CHAPTER 9
SYSTEMS AND CONTROL

9.1 INTRODUCTION

Banks play an important role in development of an economy. It involves transmission of funds from surplus units to deficit ones for productive purposes. It performs the role of creator of money, depositories of public savings, allocator of credit and channel of payment system. Banks are considered as trustees of public money. Therefore, it is important to win and maintain public confidence in the banking industry. But due to nature of their business i.e. dealing in money/cash every time, they are prone to multiple frauds. Therefore, a proper system and control mechanism is necessary for efficient functioning of a bank to prevent occurrence of frauds and to facilitate quick detection of frauds and embezzlement of funds, if any.

9.2 IMPORTANCE OF SYSTEM AND CONTROL IN DCCBs

Cooperative banks play an important role in providing agriculture credit to rural masses. Now days, these banks have diversified their business to non farm sector and retail sector loans too. These banks have to maintain their financial viability to serve their objectives. Though they are known as 'Jat Banks" established for a specific purpose, but now a days they perform all banking activities and they have to follow proper system of internal control and checks. Though very strong controlling mechanism was implemented in these banks by state government but due to new LPG (Liberalisation, Privatisation and Globalisation) policy in banking sector, some more stringent norms have been implemented by RBI.

9.3 OBJECTIVES OF A GOOD SYSTEMS AND CONTROL

The following objectives of good system and control in a bank are to make sure that:-

1. Performance of banking activities is in accordance with clear cut established policies and norms.

2. Effective control system is adopted for protection and control of assets and liabilities respectively.

3. Accounting records are maintained in conformity with uniform accounting norms and practices to provide complete, accurate and timely information.

4. A proper system of risk management is followed to identify, measure and control the risks associated with the business.

9.4 SYSTEMS IN DISTRICT CENTRAL COOPERATIVE BANKS IN PUNJAB

The system should define roles, responsibilities, delegation of powers and ensure effective coordination between various functionaries in the hierarchy. Systems of a district central cooperative bank can be studied in respect of three main categories:

i)   Accounting System

ii)   Administrative System

iii) Human Resource System

9.4.1 ACCOUNTING SYSTEM IN DCCBs

Accounting system involves accounting norms, policies, finalisation of accounts, appropriation of profit, procedures and prudential norms to be followed by banks. Accounting systems to be followed by a DCCB or even by every cooperative society are framed by Registrar of Cooperative Societies (RCS) of concerned state where as prudential norms and their further treatment and guidelines are prescribed by RBI. Accounts books are maintained according to directions issued by RCS and RBI.

Bank management and government through Registrar of Cooperative Societies and NABARD with RBI make all efforts to ensure that accounts of DCCBs are maintained according to established norms and portrays true picture of events. Every branch of every DCCB has developed internal control systems. Annual accounts are audited by two authorities. Statutory audit is conducted by chartered accountants as per directions of NABARD and RBI. On the other hand, government has separate cooperative audit department to audit the accounts of cooperatives. Cooperative audit department conducts the audit of all transactions of DCCBs and looks that government instructions and policies are not violated and financial irregularities are not there.

NABARD conducts an inspection of the state cooperative bank (SCB) as well as DCCBs at short intervals. State cooperative banks conduct inspection of all DCCBs. Punjab State Cooperative Bank (PSCB) has established three divisional offices at Bathinda, Amritsar and Jalandhar. Main function of these divisional offices is to conduct inspection and supervise the functioning of DCCBs falling under their jurisdiction. Even functionaries of cooperative departments such as joint registrar, deputy registrar, assistant registrar or their nominees also conduct the inspection of certain branches on behalf of state government. Apart from SCB, DCCBs have separate cells to conduct half yearly inspection of its branches.

As a part of controlling mechanism to ensure accuracy in accounts before finalising annual reports, staff of PSCB has been entrusted with a duty of analyse accounting statements of the DCCBs from various angles to suggest corrective measures. One more important system to check and detect frauds is the vigilance in DCCBs as well in the Registrar office.

9.4.2 ADMINISTRATIVE SYSTEM IN DCCBs

Cooperative credit system in Punjab is three tier system. It consists of primary agriculture credit cooperative societies (PACS) at the grass root level, district central cooperative banks (DCCBs) at the district level and state cooperative bank (SCB) at the state level. Each level is answerable to Registrar of Cooperative Societies (RCS). Some aspect of their functioning is controlled by higher level of concerned cooperative societies. All decisions and policies are to be taken by Board of Directors. The Board of Directors of the DCCB is directly elected by its members. It comprises of elected members and nominees of the government of respective state in which DCCB is working, the State Cooperative Bank and Chief Executive Officer (CEO) of the DCCB. The board would have CEO of DCCB as its member secretary. The performance of DCCB is reviewed by board on periodically basis and policy decisions are taken. Registrar of Cooperative Societies (RCS) is a friend, philosopher and guide of the credit system. All major decisions are approved by Registrar of Cooperative Societies, who happens to be a senior functionary of state administrative machinery i.e. I.A.S.

Though cooperative societies including DCCBs are considered democratically managed having its own dutiful directors who make their own decisions, but it has been observed that these members are political personalities though elected by proper procedure. They make decisions according to political priorities. In fact, Board of Directors happens to be dummy because their every decision or proposal goes to the registrar of cooperative societies for approval. Even in case when all elected board members are in favour of any particular decision but government nominees give dissenting note opposite to the proposal then the proposal is not passed and it goes to government for decision. To control these banks, government may appoint their nominees. If government wants to appoint his nominees as Managing Director (MD) of the bank, they will have to contribute rupees twenty lacs to bank capital.

Administration of credit and deposits is most important for a bank and seeks appropriate or quick response to the changing scenario. But cooperative banks are not free even to decide their loaning and deposit policy, rate of interest, quantum of loans

etc. Everything regarding loan operations is decided by RCS. There is no prudential formula to decide rate of interest on loans and deposits. It is decided in a very arbitrary manner just following the other commercial banks without analysing DCCB's own financial position or operational avenues. Even in adoption of technology, banks are lagging behind and now they have Core Banking Solutions (CBS) system that too in infant stage.

9.4.3 HUMAN RESOURCE SYSTEM

All contours of human resource management and human resource development such as creation of posts, deciding required qualifications, remuneration payable and promotion policies of cooperative banks are decided by board of directors of the concerned bank but have to be approved by Registrar of Cooperative Societies (RCS) of the state.

Persons above the rank of Manager up to Additional Managing Director (AMD) are known as common cadre employees and are on Punjab State Cooperative Bank (PSCB) cadre. Their seniority and other aspects are maintained at the state level where as below the manager, are non common cadre employees and they are considered employees of concerned DCCBs. Their seniority and promotion avenues are decided at the DCCB level. Banks have two channels of recruitment i.e. direct recruitment and by promotion.

Direct recruitment is at the level of clerk cum data entry operator, junior manager, senior manager and manager level. All other positions are filled by promotion according to the seniority and suitability except the post of Assistant Managing Director (Banking) who is appointed from General Managers (GM) according to suitability and seniority criterion. Establishment Officer, Additional Managing Director (Administration) and Managing Director are generally appointed by the state government. As already discussed, qualifications, remuneration and other facilities are decided by Board of Governors (BOG) and have to be approved by RCS. Interestingly in every recruitment especially of Manager and Senior Manager ranks, required qualification are changed. Though Board of Directors (BODs) have total control of bank recruitment but in fact it is totally government controlled system despite the fact that government has no liability of employees of these banks. Still it debars DCCBs from required recruitment and DCCBs of Punjab are facing severe shortage of manpower which has negatively affected these banks. Present pyramid of positions in Punjab cooperative banks is shown in Fig. 9.1
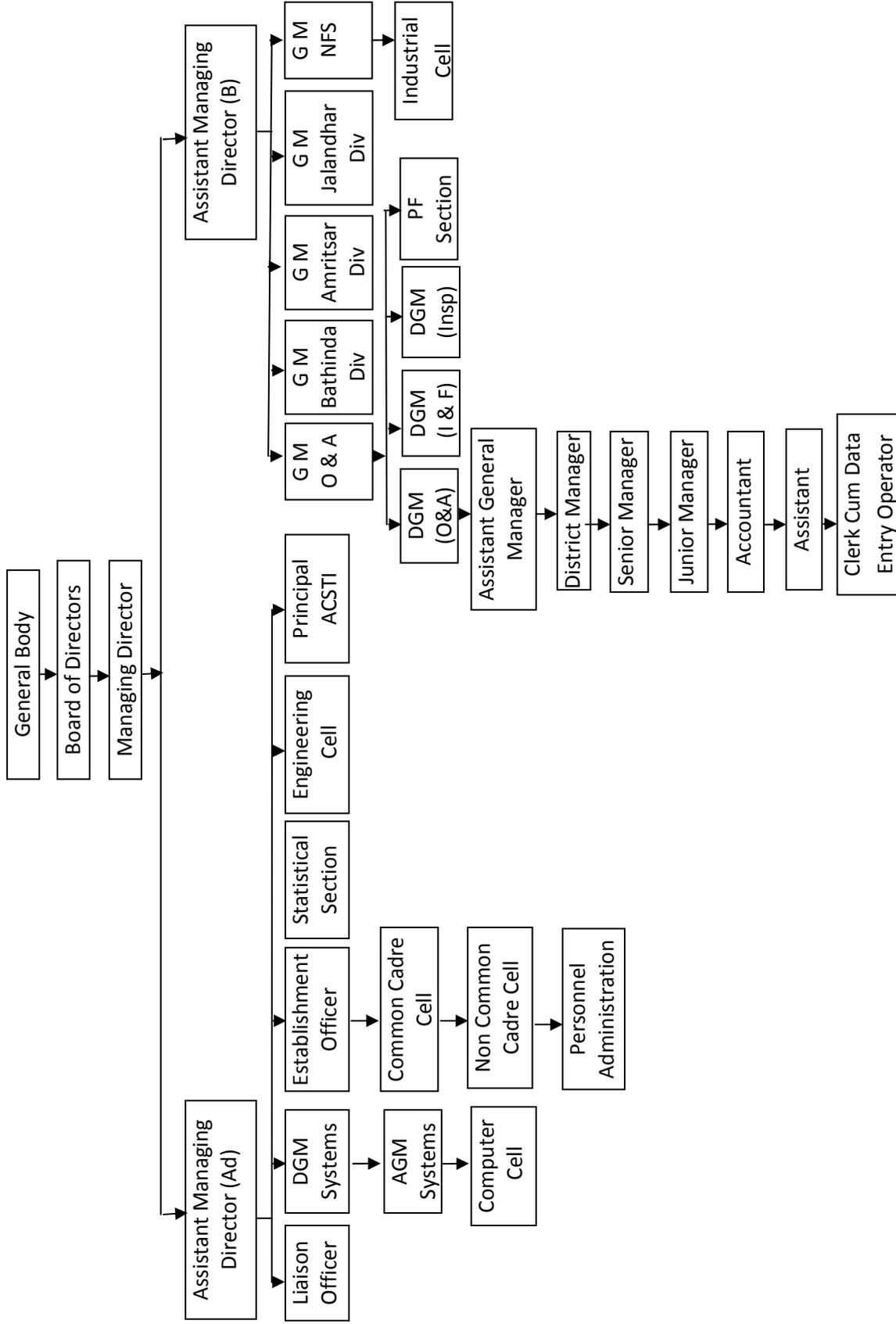
Fig. 9.1 Organizational Structure of Cooperative Banking System (http://pscb.in/)

CHAPTER-10
SUMMARY AND FINDINGS

In this chapter, summary of research work and findings from the analysis have been presented.

10.1 INTRODUCTION

A sound and effective financial system of a country is a fulcrum in the growth of a nation. Banking system is the imperative segment of the financial system of a country. The growth of banks leads to the economic intensification of a nation. Both development of bank and growth of a nation are positively correlated. Banking institutions are vital establishment which provide support to financial and economic plans and policies of the government. Banks channelize the flow of funds to deficit units from those units with surplus funds so that these surplus funds can be used for productive and development purposes (Lalitha, 2013).

Indian banks, being the important pillar of financial system, have always prevented the economy from economic devastation (Katrodia, 2012) and remained stable during the global disturbances. It has led to retaining public's confidence in the banking system. A strong GDP growth is expected at the compounded annual rate of 7 percent over 2012-17 and it will help to facilitate the banking sector expansion (Report of India Brand Equity Foundation, 2014). The Indian Banking sector is considered as a main mechanism of monetary policy formulation and credit system (Vijaykumar, 2014, Narayan and Surya, 2014).

10.2 NEED FOR EFFECTIVE SUPERVISION

Banks act both as repository and trustee of the public's liquid savings. Banks are provider of credit to the factors of production to facilitate both the acceleration of growth and reduction of poverty in the economy. Banks have to maintain customers' confidence. In case any financial crisis arises resulting in bank failure then shock waves will resonate in the economy (Rajadhyaksha, 2004). So it is essential to have an effective fool proof supervisory system in banking to ensure financial stability in the country and also to maintain depositors' confidence in it. The objectives of having effective supervision system must be prevention of any systematic risk in the banking business and maintain transparency in the banking system.

10.3 SUPERVISORY SYSTEM IN INDIA

"In India, the Banking Regulation Act, 1949 is concerned with regulation and supervision of banks (Koul and Chatterjee, 2008)". RBI is the main regulator of the banking system as per section 35 of the Banking Regulation Act, 1949. This section vests powers in RBI to ensure efficient conduct of banking operations, to inspect the books of accounts of the banks and adoption of proper preventive and corrective actions. This leads to protection of depositors' interests as well as maintenance of financial stability.

In mid 1980s, on the recommendations of Pendharkar committee, for public sector banks, a system of Annual Financial Review was introduced. Under this system of supervision, the banks were made to submit reports on basis of which annual financial reviews were conducted. Till 1990, the statutory regulations of commercial banks in India were concerned with licensing, requirements of minimum capital, administration of interest rates on deposits as well as credit, reserves and liquid asset requirements only. In 1991, committee headed by Sh. M. Narasimham on the Financial System recommended that the duality of control over the banking system should be abolished. The regulation of the banking system should be given to Reserve Bank not to the Banking Division of the Ministry of Finance. On the basis of recommendations of the committee, the supervisory function of banks was hived off to an autonomous body (The Board for Financial Supervision) under the aegis of the Reserve Bank (Narain and Ghosh, 2001). "The Board for Financial Supervision (BFS) provided guidelines to Department of Banking Supervision (DBS) for discharging supervisory function. In January 1995, The Board for Financial Supervision framed an audit sub-committee. This committed had the Vice-Chairman of the board as its Chairman and two non-official members of BFS as members" (High level steering committee report, 2012).

The Department of Banking Supervision has devised and executed a supervisory plan which involves a combination of off-site supervision and onsite supervision.

10.3.1 OFF SITE SUPERVISION SYSTEM

An off-site supervision system for supervision over banks was on track by RBI in 1996 as an ingredient of the supervisory policy. Off Site Surveillance and Monitoring system (OSMOS) acts as an instrument for early caution indicator and has a significant function in recognition of risks and monitoring banks on an incessant

basis. Off site monitoring system has focused on introduction of a set of returns, fortifying in-house control systems in banks and increased use of outside assessor in offsite banking surveillance.

"Off-site examination system both explores and reviews periodic financial information relating to banks' activities by the supervisor" (high level steering committee report, 2012). In this system, capital of bank, liquidity, earning and asset quality are certain parameters generally covered in these regulatory reporting requirements.

The Offsite Surveillance and Monitoring System (OSMOS) is an information system used by the RBI to help in incessant supervision between two onsite inspections. The most significant purpose of the offsite inspection is to check the financial health for identifying banks which show financial decline.The OSMOS system has a set of returns planned to get prudential and critical information concerning the financial health of the supervised banks at periodic intervals.

10.3.2 ON-SITE EXAMINATION

An annual on-site supervision of banks is the main instrument of supervision employed by RBI under Section 35 of the Banking Regulation Act. Specialized and trained bank supervisors make an overall assessment of a banking institution on the premises of the organization by allowing a more practical evaluation of factors like capabilities of management and in house control procedures that may not be replicated satisfactorily in regulatory reports.

Some particular branches, head office and controlling offices are covered under on-site supervision. The on-site Annual Financial Inspection (AFI) is conducted by a team of RBI Inspecting Officers led by a Principal Inspecting Officer (PIO). The CEO of the bank is then apprised about the outcome of Annual Financial Inspection. Regions of divergence which remained unsettled are pointed out discretely in the Draft Inspection Report. This report is further processed by Monitoring Division of the respective bank. It mainly consists of appraisal of systems and procedures existing in the bank. The onsite inspection is generally compliance focused. "It focuses on authorized regions of solvency, liquidity and operational health of the banks". It is based on universally adopted CAMEL model modified as CAMELS (S for Systems & Control) to suit the needs of Indian banking system.

10.4 CONCEPT OF CAMELS RATING

Indian financial system has transformed its existing supervisory and regulatory mechanism into more comprehensive system. The new system has more emphasis on certain prudential norms of capital adequacy, control over non performing assets, system of internal control and complete upgradation of credit delivery system. It can be carried out all the way through by suitable supervisory and regulatory method known as CAMELS.

The CAMELS methodology was developed and practiced by the North American banks' regulators to evaluate the performance of banks in terms of financial and managerial activities. Afterwards Basel committee on Banking Supervision (BCBS) established in 1974 also accepted CAMEL methodology to assess and supervise the banks. India has also approved Basel norms as a whole to make certain improved financial standing of banks & financial Institutions (Siva and Natarajan, 2011).

The CAMELS rating system is a technique to classify banks based upon their financial status, operational management, compliance with norms and overall health. CAMELS rating system measures the performance of a bank in six areas namely, Capital adequacy (C), Assets Quality (A), Management Efficiency (M), Earnings Quality (E) and Liquidity (L) and System and Control (S).

10.5 COMPONENTS OF CAMELS RATING

10.5.1. C- CAPITAL ADEQUACY

Capital adequacy replicates on the whole financial conditions of the banks. It also point out whether the bank has sufficient capital to soak up unforeseen losses. Capital adequacy ratio act as a gauge of bank leverage (Vijaykumar, 2012). Capital adequacy is bank's capacity to preserve capital matching with the type and level of all risks. Adequate capital is required to preserve equilibrium with the risks revelation of the financial institution so that bank can soak up the possible losses and defend the financial institution's debt holders. The most extensively used measure of capital adequacy is capital to risk-weighted assets ratio (CRWA). Loan assets of a bank are allocated weights according to risk associated with their recovery. Amount of assets multiplied by risk weights is known as risk weighted assets. "As per the guidelines of the Basel Committee of Banks for International Settlements, capital adequacy ratio should be maintained by every bank at a minimum rate of 9 percent of risk weighted assets (Joshi & Joshi, 2002)". For calculation of the capital adequacy ratio, capital is

segregated into Tier-1 and Tier-2 capitals. Tier-1 capital consists of the equity capital and free reserves, while Tier-2 capital consists of subordinated debt of 5-7 year tenure. The greater capital adequacy ratio (CAR) reflects the strong financial position of the bank. But keeping a very high rate of CAR indicates that the bank is keeping more funds in reserves and not utilizing its capital in investment of high yield earning assets (Sangmi and Nazir, 2010).

In India, capital adequacy norms were introduced on the recommendations of Narsimham committee formed in 1991. "Banks were to achieve CAR of 4 percent by March 1993 and 8 percentby March 1996. Then in 1998, RBI raised the CAR norms to 9 percent with effect from March 2000" (Sarma and Nikaido, 2007).

10.5.2. A-ASSET QUALITY

Loans, advances and investment are the main part of assets portfolio of a bank. Despite the best efforts of bank, some percentage of loans and advances become bad due to default of borrowers. Asset quality reflects the extent of credit risk due to its composition and quality of its assets existing in the bank. "The loss in the value of assets is eventually written-off against capital, which ultimately expose the earning capacity of the bank. This indicates quality of types of advances the bank has made so that interest income can be generated" (Reddy, 2012). The asset quality is measured in relation to the level of non-performing assets, adequacy of provisions, recoveries and distribution of assets etc. "As per the guidelines of RBI, the advances of a bank can be classified in performing assets (PAs) and non performing assets (NPAs)" (Sukhmani and Dhawan, 2014). Assets of a bank which generates income for the bank are called as performing assets and includes standard assets whereas when an asset does not generate any income, is known as non-performing asset. Performing assets include standard assets where as non performing assets are further classified as sub-standard asset, doubtful and loss asset. Profitability and efficiency of a bank is negatively correlated with NPAs of a bank. NPAs affect not only profitability but it also affects future operations of a bank. Hence, every bank should try to keep its NPA at the lowest level.

10.5.3 M-MANAGEMENT EFFICIENCY

Management efficiency is another significant element of the CAMEL Model. This parameter involves the measurement of efficiency and effectiveness of the management decisions. Management efficiency shows the aptitude of bank personnel to recognize, measure, monitor and control risks coupled with banking. The ability of

management is to have effective utilization of resources with minimum of cost and maximum return.

10.5.4 E-EARNING CAPABILITY

The 'Earnings/Profit' is a traditional factor of gauging financial performance of an institution. This parameter measures ability of a bank to earn profits consistently and shows the trend and growth in future earnings. Increased earning in a bank reflects its financial soundness which reduces the likelihood of bank failure (Sangmi and Nazir, 2010). Earnings and profitability are the key basis for increase in capital base. Further, it ensures survival and sustained growth of the bank. Good earning capacity is the manifestation of a bank's capability to absorb losses, capacity to pay dividends to its shareholders and build up an adequate level of capital along with ability to finance its expansion programme (Siva and Natrajan, 2011).

10.5.5 L-LIQUIDITY

Liquidity in banks has assumed key significance. Liquidity means ability of an organisation to meet its current liabilities. Liquidity parameters measure the ability of a bank to ensure the availability of funds to meet commitments at a reasonable price at all (Stigum and Branch, 1983). Liquidity helps the bank to meet unexpected shocks such as large deposit withdrawals or heavy loan demand. Bank must be able to return the money of depositors at any point of time. The banks, therefore, ensure adequate amount of liquidity in their assets so that they may be able to meet any claims (Srivastav and Nigam, 2009).

10.5.6 S-SYSTEM AND CONTROL

Systems and Controls are essential for efficient functioning of a bank, to prevent occurrence of frauds and also to facilitate quick detection of frauds/ embezzlement of funds. Bank deals in money. They sell and purchase money. Every action of its every employee results in financial transaction. To prevent any loss, banks have developed elaborated system of business conduct. It includes internal control system, other systems and procedures followed by bank to control its business. It includes compliance to various norms issued by the banking authorities.

10.6 COOPERATIVE BANKING IN INDIA

Cooperative banking system is an important segment of the Indian banking set up. In rural areas, as far as the agricultural and related activities are concerned, the supply of credit was inadequate and moneylenders would exploit the poor people in rural areas providing them loans at higher rates. At the advent of 20th century

cooperative credit system was established to provide adequate credit facility to farmers for crop production at the door steps. In India, cooperatives have played and are still playing a major role in giving credits to the farmers. Main objective of these banks was to eliminate exploitation of the rural masses by money lenders. The cooperative banks provide credit at a lower cost and serve without exploitation. The cooperatives are the finest instruments for improving the socio-economic lot of poor people and uplifting them to the standards of the mainstream of national life (Kumar, 2008).

10.7   STRUCTURE OF INDIAN COOPERATIVE BANKING SYSTEM

The structure of cooperative banking can be divided into two broad segments:

A. The Urban Cooperative Banks: These have a single tier structure i.e. Primary Cooperative Banks commonly known as Urban Cooperative Banks (UCBs).

B. The Rural Cooperative Banks: These are further divided into two segments:

I) **Long term cooperative credit structure:** It comprises of two tier structure

    a) State Cooperative Agriculture and Rural Development Banks (SCARDBs)

    b) Primary Cooperative Agriculture and Rural Development Banks (PCARDBs)

II) **Short term cooperative credit structure**: It has a three tier structure

    a) State Cooperative Banks (SCBs)

    b) Central Cooperative Banks (CCBs)

    c) Primary Agriculture Cooperative Service Societies (PACSs)

10.8   OBJECTIVES OF THE STUDY

The research has been carried out with the following objectives:

1. To analyse capital adequacy of district central cooperative banks in Punjab.

2. To examine asset quality of district central cooperative banks in Punjab.

3. To evaluate management efficiency of district central cooperative banks in Punjab.

4. To examine earning capability of district central cooperative banks in Punjab.

5. To analyse liquidity of district central cooperative banks in Punjab.

6. To evaluate systems and control in the district central cooperative banks in Punjab.

10.9   RESEARCH METHODOLOY

For the purpose of present study, all the twenty DCCBs of Punjab has been taken. The study covered the period of eight years from 2005-06 to 2012-13. Secondary data which was collected from annual reports of these banks and from 'Comparative Statistics of State and Central Cooperative of Punjab' published by the Punjab Cooperative Bank Ltd, Chandigarh has been used to conduct the study. Ratio analysis, simple statistical techniques such as percentages, averages and weighted averages have been applied for analysis of data. Being a time series data, advanced statistical tools, such as compounded growth rates, trend equations, t test has been applied to analyze the data to arrive at meaningful conclusions.

10.10   RESULTS OF THE STUDY
10.10.1 COMPARATIVE STUDY OF DCCBs IN CAPITAL ADEQUACY

Capital is most important source of funds in an organization. It is free of cost and permanent source of finance. Therefore, it is known as base of funds pillar. Adequate percentage of share capital in total sources of funds ensures the capacity of organization to bear sudden financial shocks. The study brought out

- **TIER I CAPITAL**

Out of twenty DCCBs of Punjab, eighteen DCCBs had positive compounded annual growth in tier I capital. Tier I capital comprises of paid-up capital (ordinary shares), statutory reserves, disclosed free reserves, Perpetual Non-cumulative Preference Shares (PNCPS) subject to laws in force from time to time, innovative perpetual debt instruments (IPDI) and capital reserves representing surplus arising out of sale proceeds of assets. The Nawanshahar DCCB had on an average highest tier I capital of Rs 9244.77 lacs followed by Ludhiana DCCB and Jalandhar DCCB with Rs 6804.30 lacs and Rs 6337.46 lacs respectively. On the other hand, average lowest tier I capital was of Mansa DCCB with Rs 479.67 lacs followed by Amritsar DCCB with Rs 632.35 lacs and Faridkot DCCB with Rs 921.70 lacs. Mansa DCCB and Faridkot DCCB had witnessed significant negative annual compounded growth rate of 14 percent and 6.12 percent respectively in tier I capital. Both the DCCBs reflected decline in the tier I capital.

- **TIER II CAPITAL**

Out of twenty DCCBs of Punjab, only Fazilka DCCB observed declining compounded annual growth rate of 1.12 percent in tier II capital. Tier II capital in

banking industry includes undisclosed reserves, revaluation reserves, general provisions and loss reserves, hybrid capital instruments, subordinated debt and investment reserve account. Analysis of data clearly establishes that tier II capital was on an average highest in Ludhiana DCCB i.e. Rs 860.59 lacs and was followed by Jalandhar DCCB with Rs 843.58 lacs and Hoshiarpur DCCB with Rs 827.01 lacs. Whereas average lowest tier II capital i.e. Rs 245.22 lacs was of Faridkot DCCB followed by SAS Nagar DCCB with Rs 255.80 lacs and Fazilka DCCB with Rs 316.20 lacs.

- **TOTAL CAPITAL**

In terms of total capital, all the DCCBs except Faridkot and Mansa DCCB registered increasing trend in compounded annual growth. Nawanshahar DCCB had average highest total capital of Rs 9831.34 lacs followed by Ludhiana DCCB and Jalandhar DCCB with total capital of Rs 7664.88 lacs and Rs 7181.05 lacs respectively. While average lowest capital was of Mansa DCCB i.e. Rs 844.41 lacs followed by Amritsar DCCB and Faridkot DCCB i.e. Rs 1144.87 lacs and Rs 1166.92 lacs respectively. Mansa DCCB and Faridkot DCCB showed negative annual compounded growth in total capital at the rate of 9.95 percent and 3.47 percent respectively.

- **RISK WEIGHTED ASSETS**

Loans advanced are major assets of a bank. Loaning business is risky too. RBI has categorized risk weights to different categories of loans. Amount of loan multiplied by risk assigned is known as risk weighted assets. Analysis of data reveals that Sangrur DCCB, on an average, had highest risk weighted assets of Rs 84648.56 lacs and was succeeded by Patiala DCCB and Ludhiana DCCB with risk weighted assets of Rs 82421.39 lacs and Rs 68846.84 lacs respectively. While SAS Nagar DCCB, Faridkot DCCB and Ropar DCCB had lowest risk weighted assets of Rs 20464.34 lacs, Rs 25855.31 lacs and Rs 30099.14 lacs respectively. All the DCCBs had registered increasing trend in terms of compounded annual growth in risk weighted assets.

- **CAPITAL ADEQUACY RATIO**

Out of Twenty DCCBs of Punjab, only eight banks had capital adequacy ratio (CAR) of more than the rate prescribed by Reserve Bank of India i.e. 7 percent. The highest CAR on an average was of Nawanshahar DCCB i.e. 21.78 percent and it was

followed by Ropar DCCB and Kapurthala DCCB with 12.83 percent and 12.56 percent respectively. On the other hand, the lowest CAR on an average was of Amritsar DCCB i.e. 2.20 percent. After Amritsar DCCB, Mansa DCCB and Gurdaspur DCCB came with CAR of 2.92 percent and 4.11 percent respectively. Mansa DCCB and Faridkot DCCB had negative compounded annual growth in CAR. Both the DCCBs had shown significant increasing trend in risk weighted investment and declining compounded annual growth in total capital.

- **TIER I TO RISK WEIGHTED ASSETS RATIO**

The Nawanshahar DCCB had highest average tier I to risk weighted assets ratio i.e. 20.53 percent and it was followed by Ropar DCCB with 11.58 percent and Kapurthala CCB with 12.56 percent. On the other hand, Amritsar DCCB had lowest average tier I to risk weighted assets ratio of 1.28 percent and followed by Mansa DCCB and Gurdaspur DCCB with 1.77 percent and 3.11 percent respectively.

- **TIER II TO RISK WEIGHTED ASSETS RATIO**

The Hoshiarpur DCCB on an average had highest tier II to risk weighted assets ratio i.e. 3.48 percent followed by Bathinda DCCB with 1.43 percent. On the other hand, Patiala DCCB had on an average lowest tier II to risk weighted assets ratio of 0.80 percent followed by Sangrur DCCB and Fatehgarh Sahib DCCB with 0.86 percent and 0.89 percent respectively.

In terms of compounded annual growth, Fazilka, Tarn Taran and Faridkot DCCBs had declining trend in tier II to risk weighted assets ratio.

10.10.2 COMPARATIVE STUDY OF DCCBs IN ASSET QUALITY

Despite of best efforts of bank management, some percentage of loans and advances becomes bad debts. Bad debts loans after some times are declared non performing assets as per directions and parameters of RBI.

- **GROSS NON PERFORMING ASSETS (GNPAs) TO GROSS ADVANCES RATIO**

Out of twenty DCCBs, eighteen DCCBs had registered significant negative growth rate in GNPAs which is a good indicator of improving the quality of its loans and advances. Nawanshahar DCCB had the least gross NPA to gross advances ratio of 3.29 percent followed by Kapurthala DCCB and Jalandhar DCCB with mean ratio of 3.61 percent and 3.82 percent respectively. Ludhiana DCCB observed decline at rate of 12.40 percent compounded annually in GNPAs to gross advances ratio followed by

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Faridkot DCCB and Kapurthala DCCB at the rate of -12.03 percent and -11.15 percent compounded annually. On the other hand, Gurdaspur DCCB had highest mean gross NPA to gross advances ratio of 15.82 percent followed by Amritsar DCCB and Mansa DCCB with 13.65 percent and 9.79 percent respectively. In terms of growth, the Fazilka DCCB had significant and highest growth at the compounded annual rate of 0.30 percent in GNPAs to gross advances ratio followed by Mansa DCCB and Bathinda DCCB with 0.07 percent and -2.64 percent respectively which were found to be significant.

- **NET NON PERFORMING ASSETS TO NET ADVANCES RATIO**

Nawanshahar DCCB had least mean net NPA to net advances ratio of -20.76 percent followed by Kapurthala DCCB with -6.80 percent and Jalandhar DCCB with -4.03 percent which signifies that these DCCBs had created more provision for doubtful debts than its gross NPAs. Whereas Muktsar DCCB was having least growth at the compounded annual rate of -214.94 percent in net NPAs to net advances ratio and followed by SAS Nagar and Fatehgarh Sahib DCCB with significant growth rate of -73.27 percent and -26.62 percent respectively. Gurdaspur DCCB was having the highest mean net NPA to net advances ratio of 10.59 percent followed by Amritsar DCCB and Mansa DCCB with mean ratio of 9.75 percent and 5.78 percent respectively. On the other hand, in terms of growth, Ropar DCCB was having highest and significant growth in the net NPA to net advances ratio at the compounded annual rate of 81.51 percent followed by Ludhiana and Kapurthala DCCB with significant growth at the compounded annual rate of 37.87 percent and 29.72 percent respectively. It means newly advanced loans are also turning NPAs.

Classification of NPAs in Cooperative Banks

NPAs in banking industry have been classified in the following categories:

- **Sub standard Assets**- An asset which has remained overdue for a period not exceeding 12 months in respect of both agricultural and non-agricultural loans should be treated as sub-standard.

- **Doubtful Assets**- An asset which has remained overdue for a period exceeding one year in respect of both agricultural and non-agricultural loans should be treated as doubtful.

- **Loss Assets**- A loss asset is one where loss has been identified by the bank or internal or external auditors or by the RBI inspectors but the amount has not been written off wholly.

- **SUB STANDARD ASSETS TO TOTAL ADVANCES RATIO**

    Sangrur DCCB had least mean value in ratio of substandard assets to total advances of 1.43 percent followed by Ferozepur DCCB with 1.89 percent and Moga DCCB with 1.89. Fatehgarh Sahib DCCB had significant decline in substandard assets to total assets ratio at a compounded annual rate of 19.30 percent while Ludhiana DCCB and Amritsar DCCB had significant growth at the compounded annual rate of with -20.95 percent and -21.80 percent respectively. Gurdaspur DCCB had highest mean ratio of sub standard assets to total advances ratio of 8.81 percent and it was followed by Amritsar DCCB and Mansa DCCB with mean ratio of 6.57 percent and 6.31 percent respectively. In terms of growth, Fazilka DCCB had highest growth rate of -1.14 percent compounded annually in substandard assets to total advances ratio followed by Muktsar DCCB and Mansa DCCB with growth rate of -1.42 percent and -4.13 percent respectively and growth of above three DCCBs was found to be significant.

- **DOUBTFUL ASSETS TO TOTAL ADVANCES RATIO**

    Out of these twenty DCCBs, Nawanshahar DCCB was having least mean doubtful assets to total advances ratio i.e. 0.39 percent and was followed by Jalandhar DCCB with mean ratio of 0.46 percent and Fatehgarh Sahib with mean ratio of 0.52 percent. The significant decline had been observed in Ferozepur DCCB at the compounded annual growth rate of 17.49 percent followed by Fatehgarh Sahib at the growth rate of -6.79 percent and Faridkot DCCB at the growth rate of -5.83 percent. Amritsar DCCB had highest mean ratio of doubtful assets to total advances i.e. 6.26 percent followed by Gurdaspur DCCB with mean ratio of 4.89 percent and SAS Nagar DCCB with mean ratio of 3.48 percent. In terms of growth, Sangrur DCCB had shown higher growth rate of 29.52 percent compounded annually in doubtful assets to total advances ratio followed by Mansa DCCB with growth rate of 27.50 percent and Kapurthala DCCB at the growth rate of 19.36 percent compounded annually.

- **LOSS ASSETS TO TOTAL ADVANCES RATIO**

    In Punjab, the three DCCBs with highest mean ratio of loss assets to total advances were Tarn Taran DCCB, Fatehgarh DCCB and Gurdaspur DCCB with mean

ratio of 3.57 percent, 2.34 percent and 2.21 percent respectively. While the DCCBs with lowest mean loss assets to advances ratio were Muktsar DCCB, Moga DCCB and Fazilka DCCB with mean value of 0.12 percent, 0.35 percent and 0.45 percent respectively. The highest growth rate in the loss assets to total advances ratio was shown by SAS Nagar DCCB with growth rate of 17.92 percent compounded annually and followed by Fazilka DCCB with growth rate of 13.44 percent and Ferozepur CCB with growth of 4.08 percent compounded annually. Hoshiarpur DCCB was having lowest compounded annual growth of -24.97 percent in loss assets to total advances ratio followed by Jalandhar DCCB and Kapurthala DCCB with compounded annual growth of -18.93 percent and -18.25 percent respectively.

- **EARNING ASSETS TO TOTAL ASSETS RATIO**

Patiala DCCB had highest mean ratio of earning assets to total assets i.e. 94.71 percent. It was followed by Jalandhar DCCB and Faridkot DCCB with mean ratio of 93.81 percent and 93.75 percent respectively. Whereas Ludhiana DCCB was having lowest mean ratio of earning assets to total assets ratio i.e. 76.55 percent and it was followed by Mansa DCCB and Moga DCCB with mean ratio of 87.21 percent and 88.37 percent respectively. Bathinda DCCB was having highest significant compounded annual growth at the rate of 0.72 percent in earning assets to total assets ratio and followed by Fazilka DCCB and Tarn Taran DCCB with growth rate of 0.44 percent and 0.43 percent compounded annually. While in Moga DCCB earning assets to total assets ratio had declined at the compounded annual rate of -2.37 percent followed by Ludhiana and Gurdaspur DCCB at a growth rate of -1.71 percent and -0.12 percent respectively.

NPAs affect the profitability of a bank and every bank tries to keep it at low level. On analysis of asset quality parameter, it is encouraging to note that out of twenty DCCBs, eighteen DCCBs had registered negative growth rate. But still Amritsar DCCB and Gurdaspur DCCB had highest gross NPAs to gross advances ratio. Fazilka and Mansa DCCBs recorded the highest growth rate in NPAs which will lead to decrease in profitability and needs immediate surgical operation to reduce the level of NPAs.

10.10.3 COMPARATIVE STUDY OF DCCBs IN MANAGEMENT EFFICIENCY

To evaluate the management efficiency of these banks, total advances to total deposits, profit per employee, profit per branch, business per employee, business per

branch, cost of management per employee, cost of management per employee, cost of management per branch, interest income per branch, average yield on investments, average cost of funds, average cost of management to average working funds, average cost of deposits and average cost of borrowings ratios has been studied.

- **TOTAL ADVANCES TO TOTAL DEPOSIT RATIO**

Banks accept deposits for lending purpose and this ratio shows how much deposits have been utilized for lending operations. The highest mean total advances to total deposits ratio was in Muktsar DCCB with 302.73 percent followed by Ferozepur DCCB with 289.13 percent and Patiala DCCB with 230.20 percent. Whereas Nawanshahar DCCB observed the lowest mean total advances to total deposits ratio of 41.23 percent followed by Jalandhar DCCB and Kapurthala DCCB with mean ratio of 54.02 percent and 56.86 percent respectively. Area of operations of these banks is known as cash rich NRI belt. Therefore their deposit base is strong and agriculture loaning opportunities are less. Bank should develop and concentrate on non farming sector loaning schemes. In terms of growth, Fatehgarh Sahib DCCB had shown highest and significant growth in total advances to total deposits the ratio at the rate of 2.23 percent compounded annually followed by Fazilka DCCB with 2.08 percent compounded annually and Patiala DCCB with compounded annual rate of 1.84 percent and growth in these DCCB was also significant. Whereas Mansa DCCB, Tarn Taran DCCB and Moga DCCB had shown negative and significant growth at the compounded annual rate of 6.54 percent, 4.43 percent and 3.90 respectively in total advances to total deposits ratio due to increase in deposit base.

- **PROFIT PER EMPLOYEE RATIO**

The highest mean profit per employee i.e. Rs 2.76 lacs was in Nawanshahar DCCB followed by Ropar DCCB with Rs 2.67 lacs and SAS Nagar DCCB with Rs 1.77 lacs. Mansa DCCB along with Faridkot DCCB and Amritsar DCCB observed lowest mean profit per employee with Rs -1.42 lacs, Rs -0.44 lacs and Rs -0.33 percent respectively. In profit per employee, the compounded annual growth rate was highest and significant in Faridkot DCCB with 18.17 percent followed by Amritsar DCCB with 9.08 percent and Kapurthala DCCB with 6.19 percent. Whereas declining and significant trend in growth was observed in profit per employee ratio in Sangrur DCCB at compounded annual rate of -26.50 percent followed by Gurdaspur DCCB with -22.21 percent and Bathinda DCCB with -22.12 percent.

- **PROFIT PER BRANCH RATIO**

    Nawanshahar DCCB had highest mean profit per branch i.e. Rs 15.43 lacs followed by Kapurthala DCCB with Rs 11.21 lacs and Ropar DCCB with Rs 10.86 lacs. Whereas, Mansa DCCB had lowest mean profit per branch i.e. Rs -3.54 lacs followed by Amritsar DCCB and Faridkot DCCB with Rs -2.30 lacs and Rs -1.97 lacs respectively. Out of twenty DCCBs of Punjab, the highest and significant compounded annual growth in the profit per branch ratio was recorded in Faridkot DCCB at 16.23 percent followed by Kapurthala DCCB and Amritsar DCCB at 3.54 percent and 2.94 percent compounded annually. Whereas Sangrur DCCB had the negative and significant trend in profit per branch at the compounded annual rate of 26.89 percent which was followed by Gurdaspur DCCB and Hoshiarpur DCCB with negative and significant compounded annual rate of 25.86 percent and 25.13 percent respectively.

- **BUSINESS PER EMPLOYEE RATIO**

    Out of twenty DCCBs, Muktsar DCCB had highest mean business per employee i.e. Rs 681.71 lacs followed by Mansa DCCB with Rs 612.69 lacs and Patiala DCCB with Rs 609.86 lacs. The lowest mean business per employee was observed in Amritsar DCCB Rs 247.40 lacs followed by Tarn Taran DCCB with Rs 267.30 lacs and Jalandhar DCCB with Rs 306.62 lacs. Ferozepur DCCB had shown the highest compounded annual growth in the business per employee at the rate of 20.82 percent. It was followed by Hoshiarpur DCCB with compounded annual rate of 18.62 percent and Gurdaspur DCCB with 18.56 percent. The lowest and significant compounded annual growth in business per branch was observed in Mansa DCCB at 7.87 percent followed by Moga DCCB and SAS Nagar DCCB with significant growth rate of 9.91 percent and 11.21 percent respectively.

- **BUSINESS PER BRANCH RATIO**

    In Punjab, Patiala DCCB had highest mean business per branch i.e. Rs 2579.72 lacs followed by Rs 2408.39 lacs in Kapurthala DCCB and Rs 2170.57 lacs in Fatehgarh Sahib DCCB. On the other hand, Moga DCCB observed lowest mean business per branch i.e. Rs 1102.52 lacs followed by Tarn Taran DCCB with Rs 1368.44 lacs and Amritsar DCCB with Rs 1378.47 lacs. The compounded annual growth in business per branch was highest in Ferozepur DCCB i.e. 14.32 percent compounded annually followed by Fatehgarh Sahib DCCB with 12.89 percent and

Ludhiana DCCB with 12.69 percent. Whereas the lowest growth in business per branch was observed in Moga DCCB with 8.01 percent compounded annual rate followed by SAS Nagar DCCB with 8.35 percent and Amritsar DCCB with 9.27 percent.

- **COST OF MANAGEMENT PER EMPLOYEE RATIO**

Patiala DCCB had highest mean cost of management per employee was Rs 7.26 lacs followed by Ferozepur DCCB and Gurdaspur DCCB with Rs 6.90 lacs and Rs 6.80 lacs. While Hoshiarpur DCCB had lowest mean cost of management per employee i.e. Rs 5.12 lacs followed by Amritsar DCCB and Tarn Taran DCCB with Rs 5.27 lacs and Rs 5.28 lacs respectively. The cost of management per employee had shown highest growth in SAS Nagar DCCB at the compounded annual rate of 26.56 percent which was followed by Jalandhar DCCB with growth rate of 18.69 percent and Tarn Taran DCCB with growth rate of 17.25 percent compounded annually. Moga DCCB had shown the lowest growth in cost of management per employee at the rate of 8.38 percent compounded annually followed by Ropar DCCB with the growth rate of 11.95 percent and Mansa DCCB with growth rate of 13.03 percent compounded annually.

- **COST OF MANAGEMENT PER BRANCH RATIO**

Out of twenty DCCBs of Punjab, Kapurthala DCCB observed highest mean cost of management per branch i.e. Rs 43.71 lacs. After Kapurthala, the next highest mean ratio was in Jalandhar DCCB and with Rs 39.98 lacs and Nawanshahar DCCB with Rs 39.98 lacs. On the other hand, the lowest mean cost of management per branch was in Moga DCCB with Rs 18.04 lacs followed by Muktsar DCCB with Rs 18.75 lacs and Mansa DCCB with Rs 19.15 lacs as number of employees in these banks are not sufficient. Out of twenty DCCBs of Punjab, SAS Nagar DCCB had observed highest growth in cost of management per branch at the compounded annual rate of 23.31 percent followed by Mansa DCCB at the growth rate of 15.23 percent and Jalandhar DCCB at the compounded annual growth rate of 14.10 percent. Whereas the lowest growth in cost of management per branch was found in Moga DCCB with compounded annual growth rate of 6.51 percent, in Gurdaspur DCCB at the rate of 7.91 percent and in Hoshiarpur DCCB at the rate of 8.15 percent.

- **INTEREST INCOME PER BRANCH RATIO**

Kapurthala DCCB had highest mean interest income per branch i.e. Rs 156.98 lacs followed by Jalandhar DCCB with Rs 155.05 lacs and Patiala DCCB with Rs 141.45 lacs. On the other hand, Moga DCCB had lowest mean interest income per branch i.e. Rs 58.34 lacs followed by Amritsar DCCB with Rs 73.60 lacs and Faridkot DCCB with Rs 82.59 lacs. In Punjab, the highest growth in interest income per branch was observed in SAS Nagar DCCB at the compounded annual growth rate of 21.59 percent and it was followed by Hoshiarpur DCCB and Ludhiana DCCB with compounded annual growth rate of 16.88 percent and 16.59 percent respectively. On the other hand, Tarn Taran DCCB showed the lowest growth in interest income per branch at the compounded annual rate of 10.63 percent followed by Mansa DCCB and Muktsar DCCB with compounded annual rate of 10.67 percent and 11.44 percent respectively.

- **AVERAGE YIELD ON INVESTMENTS RATIO**

The highest average yield on investment was in Kapurthala DCCB i.e. 8.22 percent followed by Jalandhar DCCB with 8.09 percent and Nawanshahar DCCB with 7.97 percent. Total advances to total deposits of these banks were 56.86, 54.02 and 41.25 percent respectively and most of the rest was invested in long term securities. On the other hand, Ferozepur DCCB had lowest average yield on investment i.e. 6.44 percent followed by Muktsar DCCB with 6.52 percent and Mansa DCCB with 6.55 percent. In terms of growth in average yield on investments, Bathinda DCCB registered highest growth at the rate of 1.82 percent compounded annually and it was followed by Faridkot DCCB and Mansa DCCB with the compounded annual growth at the rate of 1.74 percent and 1.40 percent respectively. While Ferozepur, Tarn Taran and Amritsar DCCB had registered negative growth at the compounded annual rate of 2.11 percent, 1.54 percent and 0.58 percent respectively in this ratio.

- **AVERAGE COST OF FUNDS RATIO**

Out of twenty DCCBs of Punjab, Patiala DCCB had highest mean of average cost of funds ratio i.e. 5.15 percent then Faridkot DCCB and Mansa DCCB came with 5.03 percent and 5 percent. Due to poor own funds base, they have to borrow more and at high rates. Whereas the lowest mean ratio of average cost of funds was in Muktsar DCCB, Ludhiana DCCB and Amritsar DCCB with 3.99 percent, 4.16

percent and 4.17 percent respectively. Ludhiana DCCB had shown highest growth in average cost of funds during the period of study at the rate of 6.88 percent compounded annually followed by Nawanshahar DCCB and Jalandhar DCCB with growth rate of 6.56 percent and 6.34 percent respectively. On the other hand, Tarn Taran DCCB had shown lowest growth in the ratio at the rate of -1.36 percent compounded annually and it was followed by Amritsar DCCB and Muktsar DCCB with compounded annual growth rate of 1.23 percent and 1.58 percent respectively. DCCB having high cost of funds should strengthen their deposit base to curve high cost of borrowings.

- **COST OF MANAGEMENT TO AVERAGE WORKING FUNDS RATIO**

On an average, Amritsar DCCB had highest ratio of cost of management to average working funds i.e. 2.91 percent. It was followed by Faridkot DCCB with 2.84 percent and Tarn Taran DCCB with 2.63 percent. On the other hand, the lowest mean cost of management to average working funds ratio was observed in Muktsar DCCB with 1.20 percent, Mansa DCCB with 1.55 percent and Patiala DCCB with 1.58 percent, due to severe shortage of staff. Mansa DCCB observed highest growth in cost of management to average working funds ratio at the compounded annual rate 1.63 percent followed by SAS Nagar DCCB with the compounded growth rate of 1.57 percent and Jalandhar DCCB with growth rate of 1.42 percent. On the other hand, Hoshiarpur DCCB had the negative and declining growth rate of 6.84 percent compounded annually and followed by Ferozepur DCCB and Moga DCCB with negative compounded annual growth rate of 5.79 percent and 5.23 percent respectively indicating declining trend in the ratio.

- **AVERAGE COST OF DEPOSITS RATIO**

Out of twenty DCCBs of Punjab, the highest mean ratio of average cost of deposits was observed by Patiala DCCB with 5.91 percent followed by Mansa DCCB with 5.70 percent and Faridkot DCCB with 5.69 percent. Whereas, on an average, Amritsar DCCB had lowest mean ratio of average cost of deposits of 4.66 percent and it was followed by Tarn Taran DCCB with 4.76 percent and Moga DCCB with 4.91 percent. Mansa DCCB had highest and significant growth in average cost of deposits at the compounded annual rate of 7.81 percent followed by Bathinda DCCB with 6.73 percent and Gurdaspur DCCB with 6.70 percent compounded annually indicating

significant growth in the ratio during the period of study. On the other hand, Muktsar DCCB had lowest and significant growth in the ratio i.e. -2.62 percent compounded annually and it was followed by Ferozepur DCCB and Amritsar DCCB with significant growth rate of -0.34 percent and 2.23 percent compounded annually respectively.

- **AVERAGE COST OF BORROWING RATIO**

Gurdaspur DCCB, on average, had highest average cost of borrowing of 6.11 percent followed by Nawanshahar DCCB with 5.59 percent and Mansa DCCB with 5.53 percent. Whereas Kapurthala DCCB had lowest mean ratio of average cost of borrowings i.e. 4.19 percent followed by Hoshiarpur DCCB with 4.25 percent and Moga DCCB with 4.32 percent. Kapurthala DCCB had shown highest growth in average cost of borrowing during the period of study at the compounded annual rate of 5.93 percent which was found to be significant. It was followed by Muktsar DCCB having significant growth at compounded annual rate of 5.79 percent and Ferozepur DCCB with significant growth rate of 5.76 percent compounded annually. Whereas Tarn Taran DCCB had registered declining and significant growth in the ratio at 4.86 percent compounded annually and it was followed by Sangrur DCCB with -2.09 percent and Amritsar DCCB with -0.78 percent compounded annually which were found to be significant.

10.10.4 COMPARATIVE STUDY OF DCCBs IN EARNING CAPABILITY

Earning capacity of these DCCBs has been evaluated with the help of study of net profit to owned funds, net profit to average working funds, interest income to total income, interest income to total investment, net profit to total assets, provisions for NPA to total assets, non interest income to working capital, cost of management to total income, average yield on loans, average yield on investments, cost of management to total expenditure and interest expanded to total expenditure ratios.

- **NET PROFIT TO OWNED FUNDS RATIO**

Kapurthala DCCB had the highest mean net profit to owned funds ratio i.e. 5.91 percent followed by SAS Nagar DCCB with mean ratio of 5.71 percent and Fatehgarh Sahib DCCB with mean ratio of 5.43 percent. Mansa DCCB, on average, observed lowest mean net profit to owned funds ratio i.e. -4.98 percent followed by Faridkot DCCB and Amritsar DCCB with mean ratio of -1.72 percent and 0.29 percent respectively. Faridkot DCCB had highest and significant compounded growth at the rate of 5.64 percent followed Fatehgarh Sahib DCCB with 2.16 percent and

Fazilka DCCB with 1.01 percent compounded annually and indicating significant growth in the ratio during the period of study. While Amritsar DCCB observed negative compounded annual growth in the ratio at -54.81 percent and it was followed by Gurdaspur DCCB and Hoshiarpur DCCB with -35.27 percent and -30.17 percent respectively.

- **NET PROFIT TO AVERAGE WORKING FUNDS RATIO**

The highest mean net profit to average working funds was observed in Nawanshahar DCCB i.e. 0.90 percent followed by Ropar DCCB with 0.81 percent and Kapurthala DCCB with 0.64 percent. On the other hand, Faridkot DCCB showed the lowest mean net profit to average working funds ratio with -0.83 percent and it was followed by Amritsar DCCB and Mansa DCCB with -0.33 percent and -0.22 percent respectively. In terms of growth in the ratio, Faridkot DCCB had recorded the significant and highest growth at the compounded annual rate of 4.77 percent followed by Ferozepur DCCB with 1.31 percent and Fatehgarh Sahib DCCB with -3.27 percent. Conversely, Hoshiarpur DCCB, Gurdaspur DCCB and Bathinda DCCB had observed the negative and significant compounded growth of 35.48 percent, 33.25 percent and 27.24 percent respectively in net profit to average working funds ratio.

- **INTEREST INCOME TO TOTAL INCOME RATIO**

Out of twenty DCCBs, on average, the highest interest income to total income ratio was observed by Nawanshahar DCCB i.e. 99.23 percent followed by Hoshiarpur DCCB and Mansa DCCB with 99.06 percent. On the contrary, Gurdaspur DCCB showed the lowest mean ratio of 97.11 percent followed by SAS Nagar with mean ratio of 97.30 percent and Amritsar DCCB with 97.95 percent. SAS Nagar DCCB had shown the highest and significant growth in interest income to total income ratio at the compounded annual rate of 0.29 percent. It was followed by Muktsar DCCB with significant compounded annual growth rate of 0.28 percent and Fazilka DCCB with 0.21 percent compounded annually which was found to be significant. On the other hand, the lowest growth in the ratio was observed in Faridkot DCCB at the compounded annual rate of -0.66 percent and it was followed by Fatehgarh Sahib DCCB with -0.28 percent and Patiala DCCB with -0.14 percent. Interest income in all DCCBs was more than 97 percent of total income. Efforts should be made by all DCCBs to increase their non fund business.

- **NET PROFIT TO TOTAL ASSETS RATIO**

On an average, net profit as a percentage of total assets was highest in Nawanshahar DCCB i.e. 0.83 percent followed by Ropar DCCB with 0.72 percent and Kapurthala DCCB with 0.57 percent. The lowest mean net profits to total assets ratio i.e. -0.28 percent was in Amritsar DCCB followed by Mansa DCCB with -0.22 percent and Faridkot DCCB with -0.15 percent. Whereas highest and significant compounded annual growth in net profit to total assets ratio was observed in Faridkot DCCB at 4.66 percent followed by Ferozepur DCCB at 1.82 percent and Fatehgarh DCCB at -2.82 percent. The lowest compounded growth in the ratio was found in Hoshiarpur DCCB with -35.68 percent followed by Gurdaspur DCCB and Bathinda DCCB with -33.23 percent and -27.03 percent respectively.

- **PROVISION FOR NPA TO TOTAL INCOME RATIO**

The Muktsar DCCB had shown, on an average, highest provisions for NPA to total income ratio i.e. 14.80 percent followed by Hoshiarpur DCCB and Ropar DCCB with 7.08 percent and 5.93 percent. Faridkot DCCB, on average, had kept lowest provision for NPA as a percentage of total income i.e. 0.54 percent was. It was followed by 1.33 percent in Ferozepur DCCB and 1.59 percent in Tarn Taran DCCB. The highest and significant growth in provisions for NPA to total income was found in Gurdaspur DCCB at the compounded annual rate of 85.43 percent and followed by Ferozepur DCCB and Bathinda DCCB with significant compounded annual growth rate of 73.82 percent and 53.78 percent respectively. In Mansa DCCB and Tarn Taran DCCB, the significant negative growth rate in provisions for NPA to total income was found to be 100 percent followed by Sangrur DCCB with -38.59 percent.

- **NON INTEREST INCOME TO WORKING CAPITAL RATIO**

The highest mean non interest income to working capital ratio was in Faridkot DCCB with 0.25 percent and followed by Gurdaspur DCCB with 0.22 percent and SAS Nagar DCCB with 0.19 percent. The Nawanshahar DCCB and Mansa DCCB had the lowest mean non interest income to working capital ratio i.e. 0.06 percent followed by Hoshiarpur DCCB with 0.07 percent. Fardikot DCCB had shown highest and significant increasing trend in non interest income to working capital ratio at the growth rate of 28.70 percent compounded annually. It was followed by Fatehgarh Sahib DCCB and Patiala DCCB with significant and compounded annual growth at 14.52 percent and 5.56 percent respectively. Whereas the lowest and significant

compounded annual growth in the ratio was observed in Muktsar DCCB with -13.24 percent and followed by Moga DCCB with -9.72 percent and Hoshiarpur DCCB with -9.11 percent.

- **COST OF MANAGEMENT TO TOTAL INCOME RATIO**

Out of twenty DCCBs of Punjab, on an average, the highest cost of management to total income ratio was recorded in Amritsar DCCB i.e. 40.77 percent followed by Faridkot DCCB and Jalandhar DCCB with 37.10 percent and 31.73 percent respectively. The lowest mean cost of management to total income ratio i.e. 18.46 percent was in Muktsar DCCB followed by 20.87 percent in Mansa DCCB and 21.61 percent in Patiala DCCB. In cost of management to total income ratio, Mansa DCCB had recorded highest and significant increasing trend at growth rate of 5.37 percent compounded annually followed by Tarn Taran DCCB and Muktsar DCCB with significant compounded annual growth rate of 2.73 percent and 2.22 percent respectively. On the other hand, Hoshiarpur DCCB registered lowest and significant compounded growth in the ratio at the rate of -7.38 percent annually. It was followed by Ludhiana DCCB and Moga DCCB with significant compounded annual growth in the ratio at -6.15 percent and -5.58 percent respectively.

- **AVERAGE YIELD ON LOANS RATIO**

The highest yield on loans, on an average, was 9.17 percent in Kapurthala DCCB followed by Jalandhar DCCB and Nawanshahar DCCB with 9.02 percent and 8.98 percent respectively. Muktsar DCCB observed lowest average yield on loans i.e. 6.81 percent and it was followed by Ferozepur DCCB and Moga DCCB with 6.98 percent and 7.30 percent respectively. These banks are advised to strengthen their high yield loan portfolio i.e. NFS (non farm sector) loans. Growth in average yield on loans was highest and significant in Bathinda DCCB at the rate of 2.30 percent followed by Mansa DCCB and Fatehgarh Sahib DCCB at the rate of 1.74 percent and 0.93 percent compounded annually respectively. On the other hand, Amritsar DCCB, Ferozepur DCCB and Muktsar DCCB had shown significant and declining growth in the ratio at the compounded rate of -2.23 percent,-2.22 percent and -1.90 percent per annum respectively. Diversification of loan portfolio is immediate need of these banks to reverse this declining trend.

- **AVERAGE YIELD ON INVESTMENT RATIO**

    Kapurthala DCCB had highest mean average yield on investment i.e. 8.28 percent followed by Bathinda DCCB with 8.26 percent and Nawanshahar DCCB with 8.26 percent. The lowest average yield on investment was recorded in Ferozepur DCCB, Tarn Taran DCCB and Faridkot DCCB with 6.37 percent, 6.63 percent and 6.97 percent respectively. Resources base of these banks is poor and these banks are dependent on borrowings. They made only statutory investments. Amritsar DCCB had shown highest and significant compounded growth in average yield on investment at the rate of 5.04 percent per annum and it was followed by Jalandhar DCCB with significant growth rate of 3.26 percent and Kapurthala DCCB with 2.95 percent compounded annually. On the other hand, growth in the ratio was significant and lowest in Muktsar DCCB at compounded annual rate of -3.63 percent followed by Patiala DCCB and Fazilka DCCB with significant growth rate of -2.01 percent and -1.69 percent compounded annually respectively.

- **COST OF MANAGEMENT TO TOTAL EXPENDITURE RATIO**

    Amritsar DCCB showed on an average the highest cost of management to total expenditure ratio of 41.30 percent. It was followed by Faridkot DCCB and Jalandhar DCCB with mean ratio of 36.18 percent and 35.48 percent respectively. Whereas Mansa DCCB observed the lowest mean cost of management to total expenditure ratio of 21.38 percent followed by Muktsar DCCB and Patiala DCCB with mean ratio of 23.01 percent and 23.89 percent respectively. Mansa DCCB had shown highest growth in the cost of management to total expenditure ratio at the compounded annual rate of 2.28 percent. Mansa DCCB was followed by Tarn Taran DCCB with growth rate of 2.19 percent and Muktsar DCCB with growth rate of 1.48 percent. On the other hand, Hoshiarpur DCCB had been able to reduce growth in cost of management to total expenditure ratio at compounded annual rate of 8.32 percent. Ludhiana DCCB and Nawanshahar DCCB had negative and significant growth in the ratio at the compounded annual rate of 7.60 percent and 6.44 percent respectively.

- **INTEREST EXPENDED TO TOTAL EXPENDITURE RATIO**

    On an average, the highest proportion of interest expanded in total expenditure was in Mansa DCCB i.e. 86.65 percent followed by Muktsar and Patiala DCCB with mean ratio of 76.99 percent and 76.11 percent respectively due to heavy borrowings. To control high cost borrowings, banks should strengthen their deposit base. Amritsar

DCCB recorded the lowest mean ratio of interest expended to total expenditure ratio of 58.70 percent. It was followed by Faridkot DCCB and Jalandhar DCCB with 63.82 percent and 64.52 percent respectively. In interest expanded to total expenditure ratio, Hoshiarpur DCCB, Ludhiana DCCB and Moga DCCB had shown significant and highest growth at the compounded annual rate of 4.17 percent, 3.71 percent and 3.31 percent respectively. On the other hand, the lowest and significant compounded annual growth in interest expended to total expenditure was registered in Mansa DCCB, Tarn Taran DCCB and Muktsar DCCB at the rate of -2.20 percent, -0.83 percent and -0.43 percent respectively.

10.10.5 COMPARATIVE STUDY OF DCCBs IN LIQUIDITY

Liquid assets are required by a bank to meet payment of immediate liabilities. To evaluate the liquidity of DCCBs, in depth study of liquid assets to total assets, liquid assets to total deposits, liquid assets to demand deposits, government securities to total assets, cash to deposit, time deposits to total deposits and loans to earning assets ratios have been conducted.

- **QUICK LIQUID ASSETS TO TOTAL ASSETS RATIO**

Quick liquid assets in a bank comprises of cash in hand, cash with RBI, balance with other banks in current account and money at call and short notice.Out of twenty DCCBs of Punjab, Kapurthala DCCB on an average had highest quick liquid assets to total assets ratio of 33.36 percent followed by Hoshiarpur DCCB and Nawanshahar DCCB with 28.97 percent and 21.42 percent respectively. Patiala DCCB had on an average lowest proportion of quick liquid assets in total assets i.e. 2.52 percent followed by Gurdaspur DCCB and Fatehgarh Sahib DCCB with 3.04 percent and 3.06 percent respectively. Moga DCCB had significant increasing trend in quick liquid assets to total assets ratio. It observed growth in quick liquid assets at the rate of 30.30 percent and followed by Hoshiarpur DCCB and Muktsar DCCB with significant and compounded growth of 10.41 percent and 8.62 percent per annum respectively. On the other hand, the significant and decreasing trend in the ratio at compounded annual growth was witnessed in Nawanshahar DCCB at 36.34 percent, Ferozepur DCCB at 11.65 percent and Faridkot DCCB at 4.43 percent respectively.

- **QUICK LIQUID ASSETS TO TOTAL DEPOSITS**

On an average, out of twenty DCCBs of Punjab, the highest quick liquid assets to total deposits ratio was observed in Kapurthala DCCB with 45.57 percent and

followed by Hoshiarpur DCCB and Ludhiana DCCB with 39.53 percent and 34.60 percent respectively. The lowest mean ratio of quick liquid assets to total deposits was found to be of Jalandhar DCCB i.e. 4.19 percent and after that SAS Nagar had 5.21 percent and Gurdaspur DCCB 5.50 percent. On the other hand, in terms of growth in quick liquid assets to total deposits, Moga DCCB had shown highest and significant compounded annual growth of 33.70 percent and it was followed by Fazilka DCCB and Hoshiarpur DCCB with significant compounded annual growth of 13.75 percent and 13.62 percent respectively. Ferozepur DCCB showed lowest growth in quick liquid assets to total deposits ratio at the compounded annual rate of -10.75 percent which was significant. It was followed by Tarn Taran DCCB and Faridkot DCCB with significant growth at the compounded annual rate of -6.74 percent and -4.58 percent.

- **QUICK LIQUID ASSETS TO DEMAND DEPOSITS RATIO**

Kapurthala DCCB had on an average, the highest mean quick liquid assets to demand deposits ratio of 82 percent and it was followed by Hoshiarpur DCCB and Ludhiana DCCB with 76.63 percent and 64.66 percent. Lowest proportion of demand deposits in the quick liquid assets was in Jalandhar DCCB i.e. 7.42 percent and it was followed by SAS Nagar DCCB with mean ratio of 9.59 percent and Gurdaspur DCCB with 9.61 percent. The increasing trend in compounded annual growth rate of quick liquid assets to demand deposits was significant and highest in Moga DCCB, Hoshiarpur DCCB and Sangrur DCCB i.e. 38.61 percent, 17.87 percent and 15.92 percent respectively. Nawanshahar DCCB, Ferozepur DCCB and Tarn Taran DCCB had observed lowest and significant growth in the ratio at the compounded annual rate of -34.13 percent, -8.04 percent and -3.79 percent respectively.

- **GOVERNMENT SECURITIES TO TOTAL ASSETS RATIO**

The highest mean ratio of government securities to total assets was in Ropar DCCB i.e. 7.58 percent and Nawanshahar DCCB and Kapurthala DCCB had mean government securities to total assets ratio of 7.24 percent and 6.26 percent respectively. Faridkot and Ferozepur DCCB had not invested any amount in government securities and Amritsar DCCB had the lowest share of government securities in total assets i.e. 0.17 percent. SAS DCCB showed higher and significant growth in government securities to total assets ratio at 553.31 percent compounded annually followed by Tarn Taran DCCB with 447.70 percent and Gurdaspur with

25.07 percent compounded annually which indicated significant growth in government securities as compared total assets. On the other hand, Bathinda DCCB, Muktsar DCCB and Fazilka DCCB observed significant and declining trend in growth in the ratio at the compounded annual rate of -37.54 percent, -32.77 percent and -22.22 percent respectively.

- **CASH TO DEPOSIT RATIO**

Sangrur DCCB had observed highest mean cash deposit ratio of 11.35 percent followed by Tarn Taran DCCB with 7.96 percent and Amritsar DCCB with 7.30 percent. Kapurthala DCCB kept lowest mean cash of 1.73 percent in comparison to deposits. It was followed by Fatehgarh Sahib DCCB with mean ratio of 2.04 percent, Nawanshahar DCCB with 2.29 percent and SAS Nagar DCCB with mean ratio of 2.29 percent respectively. SAS Nagar DCCB observed highest and significant growth in cash to deposit ratio at the rate of 26.89 percent compounded annually followed by Sangrur DCCB with 9.41 percent and Mansa DCCB with 6.27 percent compounded annually. Ferozepur DCCB had recorded negative growth in cash to deposit ratio at the compounded annual rate of 19.16 percent. It was followed by Moga DCCB at the rate of -15.29 percent and Bathinda DCCB with -11.29 percent compounded annually which were significant also.

- **TIME DEPOSITS TO TOTAL DEPOSITS RATIO**

In Punjab, out of twenty DCCBs, Patiala DCCB had highest share of time deposits in total deposits i.e. 58.66 percent followed by Fazilka DCCB with mean ratio of 56.95 percent and Mansa DCCB with 55.70 percent. On the other hand, Amritsar DCCB had lowest mean time deposits to total deposits ratio i.e. 35.70 percent followed by Tarn Taran DCCB with 39.62 percent and Moga DCCB with 39.76 percent. These banks are required to make efforts to enhance their time deposits base to strengthen their resource base. Muktsar DCCB had the highest growth at the compounded annual rate of 5.99 percent and indicated significant increasing trend in time deposits to total deposits ratio and was followed with the significant growth by Moga DCCB with 5.91 percent compounded annually and Sangrur DCCB with 5.70 percent compounded annually. Whereas, Fazilka DCCB, SAS Nagar DCCB and Faridkot DCCB had observed lowest and significant growth in the ratio at the rate of -1.44 percent, -0.10 percent and 1.18 percent compounded annually respectively.

- **LOANS TO EARNING ASSETS RATIO**

Muktsar DCCB had the highest mean loans to earning assets ratio i.e. 90.85 percent followed by Ferozepur and Mansa DCCB with mean ratio of 89.85 percent and 89.59 percent respectively and these banks need to strengthen their own funds base. On the other hand, Nawanshahar DCCB had lowest mean ratio of loans to earning assets i.e. 31.44 percent and it was followed by Jalandhar DCCB with mean ratio of 43.76 percent and Kapurthala DCCB with mean ratio of 45.04 percent. Due to NRI remittances, these banks have strong deposit base. In terms of growth in the ratio, out of twenty DCCBs only two DCCBs had shown positive growth. Fatehgarh Sahib DCCB and Sangrur DCCB had observed significant growth in loans to earning assets ratio at the compounded annual rate of 0.21 percent and 0.04 percent respectively. Whereas lowest growth in ratio was observed in Kapurthala DCCB at the rate of -4.97 percent compounded annually followed by Hoshiarpur DCCB and Amritsar DCCB with -4.50 percent and -3.67 percent compounded annually respectively.

CHAPTER-11
CONCLUSION AND
SUGGESTIONS

In this chapter conclusions drawn from the analysis have been presented. Suggestions based on the study and scope of further research has also been discussed.

11.1   FINDINGS AND CONCLUSIONS

On analysis of data, it is found that in terms of capital adequacy, out of twenty DCCBs of Punjab, only seven DCCBs had capital adequacy ratio (CAR) more than the recommended rate of 7 percent by Reserve Bank of India. Nawanshahar DCCB was found to be best bank on the parameter of capital adequacy. Amritsar, Bathinda, Faridkot, Fatehgarh Sahib, Fazilka, Ferozepur, Gurdaspur, Mansa, Moga, Patiala, Sangrur and Tarn Taran DCCBs had CAR less than 7 percent. Having CAR less than 7 percent is a matter of serious concern. Amritsar DCCB and Mansa DCCB need more efforts to have CAR equal to 7 percent as these DCCBs had very less CAR i.e. 2.20 percent and 2.92 percent.

In terms of asset quality, Nawanshahar DCCB, Kapurthala DCCB and Jalandhar DCCB were the best banks among twenty DCCBs of Punjab as these DCCBs had kept their NPAs at a low level. Gurdaspur DCCB, Amritsar DCCB and Mansa DCCB had a very high percentage of NPAs in total advances. So these DCCBs need to adopt immediate measures to reduce their NPAs.

Out of twenty DCCBs, Muktsar DCCB had performed better as per the parameters of management efficiency followed by Ropar and Fatehgarh Sahib DCCB. On the other hand, Nawanshahar, Jalandhar and Amritsar DCCB, which are known to be financially strong DCCBs, require more efforts to manage their operations in an efficient way. These banks are required to strengthen their NFS loaning as their area of operations is known as NRI belt and agriculture loans are less.

On the parameter of earning capability, Nawanshahar, Kapurthala and Jalandhar DCCBs were the best banks whereas Amritsar, Mansa, Moga and Faridkot DCCBs need improvement in their working to increase their profitability DCCB. Amritsar, Mansa and Faridkot DCCB require more attention as these DCCBs had very low, even negative in some cases, profitability rates during the period of study.

Table 11.1   Overall Ranking of DCCBs in term of CAMEL

DCCB	C	A	M	E	L	TOTAL OF RANK	OVERALL RANKING
Amritsar	18	17	16	20	8	79	20
Bathinda	7	4	7	9	6	33	5
Faridkot	19	7	18	17	14	75	18
Fatehgarh Sahib	16	9	3	6	20	54	13
Fazilka	15	5	12	14	7	53	12
Ferozepur	17	5	8	11.5	18.5	60	15
Gurdaspur	12	18	13	15	16	74	17
Hoshiarpur	5	10	4	7	2.5	28.5	3
Jalandhar	2	2	17	3	18.5	42.5	7
Kapurthala	4	2	6	2	4	18	2
Ludhiana	1	13	3	10	2.5	29.5	4
Mansa	20	16	14	18	9.5	77.5	19
Moga	10	3	10	18	9.5	50.5	11
Muktsar	8	12	1	11.5	11	43.5	8
Nawanshahar	3	1	10	1	1	16	1
Patiala	9	8	11	8	13	49	10
Ropar	6	11	2	4	12	35	6
Sangrur	11	6	9	16	5	47	9
SAS Nagar	14	14	5	5	17	55	14
Tarn Taran	13	15	15	13	15	71	16

Source: Compiled from various tables of Means for C, A, M, E and L

Nawanshahar, Hoshiarpur and Ludhiana DCCBs were the best banks were best banks in terms of liquidity parameter. Fatehgarh Sahib, Jalandhar and SAS Nagar DCCBs need more efforts to improve their liquidity.

On the parameter of systems and control, all DCCBs had shown complete adherence to various norms and provisions of Reserve Bank of India.

Table 11.1 shows the overall ranking of the DCCBs on the parameters of CAMEL Model. Nawanshahar, Kapurthala and Hoshiarpur DCCBs stand first, second and third respectively according to CAMEL rating. Faridkot, Mansa and Amritsar DCCBs were on last ladder and needs immediate attention for turnaround. Nawanshahar, Kapurthala and Hoshiarpur DCCBs though performing well but have a potential to improve their performance.

11.2   RECOMMENDATIONS

Cooperative banks which had been established to fulfill a social cause are still very important organization for socio economic transformation. Therefore, in the interest of economy and society, these banks need to be strengthened. Following are some suggestions which if implemented will improve the performance of DCCBs:

1. Government should contribute to the share capital of cooperative banks to strengthen their capital base without any condition and bureaucratic interference.

2. Public sector undertakings should be allowed and motivated to contribute towards capital in these banks.

3. Cooperative banks are special banks created for a social cause and are working in peculiar working environment. Therefore, parameters which are applicable to commercial banks should not be made applicable to cooperative banks in toto. State government should approach Reserve Bank of India to develop new parameters for supervisory control of these banks taking into consideration working conditions and social obligations of these banks.

4. Structural changes should be made to make these banks strong and   financially viable.

5. State government and public sector undertakings should conduct their business through these cooperative banks.

6. DCCBs should establish a special cell towards the recovery of NPAs.

7. A fool proof system should be developed to take financial decisions. Product pricing must be according to some specific parameters.

8. In three tier cooperative structure, apex to central cooperative banks and central cooperative banks to PACS provides loans for on lending purpose. Therefore, CAR parameter should be applicable at level of apex bank only.

9. Short term agriculture loans are provided by creating a floating charge on agriculture produce of farmers. Therefore, it should be treated as secured loans for calculation of RWA.

10. In cooperative banks, there is no uniformity in accounting data. Common accounting standards should be developed for cooperative banks.

11.3   SCOPE FOR FURTHER RESEARCH

- HRD practices in these banks is an important area which may be studied.

- A product pricing policy of cooperative banks is another good area for study.

- A study may be conducted on the cooperative banks to evaluate their social contribution to the society.

- Impact of changes in the banking policies of RBI and Government of India on cooperative banking system needs to be studied.