Chapter-III
RESEARCH METHODOLOGY

Research is a powerful investigation, in fact an art of scientific investigation. Research in a common parlance, refers to a search for knowledge. It can also be defined as a scientific and systematic search for pertinent information on a specific topic. According to Kerlinger (1978), research is a systematic, controlled, empirical and critical investigation of hypothetical propositions about the presumed relations among behavioural phenomena. Slessinger and Stevenson (1930) have defined research in social settings as a systematic method of exploring, analyzing and conceptualizing a social phenomenon in order to extend, correct or verify knowledge, whether it aids in the construction of a theory or in the practice of an art. Redman and Mory (1923) have viewed research as “systematized effort to gain new knowledge”. The Advanced Learner’s Dictionary of Current English, Oxford (1952) lays down the meaning of research as “a careful investigation or inquiry specially through search for new facts in any branch of knowledge.

Research is, thus an original contribution to the existing of knowledge making for its advancement. It is the pursuit of truth with the help of study, observation, comparison and experiment.

3.1 KINDS OF RESEARCH

3.1.1 Descriptive Vs. Analytical Research: Descriptive research includes surveys and fact-finding enquiries of different kinds. The major purpose of descriptive research is description of the state of affairs, as it exists at present. Ex post facto term is often used for such studies in
social sciences and business research. The researcher has no control over the variables since he has to report on what has happened or what is happening. The methods of research utilized in descriptive research are survey methods of all kinds, including comparative and co-relational methods.

In analytical research, the researcher has to use facts or information already available, and analyze these to make a critical evaluation of the material.

3.1.2 **Applied Vs. Fundamental Research:** Research can either be applied (or action) research or fundamental (or basic or pure) research. *Applied research* aims at finding a solution for an immediate problem facing a society or an industrial/business organization whereas *fundamental research* is mainly concerned with generalizations and with the formulation of a theory. Research studies, concerning human behaviour carried on with a view to make generalizations about human behaviour are examples of fundamental research, but research facing a concrete conclusions (say, a solution) facing a concrete social or business problem is an example of applied research.

3.1.3 **Quantitative Vs. Qualitative Research:** Quantitative research is based on the measurement of quantity or amount. It is applicable to phenomena that can be expressed in terms of quantity, Qualitative research on the other hand, is concerned with qualitative phenomena, i.e. phenomena relating to or involving quality or kind.

3.1.4 **Conceptual Vs. Empirical Research:** Conceptual research is that related to some abstract idea(s) or theory. It is generally based by philosophers and thinkers to develop new concepts or to interpret
existing ones. On the other hand, empirical research relies on experience or observation alone, often without due regard for system and theory. It is data based research, coming up with conclusions, which are capable of being verified, by observation or experiment. It is also known as experiment type of research.

3.2 SAMPLE DESIGN

A sampling is a technique by which we select out measurement unit and in research it has a great value. It is the backbone of research experiment. If we have proper sample we have certainly good results. When a small group selected as representative of the population is contacted it is known as sampling method.

When a small group (technically known as 'sample') is drawn out of the entire population and this sample is studied in order to know the opinion of the citizens, then the study is following the sampling method of data collection. The findings derived out of the study of the sample are then regarded to be equally true for population. How far this is justified depends how the sample was drawn out of the population. How far this is justified depends how the sample was drawn out of the population. The sampling methods can be classified under two categories:

1. **Probability Sampling**: Probability samples use some kind of randomization in one or more of their phases. In probability sampling each unit of the population has equal chances of being selected in the sample.
2. **Non-probability Sampling**: Non-probability samples do not use randomization. In case of the non-probability sampling neither each unit has equal chances nor the chances of its being included in the sample are known.
3.2.1 **Major forms of probability sampling are:**

1. Simple random sampling
2. Stratified random sampling
3. Various types of cluster sampling

3.2.2 **Major forms of non-probability sampling are:**

1. Accidental sampling
2. Quota sampling
3. Purposive sampling

The results of the study are based on a sample of 850 employees consisting of managers, clerks of different categories (Scheduled Caste/Scheduled Tribes, Other Backward Classes, Women, Physically Handicapped, Ex-serviceman, General) of 17 nationalized banks (Central Bank, Punjab National Bank, State Bank of India, Oriental Bank of Commerce, Indian Overseas Bank, Bank of India, Union Bank of India, Punjab and Sind Bank, Bank of Baroda, State Bank of Patiala, Canara Bank, Vijaya Bank, Indian Bank, Syndicate Bank, Dena Bank, Corporation Bank, Allahabad Bank) were taken. All these banks were located in northern India. 850 respondents were selected from each category by resorting to stratified random sampling. Fifty managers, 50 trade union leader, 100 scheduled castes and scheduled tribes, 100 other backward classes, 100 physically handicapped, 100 ex-servicemen, 100 women and 250 general category respondents were selected. Hundred each of Scheduled Castes and Scheduled Tribes, Other Backward Classes, Women, Ex-servicemen, Physically Handicapped employees which included Managers and Clerks. As per the focus of study,
### Table: 3.1 Composition of Sample

<table>
<thead>
<tr>
<th>S. No</th>
<th>Banks</th>
<th>Managers</th>
<th>Trade Union Leaders</th>
<th>General</th>
<th>P.H</th>
<th>OBC</th>
<th>Ex.</th>
<th>Women</th>
<th>SC/ST</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Allahabad Bank</td>
<td>1</td>
<td>1</td>
<td>15</td>
<td>2</td>
<td>7</td>
<td>3</td>
<td>2</td>
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<td>2</td>
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<td>1</td>
<td>1</td>
<td>8</td>
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<td>2</td>
<td>6</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Bank of India</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>7</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Canara Bank</td>
<td>3</td>
<td>3</td>
<td>9</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Central Bank of India</td>
<td>7</td>
<td>8</td>
<td>32</td>
<td>12</td>
<td>8</td>
<td>6</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Corporation Bank</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>-</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Dena Bank</td>
<td>1</td>
<td>1</td>
<td>15</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Indian Bank</td>
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<td>1</td>
<td>26</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>-</td>
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<tr>
<td>9</td>
<td>Indian Overseas Bank</td>
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<td>1</td>
<td>18</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
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<tr>
<td>10</td>
<td>Oriental Bank of Commerce</td>
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<td>8</td>
<td>30</td>
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<td>16</td>
<td>20</td>
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<tr>
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<td>Punjab and Sind Bank</td>
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<td>13</td>
<td>6</td>
<td>8</td>
<td>2</td>
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<tr>
<td>12</td>
<td>Punjab National Bank</td>
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<td>11</td>
<td>23</td>
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<td>22</td>
<td>16</td>
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<td>Syndicate Bank</td>
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<td>1</td>
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<td>4</td>
<td>2</td>
<td>7</td>
<td></td>
</tr>
<tr>
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<td>3</td>
<td>1</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Vijaya Bank</td>
<td>2</td>
<td>1</td>
<td>10</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>State Bank of India</td>
<td>6</td>
<td>6</td>
<td>20</td>
<td>14</td>
<td>20</td>
<td>13</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>State Bank of Patiala</td>
<td>2</td>
<td>1</td>
<td>7</td>
<td>-</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>50</strong></td>
<td><strong>50</strong></td>
<td><strong>250</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>
information were obtained from five categories of employees i.e. Scheduled Caste/Scheduled Tribes, Other Backward Classes, Women, Physically Handicapped, Ex-serviceman, General. Since the sample being heterogeneous group of employees, that in non-overlapping strata and sampled respondents were selected from each stratum randomly.

**Table: 3.2**

**Frequency Distribution of the Respondents According to Their Category**

<table>
<thead>
<tr>
<th>SC/ST</th>
<th>OBC</th>
<th>Women</th>
<th>PH</th>
<th>Ex-SM</th>
<th>General</th>
<th>Trade Union</th>
<th>Managers</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>250</td>
<td>50</td>
<td>50</td>
</tr>
</tbody>
</table>

**Pie Chart of the Respondents**

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### 3.3 METHODOLOGY AND TOOLS EMPLOYED

The data for the present study was obtained by the administration of questionnaires because it was felt that it could be possible to collect data from larger and rather heterogeneous sample. The questionnaires
were distributed individually to the employees in each bank. A copy of each of the questionnaires is reproduced in the appendix. The participants were assured that these responses are to be used solely for research purposes. Each employee was assured that his responses would be confidential.

First set of questionnaire (christened as ‘A’ form) was served to the managers. This set of questionnaire contains both open ended and structured questions relating to the recruitment, advancement and retention practices, and competence level. All the managers were contacted personally during office hours. The purpose of the study was explained to them in a brief manner. Managers took 7 days to 15 days for completing the questionnaire.

Trade union leaders were given the second set of the questionnaire (christened as ‘B’ form), which contained the employees’ participation in trade union activities, and response of trade unions toward workforce diversity. With the prior permission of the managers/senior managers they were contacted personally during the office hours. But sometime they were also contacted after lunch time or after 5 PM because in morning they had very busy schedule. The purpose of the study was explained to them in a brief manner and few personal questions like (name, age etc.) were asked for establishing rapport. Then they were assured regarding the confidentiality of their responses. They returned the filled-in questionnaires within 10 to 30 days.

Third set of questionnaire (christened as ‘C’ form) was given to the general category employees for evaluating the organizational
responses towards different categories of employees i.e. (Schedule Castes/Scheduled Tribes, Other Backward Classes, Ex-servicemen, Women, Physically Handicapped). The purpose of the study was also explained to them in a brief manner and a rapport was established. They were also contacted personally and if any employee felt difficulty at any stage in filling up the questionnaire that was removed.

Fourth set of questionnaire (christened as ‘D’ form) was distributed among the different categories of employees i.e. (Schedule Castes/Scheduled Tribes, Other Backward Classes, Ex-servicemen, Women, Physically Handicapped). To know the coping strategies, job involvement and empowerment of employees. This set also include career development and career orientation questionnaire. With the prior permission of the manager/senior manager they also contacted personally. And if any employee felt difficulty at any stage in filling up the questionnaire, that was removed. Subjects were asked to fill up questionnaire as per instructions given on them. Further, subjects were impressed upon that their participation would help in scientific understanding of the organization and it's functioning.

3.4 RESEARCH INSTRUMENTS

Four sets of questionnaire, which include 20 research instruments, were constructed for collecting the data relating to the managing workforce diversity in public sector banks.

3.4.1 Recruitment, Advancement and Retention Practices Questionnaire

These three instruments were constructed to know the advancement, recruitment and retention practices being followed in
Indian banking industry for the different categories of employees. Advancement questionnaire contained 10 questions, mostly open ended, to know what are the relaxations given to the diverse group of employees for their advancement. 12 questions were framed to know the recruitment practices being followed in Indian banking sector for the diverse group of employees.

Retention practices questionnaire contained two sections. In section one there were two questions and the respondents (Managers) were asked to mark whether there is adequate supply, abundant supply or scarce supply of the current availability, a skilled manpower and about turnover retention efforts for the different categories of the employees.

In section two respondents were asked to rank the various retention tools, which are utilized, in Banks. They were asked to rank them according to their effectiveness from high to low i.e. 5 to 1. And they were also asked to do overall ranking of all the given retention tools.

3.4.2 Competence Level Questionnaire

This questionnaire was designed for measuring the competence level of diverse group of employees. It contained 28 statements and the 5 options were given i.e. Quite True, True, Doubtful, False, Quite False. The managers were requested to study each statement carefully and decide whether a particular statement presented a 'Quite True', 'True', 'Doubtful', 'False' or 'Quite False' picture of the employee and put the number of their choice (as assigned to the various responses viz. Quite
True – 5, True – 4, Doubtful – 3, False – 2, Quite False – 1). Same questionnaire was used for different categories of employees.

3.4.3 Organizational Responses Questionnaire

Five different questionnaires were constructed for the different categories i.e. Schedule Castes/Scheduled Tribes, Other Backward Classes, Ex-serviceman, Women, Physically Handicapped. General category male employees were asked to mark whether they strongly agree, agree, neutral, disagree, strongly disagree with the statements. Questionnaire for physically handicapped employees contained 20 questions, 15 questions were framed for SC/ST employees, 19 questions for OBC, 22 questions for women and 12 questions for ex-serviceman employees. All the five questionnaire contained close ended questionnaire.

3.4.4 Coping Strategies Questionnaire

Five different questionnaires were designed for the coping strategies resorted to by the different categories of employees when they feel discriminated in their jobs. Employees were asked to mark whether they strongly agree, agree, neutral, disagree, strongly disagree with the statements, 10 questions were framed for women employees questionnaire, 10 for scheduled caste/scheduled tribes, 11 for physically handicapped, 7 for ex-servicemen, and 9 for other backward classes employees.

3.4.5 Job Involvement Questionnaire

This questionnaire contained 20 statements and the employees were given 4 options – strongly agree, agree, disagree, and strongly disagree. They were asked to indicate their response by selecting any
one of these option. This questionnaire was basically the same as Lodhal and Kejner's (1965) questionnaire with some modification to suit this study.

3.4.6 Empowerment Questionnaire

This questionnaire contained 12 statements for getting an idea of the degree of empowerment experienced by the employees. The employees were asked whether they strongly agree, agree, neutral, disagree or strongly disagree with the statement. This questionnaire is designed with the help of questions used in R.S. Dwivedi study, “Empowerment in Organizations: A Study of Indian and Filipino Senior Executives”

3.4.7 Career Development Questionnaire

This questionnaire was constructed for collecting the data about the career development of employees. 9 questions were framed for getting the information. Employees were asked to mark whether they strongly agree, agree, neutral, disagree and strongly disagree with the statements.

3.4.8 Career Orientation Questionnaire

This questionnaire was designed to understand the career orientation of bank employees belonging to diverse groups. This questionnaire contained 12 questions, which are open ended and structured.

3.4.9 Trade Union Questionnaire

Two questionnaire were designed for trade union leaders. One, to know the participation of different categories in union activities. Second one to know the response of trade unions towards workforce diversity.
First questionnaire contained 21 questions and respondents were asked to mark whether the participation of different categories i.e. (Schedule Castes/ Scheduled Tribes, Other Backward Classes, Ex-serviceman, Women, Physically Handicapped) is high, moderate, low or nil. This questionnaire was basically same as used by Sanjay Modi, K.C. Singhal and Umesh C. Singh in their study, “Worker’s Participation in Trade Union” Second questionnaire contained 6 questions and it was decided to use both open-ended as well as structured questions to elicit information.

3.5 STATISTICAL TOOLS AND TECHNIQUES USED IN THE PRESENT STUDY

Present study was designed as a mix of descriptive and exploratory methods of research. The diagnostic method, wherever required and found suitable to reach to some conclusion from the present social but a problem, has been used. The study was designed with a view to make more precise investigation developing certain hypothesis and testing them for their authenticity covering different aspects of problem. The study of existing literature was reviewed, evaluated and new hypothesis formulated for testing. The collected data has thoroughly been examined for completeness, comprehensively, consistency and reliability. Mean, Standard Deviation were applied to analyze the data and to ascertain the ranking of different variables. Apart from presenting the data in tabular, pie chart, histogram, bar diagram etc. were prepared to present the data analysed in more meaning manner.