In total all the banks management quality is less satisfactory, deficient and critically deficient. Such finding is against the findings of Majithiya and Pattani (2011) who reported that banks' management quality displayed the strong growth of the banks as well as the high competency of its employees. It implies that there is serious

problem which calls for instant supervisory concern due to the banks' financial, operational and compliance weakness which will damage future capability to ensure normal growth and development.

The combined *Earnings Ability's* rating showed that Bank Windhoek Limited (Namibia), Equity Group Holdings Limited (Kenya), First Rand Bank Ltd (South Africa), Standard Chartered Bank Botswana Ltd (Botswana) and Banque de Kigali (Rwanda) are rated 1, that is, their earnings ability is strong, where earnings are more than sufficient to support operations and maintain adequate capital and allowance levels; Attijariwafa Bank (Morocco) is rated 2, that is, its earnings ability is satisfactory, where earnings are sufficient to support operations and maintain an adequate capital and allowance levels and Standard Bank of South Africa Ltd. (South Africa) is rated 3, that is, its earnings ability is less satisfactory, where earnings may not fully support operations and provide for the accretion of capital and allowance levels. Except Standard Bank, the remaining six banks are rated as strong and satisfactory which may be caused by banks' relaxed lending policies and lending criteria (Rozzani & Rahman, 2013; Sarwar & Asif, 2011).

According to the *Liquidity's* rating, the Standard Chartered Bank Botswana Ltd (Botswana) is rated 4, that is, its liquidity level is deficient, where its funds management practice is inadequate and Banque de Kigali (Rwanda), Bank Windhoek Limited (Namibia), Equity Group Holdings Limited (Kenya), First Rand Bank Ltd (South Africa), Attijariwafa Bank (Morocco) and Standard Bank of South Africa Ltd. (South Africa) are rated 5, that is, their liquidity level is critically deficient, where their funds management practice is critically inadequate. Such finding affirms Sangmi and Nazir (2010) who explain that the weak rating of liquidity displays an unbalanced mixture of liquid and non-liquid assets where banks would be unable to meet its liability obligations during times when demand arises. Besides, Hasbi and Haruman (2011) state that the banks may be forced to cover bank deposit withdrawals made by customers from their banks' own equity. The study, hence, indicates that there is a serious problem that demands immediate action and careful loan and deposit monitoring.

In summary, following the composite rating, *Table 9* above showed that Bank Windhoek Limited (Namibia) and Standard Chartered Bank Botswana Ltd (Botswana) are ranked first; Banque de Kigali (Rwanda), Equity Group Holdings Limited (Kenya) and First Rand Bank Ltd (South Africa) second; Attijariwafa Bank (Morocco) third and Standard Bank of South Africa Ltd. (South Africa) fourth. However, all the banks are aggregately rated and falls under the composite 3, that is, their composite financial performance rating is fair with some categories to be watched. The result disclosed that the banks' management and board performance on risk management (i.e. Asset quality and man-

agement quality) and funds management (i.e. Liquidity) range from moderate to severe. This rating exhibits some degree of supervisory concern on some components which may expose the banks to be less capable of withstanding business fluctuations and vulnerable to outside influences.

## **6. CONCLUSIONS AND RECOMMENDATIONS**

The study addressed the seven banks that were among the best African banks as identified by the *Global Finance Magazine* (2015). These banks were purposely selected for having complete (not partial) financial statements for the latest three years (i.e. 2012 – 2014).

Four banks rated as strong and three of them rated as satisfactory when rated by the capital adequacy ratio (CAR). All banks fulfill above the Basel III's minimum requirement for capital adequacy ratio (CAR), that is, greater than 8%. Besides, five banks rated as strong, one as satisfactory and another one as less satisfactory when rated in terms of combined earnings ability.

Almost all banks exhibit supervisory concern when rated in terms of asset quality, management quality and liquidity. They are rated as less satisfactory, deficient and critically deficient. This is may be the result of unsafe and unsound risk management, fund management practices and noncompliance with laws and regulation.

The results showed that all the banks are aggregately rated and fall under the composite rate 3, that is, fair. This composite rating often indicates that reasonable problems exist which require an immediate action and careful monitoring. It means the banks are less capable of withstanding and more vulnerable to credit, market and other risks. Besides, the Standard Bank of South Africa Ltd. (South Africa) that was identified as the winner best regional bank in Africa by the *Global Finance Magazine* (2015) is, however, on the verge of composite rate 4 and ranked the last among the seven banks under study.

The study concluded that the composite CAMEL rating reveals variations among the observed banks. Even if all the banks are compositely rated as fair, they have differences when each component and their aggregate average is considered. This variation helps to compare and rank banks based on their financial performance apart from triggering regulatory, supervisory and administrative concerns that must be addressed.

The empirical evidences reviewed above depict that the application of CAMEL to ROA, ROE and NIM portrays an inconsistent result regarding bank's financial performance. It may be improper to rank the banks as a strong or a weak performer when the ROA, ROE and NIM are treated independently. Conversely, the CAMEL composite rating constitutes of many financial ratios

including the ROA, ROE and NIM. It helps to evaluate the bank's financial performance in a holistic manner by considering more financial ratios. Any given bank may take a lesson from the individual as well as composite (aggregate) ratio and rating. As a result, compared to the ROA, ROE and NIM, the composite CAMEL rating is a better model for evaluating the banks' financial performance and for conveying constructive remarks on risk management, funds management and compliance with laws and regulations.

The banks are recommended to employ the composite CAMEL rating model on a periodic basis (at least once a year) in order to identify the components along with their associated specific ratios that need special attention. This will help bank managers for enduring financial and economic stresses and complying with laws and regulations. Moreover, institutions like the *Global Finance Magazine* are recommended to apply the CAMEL composite and component rating for ranking banks.

Finally, the study was not carried without limitations. First, the CAMEL model comprises many financial ratios for evaluating the soundness of a firm financial and operational performance. For instance, an empirical study such as the AIA (1996) details the 15 specific ratios to be considered under each component of the CAMEL. Besides, empirical evidences report that prior researchers have tried to make the CAMEL composite and component ratings more objective and easy to use in constructing ratio's rating scale (Babar & Zeb, 2011; Majithiya & Pattani, 2010; Sarwar & Asif, 2011). These ratio's rating scales didn't fully cover the AIA's 15 ratios. As a result, this study accounts only the six financial ratios that are rated by the empirical researchers. Second, the composite CAMEL rating, in addition to its quantitative ratio analysis, is accompanied by subjective judgements. Thus, further research is recommended and worthy to construct a complete ratio's rating scale for all the ratios constructed by the AIA and the weight that deserves for each ratio so that the composite rating be relatively objective.

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## **FINANCIJSKO POSLOVANJE "NAJBOLJIH AFRIČKIH BANAKA": KOMPARATIVNA ANALIZA POMOĆU SUSTAVA OCJENJIVANJA CAMEL**

### **SAŽETAK RADA:**

Ova studija analizira financijsko poslovanje Afričkih banaka. Između trideset najboljih banaka identificiranih od strane Global Finance Magazine promatrano ih je sedam koje imaju cjelovite i konsolidirane financijske izvještaje za razdoblje posljednje tri fiskalne godine (2012. do 2014.). U radu se primjenjuje sustav CAMEL za analizu i ocjenjivanje.

Studija je pokazala da su banke procijenjene kao snažne kada su procjenjivane u okviru adekvatnosti kapitala i mogućnosti ostvarenja dobiti. Obzirom na kvalitetu menadžmenta, likvidnost i kvalitetu aktive ocijenjene su kao manje zadovoljavajuće, nedostatne te manjkave.

Sve banke u cjelini označene su ocjenom tri (dobar).

Standard Bank of South Africa Ltd. (South Africa) ocijenjena je najlošijom od svih banaka obuhvaćenih studijom, no od strane Global Finance Magazine ocijenjena je najboljom regionalnom bankom u 2015. godini.

Bankama je preporučeno da periodično koriste sustav ocjenjivanja CAMEL kako bi izbjegle poslovne fluktuacije i ranjivost uzrokovane vanjskim čimbenicima.

U skladu s preporukom bankama, isto se preporučuje i institucijama poput Global Finance Magazine pri procjenjivanju najboljih banaka.

Naposljedku, preporuča se daljnje istraživanje kako bi se napravila potpuna skala procjene i težine svih dijelova koje čine sastavne dijelove sustava CAMEL

***Ključne riječi:*** bankarstvo, sastavni dio, dio, procjena, omjer.