CHAPTER – III
RESEARCH METHODOLOGY

Research methodology is the framework used as guidelines for conducting any research. In order to arrive at solution, the research problems are systematically processed and analyzed with application of suitable research methods and techniques. The statistical tools used for data analysis of the present study are detailed and discussed in this chapter. It also explains the need, scope, objectives, sample design and limitations of the study.

3.1 NEED FOR THE STUDY

Cooperative banking has been playing a vital role in the social-economic development of our country. These banks are gaining importance in rural as well as urban areas. This sector occupies an equally vital position in the economy of Haryana state which is predominantly an agricultural state; and cooperative banks have been financing farmers and rural population in the state along with the commercial banks and regional rural banks. Though cooperative banks have grown over the years in size and volume of business in the state, yet they have failed to concentrate on the crucial area of HRM. Cooperative banks need to develop their human resources. Very few efforts have been made regarding efficient utilization of manpower in these banks. Though a few studies have been conducted on issues relating to human resource management in the cooperative banks in some of the states in India which highlight the weaknesses of these banks relating to their HRM practices, yet no such study is available in the state of Haryana. Hence, an attempt has been made through this study to evaluate the HRM practices of cooperative banks in Haryana.
3.2 OBJECTIVES OF THE STUDY

Considering the due importance of HRM system in the cooperative banks in Haryana; the main objectives of the study are follows:

1. To study the profile and organisational structure of cooperative banks in Haryana.
2. To study the policy framework regarding Human Resource Management in cooperatives banks.
3. To study the Human Resource Management practices followed by cooperative banks in Haryana.
4. To examine employees’ satisfaction with regard to the exiting Human Resource Management system of the cooperative banks.
5. To identify the problems existing in Human Resource Management system of cooperative banks in Haryana.
6. To provide suitable suggestions on the basis of study.

3.3 SCOPE OF THE STUDY

The study is an attempt to evaluate the HRM system in cooperative banks in the state of Haryana. The present study focuses on HRM system of HARCO Bank and CCBs which are the important chain of short and medium-term rural cooperative credit structure in the state of Haryana. The study covers the aspects, such as recruitment, promotion, transfer, performance appraisal system, salary management, employee welfare and training of employees. The study covers a period from the year 2000 onwards; and focuses on the HRM practices in apex bank and 5 CCBs, viz. Sonepat CCB, Ambala CCB, Hisar CCB, Kaithal CCB and Panchkula CCB. The primary data was collected between March 2009 and May 2010 from the employees of HARCO Bank and 5 CCBs in the state of Haryana.
3.4 SAMPLING DESIGN

The sample size consisted of 300 employees working in cooperative banks of Haryana. Out of the total, 50 employees were selected randomly from HARCO Bank and 50 employees each from 5 selected CCBs. For this purpose, sampling was carried out in two stages. At the first stage, HARCO Bank and 5 CCBs were selected on the basis of number of branches, i.e., Hisar CCB, Sonepat CCB, and Kaithal CCB with maximum number of branches; Ambala CCB with average number of branches; and Panchkula CCB with the lowest number of branches. At the second stage 50 employees each have been selected from HARCO Bank and 5 CCBs.

<table>
<thead>
<tr>
<th>S. No</th>
<th>Contents</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Population</td>
<td>The employees on the roll of HARCO Bank and CCBs</td>
</tr>
<tr>
<td>2.</td>
<td>Sampling frame</td>
<td>List of employees provided by the bank</td>
</tr>
<tr>
<td>3.</td>
<td>Sampling Method</td>
<td>• 50 employees of HARCO Bank</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 5 CCBs were selected as sample out of 19 CCBs, which include 3 CCBs, viz.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hisar CCB, Sonepat CCB, and Kaithal CCB having maximum number of branches;</td>
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<tr>
<td></td>
<td></td>
<td>Ambala CCB having average number of branches; and Panchkula CCB having</td>
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<tr>
<td></td>
<td></td>
<td>least number of branches at the time of data collection. Employees working</td>
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<tr>
<td></td>
<td></td>
<td>at all the levels of administration constituted the sample. It includes</td>
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<td></td>
<td></td>
<td>managers, accountants, clerks, secretaries and sub-staff employees.</td>
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<tr>
<td></td>
<td></td>
<td>• 250 employees from CCBs (50 each from 5 CCBs)</td>
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<td>4.</td>
<td>Sample Size</td>
<td>300 employees</td>
</tr>
</tbody>
</table>
3.5 DATA COLLECTION

The present study is based on both the primary as well as secondary data. The primary data was collected by the method of interview and discussion with officials and staff of HARCO Bank and 5 CCBs in the state of Haryana. Most of the information of primary data was collected by administering a well-structured and pre-tested questionnaire to the respondents (Appendix-I). Questionnaire was divided into two parts; first part covers the questions relating to the HRM practices, while second part focuses on the employees’ satisfaction with regard to these practices. First of all, a pilot survey of 30 employees was done; and the questionnaire was reframed in the light of feedback received from the employees. Certain information was gathered through informal interviews with different authorities and employees working in the cooperative banks, Department of Cooperation of Haryana, and employees of Staff Training College who were concerned directly or indirectly with HRM system of the cooperative banks. The secondary data was collected from various sources mentioned below:

- Publications of the Registrar Cooperative Societies, Haryana;
- Publications and Annual Reports of HARCO Bank;
- Publications and annual reports of CCBs of Haryana;
- Economic Survey of Haryana (Various years);
- Publications of NAFSCOB;
- Publications of RBI;
- Publications of NABARD;
- Common Cadre (Service) Rules of HARCO Bank and CCBs in Haryana;
- Circulars of Finance Department of Haryana;
- Existing literature and scholarly research work with regard to the topic; and
3.6 CONTENTS OF THE QUESTIONNAIRE

A structured schedule of questions was developed and pre-tested which consisted of different types of questions relating to HRM practices and employees’ satisfaction. Contents of the questionnaire are as follows:

a) Demographic profile of the employees
b) Recruitment
c) Promotion
d) Transfer
e) Performance appraisal
f) Salary management
g) Employees welfare facilities and
h) Training.

3.7 DATA ANALYSIS AND INTERPRETATION

After collecting the data from various sources, its analysis and interpretation was done. The data collected from both the primary as well as secondary sources was tabulated and results were presented in the form of tables. Primary data was analyzed educational qualification-wise, designation-wise and bank-wise. Besides using percentages, chi-square test was used to know the difference in opinion of the employees as per three classifiers mentioned above. Weighted Average Score was found on the Likert scale to know the importance given by the respondent employees to given factor. Further, ANOVA test was used to know the variations in the responses of employees with regard to the satisfaction toward HRM practices. Data has been compiled and analyzed with the help of SPSS. The employees’ satisfaction was recorded on a five-point Likert scale as follows:
Responses | Value
--- | ---
1. Strongly agreed/ Highly satisfied | 5
2. Agreed/Satisfied | 4
3. Neutral/Indifferent | 3
4. Disagreed/Dissatisfied | 2
5. Strongly disagreed/Highly Dissatisfied | 1

The overall response is calculated by multiplying the number of respondents in each category with the above values.

### 3.8 STATISTICAL TOOLS USED FOR ANALYSIS

Details of the statistical tools used for the analysis of the primary and secondary data are as follows:

#### 3.8.1 Weighted Average Score

It is used to study the employees’ opinion expressed in terms of five-point Likert scale and views as per their level of significance. The following formula has been used for this purpose:

$$\bar{W} = \frac{\sum wf_w}{\sum f_w}$$

Where, $\bar{W}$ = Weighted Average Score

- $w$ = Weight given to an aspect
- $f_w$ = Number of respondents who attached weight to the aspect

#### 3.8.2 Chi-Square Test

To study the differences with regard to the various aspects highlighted by the employees in the questionnaire, chi- square test has been selected. It has been worked out as follows:

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

Where, $\chi^2$ = Chi- square value,

- $O$ = Observed frequencies, and
- $E$ = Expected frequencies.
The calculated value of $\chi^2$ is compared with the table value, for given degree of freedom at specified level of significance (5% in this study). If the calculated value of $\chi^2$ is more than the table value, then difference between the variables is considered to be significant or otherwise insignificant.

### 3.8.3 Analysis of Variance (ANOVA)

The One-Way ANOVA procedure produces a one-way analysis of variance for a quantitative dependent variable by a single factor (independent) variable. It is used to test the hypothesis that several means are equal. This technique is an extension of the two-sample t-test. Under it, we consider only one factor and observe that reason for said factor to be important and several possible types of sample can occur within that factor. We then determine if there are differences within that factor. The ANOVA was calculated with the help of SPSS software.

It is a method of splitting the total variations of a data into constituent parts which measures different sources of variations. Following method is used to calculate ANOVA.

**Step 1: Calculate variance between the samples by the following method:**

1. Calculate the mean of each sample;
2. Calculate the grand average

$$\bar{X} = \frac{X_1 + X_2 + X_3 + \ldots + X_n}{N_1 + N_2 + N_3 + \ldots + N_n}$$

3. Take the difference between the means of the various samples and the grand average;
4. Square these deviations and obtain the total which will give sum of squares between the samples; and
5. Divide the total obtained in step (4) by degrees of freedom. The degrees of freedom will be one less than the number of samples $v = k - 1$.

Where, $k$ is number of samples.
Step 2: Calculate variance within the samples

1. Calculate the mean value of each sample;
2. Take the deviations of various items in a sample from the mean values of respective samples;
3. Square these deviations and obtain the total which gives the sum of square within the samples; and
4. Divide the total obtained in step (C) by degree of freedom, i.e., \( v = k - 1 \)

Step 3: Calculate the F-ratio as follows:

\[
F = \frac{\text{Between} - \text{column variance}}{\text{Within} - \text{column variance}}
\]

Step 4: Compare the calculated value of F with table value

Analysis of Variance (ANOVA)

Table: One-way Classification Model

<table>
<thead>
<tr>
<th>Sources of Variance</th>
<th>Sum of Squares(SS)</th>
<th>Degree of Freedom (d.f.)</th>
<th>Mean Square (MS)</th>
<th>F- ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Samples</td>
<td>SSC, SSE</td>
<td>( v_1 = c - 1 ), ( v_2 = n - c )</td>
<td>MSC = SSC/(c-1), MSE = SSE/(n-c)</td>
<td>MSC/MSE</td>
</tr>
<tr>
<td>Total</td>
<td>SST</td>
<td>n-1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Where,

\[ \text{SST} = \text{Total Sum of Squares of Variations} \]
\[ \text{SSC} = \text{Sum of Squares between Samples (Columns)} \]
\[ \text{SSE} = \text{Sum of Squares within Samples (Rows)} \]
\[ \text{MSC} = \text{Mean Sum of Square between Samples} \]
\[ \text{MSE} = \text{Mean Sum of Square between Samples} \]
3.8.4 Exponential Growth Rate

Exponential Growth Rate (EGR) indicates the strength of movement of any variable over the entire period covered by the study. The exponential function fits in as follows:

\[ Y = ab^x \]

This function when translated into logarithmic form, gives a log-linearity function:

\[ \log Y = \log a + x \log b \]

To obtain the value of constants ‘a’, ‘b’ the two normal equations to be solved are:

\[ \sum \log Y = N \log a + \log b \sum X \] \hspace{1cm} (i)
\[ \sum (X \log Y) = \log a \sum X + \log b \sum X^2 \] \hspace{1cm} (ii)

Where, \( a \) = y – intercept
\( b \) = slope of the curve

When deviations are taken from the middle year then

\[ \sum x = 0 \]

The above equation takes the following form:

\[ \sum \log Y = N \log a \] and \[ \sum (x \log Y) = \log b \sum x^2 \]

Therefore, \( \log a = \frac{\sum \log Y}{N} \) and \( \log b = \frac{\sum (x \log Y)}{\sum x^2} \)

Antilog of \( \log b \) gives the value of \( b \). Growth rate is derived from this equation using the following association:

\[ b = 1 + r \]

Where, ‘r’ is the exponential growth rate.

3.8.5 Ratios Used

Following ratios have also been used for the interpretation of secondary data:

1. Profit per Branch = \[ \frac{\text{Total Profits}}{\text{Number of Branches}} \]

2. Profit per Employee = \[ \frac{\text{Total Profits}}{\text{Total Number of Employees}} \]
3.9 SCHEME OF THE STUDY

The study has been divided into seven chapters as mentioned below:

Chapter-I: Introduction- This chapter presents the various aspects of human resource management and cooperative banking. These concepts include defining of human resource management, its scope and components like recruitment, promotion, transfer, performance appraisal, salary management, employees’ welfare and training. The cooperative banking and its role in the Indian rural economy has also been discussed. Further, the profile and organizational structure of the banks under the study, i.e., HARCO Bank and CCBs in Haryana has also given in this chapter.

Chapter-II: Review of Literature- It presents a theoretical framework of HRM. It provides a brief review of important studies already conducted in the field of HRM to have a complete understanding of the various aspects and issues of this study.

Chapter-III: Research Methodology- It explains the research methods and techniques used for the present study. The universe of the study, sampling design, method of data collection & analysis, and limitations of the study have also been discussed in this chapter.

Chapter-IV: Human Resource Management Policies in Cooperative Banks of Haryana - The issues appearing under the HRM policy, i.e., recruitment, promotion, transfer, performance appraisal, salary management, employees’ welfare and training policy of cooperative banks have been discussed in general, while HRM policies of HARCO Bank and CCBs of Haryana have been studied in particular.

Chapter-V: Human Resource Management Practices in Cooperative Banks of Haryana - In this chapter an attempt has been made to present the opinion of the respondent employees with regard to the existing HRM practices relating to their recruitment, promotion, transfer, performance appraisal, salary management, welfare and training.
Chapter-VI: Employees’ Satisfaction and Problems with regard to Existing Human Resource Practices - This chapter focused on studying the employees’ satisfaction towards the existing HRM practices followed by the HARCO Bank and CCBs. The emerging problems with respect to the HRM practices have also been highlighted.

Chapter-VII: Findings, Conclusion and Suggestions - It highlights the major findings of the study, and also provides various suggestions based on the study to improve the HRM practices followed by the cooperative banks.

3.10 LIMITATIONS OF THE STUDY

Like all other research studies, the present study is also no exception with respect to certain limitations. The objectives and selected variables of the study, time and money are some of the common constraints. However, other limitations of the study are explained below:

- The present study only covers human resource management in the short & medium-term rural cooperative credit banks. Other cooperative banks like Urban Cooperative Banks (UCBs) and long-term cooperative credit banks like Haryana State Cooperative Agriculture and Rural Development banks are not covered.

- The study is based on both the secondary as well as primary data. Primary data is obtained through questionnaires and interview method. So, limitations of this method apply here too. It is possible that employees’ responses may affect the results of this study due to their biasness, perception and psychology. So, the basic limitation of possibility of difference between actual position and the expressed one applies here.

- The secondary data collected for the study carries all the limitations intrinsic in such data. There were differences in the reports collected from the NAFSCOB and HARCO Bank, so the
accuracy of data could not be ascertained, and it may affect presenting the true financial picture of the cooperative banks.

- The study covers limited HRM aspects like recruitment, promotion, transfer, performance appraisal, salary management, employees’ welfare and training of employees. Other aspects of HRM like career planning, executive development, social security, management of grievances, worker participation and quality of work life in cooperative banks remained undiscovered which are also an important part of HRM system.

- Due to the vast area of universe, it is impossible to use the census method for collecting primary data. Therefore, sampling method was used to collect data. So, it is difficult to implement the results obtained through sampling on the whole universe in the State.

- The results of study are applicable to HARCO Bank and 5 CCBs in Haryana. There are 19 CCBs working in the state of Haryana. Thus, it is difficult to comment on the HRM system of other 14 CCBs working within the state on the basis of present study.