EVALUATING PERFORMANCE OF REGIONAL RURAL BANKS: AN APPLICATION OF CAMEL MODEL

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ABSTRACT

The regional rural banks would be a 'model financial infrastructure' for rural development with patronage and encouragement given by planners in the field. Thus, the State sponsored, regionally based and rural oriented commercial banks have taken birth in rural India which popularly known as 'Regional Rural Banks'. These banks penetrate every corner of the country and have been extending a helping hand in the growth of the economy. Despite the RRBs journeyed over three decades, they have achieved performance to the expected level quantitatively not turning towards sound financial management and productivity. Moreover the achieved performance is not uniform though they are working under the approach of same management. Effective performance is the success of every business. In order to achieve the effective and efficient performance, the RRBs have been taken up amalgamation process in the entire organization in the year 2005-06. Amalgamation of regional rural banks was considered to strengthen all the branches financially. In every line of business, the performance of each bank is appraised in financial perspectives and ranked them. In this paper an attempt is made to discuss the financial performance of selected regional rural banks during post reorganization period. To measure the financial soundness of selected sample banks, the CAMEL Model which is an appropriate technique is adopted.

Keywords: Capital Adequacy Ratio (CAR), Risk Weighted Assets (RWA), Average Working funds (AWF), Andhra Pragathi Grameena Bank (APGB), Sapthagiri Grameena Bank (SGB)

INTRODUCTION:

The emergency and moratorium on loans were compelling the situations to think separate institutions for meeting the credit requirements of the rural community. The then Prime Minister, Smt. Indira Gandhi has taken up the initiation for appointment of the committees on rural credit. Based on the recommendations of Banking Commission and the Working Group, the Government of India established Regional Rural Banks under the RRBs Act, 1975. These banks were set-up with a rural-orientation having the benefits of low cost profile of cooperatives and at the same time benefiting from the professionalism and modernity of commercial banks. The weaker sections have been a target group for assistance in the multi-agency approach. The regional rural banks would be a 'model financial infrastructure' for rural development with patronage and encouragement given by planners in the field. Thus, the State sponsored, regionally based and rural oriented commercial banks have taken birth in rural India which popularly known as 'Regional Rural Banks'. These banks penetrate every corner of the country and have been extending a helping hand in the growth of the economy.

REVIEW OF LITERATURE:

Literature review is a study involving a collection of literatures in the selected area of research in which the scholar has limited experience. In the past, various studies relating to the financial performance of banks have been conducted by researchers.

Studies by Saveeta and Verma Sateesh (2001), Shravan Singh (2001), Kantawala Amita S (2004), Ketkar W Kusum et al. (2004), analyze the performance of banks from a profitability point of view, using various parameters.

Most of the studies (Ganesan P 2001; Rayapati Vijayasree, 2002; Das M R, 2002-2003; and Gupta V & Jain P K, 2003) compared the performance of public, private and foreign banks by using measures of profitability, productivity, and financial management (Trehan Ruchi and Sonu Nitti, 2003).

P Janaki Ramudu and S Durga Rao (2006) conducted a study on A Fundamental Analysis of Indian Banking Industry, by analyzing the performance of SBI, ICICI and HDFC.

Gunjan M Sanjeev (2009) conducted a study on Efficiency of Indian public sector banks and found that the efficiency of public sector banks not increased during the period 2003-07.

R.C.Dangwal and Reetu Kapoor (2010) conducted a study on financial performance of commercial banks. In this study they compared financial performance of 19 commercial banks with respect to eight parameters and they classified the banks as excellent, good, fair and poor categories.

Raj Mohan S and Pashupati S (2010) conducted a study to evaluate the performance of TAICO bank using profitability ratios.

Dilip Kumar Jha and Durga sankar Sarangi (2011) conducted a study on Performance of new generation banks using modern techniques to rate the banks.

K.V.N.Prasad and Dr.A.A.Chari (2011) conducted a study to evaluate financial performance of public and private sector banks in India. In this study they compared financial performance of top four banks in India viz., SBI, PNB, ICICI and HDFC and concluded that on overall basis HDFC rated top most position.

RESEARCH METHODOLOGY:

CAMEL is basically ratio based model for evaluating the performance of banks. It is a management tool that measures Capital Adequacy, Assets Quality, efficiency of Management, quality of Earnings and Liquidity of financial institutions. The present study adopts analytical and descriptive research design. The data of the sample banks for a period of 2006-2010 have been collected from the annual reports published by the banks. A sample of two RRBs, Andhra pragathi grameena bank (APGB) and Sapthagiri grameena bank (SGGB) selected for the purpose of the study. Twenty variables related to CAMEL model is used in the study .While analyzing and interpreting the results, the statistical tools used are arithmetic mean, t-test using SPSS 19.

ANALYSIS & DISCUSSION:

Various ratios measuring under capital adequacy, asset quality, management efficiency, earnings quality and liquidity tested under the following hypothesis.

H0: There is no significant difference between Andhra pragathi Grameena bank (APGB) and Sapthagiri grameena bank (SGGB)

H1: There is a significant difference between Andhra pragathi Grameena bank (APGB) and Sapthagiri grameena bank (SGGB)

CAPITAL ADEQUECY:

It is important for a bank to maintain depositors' confidence and preventing the bank from going bankrupt. It reflects the overall financial condition of banks and also the ability of management to meet the need of additional capital. The following ratios measure capital adequacy:

- **CAPITAL ADEQUACY RATIO (CAR):** The capital adequacy ratio is developed to ensure that banks can absorb a reasonable level of losses occurred due to operational losses and determine the capacity of the bank in meeting the losses. The higher the ratio, the more will be the protection of investors. The banks are required to maintain the capital adequacy ratio (CAR) as specified by RBI from time to time. As per the latest RBI norms, the banks should have a CAR of 9 per cent.
- **DEBT-EQUALITY RATIO (D/E):** This ratio indicates the degree of leverage of a bank. It indicates how much of the bank business is financed through debt and how much through equity. It is the proportion of total outside liability to net worth. Higher ratio indicates less protection for the creditors and depositors in the banking system.
- **ADVANCE TO ASSETS RATIO (Adv/Ast):** This is the ratio indicates a bank's aggressiveness in lending which ultimately results in better profitability. Higher ratio of advances/ deposits including receivables (assets) is preferred to a lower one
- **GOVERNMENT SECURITIES TO TOTAL INVESTMENTS (G-sec/Inv): It** is an important indicator showing the risk-taking ability of the bank. It is a bank's strategy to have high profits, high risk or low profits, low risk. It also gives a view as to the availability of alternative investment opportunities.

Various Ratios Measuring Capital Adequacy Depicted In Table 1, And Discussed Below:

It is clear from table 1; APGB is highly successful in CAR position with an average CAR of 19.17 when comparing with SGGB. The mean difference between APGB and SGGB is 10.004, the t-value for between the banks is 4.919 with p-value 0.001 therefore null hypothesis is rejected i.e. the mean difference is significant and we conclude that, APGB outperformed SGGB in the position of CAR during the study period.

Table 1: Capital Adequacy Ratios For The Period 2006-10

Ratio	Bank Name	Mean	S.D	Mean Difference	T-Value	Sig.Value
CAR (%)	APGB	19.1720	3.48313	10.004	4.919	0.001
	SGGB	9.1680	2.92412			
D/E(times)	APGB	6.6420	.35961	-9.29	16.121	0.000
	SGGB	15.9320	1.23738			
Adv/Ast(%)	APGB	65.8660	1.87296	-4.282	1.835	0.124
	SGGB	70.1480	4.87015			
G-sec/Inv (%)	APGB	92.1480	2.48807	0.232	0.182	0.860
	SGGB	91.9160	1.38516			

Source: secondary data available in annual reports of the banks compiled by MS-Excel

The mean debt equity ratio of APGB and SGGB are 6.642, 15.932 respectively. The mean difference is -9.29; with t- value 16.121 and 'p'-value 0.000 therefore null hypothesis is rejected i.e. the mean difference is significant. At last it is concluded that APGB has been out performed over the SGGB in the study period.Interms of Adv/Ast, SGGB has been generated more advances out of its available resources when compare to APGB. The mean difference is -4.282 with't' value for between the banks is 1.835 and 'p'value is 0.104 i.e. there is no significant difference between the two sample banks. And with respect to government securities to investments, the APGB has performed better than that of SGGB.

ASSETS QUALITY:

The quality of assets in an important parameter to gauge the strength of bank. The prime motto behind measuring the assets quality is to ascertain the component of non-performing assets as a percentage of the total assets. This indicates what types of advances the bank has made to generate interest income. The ratios necessary to assess the assets quality are:

- **NET NPAS TO TOTAL ASSETS (NNPAs/TA):** This ratio discloses the efficiency of bank in assessing the credit risk and, to an extent, recovering the debts. It is arrived at by dividing the net non-performing assets by total assets

- **NET NPAS TO NET ADVANCES (NNPAs/NA):** It is the most standard measure of assets quality measuring the net non-performing assets as a percentage to net advances. Net non-performing assets are gross non-performing assets minus net of provisions on Non-performing assets and interest in suspense account.
- **TOTAL INVESTMENTS TO TOTAL ASSETS (TI/TA):** It indicates the extent of deployment of assets in investment as against advances. This ratio is used as a tool to measure the percentage of total assets locked up in investments, which, by conventional definition, does not form part of the core income of a bank.

Various ratios measuring asset quality depicted in table 2, and discussed below;

Table 2: Asset Quality Ratios for The Period 2006-10

Ratio	Bank Name	Mean	S.D	Mean Difference	t-value	Sig.value
GNPAs/NA (%)	APGB	2.4140	.44439	0.494	1.927	0.095
	SGGB	1.9200	.27833			
NNPAs/ NA (%)	APGB	1.6640	.80637	1.236	3.066	0.015
	SGGB	.4280	.40283			
TI/TA (%)	APGB	26.0900	20.58540	4.184	0.397	0.705
	SGGB	21.9060	11.49338			
NNPAs/ TA (%)	APGB	1.3440	.62620	1.032	3.049	0.016
	SGGB	.3120	.42517			

Source: secondary data available in annual reports of the banks compiled by MS-Excel

In case of GNPAs to Net advances and Total Investments to Total Assets SGGB performed better than that APGB. The average NPAs to Net Advances of SGGB and APGB are 0.4280 and 1.6640 with mean difference 1.236, the't' value for between the banks is 3.066 with 'p' value 0.015 i.e. SGGB out performed APGB. With respect to NNPAs to Total Assets the average of SGGB is 0.3120 where as it is 1.344 for APGB with mean difference 1.032. The't' value between banks is 3.049 wit 'p' value 0.016 therefore null hypothesis is rejected i.e. SGGB performed better than APGB.

MANAGEMENT EFFICIENCY:

Management efficiency is another important element of the CAMEL Model. The ratio in this segment involves subjective analysis to measure the efficiency and effectiveness of management. The management of bank takes crucial decisions depending on its risk perception. The ratios used to evaluate management efficiency are described as:

- **TOTAL ADVANCES TO TOTAL DEPOSITS (TA/TD):** This ratio measures the efficiency and ability of the bank's management in converting the deposits available with the bank excluding other funds like equity capital, etc. into high earning advances. Total deposits include demand deposits, savings deposits, term deposits and deposits of other banks, total advances include the receivables.
- **BUSINESS PER EMPLOYEE (BPE):** Business per employee shows the productivity of human force of bank. It is used as a tool to measure the efficiency of employees of a bank in generating business for the bank. It is calculated by dividing the total business by total number of employees. Higher the ratio, the better it is for the bank
- **PROFIT PER EMPLOYEE (PPE):** This shows the surplus earned per employee. It is known by dividing the profit after tax earned by the bank by the total number of employees..

Various Ratios Measuring Management Efficiency Depicted In Table 3, And Discussed Below;

Table 3: Management Efficient Ratios for The Period 2006-10

Ratio	Bank Name	Mean	S.D	Mean Difference	T-Value	Sig.Value
TA/TD(%)	APGB	100.6240	3.12732	-6.90	2.895	0.020
	SGGB	107.5240	4.31466			
BPE(in lakhs)	APGB	290.9060	50.50136	2.204	0.058	0.955
	SGGB	288.7020	68.58079			

PPE(in lakhs)	APGB	4.7040	.53668	3.166	11.489	0.000
	SGGB	1.5380	.30277			

Source: secondary data available in annual reports of the banks compiled by MS-Excel

The average total assets to total deposits of SGGB and APGB are 107.524, 100.6240 respectively. The mean difference is 6.90 with't' value 2.895 and 'p' value 0.020 therefore null hypothesis is rejected i.e. the performance of SGGB is better than APGB. In terms of business per employee the performance of two sample banks does not differed significantly , where as the APGB has proved to be good at profit per employee t. The mean difference is 3.166 with't' value 11.489 and 'p' value 0.000 i.e. the mean difference between the two sample banks is significantly differed.

EARNING QUALITY:

The quality of earnings is a very important criterion that determines the ability of a bank to earn consistently. It basically determines the profitability of bank and explains its sustainability and growth in earnings in future. The following ratios explain the quality of income generation.

- **OPERATING PROFIT TO AVERAGE WORKING FUNDS (OP/AWF):** This ratio indicates how much a bank can earn profit from its operations for every rupee spent in the form of working fund. This is arrived at by dividing the operating profit by average working funds
- **SPREAD TO TOTAL ASSETS (SP/TA): Spread** is the difference between the interest earned and interest expended is another good indicator to value of the bank. For greater spread, the banks should keep their interest low on deposits and high on advances to increase their earnings capacities.
- **NET PROFIT TO ASSETS (NP/A):** This ratio measures return on assets employed or the efficiency in utilization of assets.
- **INTEREST INCOME TO TOTAL INCOME(II/TI) :** This ratio measures the income from lending operations as a percentage of the total income generated by the bank in a year
- **NON INTEREST INCOME/TOTAL INCOME:** This measure the income from operations other than lending's as a percentage of the total income.

Various ratios measuring management efficiency depicted in table 4, and discussed below;

The average operating profit to average working funds of APGB and SGGB are 2.3220, 1.9200 respectively. The mean difference is 0.402 with't' value 2.268 and 'p' value 0.053. Therefore the performance of sample banks does not differed significantly.

Table 4: Earnings Quality Ratios for the period 2006-10

Ratio	Bank Name	Mean	S.D	Mean Difference	T-Value	Sig.Value
OP/AWF	APGB	2.3220	.22654	0.402	2.268	0.053
	SGGB	1.9200	.32527			
SP/TA	APGB	3.8420	.45921	0.704	1.792	0.111
	SGGB	3.1380	.74911			
NP /A	APGB	2.0320	.25263	1.224	5.710	0.000
	SGGB	.8080	.40733			
II/Tl	APGB	91.6680	.46018	3.664	0.467	0.665
	SGGB	88.0040	17.52313			
NII/TI	APGB	8.3320	.46018	4.336	12.604	0.000
	SGGB	3.9960	.61638			

Source: secondary data available in annual reports of the banks compiled by MS-Excel

In terms of spread to total assets, the performance of APGB is excelled over the SGGB. Similarly in terms of net profit to assets the APGB outperformed the SGGB. The mean difference between APGB and SGGB is 1.224 with't' value 5.71 and 'p' value 0.000 i.e APGB out performed over SGGB. The average interest income to total income of APGB and SGGB are 91.6680 and 88.0040 respectively. Under non-interest income to total income, the mean difference between APGB and SGGB is 4.336with't' value 12.604 and 'p' value 0.00. Therefore, the null hypothesis is rejected I.e APGB performing better than SGGB.

LIQUIDITY:

Risk of liquidity is curse to the image of bank. Bank has to take a proper care to hedge the liquidity risk; at the same time ensuring good percentage of funds are invested in high return generating securities, so that it is in a position to generate profit with provision liquidity to the depositors. The following ratios are used to measure the liquidity under the CAMEL Model. They are:

- **LIQUID ASSETS TO TOTAL ASSETS (LA/TA):** It measures the overall liquidity position of the bank. The liquid asset includes cash in hand, balance with institutions and money at call and short notice. The total assets include the revaluation of all the assets.
- **G-SEC TO TOTAL ASSETS (G-Sec/TA):** It measures the risk involved in the assets. This ratio measures the Government securities as proportionate to total assets.
- **LIQUID ASSETS TO DEMAND DEPOSITS (LA/DD):** This ratio measures the ability of bank to meet the demand from depositors in a particular year. To offer higher liquidity for them, bank has to invest these funds in highly liquid form.
- **LIQUID ASSETS TO TOTAL DEPOSITS (LA/TD):** This ratio measures the liquidity available to the total deposits of the bank.

Various ratios measuring liquidity depicted in table 5, and discussed below;

Table 5: Liquidity Ratios For The Period 2006-10

Ratio	Bank Name	Mean	S.D	Mean Difference	T-Value	Sig.Value
LA/TA (%)	APGB	20.6820	11.18156	3.170	0.497	0.633
	SGGB	17.5120	8.87418			
G-Sec/TA (%)	APGB	14.9880	.35696	-0.318	0.733	0.484
	SGGB	15.3060	.90160			
LA/DD (%)	APGB	2.2700	.83307	-3.214	3.231	0.012
	SGGB	5.4840	2.06232			
LA/TD(%)	APGB	.3200	.17720	0.440	0.434	0.676
	SGGB	.2760	.14153			

Source: secondary data available in annual reports of the banks compiled by MS-Excel

The average liquidity assets to total assets of APGB and SGGB are 20.6820 and 17.5120 respectively. The mean difference between two sample banks is 3.170 with 't' value 0.497 and 'p' value 0.633. Hence the performance of two sample banks does not differed significantly. Similarly the performance of two sample banks with respect to government securities to total assets does not differ significantly. Finally the average liquidity assets to demand deposits of sample banks 2.2700 and 5.4840 respectively. The mean difference of these banks is -3.214 with 't' value 3.231 and 'p' value 0.012. Therefore, the null hypothesis is rejected i.e SGGB performing better than APGB.

CONCLUSION:

Camel provides a measurement of banks current overall financial, managerial, operational and compliance performance. Thus the current study has been conducted to examine the overall performance of Andhra pragathi grameena bank and Sapthagiri grameena bank. The study revealed that,

- Andhra pragathi grameena bank excelled over Sapthagiri grameena bank in protecting the interest of the creditors.
- Sapthagiri grameena bank proved to be good in Asset Quality perspective.
- Andhra pragathi grameena bank performed better than Sapthagiri grameena bank in case of TA/TD, where as Sapthagiri grameena bank proved to be good in Profit per employee perspective.
- Andhra pragathi grameena bank outperformed Sapthagiri grameena bank in front of quality of earnings.
- The two sample bank does not differed significantly in Liquidity position during the study period.
- The study also revealed that APGB rated top on the basis of overall performance.

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