



## **Palestinian Banks Analysis Using CAMEL Model**

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### **ABSTRACT**

This study attempts to evaluate the performance and financial soundness of Palestinian Commercial Banks for the year 2015 using CAMEL rating model. The CAMEL model provides a means to categorized bank based on the overall health, financial status, and managerial operation. Banks were sustained rating based on the performance in five areas: Capital adequacy, asset quality, management efficiency, earning quality, and liquidity. We applied capital adequacy ratio to analyze capital adequacy parameter, non-performing loans to total loans to analyze of assets quality parameter, non expense ratio for analyzing management quality parameter, return on assets and return on equity to analyze earnings ability and total loans to total deposits ratio to analyze liquidity management.

**Keywords:** CAMEL Approach, Financial Institutions, Palestine

**JEL Classifications:** G20; G21

### **1. INTRODUCTION**

Banks are very important institution and serve as backbone to the financial sector, which play a crucial role in developing the different economic sectors, the stream of money is managed and controlled, investment opportunities are utilized and channels of funds goes to productive and profitable projects. The banking sector is increasingly growing and it has witnessed a huge flow of investment. In addition to simply being involved in the financial intermediation activities, banks are operating in a rapidly innovating industry that motivates them to create more specialized financial services to better satisfy the changing needs of their customers.

Accordingly, the efficiency of the financial institutions is crucial for the whole economy, bank failures become a threat on the banking system. To meet that risk of failure, several models and techniques were developed to evaluate and analyze the banks' efficiency and performance. In order to cope with the complexity and a mix of risk exposure to banking system properly, responsibly, beneficially and sustainably, it is of great importance to evaluate the overall performance of banks by implementing a regulatory banking supervision framework. One of such measures of supervisory information is the CAMELS rating system, officially

known as the Uniform Financial Institutions Rating System, it is a supervisory rating system originally developed in the U.S. and adopted by the Federal Financial Institution Examination Council on 1979 to classify a bank's overall condition. Under this model each bank subject to on-site examinations on the basis of five dimensions which are: Capital adequacy, assets quality, management efficiency, earnings quality, and liquidity. Sensitivity to market risk is another 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. They are defined as follows (Federal Register, 1997).

- Capital adequacy: Fundamentals of capital adequacy is the capital expected to maintain balance with the risks exposure of the financial institution such as credit, market, 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" (FDIS, 1997).
- Asset quality: Assets are very important as poor asset quality is the major cause of most bank failures. A major asset category is the loan portfolio; the greatest risk facing the bank is the risk of loan losses derived from the bad 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 subjective from the analyst's point of view.

- **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 (FDIS, 1997).

Grier (2007) suggests that management is considered to be the single most important element in the CAMEL rating system because it plays a great role in a bank's success; however, it is subject to measure as the asset quality examination. The management has clear strategies and goals in directing the bank's domestic and international business, and monitors the collection of financial ratios consistent with management strategies. The top management with good quality and experience has preferably excellent reputation in the local communication. **Earning ability:** This rating reflects not only the quantity and trend in earning, but also the factors that may affect the sustainability of earnings. Poor 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 equal or greater value than past and present performance (FDIS, 1997). In accordance with Grier (2007) 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.

- **Earning quality:** This rating reflects not only the quantity and trend in earning, but also the factors that may affect the sustainability of earnings. Poor 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 equal or greater value than past and present performance (FDIS, 1997). The earnings of bank reflect its growth capacity and financial health quality of earnings. It is necessary for a balanced financial structure and helps provide shareholder reward. Thus consistently healthy earnings are essential to the sustainability of banking institutions.
- **Liquidity:** One of the major missions of any financial institution's management faces is ensuring adequate level of liquidity at all times, no matter what emergencies may expect. This suggests that the bank either has the proper amount of funds on hand when they need it or can raise liquid funds in timely fashion without adversely affecting its operations. A bank can be close if it cannot raise sufficient liquidity needs, in other words, liquidity needs cannot be ignored.

All five components of CAMEL rating model are rated on the basis of following criteria on the scale of 1-5. This rating is like qualitative analysis rather than quantitative analysis; it is not

to be assigned on arithmetic average of all components rating. Composite rating assigns on 1-5 numerical scales, where "1" is the highest rating for the bank, which shows strong performance whereas rating "5" shows indicates worst position of a bank in the particular component. Each component has a well thought out scale of rating based on the prevailing financial and economic conditions (Saltzman and Salinger, 1998). When composite rating is assigned to each component the result will be disclosed to senior management and to the board of directors.

This study analyzes the performance of major Palestinian commercial banks for the year 2014 using CAMEL approach. The research aims to evaluate Palestinian financial institutions' capital adequacy, asset quality, management, earnings and liquidity and then determine financial performance, operating soundness and regulatory compliance of Moroccan financial institutions.

The study is organized as follows. In section 2, we review the existing literature on performance financial institutions' analysis using CAMEL model. The methodology adopted and data used in this paper are presented in section 3 while section 4 is dedicated to the presentation of empirical results. Analysis and discussion represented in section 5. Finally, section 6 offers conclusions and recommendations.

## 2. LITERATURE REVIEW

In the field of evaluating the performance of financial institutions, various studies have focused on the application of CAMEL approach to financial institutions. 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. Aspal and Misra (2013) in their attempt to analyze the soundness of State Bank Group using CAMEL approach, they found that in terms of capital adequacy parameter State Bank of Bikaner and Jaipur (SBBJ) and State Bank of Patiala (SBP) were at the top position, while State Bank of India (SBI) got lowest rank. In terms of asset quality parameter, SBBJ held the top rank while SBI held the lowest rank. Under management efficiency parameter it was observed that top rank taken by SBT and lowest rank taken by SBBJ. In terms of earning quality parameter the capability of SBM got the top rank while SBP was at the lowest position. Under the liquidity parameter SBI stood on the top position and SBM was on the lowest position. SBI needs to improve its position with regard to asset quality and capital adequacy, SBBJ should improve its management efficiency and SBP should improve its earning quality. Said and Saucier (2003) used CAMEL rating methodology to evaluate capital adequacy, assets and management quality, earnings ability and liquidity position of 624 Japanese Banks. Mohiuddin (2014), analyzed and compared the performance of two major Bangladesh Banks; NCP and PCB using CAMEL model and concluded that, despite some differences in calculations of ratios of capital adequacy, asset quality, management capability, financial performance, earnings analysis, liquidity analysis between the two banks; banks under the study is sound and satisfactory, and he also highlighted the importance of liquidity in banks as it is as blood in a human body.

The bank should be in a position to meet its liability holders as an when demand arises. 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. Siva and Nataraja, (2011) empirically tested the applicability of CAMEL and its consequential impact on the performance of SBI groups. The study found that CAMEL scanning helps the bank to diagnose its financial health and alert the bank to take preventive steps for its sustainability.

### 3. RESEARCH METHODOLOGY

This study aimed to analyze the performance of all of Palestinian Commercial Banks for the year 2014 using CAMEL approach, to evaluate Palestinian Banks' capital adequacy, asset quality, management, earnings and liquidity to determine financial performance, operating soundness and regulatory compliance of Moroccan financial institutions. To do this, we first define different ratios used to evaluate Moroccan financial institutions capital adequacy, asset quality, management, earnings and liquidity.

According to literature review mentioned above, we use the following ratios to evaluate capital adequacy, asset quality, management efficiency, earnings quality and liquidity:

Capital adequacy ratio = (Tier I +Tier II)/risk-weighted assets.

This ratio determines the ability of the bank to meet with obligation on time and other risk such as operational risk and credit risk etc.

Tier I: Tier one is a type of capital, it is a composed core capital or we can say own capital which consist primarily of common stock, preferred stock, convertible bonds and retain earning. Tier one capital is capital which is permanently and freely available to absorb losses without the bank being obliged to cease trading.

Tier II: It is a supplementary form of bank's capital. Tier two capital is capital which generally absorbs losses only in the event of a winding-up of a bank, and so provides a lower level of protection for depositors and other creditors. It comes into play in absorbing losses after tier one capital has been lost by the bank.

Asset quality ratio (NPLR) = Total non-performing loans/total loans

This ratio is the major indicator of asset quality (credit risk management) which affects the profitability of banks. It measures the percentage of gross loans which are doubtful in bank's portfolio, the lower the ratio of non-performing loan (NPL) ratio

is, and the better the asset/credit profitability of a commercial bank is.

Management efficiency ratio (NER) = Non interest expense/total revenue.

Management efficiency ratio is a measure of a bank's overhead as a percentage of its revenue. Management efficiency is one of the key internal factors that determine the bank profitability. The performance of management efficiency is usually qualitative and can be understood through the subjective evaluations. Management efficiency can be expressed as managing the operating expenses. The lower ratio, the better for bank since it shows that management has good ability to handle the bank operations (Baral, 2005).

Earning quality ratio: To measure earnings, the ratios used are, return on assets (ROA), and return on equity (ROE). ROA = Net profit/total assets. This ratio avoids the volatility of earnings linked with unusual items, and measures the profitability of the bank and has a positive connection with CAMELS. It also compares the total assets with net profit and shows that assets management is well-organized to make profit or not (Gasbarro, et al, 2002). The higher the ratio, the greater is profitability. The second ratio is ROE = Net profit/total equity capital. This ratio shows the efficiency of the bank, that how the bank uses its own capital in an efficient manner (Christopoulos et al, 2011).

Liquidity management ratio: There are several ratios that can be used to measure liquidity of the bank but in our research that is based upon the usage of CAMELS system, we used two liquidity ratios. These ratios are (L1) = Total loans/total deposits and circulating assets to total assets (L2).

Those ratios calculate the bank's ability to cover withdrawals made by its customers.

Liquidity is ability of a firm to convert its financial assets into cash most rapidly or in a quick succession or we can say availability of the funds to pay off all its financial obligations when they become due.

Due to the unavailability of the data for factor S, i.e., sensitivity to market risk, the data has been analyzed using the rest of the 5 factors using ratios.

#### 3.1. Sample Population and Participants

Palestinian commercial banking sector has been chosen for the purpose of this study; however, two Islamic banks have been excluded from this study. In other words, five Palestinian commercial banks comprised the study sample (Table 1). The

**Table 1: Selected data for the sample banks for the year 2015 in USD millions**

Bank	Total assets	Total equity	Customer deposits	Net loans	Net income
Bank of Palestine	2424	280	2062	1151	40.43
AL-Quds Bank	669	70	517	336	7.2
Palestinian Commercial Bank	279	36	169	129	0.114
Palestinian Investment Bank	321	68	199	102	2.8
National Bank	680	80	414	298	3.6

necessary data were collected from each bank's annual audited financial statements, the Association of Banks in Palestine and from Palestinian monetary authority (PMA)'s annual reports, for sake of comparison.

### 3.2. Data Collection

The secondary data used for the study were from annual reports for the year 2015. The study necessitates looking into credit risk management disclosure, financial statements and notes to financial statements in the annual reports of the sample banks. In Palestine, banks must submit their annual reports to the PMA, so it's easy to get all annual reports of selected banks from the PMA and online.

### 3.3. CAMELS Rating Base

All five components of CAMEL rating model are rated on the basis of following criteria on the scale of 1-5 as shown in table 2. Component having rating 1 shows strong position while rating 5 indicates worst position of a bank in the particular component. Each component has a well thought out scale of rating based on the prevailing financial and economic conditions (Saltzman and Salinger, 1998).

### 3.4. Composite Rating

Composite rating takes place on the basis of evaluation and rating of six components. This rating is like qualitative analysis rather than quantitative analysis; it is not to be assigned on arithmetic average of all components rating (Trautmann, 2006). Composite rating assigns on 1-5 numerical scales, where "1" is the highest rating for the bank, which shows bank strongest performance whereas rating "5" shows the lowest rating and worse performance of the bank (Comptrollers Handbook, 2007).

#### 3.4.1. Composite rating 1

Composite rating "1" indicates strong position of the bank and shows the soundness and strongest performance of the bank in all aspects, and usually given to the banks who are rated 1 or 2 in almost all components.

#### 3.4.2. Composite rating 2

Composite rating "2" is usually given to fundamentally and financially strong banks and usually have component rating not more than 3. At this position banks are stable and have the capability to hold out the economic depression. At this stage bank's management have good enough hold to redress the moderate weakness of the bank.

#### 3.4.3. Composite rating 3

Composite rating "3" indicates that the bank has weaknesses in different component areas. Appropriate concentration is required at this stage and if it is not provided it may lead the bank towards liquidity or bankruptcy. More than 2 rating components of the banks are above 3 rating. Management of the bank does not have the ability to control the situation and to find out the way to guide the banks out of the weaknesses.

#### 3.4.4. Composite rating 4

Composite rating "4" of a bank indicates and shows risky and unstable performance. Unsatisfactory performance of banks is mostly because of managerial or financial insufficiencies. At this stage management of the bank and its board of directors are unable to take hold on flaws and weaknesses to resolve the problem. Most of its components ratings are above three and 1 or 2 of them are in 5 as well. The violation of law and regulations is on rise and risk management practices are not acceptable at this stage. There is a need of corrective action and proper supervision and if an immediate supervision action is not taken the result may be solvency of the bank.

#### 3.4.5. Composite rating 5

Composite rating "5" indicate unsound, risky and unstable bank's performance. Usually risk management practices of the bank are insufficient and bank's Management failure of taking control on weaknesses. Most of its components are rated 4 and 5 and usually have negative earnings. At this stage continues supervision is required from the regulators and financial assistance from outside is much needed to avoid the highly probable bank failure.

## 4. EMPIRICAL RESULTS

In this section of our study we will present empirical findings which are based upon financial ratios implemented on the annual consolidated financial statements of the sample banks for the year ended 31<sup>st</sup> December 2015.

### 4.1. Capital Adequacy

Capital adequacy ratios (CARs) are a measure of the amount of a bank's capital expressed as a percentage of its risk weighted credit exposures. Capital adequacy shows the financial strength of a bank. Applying minimum CARs serves to protect depositors and promote the stability and efficiency of the financial system. Table 3 showing sample banks CARs.

**Table 2: Rating base of CAMEL components**

Components	Rating 1 (%)	Rating 2 (%)	Rating 3 (%)	Rating 4 (%)	Rating 5 (%)
Capital adequacy CAR	≥13	11-11.99	8-8.99	7-7.99	≤6.99
Assets quality NPLR	≤1.5	1.51-2.5	2.6-3.5	3.6-5.5	≥5.6
Management efficiency (NER)	40-49.99	50-59.99	60-69.99	70-75	≥75
Earnings					
ROA	≥1≥22	0.9-0.8	0.35-0.7	0.25-0.34	≤0.24≤6.99
ROE		17-21.99	10-16.99	7-9.99	
Liquidity ratio 1	≤55≥50	56-62.99	63-68.99	69-74.99	≥75≤32
Liquidity ratio 2		45-49.99	38-44.99	33-37.99	

CAR: Capital adequacy ratio, ROA: Return on assets, ROE: Return on equity, NPLR: Non-performing loan ratio, NER: Non expense ratio

## 4.2. Assets Quality

Asset quality is one of the most crucial areas in determining the overall position of a bank. The primary and major factors affecting overall asset quality is the quality of the loan portfolio and the credit administration program. Since credit risk continues to remain the largest source of risk for banking institutions, it is one of the most important areas of risk management, because the loan portfolio is the largest asset and primary source of bank's revenue. Assets that have low quality usually have higher possibility to become a NPL. NPLs are usually bad debts that are in default or they are near to be in default. Table 4 showing sample banks asset quality ratio (NPLs to net loans).

## 4.3. Management Efficiency

It is difficult to determine the sound performance of the bank's management. For an institution, it is not a quantitative factor it is primarily qualitative factor. However to determine the soundness of the management we apply the ratio which is, non interest expense/total revenue. The lower ratio, the better for bank since it shows that management has good ability to handle the bank operations (Baral, 2005). Table 5 showing the ratio of non-interest expenses to total revenues.

## 4.4. Earning Quality

Adequate earnings an important indicator for healthy and sustainable bank. Healthy profits need it to achieve many tasks, starting from capital protection and growth; absorbing losses; attracting new investors to public promote confidence. Table 6 showing earnings ratios represented in ROA and ROE.

## 4.5. Liquidity Management

One of the major tasks facing bank's management is to keep adequate levels of liquidity all times, regardless any an expected emergencies. A bank considered liquid, when it has the right amount of spendable funds on hand when they required or easy access to raise funds either from borrowing or converting assets to cash. Table 7 showing liquidity ratios represented in net loans to total customer deposits L1 and circulating assets to total assets (L2).

In this section we calculated financial ratios of all five components of CAMELS rating system of our five sample banks for the year 2015. In the following section we will do analysis of the ratings presented in this section.

## 5. ANALYSIS AND DISCUSSION

In this section of the study we will analyze the findings of our results that are presented in the previous section. First we will analyze rating results of each component separately and afterward we will analyze CAMELS composite rating of the sample banks. We will also rank these banks on the basis of results generated in components rating of every banks.

### 5.1. Components Rating Analysis

#### 5.1.1. CAR

CAR is calculated with the help of Tier I capital and Tier II capital of the bank with respect to its total risk weighted assets. Basel Committee required banks to hold capital equal to at least 8%

**Table 3: CAR**

Bank	CAR %	Rating
Bank of Palestine	14.46	1
AL-Quds Bank	16.30	1
National Bank	17.51	1
Palestine Investment Bank	32.27	1
Palestine Commercial Bank	17.15	1

CAR: Capital adequacy ratio

**Table 4: Asset quality ratios**

Bank	NPLR (%)	Rating
Bank of Palestine	1.72	2
AL-Quds Bank	1.96	2
National Bank	1.41	1
Palestine Investment Bank	3.75	4
Palestine Commercial Bank	1	1

NPLR: Non-performing loan ratio

**Table 5: Management quality ratio**

Bank	NER (%)	Rating
Bank of Palestine	60	3
AL-Quds Bank	69.4	3
National Bank	71	4
Palestine Investment Bank	79.1	5
Palestine Commercial Bank	84.54	5

NER: Non expense ratio

**Table 6: Earning ratios**

Bank	ROA (%)	ROE (%)	Rating ROA	Rating ROE
Bank of Palestine	1.5	14	1	3
AL-Quds Bank	1.09	10.9	1	3
National Bank	0.6	6	3	5
Palestinian	0.53	2.3	3	5
Investment Bank				
Palestinian	0.49	3.66	5	5
Commercial Bank				

ROA: Return on assets, ROE: Return on equity

**Table 7: Liquidity ratios**

Bank	L1 (%)	L2 (%)	Rating L1	Rating L2
Bank of Palestine	64.4	44.6	3	3
AL-Quds Bank	66	36.2	3	4
National Bank	85	56.9	5	1
Palestinian Investment Bank	67.93	46.55	3	2
Palestinian Commercial Bank	81	43.85	5	3

of weighted assets. Minimum CAR determines by PMA which act as central bank in Palestine is 12%. All sample banks of our study show good CAR and their ratio shows good quality of compliance with the regulatory requirements and have a higher CAR than the minimum required. All sample banks have a good CAR and are rated 1.

#### 5.1.2. Assets quality rating

Bank's management usually concerned with the quality of their assets. Exposure to credit risk has always been the primary and

major source of problems in banks world-wide since granting credit is one of the main sources of income in commercial banks and needs to be managed well, or it may take the bank into large trouble or even bankruptcy. Banks having large amount of non-performing assets usually have to provide more provision against these NPLs. What we observed in our findings is almost all banks small or large had rated 1 or 2 on the component rating for asset quality except for Palestinian Investment Bank rated 4 which show poor credit risk management.

According to National Bank and Palestinian Commercial Bank, asset quality ratio is rated 1, which means that, troubled NPL are <1.5% in proportion to the loans and bad-debts and or NPLs are kept under good control. Loan Portfolio of the bank is managed efficiently is not a credit risk threat. Bank of Palestine and Al-Quds Bank which represent the largest local banks, asset quality indicator rated 2. Rating 2 is related features as rating 1 but has some less important weaknesses these are (Trautmann, 2006). Troubled NPLs are <2.5% in proportion to the total loans, But, the bank under observation is facing negative movements in the level of unsettled long-term debts. It shows weak underwriting standards set by the bank management and their controls actions. Finally the Palestine Investment Bank has been rated 4 on the scale. Larger number and quantity of non-performing assets that are causing losses to the bank threaten its capital and reflects poor credit risk policies and inappropriate planning and control of risks.

#### 5.1.3. Management quality rating

We notice in the findings of our sample banks that management of almost all banks is performing considerably poor. Management of the largest two banks, bank of Palestine and AL-Quds Bank not surprisingly performed better than smaller banks, rated “3.” But the obvious reason behind their better performance is the availability of large pool of resources and fund particularly bank of Palestine, to hire best management personal available in the market. National Bank is kind of small bank that has been rated “4” which shows management performance concerns (bad policies). Finally, Palestine Investment Bank and Palestine Commercial Bank need instant and strong action required from the regulatory authorities, because they show weak performances there is a strong possibility to substitute bank’s management. Generally speaking, there is a problem with Palestinian Banks inability to control expenses, as they are spending nearly what they are making, particularly Palestine Investment and Palestine Commercial Banks, needs to reduce costs, increase efficiencies and implement tactics to grow revenue, since they are rated “5.”

#### 5.1.4. Earnings quality rating

To make it possible for the bank to realize high returns, it has to hold more risks or reduce operating costs, as it is obvious that all commercial banks are undertaking their business operations and accept risk only for the purpose of generating positive earnings. To do so, banks need to invest it resources in productive investments that generate acceptable returns. Earnings of the banking sector in Palestine are increasing due to its conservative strategy reflected in low default rates with low default risk and the high interest rates imposed on loans. Bank of Palestine, as the largest local bank has adequate earnings and rated “1” relative to its managerial efficiency; how capable management has been in converting assets

**Table 8: Banks ranking**

Bank name	Composite rating	Ranking
Bank of Palestine	16	1
AL-Quds Bank	17	2
National Bank	20	3
Palestinian Investment Bank	23	4
Palestinian Commercial Bank	25	5

into net earnings. Also medium size bank such as AL-Quds bank rated “1.” The rest of sample banks, end up with unsatisfactory earning and rated “3 and 5.”

#### 5.1.5. Liquidity management ratings

In our research we measure liquidity position of our sample banks with the help of two formulas that take into consideration bank loans to customer deposits, circulating assets to total assets. Almost all banks is going very well but has some deficiencies in one or two of the rating factors that can be corrected quickly, with the proper attention by management of the banks and regulatory authorities.

### 5.2. Banks Ranking on the Basis of CAMELS Rating System

The above table showed that all sample banks have been ranked on the basis of the total component score attained by each bank. The lower the score is the better is the ranking of the banks. Bank of Palestine, which is considered the largest local bank are ranked on the top of the list that shows the best performance compared with the remaining banks. AL-Quds bank which considered the second largest local bank following bank of Palestine ranked 2. Larger banks showed better performance in almost all components of CAMELS rating system. It is noticed that the ranking was descending upon size, from largest to smallest.

## 6. CONCLUSION

This study examined and evaluated the performance and financial soundness of Palestinian commercial banks for the year 2015 using CAMEL rating model. The study was limited to five sample banks and was not generalized for the all banks operate in Palestine. Banks were sustained rating based on the performance in five areas: Capital adequacy, asset quality, management efficiency, earning quality, and liquidity. We applied CAR to analyze capital adequacy parameter, NPLs to total loans to analyze of assets quality parameter, non expense ratio for analyzing management quality parameter, ROA and ROE to analyze earnings ability and total loans to total deposits ratio to analyze liquidity management results obtained from the analyze of different ratios show that bank of Palestine is the best ranked with total components score of 16. Details of the ranking are showed in Table 8. Large banks dominating upper portion of the table whereas small banks are at the bottom of ranking table.

## REFERENCES

- Aspal, P.K., Misra, S.K. (2013), A camel model analysis of State Bank Group. *World Journal of Social Sciences*, 3(4), 36-55.
- Baral, K.J. (2005), Health check-up of commercial banks in the framework of camel: A case study of joint venture banks in Nepal. *Journal of Nepalese Business Studies*, II(1), 41-55.

- Comptrollers Handbook. (2007), Bank Supervision Process. Occ Website. Available from: <http://www.occ.gov/static/publications/handbook/banksup.pdf>. [Last retrieved on 2011 May 10].
- Christopoulos, A.G., Mylonakis, J., Diktapanidis, P. (2011), Could Lehman brothers collapse be anticipated? An examination using CAMELS rating system. *International Business Research*, 4(2), 11-19.
- FDIS. (1997), Uniform Financial Institutions Rating System. USA: Federal Communications Commission.
- Federal Register. (1997), Uniform Financial Institutions Rating System. Vol. 62. No. 6. January.
- Gasbarro, D., Sadguna, G.M., Zumwalt, J. (2002), The changing relationship between camel ratings and bank soundness during the Indonesian banking crisis *Review of Quantitative Finance and Accounting*, 19(3), 247-260.
- Grier, W.A. (2007), *Credit Analysis of Financial Institutions*. London: Euromoney Institution Investor PLC.
- Mishra, S.K. (2012), Analyzing soundness in Indian banking: A camel approach. *Research Journal of Management Sciences*, 1(3), 9-14.
- Mohiuddin, G. (2014), Use of camel model: A study on financial performance of selected commercial banks in Bangladesh. *Universal Journal of Accounting and Finance*, 2(5), 151-160.
- Opez, J.A. (1999), Using Camels Ratings to Monitor Bank Conditions. FRBSF Economic Letter. San Francisco: Federal Reserve Bank.
- Prasuna, D.G. (2004), Performance snapshot 2003-04. *Chartered Financial Analyst*, 10(1), 6-13.
- Said, M.J.B., Saucier, P. (2003), Liquidity, solvency, and efficiency? An empirical analysis of the Japanese banks distress. *Journal of Oxford*, 5(3), 354-358.
- Saltzman, S.B., Salinger, D. (1998), *The ACCION Camel: Technical Note*. ACCION International, Microenterprise Best Practices. Woodmont Avenue Bethesda, USA: Development alternative Inc. p1-106.
- Siva, S., Natarajan, P. (2011), Camel rating scanning (CRS) of SBI groups. *Journal of Banking Financial Services and Insurance Research*, 1(7), 1-17.
- Trautmann, P.Y. (2006), *Camel Ratings*. USA: Agency of International Development (USAID).