CAMEL MODEL ANALYSIS OF DISTRICT CENTRAL COOPERATIVE BANKS (DCCBS) IN PUNJAB: A CASE STUDY OF THE JALANDHAR CENTRAL COOPERATIVE BANK LTD.

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ABSTRACT

In India, banks have gained a unique position in economy due to its role as creator of money, depositors of public savings and allocator of credit. Banks play an important role in the development of economy. They are replica of all economic activities of the country. Evaluation of a bank's performance is necessary to analyze its internal strength. In the present study, an attempt has been made to analyze the performance of Jalandhar Central Cooperative Bank Ltd. with the help of CAMEL Model. The performance of the bank has been examined on the five parameters i.e. Capital Adequacy, Asset Quality, Managerial Efficiency, Earning capacity and Liquidity. For the purpose of study, secondary data for four years (2011-2014) has been taken from annual reports of bank and data bank of cooperative societies of Punjab. Two statistical tools i.e. mean and standard deviation has been used for the analysis of data. It has been found that The Jalandhar Central Cooperative Bank Ltd. was performing well in all the five parameters of CAMEL Model.

Key words: CAMEL model, cooperative, performance evaluation, earnings, profitability and liquidity.

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1 Introduction

The banking sector is an indispensable financial service sector of an economy which supports development plans through channelizing funds by flow of funds from surplus to deficit units for productive purpose and supports financial and economic policies of government (Narayanan and Surya, 2014). The sound financial position of a bank is not only guarantee to its depositors but also equally important for whole economy of the nation. The performance of the bank is the replica of activities and always affects the economic strength of the country (Aspal and Dhawan, 2014). They are considered as the economic and financial strength of a nation and the parameters of its economic prospects. As a result of globalization and competitive environment, banks have to perform very effectively and efficiently and they have to examine their performance off and on. So there is a great need for an effective system of their evaluation from various angles and also needs close supervision.

RBI had set up a working group headed by Shri Padmanabhan which suggested the supervision of banks on the basis of CAMEL Model. In the CAMEL Model, banks' performance is examined on the parameters of financial, managerial and operational efficiency.

The CAMEL Methodology has been developed and practiced by North American regulator to assess the financial and managerial soundness of US commercial banks. Later on Basel Committee (1974) also accepted this model as uniform method to evaluate and monitor the bank. Under CAMEL rating system, bank is rated on the basis of performance in five main areas namely Capital Adequacy (C), Asset Quality (A), Managerial Efficiency (M), Earning Capacity (E), and Liquidity (L) (Vijaykumar, 2012).

2 Literature Review

To evaluate the financial performance of the banking and financial sector, various studies have been conducted by researchers, academicians and policy makers in different time periods.

Singh (2006) worked on "Performance Evaluation of Cooperative Banks in Punjab," to study the NPA status in the District Central Cooperative Banks (DCCB) of Punjab and found that on March 31, 2003, DCCB Jalandhar managed to bring the ratio of overdues to total loans to 0.80 per cent whereas DCCB Ferozepur and DCCB Gurdaspur stood at a distressingly high ratio of 21 per cent and 20 per cent respectively. As far as arresting overdues was concerned, the position of an average DCCB in Punjab was far better than the position of an average DCCB at the national level, witnessing a better recovery performance than its peers at all India level.

Bodla and Verma (2006) in their study "Evaluating Performance of Banks through Camel Model: A Case Study of SBI and ICICI" evaluated the performance of ICICI and SBI bank on the basis of CAMEL model. It was found that SBI had an edge over its counterpart ICICI in terms of Capital Adequacy. However, the vice versa was true regarding assets quality, earning capacity and management efficiency. The liquidity position of both the banks was sound and did not differ significantly.

Kumar, (2008) worked on "Management of Non-Performing Advances−A Study of District Central Co-operative Banks of Punjab". A sample of ten DCCBs, i.e., five with high level of NPAs and five with low level of NPAs, was taken for the study. It was found that despite the best efforts, Central Co-operative banks had not succeeded in diversifying their business. The NPAs in crop loan were found to be the lowest, while these were the highest in non-farm sector loan. On the basis of step-wise multiple regressions, it was found that caste, education, amount and adequacy of loan were the main factors affecting repayment performance of the borrowers. She suggested that these banks should form a special cell to monitor NPAs and should take services of recovery agents.

Sangmi and Nazir, (2010) in their paper "Analyzing Financial Performance of Commercial Banks in India: Application of CAMEL Model" analysed the financial performance of banks through application of CAMEL approach. For the purpose of study Punjab National Bank and Jammu and Kashmir bank had studied. The study concluded that both banks were financially viable as both had adopted prudent policies of financial management.

Chowdhury, (2011) in his study "An Inquiry into the Financial Soundness of Commercial Banks in India Using 'CAMEL' Approach," analysed financial soundness of commercial banks in India through CAMEL rating. For this purpose twelve commercial banks were selected that were traded in National Stock Exchange and were part of CNX bank Index. ICICI ranked first under the CAMEL analysis followed by HDFC. KMB occupied the third position. The fourth and fifth position was occupied by Axis and Canara banks respectively. Oriental and PNB shared the same position. The last position under CAMEL analysis was occupied by Union bank amongst all the selected banks during the years 2000-2009.

Reddy, (2012) in their paper "Relative Performance of Commercial Banks in India Using CAMEL Approach," studied the performance of the commercial banks through CAMEL model. It was found that public sector banks had significantly improved indicating positive impact of the reforms in liberalizing interest rates, rationalizing directed credit and Investments and increasing competition.

Prasad and Ravinder (2012) in their study "A Camel Model Analysis of Nationalized Banks in India," evaluated the performance of nationalized banks through CAMEL. Results revealed that on an average Andhra bank was at the top most position followed by bank of Baroda and Punjab & Sindh Bank. It was also observed that Central Bank of India was at the bottom most position.

Devanadhen, (2013) studied in his paper "Performance Evaluation of Large Sized Commercial Banks in India" the performance of 14 public sector and 3 private sector banks under the CAMEL model. It was found that the Andhra Bank secured the first place followed by Corporation Bank and HDFC Bank. Axis Bank and ICICI Bank were ranked 6th and 14th respectively. Central Bank of India stood last in the overall performance; and SBI (largest public sector bank) exhibited better performance than ICICI Bank (largest private sector bank).

Aspal and Dhawan, (2014) in their work "Financial Performance Assessment of Banking Sector in India: A Case Study of Old Private Sector Banks" examined the performance of thirteen old private sector banks. Date for the period 2007-12 had been collected from the reports of Reserve Bank of India. It was concluded that out of thirteen banks, six banks had shown good results and Tamilnad Mercantile Bank had secured first position followed by Federal Bank in overall ranking of camel model. Whereas Catholic Siyrian Bnak and ING Vysya Bank and Dhanalakshmi Bank had secured last position due to their bad financial performance.

Bansal and Khosla (2015) in their study "Multivariate Analysis of Indian Banking Sector Performance: A Camel Framework Approach" analysed the working of scheduled commercial banks on the parameters of capital adequacy, asset quality, productivity and profitiability. Data had been collected from the RBI reports for the period 1991-92 to 2010-11. It was concluded that the performance of private sector banks and foreign banks was far better than the performance of nationalized banks. It was suggested to have a restructured plan for the nationalized banks by taking into consideration deregulation, recapitalization and organisational structure of these banks.

Johri and Singh (2015) worked on "Financial Assessment of Public and Private Banks in India" to study the financial performance of ICICI bank and SBI bank. The data was collected for the period of 2009-10 to 2013-14 from the financial statement of these banks. Different ratios and independent sample t test was used to compare the financial performance of these

banks. It was concluded that in terms of capital adequacy, managerial capabilities and liquidity parameters, ICICI bank was better whereas in terms of earning capabilities SBI bank is better.

Above analysis shows that lots of studies have been conducted on the performance of banking system. But the performance of cooperative banks which are the most important and integral part of banking industry especially rural credit system have not been conducted on CAMEL Model. Therefore, we have planned this study to fill the gap.

3 Objectives of the study

The main objectives of the study are as follows:

- To examine capital adequacy of The Jalandhar Central Cooperative Bank Ltd. (JCCB).
- To evaluate asset quality of The Jalandhar Central Cooperative Bank Ltd.
- To study managerial efficiency of The Jalandhar Central Cooperative Bank Ltd.
- To monitor earning capacity of The Jalandhar Central Cooperative Bank Ltd.
- To observe liquidity of The Jalandhar Central Cooperative Bank Ltd.

4 Research Methodology

The present study is an effort to evaluate the financial performance of The Jalandhar Central Cooperative Bank Ltd. through CAMEL Model. The study is mainly based on the secondary data drawn from annual reports of the bank and the published data bank of cooperative societies of Punjab. The data is related to 4 years from 2011 to 2014. For the analysis of data, ratios under five heads are calculated. Two important statistical tools Mean and Standard deviation have been used to arrive at conclusion in a scientific way.

5 Analysis and Results

The analysis and results under the study are categorized into the following heads:

- Capital Adequacy
- Asset Quality
- Management Efficiency
- Earning Capacity
- Liquidity

5.1 Capital Adequacy

Capital adequacy reflects the inner strength of a bank (Mohiuddin, 2014). To maintain depositors' confidence and prevention of the bank from becoming bankrupt, it is necessary to maintain capital adequacy (Suba and Jogi 2015). According to RBI guidelines, Capital Adequacy ratio is calculated in relation to gross risk weighted assets which shows that whether the bank has enough capital to absorb unexpected losses. For calculating risk

weighted asset, assets of the bank are multiplied by the risk factor prescribed by RBI. As per the latest guidelines of RBI, the Capital Adequacy Ratio (CAR) of a cooperative bank should be 7% of gross risk weighted assets. For computing capital adequacy ratio, capital is classified into two categories i.e. Tier I and Tier II capital. Tier I capital is core capital which includes equity capital, statutory capital and disclosed reserves and Tier II capital is secondary bank capital that includes items such as undisclosed reserves, general provision and loss reserves and subordinate term debt (**Master Circular: Prudential Norms on Capital Adequacy – Basil 1 Framework accessed on 30-05-2013**).

For measuring the capital adequacy of bank, the following ratios have been used.

❖   Capital Adequacy Ratio (CAR) and

❖   Total Advances to Total Assets ratio

Higher capital adequacy ratio (CAR) reflects the stronger financial position of a bank but a very high CAR indicates that the bank has adopted more conservative lending policy and has not utilized its resources in full. Total advances to total assets ratio indicates the policy of bank in deploying its funds. Higher total advances to total assets ratio reflects the aggressive lending policy of the bank which leads to higher profitability.

Table: 1 Capital Adequacy Ratio of The Jalandhar Central Cooperative Bank Ltd.

YEAR	Capital Adequacy Ratio (CAR) (%)	Total Advances to Total Assets
2011	10.05	0.34
2012	10	0.42
2013	9.9	0.37
2014	9.92	0.37
Mean	9.97	0.38
Standard Deviation	0.07	0.03

Source: computed from annual reports of the JCCB Ltd.

The capital adequacy position of The Jalandhar Central Cooperative Bank Ltd. has been shown in table 1 which depicts that bank's position was quite good. As the CAR of the bank was higher than the prescribed rate of 7% with mean value of 9.97 and standard deviation was 0.07. Total Advances to Total Assets Ratio of bank was by and large stagnant with mean value of 0.38 with very little deviation as standard deviation was 0.03 only. The study of this ratio reveals that The Jalandhar Central Cooperative Bank Ltd. was following conservative lending

policy as bank was applying fewer funds in advancing the money and larger funds in investments in relation to its total assets.

5.2 Asset Quality

Loans and advances comprise the major part of assets portfolio of the banks. The major source of banks' earning is from lending operations. In lending the money, there is always the risk of default in repayment of loan. Despite of best efforts of bank, there is always some percentage of loans that become bad debts (Waraich and Dhawan 2014). According to RBI guidelines, if amount of interest and installment is overdue for more than 90 days then it becomes NPAs. Presence of NPA in asset badly affects the financial performance of the bank. Every bank tries hard to keep its NPA at minimum (Sangmi and Nazir 2010). For the purpose of this study the following ratios have been used.

* ❖ NPA to Total Assets
* ❖ NPA to Total Advances

NPA to Total Assets ratio shows the quantum of loss in the total assets of the bank due to Non Performing Assets. NPA to Total Advances shows the efficiency of bank to manage its risk in lending operations. The asset quality of The Jalandhar Central Cooperative Bank Ltd. has been presented in table 2.

Table 2: Asset Quality Ratios of The Jalandhar Central Cooperative Bank Ltd.

YEAR	NPA to Total Assets	NPA/Total Advances (%)
2011	0.011	3.18
2012	0.012	2.86
2013	0.011	2.92
2014	0.012	3.4
Mean	0.011	3.09
Standard Deviation	0.00	0.25

Source: computed from annual reports of the JCCB Ltd.

Study of table 2 reveals that, The Jalandhar Central Cooperative Bank Ltd. is quite successful in keeping it NPA low. The share of NPA in Total Assets almost remained constant throughout the period of study with mean value of 0.011 and observed no variation as standard deviation was zero. The study of NPA to Total Advances ratio had shown a marginal increasing trend almost every year as it was 3.18 % in 2011 and had increased to 3.4 % with mean value of 3.09 and standard deviation of 0.25.

5.3 Management Efficiency

Management efficiency is an indispensable component of CAMEL framework. The efficiency and effectiveness of the bank to manage its resources and affairs affects the productivity and profitability of a bank. The quality and performance of management guarantees the growth and development of a bank. The efficiency of management can be studied with the help of following ratios:

- Business per employee
- Profit per employee
- Profit per branch
- Business per branch
- Total advances to total deposits

Business per employee shows the productivity of human resources of the bank. Profit per employee reflects the efficiency of staff in managing banking operations. Ratios profit per branch and business per branch shows the effectiveness and efficiency of branch of a bank to earn and manage its branch successfully. Total assets to total deposits ratio reflects the bank's ability to convert its deposits into advances which are the main source of income of a bank.

Table 3: Management Capacity Ratios of The Jalandhar Central Cooperative Bank Ltd.

Ratios Year	Business per Branch (in Lacs)	Profit per Branch (in Lacs)	Business per Employee (in Lacs)	Profit per Employee (in Lacs)	Total Advances to Total Deposits
2011	2068.9	4.07	348.04	0.68	0.6
2012	2315.36	3.48	399.77	0.6	0.57
2013	2533.83	4.05	473.86	0.75	0.51
2014	2694.51	4.91	544.96	0.99	0.49
Mean	2403.15	4.13	441.66	0.76	0.54
Standard Deviation	271.66	0.59	86.06	0.17	0.05

Source: computed from annual reports of the JCCB Ltd.

Table 3 exhibits that business per employee had increased from Rs. 2068.9 lacs in 2011 to Rs 2694.51 lacs in 2014 with mean value of 2403.15 and standard deviation of 271.66. Profit per branch had increased to 4.91 lacs in 2014 as compared to 2011 when it was 4.07 lacs with mean value of 4.13 and standard deviation of 0.59. Business per employee had also showed an increasing trend as it was 348.04 lacs in 2011 and increased to 544.96 lacs in 2014. Profit per employee had increased to 0.99 lacs in 2014 as compared to 2011 when it was 0.68 lacs with mean value of 0.76 and standard deviation of 0.17. The study of all the four ratios shows that

both employees and branches are efficient. Total advances to total deposits ratio was decreasing throughout the period of study with mean value of 0.54 and standard deviation of 0.05 which reflects the bank's conservative policy of lending. On the analysis of ratios studied in the parameter of management efficiency, the performance of The Jalandhar Central Cooperative Bank Ltd. was quite satisfactory.

5.4 Earning Capacity

The earning i.e. profit is the main key indicator of financial performance of the bank. It is the profitability through which the financial soundness of the bank can be judged. Higher profitability a bank strengthens its financial capacity. The following ratios are used to measure financial performance of the bank.

- ❖ Net profit to Owned Funds
- ❖ Net profit to Average Working Funds
- ❖ Average Yield on Investment
- ❖ Cost of Management to Average Working Funds

Table 4: Earning Ratios of The Jalandhar Central Cooperative Bank Ltd.

Ratios / Year	Net Profit/Owned Funds (%)	Net profit / Average working Funds	Average Yield On Investment (per Hundred)	Cost of Management to Average Working Funds (%)
2011	2.01	0.15	7.03	2.68
2012	2.44	0.17	8.86	2.65
2013	2.77	0.19	9.29	2.68
2014	2.91	0.21	9.18	2.45
Mean	2.53	0.18	8.59	2.61
Standard Deviation	0.40	0.02	1.06	0.11

Source: computed from annual reports of the JCCB Ltd.

Table 4 exhibits that percentage of net profit earned on owned fund had increased throughout the period of study. It had increased from 2.01 % in 2011 to 2.91% in 2014 with mean value of 2.53 and standard deviation of 0.40. The net profit earned on average working capital also increased within the period of study with mean value of 0.18 with very little variation of 0.02. The Jalandhar Central Cooperative Bank Ltd. was earning good return on its investment. As analysis of Average yield on investment reflects increasing trend in earning income on its investment, as it was 7.03 in 2011 and increased to 9.18 % in 2014 with mean value of 8.59

and standard deviation of 1.06. Cost of management incurred as a percentage of average working funds by and large remained stagnant with mean value of 2.61 and standard deviation of 0.11.

The entire four ratios studied in this portfolio reflected that in terms of earning capacity parameters The Jalandhar Central Cooperative Bank Ltd. had been performing better.

5.5 LIQUIDITY

Liquidity is an important parameter to examine the financial performance of the bank. Liquidity reflects the financial ability of bank to pay its obligation on the due date. An adequate liquid position is a situation where a bank can get sufficient funds either by increasing liabilities or by converting its assets quickly into cash at a reasonable cost (Thanki, 2015). Liquidity of a bank is analyzed with the help of following ratios:

❖   Credit to Deposit Ratio

❖   Liquid Assets to Total Assets

❖   Liquid Assets to Demand deposits

❖   Government Securities to Total Assets.

Every bank tries to maintain adequate liquidity position. If bank has excessive liquidity, then idle assets will earn no yield and even it will affect its profitability negatively. And it bank has inadequate liquid position then it will not be able to pay its depositors as well as payments and contingent liabilities. So every bank should have to maintain adequate level of liquidity.

Table 5: Liquidity Ratios of The Jalandhar Central Cooperative Bank Ltd.

Ratio Year	Credit Deposit Ratio	Liquid Assets/Total Assets	Liquid Assets/Demand Deposits	Government Securities /Total Assets
2011	55.88	0.6	0.98	0.02
2012	57.39	0.5	0.69	0.03
2013	50.83	0.53	0.71	0.06
2014	48.74	0.54	0.72	0.06
MEAN	53.21	0.54	0.77	0.04
Standard Deviation	4.09	0.04	0.14	0.02

 Source: computed from annual reports of the JCCB Ltd.

The study of table 5 depicts that in the year 2011, the ratio of credit to deposit ratio was 55.88 but it had increased to 57.39 in 2012 and again in 2013 and 2014 it decreased up to 48.74 with

a mean of 53.21 and standard deviation of 4.09. Such a high ratio reflects bank's aggressive policy to utilize its deposits in lending operations which will lead to more profitability. Liquid assets to total assets ratio exhibits bank's good liquid position during the period of study with mean value of 0.54 with little variation as standard deviation is only 0.04. Liquid assets to demand deposits ratio of bank was fluctuating during the period of study with recorded mean value of 0.77. This higher ratio reflects the bank's ability to satisfy its demand of its depositors without any difficulty. Analysis of Government securities to total assets shows that bank had kept its investment minimum in government securities. This ratio was almost remained consistent and recorded mean value of 0.04 with little variation as standard deviation was 0.02 only.

Analysis of these four ratios to examine the liquidity position of The Jalandhar Central Cooperative bank Ltd. shows the satisfactory liquid position of the bank. Bank is quite cautious in parking its money to have good liquidity position.

6. Conclusions

The study and analysis of all the preceding tables reveal that The Jalandhar Central Cooperative Bank Ltd. was quite successful in managing its Capital adequacy ratio well above the recommended rate of RBI i.e., 7%. Bank had successfully managed its assets portfolio. The share of NPA in total Assets was low. In managerial capacity also, bank was managing its operation in efficient way. The earning capability of The Jalandhar Central Cooperative Bank Ltd. was good. It was earning good return on its average working funds and owned fund are utilized in better way to get good return. The Jalandhar Central Cooperative Bank Ltd. was also maintaining its liquid position very sound. It had maintained a good proportion of total assets in liquid form.

7. Recommendations

Bank should adopt aggressive lending policy to maintain its revenue earnings.

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