Chapter 3

Research Objectives and Research Methodology

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CHAPTER-3
RESEARCH OBJECTIVES AND RESEARCH METHODOLOGY

3.1 Introduction

This chapter, first, delineates the statement of problem, research objectives to be addressed in the present study followed by research hypotheses undertaken. It, also, provides insights into the framework to operationalise the research objectives of the present study. Finally, this chapter outlines the research methodology employed, describing the chosen sampling technique, the way the data for the study has been collected and the statistical tools used to analyze the data.

3.2 Statement of Problem

Co-operative institutions in Haryana are essential organizations not only in ensuring smooth flow of agricultural credit but also in the overall development of rural economy. Their objective is to remain sound and leading organisation in the co-operative credit structure and to be the blood for the rural financial sector of Haryana. The Haryana State Co-operative Apex Bank Ltd., commonly called as HARCOBANK, plays an imperative role in the economy of Haryana State. It has been providing finance to farmers, agriculturalists, entrepreneurs, etc. in the State. They provide finance to agriculture as well as non-agriculture. Hence, the need of the study is to analyse the operational performance, productivity and profitability of the Central Co-operative Banks and to know about the problems faced by employees and customers governing Central Co-operative Banks in Haryana. Against this backdrop, the statement of the problem deserves full scientific research.

The most important function of the Central Co-operative Bank is to provide liaison between the State Co-operatives Bank, on the one hand, and the primary credit societies, on the other, in the District to serve the financial needs and aspirations of each of the Co-operative Credit Society member in an efficient and productive way. But how far they are doing their job successfully is a big question to the studied. Hence the need of the study and choice of the topic, i.e., the statement of the problem namely: Performance Appraisal of Central Co-operative Banks in Haryana. District Central Co-operative Banks (DCCBs) constitute the main component of co-operative credit system at the district level in Haryana, as in other states. They have been providing various banking services to the state population at the district through their branches and Primary Agricultural Credit Societies (PACS).
They attract savings from their customers with various deposit schemes and advance credit facilities for agricultural as well as non-agricultural activities. DCCBs are thus playing important role in income generation, employment opportunities and socio-economic development of the state in their own respective way. It is essential to evaluate and study their performance at regular intervals, besides other issues that impact their financial performance, recovery performance and profitability performance while performing their job to the satisfaction of their stakeholders; productivity aspects constitute their force and strength in discharging their duties efficiently in a service industry like banking. Hence, the utility of such a study on the operational performance, productivity and profitability of all DCCBs of Haryana to know their strengths and weaknesses as well as the challenges they face and opportunities that they can provide for growth and development of the district of their respective beat. It is against this backdrop that the statement of the problem deserves full probe in an objective and scientific design of research.

3.3 Significance of the Study

Co-operative credit institutions are an important constituent of Indian financial sector in general and the banking sector in particular. Co-operative movement in India is the largest movement. There has been significant growth of co-operative credit sector in India. But the problem is that the success of co-operative movement depends much upon the efforts made by the government agencies and as such it cannot be characterized as people’s movement.

Haryana is predominantly an agrarian state. Earlier, farmers in Haryana were highly dependent upon money-lenders for their credit requirements. But gradually co-operative banks, regional rural banks and commercial banks came forward to finance the farmers. Co-operative banking plays an important role in the economy of Haryana State and has been financing farmers and agricultural labourers. No comprehensive study has been conducted so far to determine the extent to which Central Co-operative Banks in Haryana have been able to meet the requirements of rural section. Against this backdrop it becomes essential to evaluate their performance from time to time. Hence, I decided to conduct a study for evaluating performance of Central Co-operative Banks in Haryana. So, the present study aims to evaluate the performance of Central Co-operative Banks in Haryana. The study attempts to examine and compare the various aspects of performance of Central Co-
operative Banks in the state and assesses the perceptions of customers and bank employees regarding the working of these banks in the state. The study takes into consideration a period of thirteen years ranging from 2001-02 to 2013-14. The study covers 19 Central Co-operative Banks in Haryana.

3.4 Research Objectives

Present study is taken up to achieve the following research objectives:

RO\textsubscript{1}: To study the growth and regulatory framework governing the co-operative banks in India.

RO\textsubscript{2}: To evaluate the operational performance of District Central Co-operative Banks in Haryana.

RO\textsubscript{3}: To evaluate the productivity of District Central Co-operative Banks in Haryana.

RO\textsubscript{4}: To evaluate the profitability of District Central Co-operative Banks in Haryana.

RO\textsubscript{5}: To study the perceptions of beneficiaries/customers and employees about the working of District Central Co-operative Banks in Haryana.

RO\textsubscript{6}: To identify the problems affecting the performance of District Central Co-operative Banks in Haryana and make suggestions for improving their performance.

3.5 Operationalisation of Concepts

Conceptualization provides an idea about the theory base and empirical research evidence used to construct the variables of the study.

Operationalisation describes what scaling has been employed to convert the variables into measurable items.

- **Operational Performance**: Operational performance means branch expansion, deposits, credit (loans outstanding), volume of business (deposits and credit), borrowings, profits and employees of Central Co-operative Banks.
Operational Performance is characterized by following dimensions:

(1) **Growth in Branches of Central Co-operative Banks in Haryana**

Growth in branches is the most important tool for co-operative bank. It helps in utilization of idle resources and channelizes them into productive activities. Branches identify credit requirements in the particular area and provide credit facility so that needs may be met.

(2) **Growth in Deposits of Central Co-operative Banks in Haryana**

a) Deposits mean Total Deposits of District Central Co-Operative Banks of Haryana.

Deposits=Institutional Deposits from Co-operative+ Deposits from Individuals+ Deposits from local bodies +Deposits from Others

b) Deposits mean type wise deposits of District Central Co-Operative Banks of Haryana.

Deposits=Current Deposits+ Savings Deposits+ Fixed Deposits +Reserve Funds+ Other Deposits

We can calculate by (a) or (b), the amount of deposits will be the same.

Deposits are the foundation of bank resources. The amount of deposits depends upon the savings of the people and the rate of interest. It is a big challenge to bankers in India.

(3) **Growth in Credit (loans outstanding) of Central Co-operative Banks in Haryana**

Credit means total loans outstanding. It is the base of the banking institution. Central Co-operative Banks provide loans to the agriculture and allied sector for different purposes.

Credit= Total Loans Outstanding

Total Loans Outstanding=Total Short Term Agricultural Loans Outstanding+ Total Short Term Non-Agricultural Loans Outstanding+ Total Medium Term Agricultural Loans Outstanding +Total Medium Term Non-Agricultural Loans Outstanding + Other Loans Outstanding
(4) **Growth in Volume of Business (Deposits + Credit(loans outstanding)) of Central Co-operative Banks in Haryana**

Volume of Business means the sum of deposits and loans outstanding. It is a barometer which shows the quantum of business done by the bank.

(5) **Growth in Borrowings of Central Co-operative Banks in Haryana**

Borrowings mean loans from SCB/NABARD, Govt. of India, commercial banks, cash credit & overdrafts and others.

\[
\text{Borrowings} = \text{Loans from SCB/NABARD} + \text{Borrowings from Govt. of India} + \text{Borrowings from Commercial Banks} + \text{Cash credit & Overdrafts} + \text{Borrowings from others.}
\]

\[
\text{Borrowings from SCB/NABARD} = \text{Agricultural (Short-Term + Medium Term)} + \text{Non-Agricultural (Short-Term + Medium Term)} + \text{Others}
\]

\[
\text{Borrowings from Govt. of India} = \text{Loans from Govt.} + \text{Loans from Commercial Banks}
\]

\[
\text{Cash credit & Overdrafts and Borrowings from Others}
\]

\[
\text{Borrowings} = (1) + (2) + (3)
\]

Borrowings are an important component for measuring operational performance. Borrowings show how much amount has borrowed from different banks by a particular central co-operative bank.

(6) **Employees of Central Co-operative Banks in Haryana**

Employees are the keystone of the banking business. An organization can work effectively if the employees are of right quality and in right number. There should be skilled employees for the success of co-operative banks.

(7) **Growth in Profits of Central Co-operative Banks in Haryana**

Profit is an important variable for measuring operational performance. Profit shows the efficiency of a bank for utilizing its resources. Profit shows how much efficiently bank uses its resources.

- **Productivity:** The performance of co-operative banks in terms of productivity has been the main concern of all the stakeholders involved in this
entrepreneurship. It is globally well recognized fact that the growth of any financial institution like banks depends upon their productivity.

Productivity is characterized by following dimensions:

1. **Productivity in terms of Branch**
   a) Deposit per Branch
   b) Credit per Branch
   c) Business per Branch
   d) Profit per Branch

2. **Productivity in terms of Employee**
   a) Deposit per Employee
   b) Credit per Employee
   c) Business per Employee
   d) Profit per Employee

- **Profitability**: In the prevailing competitive environment, it is well recognized that the success of co-operative banks is highly dependent on the profitability. Here, it may truly be said that optimum use of available funds leads to high efficiency and profitability. District Central Co-operative Banks (DCCBs) are very common institutions among co-operative credit institutions in India.

Profitability is characterized by following dimensions:

   a) Return on Investment
   b) Return on Net Worth
   c) Return on Business
   d) Profit per Branch
   e) Profit per Employee

- **Perceptions of beneficiaries/customers about the working of Central Co-operative banks**: It is characterized by following dimensions:

   (a) Information about loan and its repayment,
   (b) Total amount of sum borrowed,
   (c) Purpose of taking loan,
   (d) Satisfaction with the amount sanctioned,
   (e) Gap between the amount of loan applied and sanctioned,
   (f) Disbursement of loan,
• Perceptions of employees about the working of Central Co-operative Banks:
   It is characterized by following dimensions:

   (1) Variables while accepting the proposal for granting loan: Security for loan, incremental income from utilization of loan, Capability of the client, Character of the client, Supporting Facilities owned by the clients, Technical Feasibility of the scheme, Infrastructural Facilities owned by the client.

   (2) Difficulties while providing loans to the customers: Defective loan record, inability of the borrower to provide margin money, inability of the borrower to provide guarantee, competition from money-lenders,

   (3) Factors responsible for delay in sanction/ disbursement of a loan: Submission of incomplete information by borrower, lack of adequate discretionary power with district manager.

3.6 Operationalisation of Objectives

In this section, operationalisation of objectives is discussed.

• To attain first objective, i.e. to study the growth and regulatory framework governing the co-operative banks in India, the researcher found the information from secondary sources such as Planning Commission, Government of India and Economic Survey, Basic Data on Performance of Central Co-operative Banks published by NAFSCOB(National Federation of State Co-operative Banks Limited), RBI Bulletin and Report on Trend and progress of Banking in India( RBI), NABARD publications and various journals like The Cooperator, Indian Co-operative Review, NCDC (National Co-operative Development Corporation)Bulletin, Bank Quest, Management Accountant etc. and various other journals related to banking area. For attaining this objective, we explained growth of co-operative movement in India, Co-operative Societies Act, 1912, growth of co-operative movement during post-independence period and Regulation and Control of Co-operative Banks in India.

• To attain second objective, i.e. to evaluate the operational performance of District Central Co-operative Banks in Haryana, the researcher found the
information from published annual reports of Haryana State Co-operative Bank, Basic Data on Performance of Central Co-operative Banks published by NAFSCOB (National Federation of State Co-operative Banks Limited), RBI Bulletin and Report on Trend and progress of Banking in India (RBI), NABARD publications and various journals like Indian co-operative Review, The Cooperator, NCDC (National Co-operative Development Corporation) Bulletin, Bank Quest, Management Accountant etc. and various other journals related to banking area. Descriptive Statistics (Mean, Maximum, Minimum, Standard Deviation and Coefficient of Variation), Compounded Annual Growth Rate, Analysis of Variance (ANOVA) applied for assessing operational performance.

- To attain third objective, i.e. to evaluate the productivity of District Central Co-operative Banks in Haryana, the researcher found the information from published annual reports of Haryana State Co-operative Bank. Descriptive Statistics (Mean, Maximum, Minimum, Standard Deviation and Coefficient of Variation) and Compounded Annual Growth Rate applied for assessing productivity. Mean and Ranking were also applied for assessing overall productivity.

- To attain fourth objective, i.e. to evaluate the profitability of District Central Co-operative Banks in Haryana, the researcher found the information from published annual reports of Haryana State Co-operative Bank. Descriptive Statistics (Mean, Maximum, Minimum, Standard Deviation and Coefficient of Variation) applied for assessing productivity. Mean and Ranking applied for assessing profitability.

- To attain fifth objective, i.e. to study the perceptions of beneficiaries/customers and employees about the working of District Central Co-operative Banks, two different types of questionnaires designed. One questionnaire constructed to know about the perceptions of beneficiaries/customers about the working of Central Co-operative Banks. Second questionnaire constructed to know the perceptions of employees about the working of District Central Co-operative Banks. Data analysed with the help of various tools including frequency, percentage, cross tabulation and Chi-square test.
• To know the responses about the problems of Central Co-operative Banks top management officials like president, managers, directors, general manager, manager and deputy/assistance managers selected. Further, the researcher interacted with employees for getting more information about their attitude, satisfaction level and working of District Central Co-operative Banks in Haryana.

3.7 Research Methodology

This section outlines the research methodology employed, describing the selected sampling technique, method for data collection and the statistical tools used for analysing the data.

3.7.1 Research Design

A research design is the preparation of conditions for data collection and analysis in a manner that combine the relevance of the research purpose with saving in procedure. The present study is exploratory cum descriptive in nature.

3.7.2 Sample Design

For the purpose of this study, following 19 central co-operative banks taken:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Branch</th>
</tr>
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<tbody>
<tr>
<td>1.</td>
<td>The Ambala Central Co-operative Bank LTD.</td>
</tr>
<tr>
<td>2.</td>
<td>The Bhiwani Central Co-operative Bank LTD.</td>
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<tr>
<td>3.</td>
<td>The Faridabad Central Co-operative Bank LTD.</td>
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<td>4.</td>
<td>The Fatehabad Central Co-operative Bank LTD.</td>
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<td>5.</td>
<td>The Gurgaon Central Co-operative Bank LTD.</td>
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<td>6.</td>
<td>The Hisar Central Co-operative Bank LTD.</td>
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<td>7.</td>
<td>The Jind Central Co-operative Bank LTD.</td>
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<td>8.</td>
<td>The Jhajjar Central Co-operative Bank LTD.</td>
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<td>9.</td>
<td>The Kaithal Central Co-operative Bank LTD.</td>
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<td>10.</td>
<td>The Kurukshetra Central Co-operative Bank LTD.</td>
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<td>11.</td>
<td>The Karnal Central Co-operative Bank LTD.</td>
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<td>12.</td>
<td>The Mahendragarh Central Co-operative Bank LTD.</td>
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<tr>
<td>13.</td>
<td>The Rewari Central Co-operative Bank LTD.</td>
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<td>14.</td>
<td>The Panchkula Central Co-operative Bank LTD.</td>
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<tr>
<td>15.</td>
<td>The Panipat Central Co-operative Bank LTD.</td>
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<tr>
<td>16.</td>
<td>The Rohtak Central Co-operative Bank LTD.</td>
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<tr>
<td>17.</td>
<td>The Sirsa Central Co-operative Bank LTD.</td>
</tr>
<tr>
<td>18.</td>
<td>The Sonipat Central Co-operative Bank LTD.</td>
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<tr>
<td>19.</td>
<td>The Yamunanagar Central Co-operative Bank LTD.</td>
</tr>
</tbody>
</table>
3.7.3 Size of Sample

For the purpose of this study, 19 Central Co-operative Banks were taken for the period 2001-02 to 2013-14.

(i) Beneficiaries/Customers: One of the objectives of the study is to assess the viewpoint of customers regarding the working of Central Co-operative Banks in Haryana. For this a sample of 200 customers in all with 50 customers each from four districts of Haryana were selected. Out of the total 19 districts of Haryana, four districts were selected for the study. For this purpose, sampling was carried out in two stages. At the first stage, four districts were selected on the basis of number of Primary Agricultural Credit Societies (PACS) in different districts of Haryana, i.e., two districts with the highest number of PACS [Hisar (47) and Ambala (45)], and two with the lowest number of PACS [Panchkula(11)and Rohtak(22)]. At the second stage, 50 customers were selected from each district by adopting the method of judgement and convenience sampling. While selecting the sample, beneficiaries belonging to different occupations, age groups, income groups, educational qualification included.

(ii) Central Co-operative Bank Employees: The total sample size consist of100 employees, 5 each from the 19 Central Co-operative Banks and 5 from the Haryana State Co-operative Bank, Chandigarh. The respondents include employees working as Senior Manager, District Manager, Assistant Manager, Accountant and Clerk.

3.7.4 Method of Data Collection

The present study used both primary as well as secondary data in the light of the requirement of the research objectives. The primary data was collected by conducting a survey through self-administered structured questionnaire.

As far as secondary data is concerned, it was collected through following secondary sources:

3.7.5 Sources of Secondary Data

For the purpose of this study, 19 Central Co-operative Banks taken for the period 2001-02 to 2013-14. The main source of secondary data was the published annual reports of Haryana State Co-operative Bank and other publications of Central Co-operative Bank, Basic Data on Performance of Central Co-operative Banks
3.7.6 Sources of Primary Data

The primary data was collected by conducting a survey through self-administered structured questionnaire for customers and employees of Central Co-operative Banks in Haryana.

**Questionnaire for Customers:** Questionnaire is administered to customers to know about their perceptions about District Central Co-operative Banks in Haryana. This questionnaire gives importance to all factors related to working of Central Co-operative Banks of Haryana. This questionnaire shows the opinions of customers in regard to each question. The questionnaire included purpose of taking loan, total amount of sum borrowed, satisfaction with amount sanctioned and timings in sanctioning and disbursement of loans. One open ended question relate to suggestions to improve the working of Central Co-operative Banks in Haryana. By combining all these questions the study enables to take an in-depth sight of working of DCCBs of Haryana.

**Questionnaire for Employees:** Questionnaire is administered to employees to know about their perceptions about District Central Co-operative Banks in Haryana. This questionnaire gives importance to all factors related to working of Central Co-operative Banks of Haryana. This questionnaire shows the opinions of employees in regard to each question. The questionnaire included variables considered for accepting the proposal for loan, major reasons for not providing loans to various customers, factors responsible for delay in sanction of loan, recovery position of District Central Co-operative Bank, achievement of targets by banks. One open ended question relate to suggestions to improve the working of Central Co-operative Banks in Haryana. By combining all these questions the study enables to take an in-depth sight of working of DCCBs of Haryana.

3.7.7 Pilot-Testing

Having designed questionnaire, these were pre-tested by experts, academicians and professionals to establish the content validity. Based on the feedback received,
some alterations regarding the clarity and consistency of the questions, and its layout were made to improve the overall format of questionnaires for survey. Thereafter, questionnaires were subjected to pilot testing to further confirm their face validity and reliability.

3.7.8 Quantitative Techniques Used in the Study

Various statistical tools and techniques were applied to analyse the secondary data. Descriptive Statistics (Mean, Maximum, Minimum, Standard Deviation and Coefficient of Variation), Compounded Annual Growth Rate, Ranking, Analysis of Variance (ANOVA) applied for assessing operational performance, productivity and profitability. Regression analysis applied to study the effect of different variables on the profitability of the bank.

Primary data collected through a questionnaire. Data analysed with the help of various tools including frequency, percentage, cross tabulation and chi-square test. All statistical calculations made by Microsoft Excel and Statistical Package for Social Sciences (SPSS) version 21.

1. Explanatory Analysis: Measures of Central Tendency such as Mean, Standard Deviation and Coefficient of Variation were calculated to study the nature and distribution of different variables. These are:

(a) Mean: Mean was used to find the average of various items. Mean or average value, a measure of central tendency, was obtained by clubbing all variables in a set and dividing by the number of variables (Malhotra, 2007, p.460). Mean Score was calculated as follows:

\[ \bar{X} = \frac{\sum X}{N} \]

[Where \( \sum X \) means the sum of all scores and \( 'N' \) is the number of banks]

(b) Standard Deviation: Standard Deviation measures the absolute dispersion or variability from the mean values. A small standard deviation implies a high degree of uniformity or homogeneity in the distribution or vice versa. The equation for the standard deviation is:

\[ \sigma = \sqrt{\frac{\sum x^2}{N}} \]
(c) **Coefficient of Variation:** It is a relative measure of dispersion based on standard deviation. It is used to test the consistency. There is an inverse relationship between the coefficient of variation and consistency. More the value of coefficient of variation lesser is the consistency and vice versa.

\[
C.V. = \frac{\sigma}{\bar{X}} \times 100
\]

Where \(C.V.\) = Coefficient of Variation

\(\sigma\) = Standard Deviation

\(\bar{X}\) = Mean

2. **Chi-Square, a Non-Parametric Test:** It is used to test the statistical significance of the observed association in a cross tabulation. It assists us in determining whether a systematic association exists between the two variables (Malhotra, 2007, p.474). In this study, ‘Chi-Square test of Independence (which was used to find out whether two attributes are associated or not)’ was applied for testing the hypotheses. This test was conducted via IBM SPSS Statistics21. The chi-square statistic is arrived using following formula.

\[
\chi^2 = \sum \frac{(f_o - f_e)^2}{f_e}
\]

Where:

\(\chi^2\) = Chi-Square Statistic

\(f_o\) = Observed Frequencies

\(f_e\) = Expected Frequencies

\(df\) (degree of Freedom) = \((r - 1) \times (c - 1)\)

4. **Cross Tabulation (Contingency Tables):** It displays the relationship between two or more categorical (nominal or ordinal) variables. The size of the table determined by the number of distinct values for each variable, with each cell in
the table representing a unique combination of values. Numerous statistical tests are available to determine whether there is a relationship between the variables in a table.

5. **Compounded Annual Growth Rate**
   
The compound annual growth rate (CAGR) is a useful measure of growth over multiple time periods.

   \[
   \text{CAGR} = \left( \frac{\text{Ending Value}}{\text{Beginning Value}} \right)^{\frac{1}{\text{# of years}}} - 1
   \]

6. **Analysis of Variance (ANOVA) F-test**: First of all normality assumption was tested using Kolmogorov-Smirnov test of normality and then ANOVA F-test was applied. The purpose of using one way ANOVA is to examine the differences in the mean value of the dependent variables for several categories of a single variable or factor (Malhotra and Dash, 2010).

3.8 **Limitations of the Study**

   Although every effort was made to undertake a representative study, still the following limitations could occur in the course of the study:

   1) The present study is limited to Central Co-operative Banks in Haryana only.
   2) Correctness of primary data depends upon the genuineness of the information provided by the respondents.

3.9 **Organisation of the Study**

   The study has organized into the following chapters:

   1. Introduction
   2. Insights from Related Studies
   3. Research Objectives and Research Methodology
   5. Operational Performance of District Central Co-operative Banks in Haryana.
   6. Productivity Analysis of District Central Co-operative Banks in Haryana.
   7. Profitability Analysis of District Central Co-operative Banks in Haryana.