Chapter - 4
Research Methodology
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Research Methodology

The present chapter discusses the need of the study, statement of the problem, scope, objectives of the study, research hypothesis, sampling, tools of analysis, significance and limitation of the study.

4.1 Need of the Study

Rural finance is a matter of great concern in an agrarian economy like India where 70 percent of the population depend upon agriculture for their livelihood. Moreover, 40 percent of India’s GDP is contributed by the rural sector. Rural economic development of India can be achieved only with the upliftment of the village folk consisting of artisans, agricultural labourers, farmers, rural industry workers etc. Finance being the lifeline of every commercial venture, availability of adequate funds on reasonable terms is a must in order to ensure speedy economic as well as rural development of the villages. Among the various institutional agencies engaged in the development of rural areas, the Regional Rural Banks play a highly significant role.

The Regional Rural Banks have been established with a view to providing banking services to the rural masses and also extending a wide variety of financial assistance to the weaker and poorer sections of the rural society. The RRBs have been viewed as an important instrument for serving the weaker sections of society. The RRBs are one of the most effective institutions for supplementing the farmers’ income and generating employment in the rural areas.

The economy of Himachal Pradesh is largely dependent on agriculture. It is the main occupation of the people of Himachal Pradesh. It provides direct employment to 69 percent of the total workers of the State. The development of rural areas can be termed as the development of the state inasmuch as over 92 percent of the state population is living in rural areas. The Regional
Rural Banks are playing a dominant role in the rural development of Himachal Pradesh. To analyse the achievements of the Regional Rural Banks in the development of rural areas in Himachal Pradesh, there is a need to undertake a study which would evaluate the performance of the Regional Rural Banks and also study the role of finance in the development of the rural economy of the State.

After going through the existent literature on the subject on hand, it is pertinent to mention here that the bulk of studies undertaken so far are concentrated on examining the role of the banks in the development of rural areas, but no serious attempt has been made so far to explore the causes hampering the progress of banks and also the pace of development in rural areas. Moreover, there are certain other basic questions, which have remained unanswered in these studies. There are some questions: Is rural banking playing a positive role in rural development? What is their contribution in transforming the condition of a lot of poor people? What is their role in generating employment in rural areas? Are the beneficiaries satisfied with the financing pattern of Regional Rural Banks? Does the sound and effective organizational structure lead the institution towards stability? Are RRBs helpful in improving the economic conditions of the beneficiaries? What should be the role of RRBs in the perception of beneficiaries? Do institutions like the RRBs contribute towards the development of rural areas? What are the prominent problems that cause hindrances in the smooth functioning of rural banks? In view of these questions unexplored, there is an urgent need to undertake an empirical study, which would evaluate the role and Impact of the Regional Rural Banks in the Development of Rural Areas of the State and would suggest effective remedial measures for on ground application and implementation. The present study is entirely different from the studies already carried out in the field in terms of its objectives and analytical approach.
4.2 Statement of Problem

The study is focused on evaluating the role and performance of Regional Rural Banks in the development of rural areas of Himachal Pradesh. The problem is entitled as below:

"Impact of Regional Rural Banks in the Development of Rural Areas of Himachal Pradesh"

4.3 Scope of the Study

Rural banking is a major instrument for the development of rural economy and therefore, all efforts have been made to strengthen the rural banking structure in the state. The scope of the present study is limited to Himachal Pradesh only. The present study is confined to examine the impact of Regional Rural Banks landing in the development of Himachal Pradesh. The scope of the Regional Rural Banks in the state is very wide, and, hence, requires a comprehensive and detailed appraisal as the banks are playing a very important role in the development of the rural economy, which is agriculture based. Thus, the scope of the present study is confined to both the Regional Rural Banks in the State, namely, Himachal Gramin Bank and Parvatiya Gramin Bank. The study is mainly based on the primary data, which has been collected from the beneficiaries and from the bank officials of the RRBs. Three districts of Himachal Pradesh have been covered for the study. A detailed investigation has been done on the functioning of the banks, the financial health, impact of Regional Rural Banks credit on the level of income, employment generation, agricultural and industrial development and also to study the perception of the bank officials towards the borrowers regarding the utilization of credit and also to study the performance of management by covering the period form 1999-2000 to 2008-09. The findings of the study will help in taking decisions for an effective functioning of the RRBs in particular and rural banking in general.
4.4 Objectives of the Study

The objectives of the study are as under:

1) To study the growth and performance of the Regional Rural Banks in India.

2) To examine the organizational structure and management of the Regional Rural Banks in Himachal Pradesh.

3) To analyse the comparative performance of the Himachal Gramin Bank and the Parvatiya Gramin Bank in respect of certain selected parameters.

4) To evaluate the pattern of the rural credit utilisation and also to examine its impact on income and employment generation.

5) To examine the impact of the RRBs on agriculture and industrial development in general and rural development in particular.

6) To study the perception of bank officials and borrowers regarding the attitude of management.

7) To identify the problems and challenges faced by the RRBs at different levels and advance suggestions to make the study more result oriented.

4.5 Hypothesis

Hypothesis is simply a statement about the universe. It is a statement of the tentative solution of the problem. This statement may or may not be true; the research is designed to ascertain the truth. In view of the above objectives of the study, a number of research questions arise. On the basis of these research questions and review of related literature, the following hypotheses have been formulated:

1. The growth and performance of the Regional Rural Banks in the state is satisfactory.

2. The Regional Rural Banks have left a positive impact in developing socio-economic life of the rural masses.
3. The banks are performing their functions effectively.
4. The opinion of the beneficiaries regarding different aspects of economic development is equally distributed.
5. The Regional Rural Banks are, to a large extent, helpful in generating employment in the rural areas.
6. The rural masses have a high level of satisfaction with the existing credit facilities of the RRBs.
7. The contribution of the Regional Rural Banks' credit in the development of agricultural and industrial sectors is significant.
8. The RRBs' finance has a favourable impact on the income level of the borrowers.
9. The opinion of the borrowers towards the functioning and management of the RRBs is biased.
10. The Bank officials have a high level of perception regarding borrowers and working of the management of the RRBs.
11. The Regional Rural Banks encounter certain problems and face challenges in the way of discharging their duties.
12. The bank finance reduces the dependence of rural people on village money lenders.

4.6 Sampling

The sample for the present study includes the borrowers and officials of the Regional Rural Banks operating in Himachal Pradesh. The process of selecting the sample is multi-stratified in nature. At the first stage, out of 12 districts, three districts i.e. Chamba, Mandi and Kangra have been selected with the help of simple random sampling. At the second stage, the sample of 25 branches from these two Regional Rural Banks have been selected with the help of convenient sampling in proportion to their number in each selected district. At the third stage, 12 beneficiaries from each branch have been selected with the technique of quota sampling. The entire sample for the present study consists of 25 branches of the RRBs along with 300 borrowers.
i.e. 12 beneficiaries from each branch. While selecting the sample, utmost care has been taken to see that the borrowers and officials are selected without any bias or favouritism. In addition to it, respondents of all age groups, education, occupation, castes, size of land holding, etc. are included. Further, special care has been taken to ensure that all the regional variations have been duly represented.

Map of Himachal Pradesh

Areas of Study

* Chamba
* Kangra
* Mandi
Table 4.1
Sample Description

<table>
<thead>
<tr>
<th>1.</th>
<th>Population</th>
<th>All borrowers of the selected RRBs’ branches in Himachal Pradesh.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Sampling Frame</td>
<td>List of Borrowers.</td>
</tr>
</tbody>
</table>
                                   | b) Convenient sampling for selecting 25 branches.                   
                                   | c) Quota Sampling for selecting 300 borrowers at the rate of 12 borrowers from each branch. |
| 4.    | Sample size                     | 300 Borrowers.                                                    |

Further, 50 Bank officials have also been selected, 2 from each sample branches on the basis of convenient sampling to study their opinion about the working of Regional Rural Banks in the rural areas of the State.

Table 4.2
Sample Description

<table>
<thead>
<tr>
<th>1.</th>
<th>Population</th>
<th>All bank officials of the selected RRBs’ branches in Himachal Pradesh.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Sampling Frame</td>
<td>List of bank officials.</td>
</tr>
</tbody>
</table>
<pre><code>                               | b) Quota sampling has applied for selecting 50 bank officials at the rate of 2 officials from each branch. |
</code></pre>
<p>| 4.    | Sample size                     | 50 bank officials.                                                |</p>

4.7 Sources of Data

For accomplishing the objectives of the study, both primary and secondary data have been used.
A. Primary Data

The study is largely based on the primary data, which has been collected through the following instruments:

i) Questionnaire

The data has been collected by administering a structure schedule of questions. Two questionnaires have been designed. First questionnaire contains the information relating to the beneficiaries of the RRBs and the second pertains to the information of the bank officials of these banks.

ii) Interview

Additional data and some other information have been gathered with in-depth interviews with top executives, bank management committee members and other government officials, involved directly or indirectly with the Himachal Gramin Bank and Parvatiya Gramin Bank in the state. To achieve adequate accuracy, interviews of the borrowers and the bank officials have also been conducted at the time of gathering information through questionnaires, for the purpose of cross checking.

iii) Observation

Certain information has been collected through personal observations. There are some incomplete questionnaires, which give ambiguous information. Therefore, personal observation has been made to reveal the data.

B. Secondary Data

Certain data collected by different agencies for other than present purpose have also been used. This type of data has been collected from the following sources:

I) Annual Reports of both Himachal Gramin Bank and Parvatiya Gramin Bank for different years.


IV) Publications of Planning Department.
V) Publications of Rural Banking Division of the NABARD and the Ministry of Finance.
VIII) Publications of the NABARD and Reserve Bank of India.
IX) Census Report.
X) Department of Rural Development and Panchayati Raj.
XI) Existing literature and other scholarly work.

4.8 Tools of Analysis

The data collected from different sources has been classified and arranged in tables in one or more forms according to the requirements of analysis. For the analysis of results, the following techniques have been applied:

A. Mathematical Tools

B. Statistical Method

i) Weighted Arithmetic Mean
ii) Standard Deviation
iii) Co-efficient of Variation
iv) Co-efficient of Skewness
v) Kurtosis
vi) Chi-square Test
vii) Correlation
viii) T- test
ix) Regression Co-efficient
x) Analysis of Variance (ANOVA)
xi) Tabular Analysis
a) Compound Growth Rate
b) Ranking
c) Weighted Average

d) Overall Weighted Average

e) Deposits per Branch

f) Advances per Branch

g) Business per Branch

h) Income per Branch

i) Expenditure per Branch

j) Profit per Branch

C. Accounting Techniques

i) Trend Percentage Technique

ii) Ratio Analysis

D. Trend Equation

A. Mathematical Tools

In the present research work, mathematical tools viz. percentage and simple average have been used to analyse the collected data.

B. Statistical Method

Statistics is an imposing form of mathematics. It is the aggregate of facts affected to a marked extent by multiplicity of causes, numerically expressed, enumerated or estimated according to a reasonable standard of accuracy, collected in systematic manner for a predetermined purpose and place in relation to each other. In the present study following statistical methods have been used:

i) Weighted Arithmetic Mean

This tool has been used to find out the average of the opinion of the respondents, both borrowers and bank officials, regarding various aspects of rural development such as socio-economic development, level of income, employment generation, agricultural development, industrial development, etc. It is the most widely used method of average and can be found out by
dividing the weighted total by the total number of weight. It has been calculated by applying the following formula:

\[ \bar{X}_w = \frac{\sum WX}{\sum W} \]

Where
- \( \bar{X}_w \) = Weighted Arithmetic mean
- \( X \) = Variable values
- \( W \) = Weights attached to variable values

ii) Standard Deviation

It is the most important and widely used measure of studying dispersion. The standard deviation is also known as root mean square deviation for the reason that it is the square root of the mean of the squared deviation from the arithmetic mean. The standard deviation measures the absolute variability of distribution. The greater the standard deviation, the greater will be the magnitude of the deviations of the values from their arithmetic mean. A small standard deviation means a high degree of uniformity of the observation as well as homogeneity of the series or vice-versa. The standard deviation has been calculated as under:

\[ \sigma = \sqrt{\frac{\sum x^2}{N}} \]

Where
- \( \sigma \) = Symbol of standard deviation
- \( x \) = \((X - \bar{X})\)
- \( N \) = Number of observations

iii) Co-efficient of Variation (C.V.)

The co-efficient of Variation (C.V.) is a relative measure of dispersion. It is computed to compare the relative variations in different phenomenon. The least co-efficient of variation implies greater consistency and vice-versa. The co-efficient of vitiation is computed as follows:

\[ \text{C.V.} = \frac{\text{Standard Deviation}}{\text{Arithmetic Mean}} \times 100 \]
iv) Co-efficient of Skewness

The co-efficient of skewness, as a statistical tool, helps in the study of the degree and direction of variation from the centre value. It also shows that a particular distribution is positively or negatively skewed. This method is useful in studying the concentration of responses of the respondents either on the lower side or on the higher side of mean score with respect to their opinion on different statements. In the case of normal distribution, the value of skewness will be zero. The positive skewness is denoted by Mode <Median<Mean and in case of the negative skewness we find Mean<Median <Mode. It has been calculated with the help of following formula:

\[ SK_p = \frac{\bar{X} - Z}{\sigma} \]

Where

- \( SK_p \) = Karl person's co-efficient of skewness
- \( \bar{X} \) = Mean
- \( Z \) = Mode
- \( \sigma \) = Standard deviation

v) Kurtosis

In statistics, kurtosis refers to the degree of flatness or peakedness in the region about the mode of a frequency curve. The measurement of kurtosis tells us the extent to which a distribution is more peaked than the normal curve. It is called leptokurtic. If a curve is called flat-topped than the normal curve, it is called platykurtic. The normal itself is known as mesokurtic.

\[ \gamma_2 = \beta_2 - 3 \]

For a normal distribution \( \gamma_2 = 0 \)

If \( \gamma_2 \) is positive, the curve is leptokurtic, and

If \( \gamma_2 \) is negatives, the curve is platykurtic.
vi) Chi-square Test

In the present research work \( \chi^2 \) test is applied to study the relationship between quantities variables and for analysing the opinion of respondents regarding different factors.

\( \chi^2 \)-test of Independence

This test has been used to study the relationship between demographic variables of respondents and purpose of loan taken, recovery mechanism, etc. It describes the magnitude of differences between observed frequencies and expected frequencies under certain hypothesis.

\( \chi^2 \)-test of Goodness of fit

This test enables us to ascertain how appropriately the theoretical distribution such as Binomial, Poisson, Normal etc. fit into empirical distribution. It is used to know the impact of the RRBs' credit in the development of rural areas of the state. The static of \( \chi^2 \) is calculated as:

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

Where

\( \chi^2 \) = Chi-square
O = Observed frequencies
E = Expected frequencies

i) Calculate the expected frequencies (denote them E).

ii) Find out the differences between observed frequencies (denoted by O) and expected frequencies. In other words find \((O-E)\).

iii) Square up the various values of \((O-E)\) or find out \((O-E)^2\) and divide each value of \((O-E)^2\) by the respective value of E or the expected frequency. In other words find all values \((O-E)^2 / E\).

iv) The total of all the values of \((O-E)^2 / E\) i.e. \( \sum [(O-E)^2 / E] \) will be the value of \( \chi^2 \).
v) Compare the calculated value of $\chi^2$ with the independent value of chi-square (available in tables) for the desired level of significance.

vi) If the calculated value of $\chi^2$ is more than the relevant table values, the difference between observed and expected values is significant. If the calculated value of $\chi^2$ is less than the table value the difference between observed and expected frequencies is not significant and could have arisen due to fluctuations in sampling.

vii) Correlation Analysis

The co-efficient of correlation is a single number that tells us to what extent two things are related, to what extent the variation in the one go with the variation in the other. In the present study, Karl Pearson's Coefficient of Correlation has been used. This method is most widely used in practice and has been computed as:

$$r = \frac{\Sigma xy}{N\sigma_x\sigma_y}$$

In order to make easier computation of the above formula, it can be transformed to the following form:

$$rs = \frac{\Sigma xy}{\sqrt{\Sigma x^2 \times \Sigma y^2}}$$

Where

$rs$ = stands for spearman's coefficient of correction

$x = (X - \bar{X})$ and $y = (Y - \bar{Y})$

viii) T-Test $^5$

In order to compare the performance of Himachal Gramin Bank and Parvatiya Gramin Bank, t-test has been used. It is used to find out the significance of difference between the mean scores of two banks. It is a ratio between mean difference and standard error of mean difference.
The following formula has been used for computation of t-value:

\[ t = \frac{M_1 - M_2}{\sqrt{\frac{(Sd_1)^2}{N_1} + \frac{(Sd_2)^2}{N_2}}} \]

Where

- \( M_1 \) = Mean of first group
- \( M_2 \) = Mean of Second group
- \( N_1 \) = Number of data points in first group
- \( N_2 \) = Number of data points in second group
- \( SD_1 \) = Standard Deviation of the first group
- \( SD_2 \) = Standard Deviation of the second group

The significance of t-test is found with the help of a table of 't' values, which indicates the critical value of 't' ratio necessary to reject the hypothesis at the selected level of significance with a particular df (degree of freedom).

**ix) Regression Co-efficient**

Regression is the determination of a statistical relationship between two or more variables. In simple regression of only two variables, one variable is the cause of the behavior of another one. Regression can only interpret what exists physically. The basic relationship between \( X \) and \( Y \) is given by

\[ Y = a + bx \]

Where

- \( y \) = estimated value of \( y \) for a given value of \( X \).
- \( \Sigma yi = na + b\Sigma xi \)
- \( \Sigma xiyi = a\Sigma xi + b\Sigma xi^2 \)

By solving these equations for finding \( a \) and \( b \) values. Once these values are obtained and have been put in the equation \( y = a + bx \). In the similar fashion, we can develop the regression equation of \( X \) on \( y \) i.e. \( X = a + by \), presuming \( Y \) as an independent variable and \( X \) as dependent variable.
As there exists two regression equations, there are also two regression coefficients. The regression coefficients refer to the business measurement of slopes of the regression line. The regression coefficients shows what is the average change in one unit due to change in the second unit. The regression coefficients can be calculated as under:

a) Regression Co-efficient of X on Y

\[ b_{xy} = \frac{r_{xy}}{\sigma_y^2} \]

b) Regression Co-efficient of Y on X

\[ b_{yx} = \frac{r_{yx}}{\sigma_x^2} \]

xi) Analysis of Variance (ANOVA)

The one-way analysis of variance for independent samples is the most commonly used techniques for examining the difference between two or more group means. It involves testing the difference between means of random samples taken from the populations of specific interest. The total variance in the independent sample, randomized design can be partitioned into:

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F_1</td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>\ldots</td>
<td></td>
</tr>
<tr>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>(F_1)</td>
</tr>
</tbody>
</table>

Steps of ANOVA

1. Correction Factor (C.F.) = \[ \frac{GT^2}{N} \left( \frac{N = No. of Factors X}{No. of Respondents} \right) \]

2. Total Sum of Squares = \[ \Sigma x_i^2 - C.F. \] (\( \Sigma x_i^2 \) is the sum of squares of all the observations)

3. Factors sum of squares = \[ \left( \frac{(F_1)^2}{n_1} + \frac{(F_2)^2}{n_2} + \ldots + \frac{(F_n)^2}{n_n} \right) \] - C.F.

\( n_1, n_2, n_n = No. of respondents \)
4. Error sum of squares = Total sum of squares - Factor sum of squares

ANOVA Table

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>d.f.</th>
<th>S.S.</th>
<th>M.S.S.</th>
<th>F-Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factors</td>
<td>No. of Factors - 1</td>
<td>(3)</td>
<td>(3)/d.f. = A</td>
<td>A/B</td>
</tr>
<tr>
<td>Error</td>
<td>N - No. of factors</td>
<td>(4)</td>
<td>(4)/d.f. = B</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>N - 1</td>
<td>(2)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

xi) Tabular Analysis

In tabular analysis, percentages are calculated to draw the inferences. It is very scientific and perfect analysis. In the present study, it was used to support the inferences drawn from the above statistical analysis because non-parametric analysis is not as useful as parametric test.

a) Compound Growth Rate

While calculating the compound growth rate, the following equation has been used:

\[ A_n = A_0 \left(1 + \frac{r}{100}\right)^n \]

Where

- \( A_n \) = The figure of \( n^{th} \) year
- \( A_0 \) = The figure of base year
- \( n \) = The number of year
- \( r \) = Rate of growth

b) Ranking

The checklist of the possible reasons was prepared in the form of multiple choice questions. The aggregate of responses was taken & then ranked to find out which is the most important reason/factor.
c) **Weighted Average**

It is a unique technique in itself. In this technique, all the responses are considered and multiplied by reverse counting, & then divided by the total number of responses.

d) **Overall Weighted Average**

This technique is derived from the weighted average. Here, the sum of weighted average is taken & then divided by the number of counting.

e) **Deposits per Branch**

Deposit per branch measures the efficiency of the branch in relation to the deposits of the bank. The higher is the ratio the better is the performance of the banks in a year or over the years. It is calculated as:

\[
DPB = \frac{\text{Total Deposits}}{\text{No. of Branches}}
\]

f) **Advances per Branch**

The efficiency of deposit mobilization should be matched with the corresponding efficiency in credit disbursement so that the resource of the bank may remain un-utilized. The efficiency of the bank can be judged with the advances per branch. The more is the ratio the better is the performance of the bank. This ratio is calculated as:

\[
APB = \frac{\text{Total Advances}}{\text{No. of Branches}}
\]

g) **Business per Branch**

Total business means a sum of total deposits and credit in a year. Business per branch is the ratio between total business to total number of branches. It is computed as follow:

\[
BPB = \frac{\text{Total Business}}{\text{No. of Branches}}
\]

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h) Income per Branch

It is an important performance indicator of the bank. Income per branch measures the efficiency of a bank. It is worked out as under:

\[ IPB = \frac{\text{Total Income}}{\text{No. of Branches}} \]

i) Expenditure per Branch

Less ratio of expenditure per branch is always better performance indicator for a bank. The lesser is the ratio the better is the performance of the bank. It is obtained as below:

\[ EPB = \frac{\text{Total Expenditure}}{\text{No. of Branches}} \]

j) Profit per Branch

Profit per branch is the ratio of total profits of a bank to total number of branches of the same bank. It is calculated as below:

\[ PPB = \frac{\text{Total Profit}}{\text{No. of Branches}} \]

C. Accounting Techniques

In order to study the short-term and long-term financial performance of the Regional Rural Banks, various accounting techniques have been used:

i) Trend Percentages

Financial statements may be analyzed by determining and studying the trends of the data shown in the statements. This method of analysis is one of the direct computation of percentage relationship that each statement item bears to the same item in the base year, which may be the earliest intervening year. It is also known as trend ratios. These percentages may be thought of as index number showing relative changes in the financial data resulting with the passage of time.
Computation of Trend Percentage

a) A statement is taken as the base with reference to which all other statements are to be studied.

b) Every item is to be stated as 100 in the statement, which is taken as the base.

c) If the amount of an item in another statement is less than that in the base statement, trend percentage will be below 100 and if it is more than that of the base statement, then the trend percentage will be above 100.

d) The trend ratio can be computed by dividing each amount in the statement with the corresponding item in the statement taken as the base.

ii) Ratio Analysis

The ratio analysis is one of the most useful and common methods of analyzing financial statements. In order to study the profitability, short-term and long-term financial solvency of the Regional Rural Banks in Himachal Pradesh, different types of ratios have been applied:

a) Current Ratio

This ratio measures the degree of liquidity of the bank in the short-term. It indicates whether the current assets are sufficient to repay the current liabilities. It is worked out as:

\[ \text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} \]

The current assets included for a bank are cash-in-hand and with the Reserve Bank of India, balance with other banks (in current account) money at call and short notice, short-term advances, bills receivable and prepaid expenses. The current liabilities includes interest on deposits (savings and current accounts), borrowings and bills payable. The current ratio is regarded
as an important barometer of the liquidity position of an institution. Generally current ratio of 2:1 is considered satisfactory.

b) Acid Test Ratio

This ratio is called quick ratio or near money ratio. This represents the ratio between quick assets and quick liabilities and it is computed as follow:

\[
\text{Acid Test Ratio} = \frac{\text{Quick Assets}}{\text{Current Liabilities}}
\]

The quick assets include cash-in-hand, cash-at-bank and short-term deposits whereas quick liabilities include bills payable, interest accrued, other provisions and interest paid. The ratio indicates the extent to which the capital is financing the current assets which carries a low degree of liquidity.

c) Credit Deposit Ratio

Since this ratio depicts the efficiency of a bank, higher credit deposit ratio signifies better employment of resources of the banks and vice-versa. This ratio is measured as:

\[
\text{CDR} = \frac{\text{Advances outstanding}}{\text{Deposits outstanding}} \times 100
\]

d) Debt-Equity Ratio (Leverage)

This ratio compares the owner's stake in the business with outside term liabilities. This ratio is also called leverage. The lower value of the ratio indicates that the leverage effect will be restricted to the minor role of debt and the major capital being equity, the bank is supposed to be trading on thick equity and when the ratio is high, it signifies dominant leverage effect and the major capital being the borrowed capital. The equity capital plays a minor role indicating a thin equity on which the bank is functioning. It is calculated as:

\[
\text{Debt-Equity Ratio} = \frac{\text{Long-term liabilities/ Debt}}{\text{Net Worth/ Equity}}
\]
In this ratio, debt represents only long-term liabilities and not current liabilities, while equity refers to net worth after deducting intangible assets. The net worth includes statutory reserves, capital reserves, revenue and other reserves and share capital.

**e) Proprietary Ratio**

This ratio is also known as net worth to total asset ratio. This ratio indicates the relationship between shareholder funds and total assets of the bank. This ratio is calculated as under:

$$\text{Proprietary Ratio} = \frac{\text{Shareholder Funds}}{\text{Total Assets}} \times 100$$

**f) Return on Equity**

The return on equity of a bank measures the ability of the bank to generate adequate returns. The ratio of net profit to net worth shows whether profitability is being maintained. It has been obtained as below:

$$\text{Return on Equity} = \frac{\text{Net Profit}}{\text{Net Worth}} \times 100$$

**g) Net Profit ratio**

Higher profit is a good indicator in relation to advances. This ratio of profit to total advances is calculated as:

$$\text{Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Total Advances}} \times 100$$

**D) Trend Equation**

In order to make future projections of different parameters, trend equations have worked out by using the following formal in its algebraic form as:

$$Y = a + bt$$
Where

\[
\begin{align*}
    y &= \text{a parameter to be projected} \\
    q &= \text{constant term} \\
    t &= \text{time variable} \\
    b &= \text{regression coefficient of time}
\end{align*}
\]

4.9 Significance of the Study

The Regional Rural Banks are playing a commendable role in the socio-economic upliftment of the rural people in the State. The Regional Rural Banks are also facing some acute problems hampering the progress of development of the rural economy. The present study is unique in itself and has never been conducted up till now. It has a great relevance to present day problem of rural credit. The study will be helpful in enhancing the development of the rural sector, generating employment, developing the infrastructure and making the state self-reliant. It will act as a path-breaker for more rapid growth of the rural economy in the state through a new look of the RRBs in them. The study will come out with specific recommendations for strengthening the rural economy in Himachal Pradesh on sound lines. The study may further prove very helpful to the banking institutions in policy formulation and their proper implementation.

4.10 Limitations of the Study

To know the extent of reliability of the study, it is important to state the limitations under which it has been conducted. The main limitations of the present study are:

1. The study is restricted to a period of ten years only i.e. 1999-2000 to 2008-2009.

2. The study is confined only to three districts of Himachal Pradesh.
3. The selection of 300 borrowers may not be an adequate representation of the rural area, especially when the sample works out a very small percentage of the total number of population. However, all the precautions have been taken to overcome this deficiency by including all types of respondents through different parts of the study.

4. Some of the borrowers during the investigation have been found reluctant to disclose the necessary information.

5. The scope of the study has been kept limited due to scarcity of finance and resources.

6. The respondents have also been found hesitant to supply the information and have sometimes expressed their inability to fill the questionnaire due to the paucity of time, language barrier and non-cooperative nature.

7. Ambiguous, incorrect and inadequate information through incomplete responses in the questionnaires could not be avoided.

8. The data of the study has been collected from the borrowers of the rural areas, who are mostly illiterate. Though sufficient care has been taken during the analysis by way of incorporating adequate cross checking through interview schedule, it cannot be said that their reporting is completely correct.

9. The study is not free from certain in-built biases. However, the present researcher has taken care while collecting and processing the data.
References


