Evaluating Performance of a Service Cooperative Bank : An Application of Camel Model

** Titto Varghese*

Abstract

The economic importance of banks in the developing countries may be viewed as promoting capital formation, encouraging innovation, monetization, influencing economic activity, and act as facilitators of monetary policy. Performance evaluation of the banking sector is an effective measure and indicator to check the soundness of economic activities of an economy. In the present study, an attempt was made to evaluate the performance and financial soundness of a Service Cooperative Bank using the CAMEL approach. In every line of business, the performance of each bank is appraised in financial perspectives and by ranking them. By analyzing the 10-year data, it was found that The Service Co-operative Bank, Ranni was making a improvement in its capital adequacy ratio over the previous years. Though the bank needs to improve in effective utilization of assets and in terms of profitability, it was found to be upfront in its management ability. Furthermore, the liquidity position of the bank needs to be improved as it can have an immediate impact on its functioning, if left unwarranted. Thus, the overall performance of the bank was found to be efficient in terms of capital adequacy and management, but the bank needs to catch up on the other three parameters of CAMEL rating.

Key words: **capital adequacy ratio (CAR), average earning assets (AEA), net interest margin (NIM), business per employee (BPE), earnings per employee (EPE)**

JEL Classification: G21, G24, L25

Paper Submission Date: May 12, 2015 ; Paper sent back for Revision : October 5, 2015 ; Paper Acceptance Date : February 5, 2016

Co-operatives account for a relatively small share in the bank-dominated Indian financial system; however, given their geographic and demographic outreach, they hold a key position in the system. Geographically, co-operatives have been instrumental in extending formal financial services to villages and small towns in India. Demographically, these institutions have enabled access to financial services to low and middle income groups in both rural and urban areas. Notwithstanding their role in enhancing the inclusiveness of the financial system, these institutions have been marred by weak financial health, partly on account of operational and governance-related concerns. Hence, there has been an ongoing effort to revitalize these institutions by means of various development and regulatory initiatives. In the case of urban co-operatives, the Reserve Bank of India has moved towards a more unified regulatory framework consequent to its Vision Document of 2005 aimed at creating a consolidated and stronger urban co-operative banking sector. As regards the short-term arm of rural cooperatives, the application of prudential regulations followed by recapitalization has paved the way towards improving the financial health of these institutions.

Significance of the Study

In India, the economic growth of the Indian economy flourished with the introduction of the era of LPG (generally

* *Associate Professor,* SAINTGITS Institute of Management (SIM), SAINTGITS College of Engineering, Pathamuttom, Kottayam, Kerala -686 532. E-mail : tito.135@gmail.com, titto.varghese@saintgits.org

known as liberalization, privatization, and globalization). The financial sector in general, and the banking sector, in particular, is one of the vital ingredients for the economic development of the country. Banking investments among individual investors are increasing, and a basic CAMEL rating knowledge can help them gain better understanding about their investments on their own rather than seeking the investment agencies. Relevance of the study for the banks following the CAMEL rating system as an international standard would add a great support to maintain such a standard. The banks are advised to equip their staff with comprehensive knowledge about CAMEL rating to guide the banks' growth rate in a positive direction, such as enhancing the capital adequacy, improving asset quality and management, gaining earnings, and strengthening liquidity.

A resilient and vibrant banking system is very crucial for sound and accelerated economic growth. The present research aims to familiarize the readers with basic knowledge about banking supervision, of which the CAMEL framework is the main measure to evaluate the overall safety and soundness of a bank. It also provides the significance of the CAMEL rating system in banking examination. The first objective helps frame the research questions as follows :

(1) Why does the CAMEL rating system play a crucial role in banking supervision?

(2) What are the benefits for co-oeperatives applying the CAMEL framework in evaluating the banks' performance?

Supervision of banking units can help to make them financially sound. A bank is judged on five different components under the acronym C-A-M-E-L: **C**apital adequacy, **A**sset quality, **M**anagement efficiency, **E**arning quality, and **L**iquidity.

Objectives of the Study

(1) To analyze the financial position and performance of the Service Co-operative Bank, Ranni using the CAMEL model.

(2) To give recommendations and suggestions for improvement of performance and financial position of Service Co-operative Bank, Ranni.

Review of Literature

The financial performance of banks, both public and private, has been analyzed by academicians, scholars, and administrators using the CAMEL model in the last decade. A summary of some of the studies is given below:

Ongore and Kusa (2013) concluded that the financial performance of commercial banks in Kenya was driven mainly by board and management decisions, while macroeconomic factors had an insignificant contribution. Alabede (2012) concluded that in the presence of the effect of the global financial condition, only asset quality and market concentration were significant determinants of the Nigerian banks' performance. The study suggested reducing non - performing assets and introducing a policy to encourage fair competition among the banks.

Chaudhary and Singh (2012) analyzed the impact of the financial reforms on the soundness of Indian banks through their impact upon asset quality. The study identified the key players as risk management, NPA levels, effective cost management, and financial inclusion. Reddy and Prasad (2011) discussed the financial performance of selected regional rural banks during the post reorganization period. The study adopted the CAMEL model to examine the overall performance of Andhra Pragathi Grameena Bank and Sapthagiri Grameena Bank.

Hussein and Al-Tamimi (2010) investigated factors influencing the performance of Islamic banks and

conventional banks in (UAE) during 1996 to 2008. The study revealed that liquidity and concentration were significant determinants of conventional banks' performance, while cost and number of branches significantly influenced the performance of Islamic banks. Hays, Lurgio, and Arthur (2009) utilized the CAMEL model to examine the performance of low efficiency vs. high efficiency community banks in conjunction with the logistical regression analysis. The analysis used data which were based on quarterly reports by commercial banks. The discriminant model derived from the CAMEL parameters was tested among data for 2006, 2007, and 2008. Its results concluded that the model accuracy floated from approximately 88% to 96% for both original and cross-validation data sets.

Gupta (2008) conducted a study with the main objective to assess the performance of Indian private sector banks by using the CAMEL model and gave rating to top five and bottom five banks. He conducted a research on the sole aim of examining the performance of the Indian private sector banks by using the CAMEL model and by assigning rating to the top five and bottom five banks. Said and Saucier (2008) evaluated the liquidity, solvency, and efficiency of Japanese banks by using the CAMEL rating methodology. The study assessed the capital adequacy, assets and management quality, earnings ability, and liquidity position.

Cinko and Avci (2008) noticed that globally, all the banking supervisory authorities were using the CAMEL rating system since many years. In this synthesis, financial ratios were applied to calculate the components of CAMEL ratings for the period from 1996-2000. The financial ratios were also employed to anticipate the delegation of commercial banks in 2001 to the SDIF by adopting discriminant analysis, logistic regression, and neural network models. However, the conclusion revealed that it was impossible to predict the transfer of a bank to SDIF by mode of CAMEL ratios.

Bodla and Verma (2006) examined the performance of SBI and ICICI through the CAMEL model. Data set for the period from 2000-01 to 2004-05 were used for the purpose of the study. With reference to the capital adequacy, it was concluded that SBI had an advantage over ICICI. Regarding the assets quality, earning quality, and management quality, it can be said that ICICI had an edge upon SBI. Therefore, the liquidity position of both banks was sound and did not differ much. Nurazi and Evans (2005) investigated whether CAMEL(S) ratios could be used to predict bank failure. The results suggested that adequacy ratio, assets quality, management, earnings, liquidity and bank size were statistically significant in explaining bank failure.

Prasuna (2004) analyzed the performance of 65 Indian banks according to the CAMEL Model. The author concluded that better service quality, innovative products, and better bargains were beneficial because of the prevailing tough competition. Kwan and Eisenbeis (1997) observed that asset quality was commonly used as a risk indicator for financial institutions, which also determinedthe reliability of capital ratios. Their study indicated that capitalization affected the operation of financial institutions. More the capital, the higher is the efficiency.

Profile of the Bank

The Service Co-operative Bank, Ranni is located in the Ranni taluk in Pathanamthitta District, Kerala. The bank was initially formed by the Nair-Vellalla communities of the area, which was later established as Co-operative Bank in the year 1919, registered under The Co-operative Societies Act, 1904. The area of operation of the bank is certified to the Revenue Taluk of Ranni.

(1) Membership : Membership of the Urban Co-operative Bank is open to individuals residing within the area of operation of the bank. The members of the Urban Co-operative Bank consist of three types :

(i) Members Holding A Class Shares : This category consists of individual members and the value of one share is ₹ 25/-. In the year 2012-13, the bank had 8210 A class members.

(ii) Members Holding B Class Shares : This category consists of the government and other institutions. There were a total of 3239 B class members of the bank as in 2012-13.

(iii) Members Holding C Class Shares : This category consists of nominal members and share valuing ₹ 5/-. They are also called Associate B class members. In 2012-13, the bank consisted of 89 C class members.

(2) Sources of Funds : The main sources of funds of the bank constitute :

- Share capital collected by issuing A, B, and C class shares.
- Reserve fund and other reserves.
- Loans and deposits.
- Entrance fee at the rate of ₹1/-per share subject to a maximum of ₹ 5/-per member.
- Loans, cash credit, overdraft, and advances.
- Donation grants and subsides.
- Chit funds.
- Any other means approved by the registrar.

Hypotheses

The following are the null hypotheses considered for the study :

- **H01:** There is no significant relation between capital adequacy ratio (CAR) and return on assets (ROA).
- **H02 :** There is no significant difference between interest income and interest expended.

Research Methodology

This study is mainly based on secondary data. The data required for the study was collected from annual reports and other published documents of the bank. The study covers a period starting from 2003-04 to 2012-13. For analyzing the behavior of the compiled data, various statistical and financial tools were applied. Consolidated financial statements were prepared to ascertain the overall financial position of the bank. The techniques of financial statement analysis which are used in the study are basically the bank ratios. For analyzing the behavior of the ratios and compiled data, various statistical tools such as arithmetic mean, average annual growth rate, standard deviation, correlation, and student *t*- test were used.

- **"CAMELS" Rating System :** The CAMELS rating is a U.S. supervisory rating of banks' overall condition used to classify the nation's 8,500 banks. This rating is based on financial statements of banks and on-site examination by the Federal Reserve and other banking agencies. India has a well developed banking system and today, is at par with some of the best banks in the world in terms of the services and asset management. Under this system, each banking institution subject to on-site examination is evaluated on the basis of five critical dimensions relating to its operations and performance, which are referred to as the component factors. These are :

C : Capital adequacy
A : Asset quality
M : Management
E : Earnings quality
L : Liquidity

Bank Rating Chart

Rating	Capital (CAR)	Assets (NPA To Capital)	Management	Earnings (ROA)	Liquidity (Advances to Deposits)
Strong	9% & Above	10% & Below	Higher the best ratio	1.25% & Above	55% & Above
Satisfactory	8% & Above	11%-15%		0.75% & Above	60% & Above
Fair	7% & Above	16%-30%		0.40% & Above	65% & Above
Marginal	5% & Above	31%-40%		0.15% & Above	70% & Above
Unsatisfactory	Below 5%	41% & Higher		Below 0%	71% & Above

Source: AIA's Annual report 2010

Table 1. Capital Adequacy Ratio

YEAR	TIER 1 CAPITAL (T1) (₹)	TIER 2 CAPITAL (T2) (₹)	RISK-WEIGHTED ASSETS (RWA) (₹)	CAR (%)
2003-04	22313414.79	18092	201378447.2	11.09
2004-05	22158133.71	12399	215209288.4	10.30
2005-06	24333726.38	9000	244432564.6	9.96
2006-07	24745416.28	6000	271586055.8	9.11
2007-08	23358272.35	1717270	294891056.1	8.50
2008-09	23730489.73	2771000	337330182.7	7.86
2009-10	23616841.51	6380911	425426154.2	7.05
2010-11	30645326.73	10417932	465626990.1	8.82
2011-12	55150204.4	16748122	661152973.9	10.87
2012-13	25739089.23	16673301	812081895.2	5.22
A.M	**27579091.51**	**5475402.70**	**392911560.82**	**8.88**
AAGR	**1.54**	**9205.84**	**30.33**	**-5.29**
S.D	**9983076.75**	**6819706.72**	**203231720**	**1.83**
C.V (%)	**36.20**	**124.55**	**51.72**	**20.57**

Source: Compiled Annual Reports of the Service Co-operative Bank, Ranni from 2004 to 2013

Data Analysis and Results

(1) C- CAPITAL ADEQUACY : The following ratios are mainly employed to assess the capital adequacy of the bank under study:

(i) Capital adequacy ratio,
(ii) Debt-equity ratio,
(iii) Proprietary ratio.

(i) Capital Adequacy Ratio (CAR) : The Table 1 represents the capital adequacy of the co-operative bank for a period of 10 years. Capital adequacy reflects the overall financial condition of the bank. As illustrated in the Table 1, the ratio is at its maximum in the year 2003-04, and after that, it shows a declining trend until 2009-10. Thereafter, it takes a leap and moves to a better position, only to take a deep fall to 5.22% in 2012-13. The ideal capital adequacy ratio set by the Bank for International Settlement (BIS) is a minimum of 8%. As of the year 2012-13, the bank had to improve its capital adequacy ratio.

(ii) Debt- Equity Ratio (DER) : The Table 2 represents the debt-equity ratio of the bank for a period of 10 years. The

Table 2. Debt-Equity Ratio

YEAR	DEBT (₹)	EQUITY (₹)	DER (times)
2003-04	18092	1929500	0.01
2004-05	12399	1955805	0.01
2005-06	9000	2112870	0.00
2006-07	6000	2477875	0.00
2007-08	1717270	3053030	0.56
2008-09	2771000	3365110	0.82
2009-10	6380911	3870525	1.65
2010-11	10417932	4660915	2.24
2011-12	16748122	6347445	2.64
2012-13	16673301	7375805	2.26
A.M	**5475402.7**	**3714888**	**1.02**
AAGR	**9205.84**	**28.23**	**2400.85**
S.D	**6819706.72**	**1891234.35**	**1.07**
C.V(%)	**124.55**	**50.91**	**105.45**

Source: Compiled Annual Reports of the Service Co-operative Bank, Ranni from 2004 to 2013

ideal debt-equity ratio of an organization is set as 2:1. In that context, the bank was not doing well in the initial years of analysis. The ratio is at its minimum in the year 2005-06 and 2006-07. But its position after 2007-08 has been progressive to reach a level of 2.26:1 in the year 2012-13.

(iii) Proprietary Ratio : The Table 3 represents the proprietary ratio of the bank for a period of 10 years starting from 2003-04 to 2012-13. Though the ideal proprietary ratio is set at 50%, a higher ratio indicates long term solvency (financial) position of a firm. From the given Table 3, it can be observed that a major portion of the total tangible assets of the bank were financed through creditors. This indicates that the bank is highly dependent on debts for its operations.

(2) A - ASSET QUALITY : The following ratios are mainly employed to assess the asset quality of the bank under study:

(i) Total investments to total assets ratio.
(ii) Credit deposit ratio or total advances to total assets ratio.
(iii) Allowances to loan loss ratio.
(iv) Provisions for loan loss ratio.

(i) Total Investments to Total Assets Ratio : The investment asset ratio measures the ratio of investment holdings to actual assets. It is used to determine whether a company can afford to keep its current investments.

The Table 4 indicates the total investments to total assets ratio of the bank for a period of 10 years commencing from 2003-04 to 2012-13. A lower ratio is indicated in the year 2009-10, while the ratio is at a higher level in the year 2012-13. The average annual growth rate is depicted at 1.15 and the arithmetic mean at 1.06.

(ii) Total Advances to Total Assets Ratio : The total advances to total assets ratio determines the productivity of the assets of a bank. It indicates how far the assets of a bank have been utilized to provide advances to its customers. A

Table 3. Proprietary Ratio

YEAR	SHAREHOLDER'S FUNDS (₹)	TANGIBLE ASSETS (₹)	PROPRIETARY RATIO (%)
2003-04	22313415	248205789	8.99
2004-05	22158134	254057128	8.72
2005-06	24333726	276675831	8.80
2006-07	24745416	300969701	8.22
2007-08	23358272	332741893	7.02
2008-09	23730490	378855987	6.26
2009-10	23616842	472818579	4.99
2010-11	30645327	519509803	5.90
2011-12	55150204	734090667	7.51
2012-13	25739089	945024038	2.72
A.M	**27579091.5**	**446294941.6**	**6.91**
AAGR	**1.54**	**28.07**	**-6.97**
S.D	**9983076.62**	**231216126.8**	**2.00**
C.V(%)	**36.20**	**51.81**	**28.88**

Source : Compiled Annual Reports of the Service Co-operative Bank, Ranni from 2004 to 2013

Table 4. Total Investments to Total Assets ratio

YEAR	INVESTMENTS (₹)	ASSETS (₹)	IAR (%)
2003-04	4274385	248205789	1.72
2004-05	3475385	254057128	1.37
2005-06	3086835	276675831	1.12
2006-07	2586835	300969701	0.86
2007-08	2786835	332741893	0.84
2008-09	2804975	378855987	0.74
2009-10	2812975	472818579	0.59
2010-11	4113675	519509803	0.79
2011-12	5110835	734090667	0.70
2012-13	17566888.91	915024038	1.92
A.M	**4861962.39**	**443294941.60**	**1.06**
AAGR	**31.10**	**26.87**	**1.15**
S.D	**4538328.81**	**224111661.08**	**0.46**
C.V (%)	**93.34**	**50.56**	**43.02**

Source : Compiled Annual Reports of the Service Co-operative Bank, Ranni from 2004 to 2013

higher ratio indicates an effective utilization of assets, and a lower ratio indicates a low productivity of the assets of the bank.

The Table 5 represents the total advances to total deposits ratio of the bank for a period of 10 years. It indicates that only a small portion of the total assets of the bank represent advances. A higher ratio is depicted in the year 2009-10, while the ratio is at its lowest in 2012-13. As indicated in the Table 5, the average annual growth rate of the bank shows a negative figure, as the ratio falls drastically from the year 2003-04 to 2012-13.

Table 5. Total Advances to Total Assets Ratio

YEAR	ADVANCES (₹)	ASSETS (₹)	ADVANCES TO ASSETS RATIO (%)
2003-04	582472.6	248205789	0.23
2004-05	608966.6	254057128	0.24
2005-06	563588.6	276675831	0.20
2006-07	577660.16	300969701	0.19
2007-08	620117.94	332741893	0.19
2008-09	1250364.29	378855987	0.33
2009-10	2353228.31	472818579	0.50
2010-11	2355893	519509803	0.45
2011-12	1442171.43	734090667	0.20
2012-13	1256016.43	915024038	0.14
A.M	**1161047.94**	**443294941.60**	**0.27**
AAGR	**11.56**	**26.87**	**-4.15**
S.D	**712930.03**	**224111661.08**	**0.12**
C.V (%)	**61.40**	**50.56**	**45.29**

Source : Compiled Annual Reports of the Service Co-operative Bank, Ranni from 2004 to 2013

Table 6. Allowances to Loan Loss Ratio

YEAR	ALLOWANCES (₹)	LOANS (₹)	ALLOWANCES FOR LOAN RATIO (%)
2003-04	6680807	84844135.87	7.87
2004-05	6818060	88098088.57	7.74
2005-06	8372335	103270189.1	8.11
2006-07	7274878	125013265.4	5.82
2007-08	7302214	153784209.4	4.75
2008-09	8133919	174962749.3	4.65
2009-10	8709896	220552306.9	3.95
2010-11	19672411.94	277011846.3	7.10
2011-12	60762674.7	362279053.8	16.77
2012-13	38825493.61	449029051.3	8.65
A.M	**17255268.93**	**203884489.6**	**7.54**
AAGR	**48.11**	**42.92**	**0.98**
S.D	**18313827.65**	**123862661.2**	**3.64**
C.V (%)	**106.13**	**60.75**	**48.25**

Source : Compiled Annual Reports of the Service Co-operative Bank, Ranni from 2004 to 2013

(iii) Allowances to Loan Loss Ratio : The allowances to loan loss ratio indicates the proportion of reserves kept aside for meeting the contingencies pertaining to the payment to the creditors of the bank. A higher ratio indicates that more reserves are maintained, while a lower ratio indicates that the allowances are being utilized to meet loan payment.

The Table 6 represents the allowances for loan loss ratio of the bank for a period of 10 years starting from 2003-04 to 2012-13. The ratio indicates the proportion of gross profit of the bank which is set aside as provision to meet the contingencies related to loans and advances. The ratio is at its minimum in the year 2009-10 and maximum in

Table 7. Provision for Loan Loss ratio

YEAR	PROVISIONS & CONTINGENCIES	LOANS	PROV. FOR LOAN LOSS RATIO
2003-04	9423337.42	84844135.87	11.11
2004-05	11652658	88098088.57	13.23
2005-06	7614702	103270189.1	7.37
2006-07	7515069	125013265.4	6.01
2007-08	8580919	153784209.4	5.58
2008-09	9403146	174962749.3	5.37
2009-10	14243014.4	220552306.9	6.46
2010-11	23453281.85	277011846.3	8.47
2011-12	39052362.8	362279053.8	10.78
2012-13	58229526.54	449029051.3	12.97
TOTAL	**189168017**	**2038844896**	**9.28**
A.M	**18916801.7**	**203884489.6**	**0.93**
AAGR	**51.79**	**42.92**	**1.68**
S.D	**16968355.6**	**123862661.2**	**3.05**
C.V	**89.70**	**60.75**	**328.64**

Source : Compiled Annual Reports of the Service Co-operative Bank, Ranni from 2004 to 2013

the year 2011-12. The Table depicts an average annual growth rate of 0.98 %, and an arithmetic mean of 7.54 over the 10 years period.

(iv) Provision for Loan Loss Ratio : Provision for loan loss ratio determines the percentage of provisions created for meeting the contingencies relating to the loan collection from the debtors of the bank. A higher ratio signifies that more provisions are kept aside to meet the loan contingencies, while a lower ratio indicates that the provisions are being utilized for filling the gap connected to default payment by customers.

The Table 7 represents the provision for loan loss ratio of the bank over 10 years starting from 2003-04 to 2012-13. As depicted in the Table, the ratio is at its peak level in the year 2004-05, while it is at its minimum in the year 2007-08. The Table shows a declining trend in the ratio from the year 2004-05 to 2008-09. But this state is seen as being recovered over the subsequent years to reach a level of 12.97 % in 2012-13. The Table depicts an average annual growth of 1.68% and an arithmetic mean of 0.93 over the 10 years period.

(3) M- MANAGEMENT EFFICIENCY : The management efficiency of the bank is analyzed based on the following ratios.

(i) Earnings per employee
(ii) Business per employee

(i) Earnings per Employee (EPE) : It is the ratio of net profits to number of employees. The Table 8 depicts the earnings per employee ratio of the bank over 10 years commencing from 2003-04 to 2012-13. As depicted in the Table, the ratio shows a series of fluctuations over the 10 year period. It tends to rise and fall in the initial years while depicting a steady growth from 2005-06 to reach its highest level in 2011-12, leading to a setback in the year 2012-13. The Table indicates an arithmetic mean of 2301150.93 and an average annual growth rate of 10.43% over the 10 year period.

Table 8. Earnings per Employee

YEAR	EBIT (₹)	EMPLOYEES (No.)	EPE
2003-2004	19625305	16	1226581.55
2004-2005	43134501	16	2695906.29
2005-2006	18186288	16	1136643.00
2006-2007	19381552	16	1211347.02
2007-2008	22916181	15	1527745.40
2008-2009	26324087	12	2193673.92
2009-2010	32514438	12	2709536.50
2010-2011	36463495	11	3314863.18
2011-2012	53874026	12	4489502.17
2012-2013	30068523	12	2505710.25
A.M	**30248839.56**	**13.8**	**2301150.93**
AAGR	**5.32**	**-2.50**	**10.43**
S.D	**11612307.77**	**2.15**	**1079563.02**
C.V	**38.39**	**15.58**	**46.91**

Source : Compiled Annual Reports of the Service Co-operative Bank, Ranni from 2004 to 2013

Table 9. Business per Employee

YEAR	BUSINESS (B)	NO. OF EMPLOYEES	BPE
2003-04	201378447.2	16	12586152.95
2004-05	215209288.4	16	13450580.53
2005-06	244432564.6	16	15277035.29
2006-07	271586055.8	16	16974128.49
2007-08	294891056.1	15	19659403.74
2008-09	337330182.7	12	28110848.56
2009-10	425426154.2	12	35452179.52
2010-11	465626990.1	11	42329726.38
2011-12	661152973.9	12	55096081.16
2012-13	812081895.2	12	67673491.26
A.M	**392911560.8**	**13.8**	**30660962.79**
AAGR	**30.33**	**-2.50**	**43.77**
S.D	**203231719.96**	**2.15**	**19150126.56**
C.V	**51.72**	**15.58**	**62.46**

Source : Compiled Annual Reports of the Service Co-operative Bank, Ranni from 2004 to 2013

(ii) Business per Employee (BPE) : It is the ratio of total revenue income to number of employees. For calculation purpose, loans, advances, and deposits have been constituted as the business of the bank.

The Table 9 represents the business per employee of the bank over a period of 10 years starting from 2003-04 to 2012-13. This is one among the major ratios which emphasizes the management efficiency of a bank. As depicted in the Table, the ratio shows an increasing trend over the 10 year period, indicating revenue generated by each employee to the bank. The Table highlights a higher ratio in the year 2012-13. Average annual growth rate is represented at 43.77% and an arithmetic mean of 30660962.79 in the 10 year period.

Table 10. Return on Equity

YEAR	N/P AFTER TAX (₹)	EQUITY (₹)	ROE (%)
2003-04	1698147.4	1829500	92.82
2004-05	1653449	1855805	89.10
2005-06	1293362.4	2012870	64.25
2006-07	1315062.6	2327875	56.49
2007-08	2657067.2	2653030	100.15
2008-09	1517329.3	2945110	51.52
2009-10	1589069.3	3361775	47.27
2010-11	4143388.3	4660915	88.90
2011-12	2431829.6	6347445	38.31
2012-13	2859125.1	7375805	38.76
A.M	**2115783.02**	**3537013**	**66.76**
AAGR	**6.84**	**30.32**	**-5.82**
S.D	**906635.41**	**1960373.51**	**23.80**
C.V	**42.85**	**55.42**	**35.66**

Source : Compiled Annual Reports of the Service Co-operative Bank, Ranni from 2004 to 2013

(4) E- EARNINGS CAPACITY : The earnings capacity of the bank is measured using the following methods:

(i) Return on equity
(ii) Return on assets
(iii) Cost to income ratio
(iv) Net interest income margin

(i) Return on Equity (ROE) : Return on equity (ROE) is a central measure of performance in the banking industry, which is used to allocate capital inside and across divisions. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.

The Table 10 represents the return on equity of the bank over a period of 10 years commencing from 2003-04 to 2012-13. As depicted in the Table, the ratio depicts a series of fluctuations in the 10 year period. It is at its maximum in the year 2007-08 where the bank attains a perfect 100%. Further, the trend declines over 2 years and rises up in 2010-11 with 89%. The ratio declines again in the subsequent years.

(ii) Return on Assets Ratio (ROA) : ROA is an indication of the operational efficiency of the bank. The ROA provides information about how much profit is generated on average by each unit of assets. The Table 11 shows the return on assets of the bank over 10 years starting from 2003-04 to 2012-13. The Table depicts a higher ratio in the year 2004-05, while it shows a declining trend over the subsequent years. This is further represented in the Table with a negative average annual growth rate and an arithmetic mean of 9.37%.

(iii) Cost to Income Ratio : The cost to income ratio measures how costs are changing compared to income - for example, if a bank's interest income is rising, but costs are rising at a higher rate, looking at changes in this ratio will highlight the fact.

The cost/income ratio is an efficiency measure similar to operating margin. The lower it is, the better. The Table 12 represents the cost to income ratio of the bank over 10 years from 2003-04 to 2012-13. The ratio had an arithmetic mean of 3.44% of income. The Table depicts the lowest ratio in the year 2004-05, while it is at its

Table 11. Return on Assets Ratio

YEAR	NET INTEREST INCOME (₹)	TOTAL ASSETS (₹)	ROA (%)
2003-04	25716890	248205789	10.36
2004-05	51339677	254057128	20.21
2005-06	21577939.25	276675831	7.80
2006-07	23753283	300969701	7.89
2007-08	29604748	332741893	8.90
2008-09	32463285	378855987	8.57
2009-10	43626498	472818579	9.23
2010-11	46553588	519509803	8.96
2011-12	41015378	734090667	5.59
2012-13	56321394	915024038	6.16
A.M	**37197268.03**	**443294941.6**	**9.37**
AAGR	**11.90**	**26.87**	**-4.06**
S.D	**12228172.44**	**224111661.08**	**4.07**
C.V	**32.87**	**50.56**	**43.41**

Source : Compiled Annual Reports of the Service Co-operative Bank, Ranni from 2004 to 2013

Table 12. Cost to Income Ratio

YEAR	OPERATING EXPENSES (₹)	NET INTEREST & NON-INTEREST INCOME (₹)	COST TO INCOME RATIO (%)
2003-04	939052.65	26243537	3.58
2004-05	700870.03	51989239	1.35
2005-06	567562.1	22307848	2.54
2006-07	738341.95	24546419	3.01
2007-08	1036092.85	30506082	3.40
2008-09	1192369.13	33537073	2.66
2009-10	2354854.75	44816033	5.25
2010-11	2597284.34	48645294	5.34
2011-12	2191134.54	42159513	5.20
2012-13	1978300.27	94784261	2.09
A.M	**1429586.26**	**41953529.9**	**3.44**
AAGR	**11.07**	**26.12**	**-4.17**
S.D	**767705.63**	**21298050.72**	**1.41**
C.V	**53.70**	**50.77**	**40.88**

Source : Compiled Annual Reports of the Service Co-operative Bank, Ranni from 2004 to 2013

highest level for three consecutive years, that is, from 2009 to 2012.

(iv) Net Interest Income Margin (NIM) : Net interest margin (NIM) is a measure of the difference between the interest income generated by banks and the amount of interest paid out to their lenders (for example, deposits), relative to the amount of their (interest-earning) assets. It is similar to the gross margin of non-financial companies.

The Table 13 represents the net interest margin of the bank over a period of 10 years. The ratio is at its minimum

Table 13. Net Interest Income Margin

YEAR	INTEREST INCOME (₹)	INTEREST EXPENDED (₹)	NET INTEREST INCOME (₹)	AVERAGE EARNING ASSETS (AEA) (₹)	NIM (%)
2003-04	25716890	18292728.85	7424161.15	248205789	2.99
2004-05	51339677	42551164.6	8788512.4	251131458.5	3.50
2005-06	21577939.25	17834918.8	3743020.45	265366479.5	1.41
2006-07	23753283	18631052.71	5122230.29	288822766	1.77
2007-08	29604748	21873126.6	7731621.4	316855797	2.44
2008-09	32463285	25488576	6974709	355798940	1.96
2009-10	43626498	31820433	11806065	425837283	2.77
2010-11	46553588	35238624	11314964	496164191	2.28
2011-12	41015378	52586332	-11570954	626800235	-1.85
2012-13	56321394	65672265	-9350871	824557352.5	-1.13
A.M	**37197268.03**	**32998922.16**	**4198345.87**	**409954029.2**	**1.61**
AAGR	**11.90**	**25.90**	**-22.60**	**23.22**	**-13.79**
S.D	**12228172.44**	**16267581.3**	**8120648.34**	**190078393.6**	**1.75**
C.V	**32.87**	**49.30**	**193.42**	**46.37**	**108.51**

Source : Compiled Annual Reports of the Service Co-operative Bank, Ranni from 2004 to 2013

Table 14. Current Ratio

YEAR	CURRENT ASSET (₹)	CURRENT LIABILITY (₹)	CURRENT RATIO
2003-04	37733579.73	46531367.75	0.81
2004-05	30530747.56	44375351.45	0.69
2005-06	23467941.57	39022703.98	0.60
2006-07	21049292.68	39615371.26	0.53
2007-08	28115109.69	44240005.47	0.64
2008-09	31420182.92	49726421.85	0.63
2009-10	37068900.47	59013954.18	0.63
2010-11	41899251.45	61735865.77	0.68
2011-12	59621423.1	69341782.5	0.86
2012-13	76724472.29	131139090.1	0.59
A.M	**38763090.15**	**58474191.43**	**0.67**
AAGR	**10.33**	**18.18**	**-2.79**
S.D	**17232694.04**	**27414070.19**	**0.10**
C.V	**44.46**	**46.88**	**15.17**

Source : Compiled Annual Reports of the Service Co-operative Bank, Ranni from 2004 to 2013

positive figure in the year 2005-06 at 1.41% and is at a negative figure in the year 2011-12 at -1.85%. A maximum ratio is represented in the year 2004-05 with 3.50%. Due to the negative trend in the last two years, the average annual growth rate also depicts a negative figure of -13.79%.

(5) L- LIQUIDITY : The liquidity level of the bank is analyzed based on the following :

(i) Current ratio

Table 15. Absolute Liquid Ratio

YEAR	CASH & CASH EQUIVALENTS (₹)	CURRENT LIABILITIES (₹)	ABSOLUTE LIQUID RATIO
2003-04	772758.68	46531367.75	0.02
2004-05	526996.71	44375351.45	0.01
2005-06	618265.83	39022703.98	0.02
2006-07	228763.66	39615371.26	0.01
2007-08	590530.7	44240005.47	0.01
2008-09	1279477.76	49726421.85	0.03
2009-10	1125298.59	59013954.18	0.02
2010-11	1151141.32	61735865.77	0.02
2011-12	1016857.22	69341782.5	0.01
2012-13	1078818.41	131139090.1	0.01
A.M	**838890.89**	**58474191.43**	**0.01**
AAGR	**3.96**	**18.18**	**-5.05**
S.D	**341100.9313**	**27414070.19**	**0.01**
C.V	**40.66**	**46.88**	**38.02**

Source : Compiled Annual Reports of the Service Co-operative Bank, Ranni from 2004 to 2013

Table 16. Customer Deposits to Total Assets Ratio

YEAR	CUSTOMER DEPOSIT (₹)	TOTAL ASSETS (₹)	CDR (%)
2003-04	177642950.6	248205789	71.57
2004-05	185486990	254057128	73.01
2005-06	211180857.4	276675831	76.33
2006-07	234211005.9	300969701	77.82
2007-08	260571964.6	332741893	78.31
2008-09	300746721.6	378855987	79.38
2009-10	381311922	472818579	80.65
2010-11	414659241.1	519509803	79.82
2011-12	591012269.3	734090667	80.51
2012-13	739135811.3	915024038	80.78
A.M	**349595973.4**	**443294941.6**	**77.82**
AAGR	**31.61**	**26.87**	**1.29**
S.D	**186947943.6**	**224111661.1**	**3.25**
C.V	**53.48**	**50.56**	**4.18**

Source : Compiled Annual Reports of the Service Co-operative Bank, Ranni from 2004 to 2013

(ii) Absolute liquid ratio
(iii) Customer deposits to total assets ratio
(iv) Total loans to customer deposits

(i) Current Ratio : The current ratio evaluates the short term solvency position of a firm. The ideal current ratio of a firm is set to be 2:1. The Table 14 represents the current ratio of the bank over a period of 10 years from 2003-04 to 2012-13. As depicted in the Table, the ratio shows a declining trend over the first four years and is fluctuating in

Table 17. Loans Given to Loans Taken Ratio

YEAR	LOANS GIVEN (₹)	LOANS TAKEN(₹)	LOANS GIVEN TO LOANS TAKEN RATIO (₹)
2003-04	84261663.27	18092	4657.40
2004-05	87489121.97	12399	7056.14
2005-06	102706600.5	9000	11411.84
2006-07	124435605.3	6000	20739.27
2007-08	153164091.4	1717270	89.19
2008-09	173712385.1	2771000	62.69
2009-10	218199078.6	6380911	34.20
2010-11	274655953.3	10417932	26.36
2011-12	360836882.4	16748122	21.54
2012-13	447773034.9	16673301	26.86
A.M	**202723441.7**	**5475402.7**	**4412.55**
AAGR	**43.14**	**9205.84**	**-9.94**
S.D	**123470739.08**	**6819706.72**	**6969.27**
C.V	**60.91**	**124.55**	**157.94**

Source : Compiled Annual Reports of the Service Co-operative Bank, Ranni from 2004 to 2013

Table 18. Advances Given to Advances Taken Ratio

YEAR	ADVANCES GIVEN (₹)	ADVANCES TAKEN(₹)	ADVANCE GIVEN/TAKEN (Times)
2003-04	582472.6	167057.07	3.49
2004-05	608966.6	167057.07	3.65
2005-06	563588.6	179440.82	3.14
2006-07	577660.16	237167	2.44
2007-08	620117.94	2876997.04	0.22
2008-09	1250364.29	2463487.02	0.51
2009-10	2353228.31	2074482.5	1.13
2010-11	2355893	3817412.36	0.62
2011-12	1442171.43	1859830.35	0.78
2012-13	1256016.43	1605394.3	0.78
A.M	**1161047.94**	**1544832.55**	**1.67**
AAGR	**11.56**	**86.10**	**-7.76**
S.D	**712930.03**	**1313918.73**	**1.35**
C.V	**61.40**	**85.05**	**80.64**

Source : Compiled Annual Reports of the Service Co-operative Bank, Ranni from 2004 to 2013

the subsequent years. It is at its maximum in 2011-12 at 0.86:1. Though with respect to the ideal ratio, this is not satisfactory. Since the organization is involved directly in the banking business, it cannot always maintain the ideal ratio. The Table shows a negative average annual growth rate of -2.79% and an arithmetic mean of 0.67.

(ii) Absolute Liquid Ratio : Absolute liquidity is represented by cash and near cash items. An absolute liquid ratio

Table 19. Deposits Made to Deposits Allowed Ratio

YEAR	DEPOSITS MADE (₹)	DEPOSITS ALLOWED (₹)	DEPOSITS MADE TO DEPOSITS ALLOWED
2003-04	116534311.3	177642950.6	0.66
2004-05	127111199.9	185486990	0.69
2005-06	141162375.5	211180857.4	0.67
2006-07	146572790.4	234211005.9	0.63
2007-08	141106846.7	260571964.6	0.54
2008-09	162367433.4	300746721.6	0.54
2009-10	204873847.3	381311922	0.54
2010-11	188615143.8	414659241.1	0.45
2011-12	298873920.1	591012269.3	0.51
2012-13	363052843.8	739135811.3	0.49
A.M	**189027071.2**	**349595973.4**	**5.43**
AAGR	**21.15**	**31.61**	**738.76**
S.D	**80823431.94**	**186947943.6**	**15.35**
C.V	**42.76**	**53.48**	**282.51**

Source : Compiled Annual Reports of the Service Co-operative Bank, Ranni from 2004 to 2013

Table 20. Loans to Deposits Ratio

YEAR	LOANS RATIO	ADVANCES RATIO	DEPOSITS RATIO	LTD RATIO
2003-04	465739.90	348.67	65.60	**466154.17**
2004-05	705614.34	364.53	68.53	**706047.39**
2005-06	1141184.45	314.08	66.84	**1141565.37**
2006-07	2073926.76	243.57	62.58	**2074232.90**
2007-08	8919.05	21.55	54.15	**8994.75**
2008-09	6268.94	50.76	53.99	**6373.69**
2009-10	3419.56	113.44	53.73	**3586.73**
2010-11	2636.38	61.71	45.49	**2743.58**
2011-12	2154.49	77.54	50.57	**2282.60**
2012-13	2685.57	78.24	49.12	**2812.93**

Source : Compiled Annual Reports of the Service Co-operative Bank, Ranni from 2004 to 2013

Table 21. 1st hypothesis

PARTICULARS	CAR & ROA
CORRELATION	0.32
CALCULATED VALUE	0.96
TABLE VALUE OF t	2.305
SIGNIFICANCE LEVEL	5%
SIGNIFICANT	YES

Table 22. 2nd hypothesis

PARTICULARS	INTEREST EARNED & INTEREST EXPENDED
CORRELATION	0.88
CALCULATED VALUE	5.24
TABLE VALUE OF t	2.305
SIGNIFICANCE LEVEL	5%
SIGNIFICANT	NO

of 0.5:1 is considered ideal for most of the companies. But in the case of a bank, it deals with cash and cash equivalents directly. Hence, it may not always attain a perfect ratio.

The Table 15 represents the absolute liquid ratio of the bank over 10 years from 2003-04 to 2012-13. As depicted in the Table, the ratio is at its minimum in the year 2006-07 and maximum in the year 2008-09. Although, since it deals directly with cash and cash equivalents, it cannot always maintain the ideal ratio. As such, the table represents a negative average annual growth rate of -5.05 and an arithmetic mean of 0.01 over the 10 year period.

(iii) Customer Deposits to Total Assets Ratio (CDR) : Customer deposits to total assets ratio is measured mainly to determine the contribution of customers' deposits towards financing the assets of the bank. A higher ratio indicates that the bank financed its assets mainly by means of customers' deposits, while a lower ratio indicates that the assets are financed by means other than customers' deposits.

The Table 16 represents the customer deposits to total assets ratio of the bank over 10 years from 2003-04 to 2012-13. As depicted in the Table, the ratio expresses an increasing trend over the first four years. It is at its maximum in the year 2008-09 at 80.65%, while the lowest ratio is depicted in the year 2003-04 at 71.57%. The Table represents an average annual growth rate of 1.29% and an arithmetic mean of 77.82%

(iv) Total Loans to Customer Deposits (LTD) Ratio : A commonly used statistic for assessing a bank's liquidity is by dividing the bank's total loans by its total deposits. If the ratio is lower than 1, the bank relies on its own deposits to make loans to its customers, without any outside borrowing. If, on the other hand, the ratio is greater than 1, the bank borrows money which it re-loans at higher rates, rather than relying entirely on its own deposits. In order to find the ratio, we have segregated the ratio into three sub-ratios, based on which the final total loans to customer deposits ratio is arrived. The three sub-ratios are as follows :

Loans to deposits (LTD) ratio =Loans ratio + Advances ratio + Deposits ratio

The Table 20 represents the loans to deposits ratio of the bank. The Table 20 is the combination of Table 17, Table 18, and Table 19. As indicated in the Table, a major proportion of the business of the bank was being carried out through loans followed by advances, and then deposits.

From the Table 17, we can infer that the bank highly depended on external sources for providing loans to its customers during the recent years. The loans taken have been showing an increasing trend in the subsequent years. The advances ratio and deposits ratio indicate a falling and fluctuating trend.

Hypotheses Testing

From the Table 21 (1st hypothesis), the calculated value of *t* (0.96) is less than the table value of *t* (2.305). Hence, it is significant, and I accept the null hypothesis (H01) that there is no significant relationship between the capital adequacy and earning capacity of the bank during the period of the study. The correlation between capital adequacy ratio and return on assets ratio of the bank for a period of 10 years starting from 2003-04 to 2012-13 was ascertained. The correlation between the two variables is 0.32 and it is positive.

From the Table 22 (2nd hypothesis), the calculated value of *t* (5.24) is greater than the table value of *t* (2.305). Hence, it is not significant, and I accept the alternate hypothesis that there is a significant difference between the interest earned and interest expended by the bank over the period of 10 years commencing from 2003-04 to 2012-13. The correlation between interest earned and interest expended by the bank for a period of 10 years starting from 2003-04 to 2012-13 was ascertained. The correlation between the two variables is 0.88 and it is positive.

Findings

The following are the inferences pertaining to the formulated objectives :

Capital Adequacy (C)

(1) The ideal capital adequacy ratio set by the Bank for International Settlement (BIS) is a minimum of 8%. The bank acquired an average of 8.88% capital adequacy ratio, which is quite satisfactory.

(2) Debts are considered as a cheap source of finance. The ideal debt-equity ratio is set at 0.5:1. The bank scored an average of 1.02, which indicates that it employed debt more than equity as its major source of finance.

(3) Proprietary ratio implies the capital structure of a company. The ideal proprietary ratio is fixed as 50%, implying that atleast 50% of the fixed assets of a company should be financed by the shareholders. The proprietary ratio of the bank is 6.91%, which indicates that the capital structure of the bank was not adequate.

Asset Quality (A)

(1) The bank held an average of 1.06% of investments over its total assets in a period of 10 years. This indicates that the bank did not invest much in outside securities.

(2) With respect to advances, the total advances to total assets ratio of the bank showed an average of .27% in over 10 years, indicating assets were not quite utilized well to provide for advances.

(3) The bank had kept aside allowances to meet loan contingencies at an average of 7.54 % in over 10 years, which is quite satisfactory in terms of the loans acquired.

(4) Further, the bank kept aside a provision at an average of .93% in the 10 year period to meet the contingencies pertaining to making payment to its creditors. This is quite satisfactory.

Management Efficiency (M)

(1) The average earnings per employee indicate the average net profit contributed by each employee, while the average business per employee implies the average revenue generated by the employees. The former attained an average growth rate of 10.43%, while the latter is 43.77% over the 10 year period. Considering the number of employees and the cost associated with them, these rates are quite satisfactory.

Earnings Capacity (E)

(1) With respect to the earnings capacity of the bank, return on equity and return on assets ratio express a negative average growth rate of -5.82 and -4.06, respectively inferring that the revenue generating capacity of the bank was low.

(2) Further, the cost to income ratio of the bank indicates an average of 3.44% in 10 years, indicating that cost incurred to generate income by the bank was comparatively low.

(3) Also, the net interest income margin is fixed at an average of 1.61%, indicating that the net interest generated out of the interest earning assets of the bank was comparatively low.

Liquidity (L)

(1) With respect to liquidity, the current ratio and absolute liquid ratio of the bank are 0.67% and 0.01%, respectively, indicating low short term solvency.

(2) The total assets of the bank were backed up by an average of 77.82% of customer deposits in the 10 year study period.

(3) Further, the loans to deposits ratio indicates that the loan ratio of the bank was comparatively higher than the advances or deposits ratio, implying that the bank gave more loans to its customers as compared to loans taken by the bank.

Suggestions

Capital Adequacy (C)

(1) The ideal capital adequacy ratio as prescribed in BASEL III norms is 9%. The bank had already attained an average of 8.88%. It should maintain this position and further try to enhance its capital adequacy ratio to the prescribed level.

(2) With respect to the debt, though it is a cheaper source of finance, the finance risk associated with the use of debt should be considered by the bank.

Asset Quality (A)

(1) It can be seen that the assets of the bank were not utilized for providing advances or investing in fruitful securities that generate more returns.

Management Capability (M)

(1) The earnings and business per employee ratios of the bank showed a positive trend. This should be further maintained by the bank.

Earnings Capacity (E)

(1) The bank showed a falling trend with respect to returns on equity and returns on total assets. This condition needs to be surpassed by investing in more profitable ventures and investment opportunities.

(2) The net interest income margin of a bank should be maintained at 9% bank rate. The bank should try to enhance its position to this level to ensure steady growth in business.

(3) The cost to income ratio, implying the cost incurred to generate income, was low. This position should be improved.

Liquidity (L)

(1) The bank should try to enhance its short term solvency position by maintaining an adequate current ratio of 2:1, and absolute liquid ratio of 0.5 :1.

Conclusion

The CAMEL rating system was introduced to assess the performance of the banks. This system evaluates various parameters, such as capital adequacy, asset quality, management, earnings quality, and liquidity. By analyzing the 10 years data, it is found that The Urban Service Co-operative Bank, Ranni was making a healthy improvement in its capital adequacy ratio over the previous years. Though the bank falls back on effective utilization of assets and in terms of profitability, it was found to be upfront in its management ability. Also, the liquidity position of the bank needs to be improved as it can have an immediate impact on its functioning , if left unwarranted. *Thus, the overall performance of the bank is efficient in terms of capital adequacy and management, but the bank needs to catch up on the other three parameters of CAMEL rating.*

Limitations of the Study and Scope for Further Research

The following are the limitations of the study : the bank's balance sheet provided was in regional language, that is, Malayalam, so chances of human error are possible during the process of conversion. Some of the figures in consecutive years were not matching, and the figures mentioned in the latest annual report were considered. The study is limited to 10 years, fluctuations before and after this time period were not analyzed.
The scope of this paper was to discuss and provide the CAMEL rating system in evaluating the urban co-operative bank's performance. However, this framework's process and objectives may vary among countries, among companies, and among banks. A single bank was selected to describe how the CAMEL rating works, though it works equally well with other types of financial institutions. Additionally, future researchers can conduct a comparative study on two urban cooperative banks, or a comparative study can be conducted between rural & urban cooperative banks, or a district wise comparison of cooperative banks can be conducted.

References

AIA Annual Report. (2010). *AIA's CAMEL approach for bank analysis.* Retrieved from http://media.corporate-ir.net/Media_Files/IROL/23/238804/AIA_2010Annual_ Report_End_Final.pdf

Alabede, J.O. (2012). The intervening effect of global financial condition on the determinants of bank performance: Evidence from Nigeria. *Accounting and Finance Research, 1* (2), 161-176.

Bodla, B.S., & Verma, R. (2006). Evaluating performance of banks through CAMEL model: A case study of SBI and ICICI. *The ICFAI Journal of Bank Management, 5* (3), 49-63.

Chaudhary, S., & Singh, S. (2012). Impact of reforms on the asset quality in Indian banking. *International Journal of Multidisciplinary, 2* (1), 13-31.

Çinko, M., & Avci, E. (2008.). CAMELS rating system and forecasting the financial failure in the Turkish commercial banking sector. *Journal of BRSA Banking and Financial Markets, Banking Regulation and Supervision Agency, 2* (2), 25-48.

Gupta, R. (2008). A CAMEL model analysis of private sector banks in India. *Journal of Gyan Management, 2* (1), 3-8.

Hays, F., Lurgio, S.D., & Arthur, G. (2009). Efficiency ratios and community bank performance. *Journal of Finance & Accountancy , 2*(1), 1-15.

Hussein, A., & Al-Tamimi, H. (2010). Factors influencing performance of the UAE Islamic and conventional national banks. *Global Journal of Business Research, 4* (2), 1-9.

Kwan, S., & Eisenbeis, R.A. (1997). Bank risk, capitalization, and operating efficiency. *Journal of Financial Services Research,12*(2), 117-131.

Nurazi, R., & Evans, M. (2005).An Indonesian study of the use of CAMEL(S) ratios as predictors of bank failure. *Journal of Economic and Social Policy, 10* (1), 1-23.

Ongore, V.O., & Kusa, G.B. (2013).Determinants of financial performance of commercial banks in Kenya. *Proceedings of 25th International Business Research Conference*,13 - 14 January, 2012. Cape Town, South Africa.

Prasuna, D.G. (2004). Performance snapshot 2003-04. *IOSR Journal of Business and Management, 16* (1), 94-102.

Reddy D., & Prasad K.V.N. (2011). Evaluating performance of regional rural banks: an application of CAMEL Model. *Researcher's World Journal of Arts, Science & Commerce, 2* (4), 61-67.

Said, M. B., & Saucier, P. (2008). *Liquidity, solvency, and efficiency: An empirical analysis of the Japanese bank's distress.* University of Birmingham 20th Symposium on banking and monetary economics. 22-29 February, 2004. San Jose, Costa Rica: NOAA Technical Memorandum NMFS-SEFSC-567.

Service Co-operative Bank Ranni. (2013). *Annual reports : 2004 to 2013*. Pathanamthitta, Kerala : Co-operative Offset Press.

INDIAN JOURNAL OF FINANCE

Statement about ownership and other particulars about the newspaper "INDIAN JOURNAL OF FINANCE" to be published in the 3rd issue every year after the last day of February.

FORM 1V

(see Rule 18)

1.	**Place of Publication**	**:**	**NEW DELHI**
2.	**Periodicity of Publication**	**:**	**MONTHLY**
3.	**4,5 Printer, Publisher and Editor's Name**	**:**	**S. GILANI**
4.	**Nationality**	**:**	**INDIAN**
5.	**Address**	**:**	**Y-21,HAUZ KHAS, NEW DELHI - 16**
6.	**Newspaper and Address of individual**	**:**	**ASSOCIATED MANAGEMENT**
	Who owns the newspaper and partner of	**:**	**CONSULTANTS PRIVATE LIMITED**
	Shareholder holding more than one percent.	**:**	**Y-21, HAUZ KHAS, NEW DELHI - 16**

I, S. Gilani, hereby declare that the particulars given above are true to the best of my knowledge and belief.

Dated : March 1, 2016

Sd/-
S. Gilani
Signature of Publisher