Chapter III
Research Methodology
Both social work and human resource management deal with human beings. The psycho-social problems, relationship, preferences, expectations and needs, psychological and social strengths and weaknesses etc. are considered in the domain of practice for both the professions. These elements are qualitative in nature and had hardly a scope for quantifying. Therefore, the researcher decided to adopt qualitative research methodology for the study.

3.1. Objectives of the study:

The research has been designed to achieve the following objectives,

- To find out the areas of Social Work intervention in Industrial set up to ensure effective Human Resource Management.

- To explore and establish the best possible practice of Social Work methods, techniques and tools in Industries for effective Human Resource Management.

- To identify the gap between existing HRM strategy implementation and actual needs of the employees in industrial establishments.

- To suggest the measures for application of Social work methods for effective HRM

3.2. Operational Definitions:

**Human Resource:** Human Resource refers to the individuals within an organization engaged to perform specific tasks or jobs assigned to them for the purpose of achievement of objectives and goals of the organization.

**Human Resource Management:** Human Resource Management is the process, to recognize and channelize the uniqueness, talents, potentials, capabilities and strengths of human beings engaged in any work place, towards developing their productivity as well as to ensure protection of their rights and social security and ensure justice for them. Human resource management includes the processes of employment, development and well-being of the people working in the organization.
**Social Work Intervention:** Social work intervention refers to the practice of Social Work aimed into assist individuals/groups/communities to identify their problems arising out of disequilibrium between themselves and their environment and to increase their capacities for problem solving and coping by utilize their internal and surrounding resources.

**Study:** It is a process that involves a scientific method to explore new ideas, thoughts, concepts etc. about a particular subject or phenomena and to contribute the same into the existing sphere of knowledge of that particular subject or phenomena to strengthen their theoretical foundation and the base of practice.

**Industry:** It is an establishment engaged in economic or business activities concerned with manufacturing or production of goods or rendering services.

**Inter-personal relationship:** It is a rigorous association or acquaintance between two or more people formed in context of social, cultural and other influences based on their interface, love, solidarity, regular business interactions or some other type of social commitment.

**Group:** A group is collection of individuals with regular or frequent contacts, interactions, mutual influence and common feelings and who work together with an aim to achieve a common set of goals.

**Work Group:** It is a group of workers of same workplace or organization who are organized together to work on a particular task and achieve the concerned objectives of that workplace or organization.

**Motivation:** It is the reason behind people’s choosing or repeating a particular action or having a desire to fulfill a particular need.

**Personal Development:** It is the conscious pursuit of personal growth by increasing self awareness level and self knowledge and to improve personal qualities and skills for relationship
building, caring to loved ones, friendship building, personality development, conscience building, betterment in thoughts, self analysis etc.

**Professional Development:** It is a process of improving the professional skills, knowledge, and capabilities of staff of an organization during their job tenure through arrangement of training and education opportunities at workplace or in outside training institutes or through involving them with professional or work groups within the organization so that such group influence may be helpful to them to increase their professional qualities.

**Human Rights:** These are the rights which are inherent to all human beings for their free and fearless survival and living, irrespective sex, cast & class, religion, skin colour, nationality, socio-economic status, place of residence, language, physical abilities etc. These rights include right for freedom, justice, civil and political rights, cultural rights, rights against discrimination, rights for education, freedom of expression, rights for healthy and hygienic living, economic and financial rights (without harming others’ opportunity to earn) etc.

**Work-life:** Work-life is the practice of providing initiatives designed to create a more flexible and supportive work environment for the workers in which they can focus on their tasks more positively and perform their job more productively.

**Social Case Work:** It is one of the methods of social work which seeks to help individuals through a helping relationship towards explore and utilize their internal and external resources for solving their problems that are emerged due to dysfunctions of factors in their surrounding social environment.

**Social Group Work:** It is one of the methods of social work which intervenes with the problems and needs of individuals by ensuring their voluntary association with homogeneous social groups formed by members with similar social problems or needs.
Social Welfare Administration: It is a method of macro level practice of social work which corroborates the process of welfare of people through planning, organizing, co-ordinating, deploying, strengthening of resources required for the welfare.

Corporate Social Responsibility: It is the initiative from the part of a corporate or business institution towards taking responsibility to ensure social and environmental sustainability. It includes incurring costs that do not bring direct or immediate financial benefits to the business but establish business/corporate leadership in the socio-political sphere by ensuring social and environmental development and sustainability.

Social Security Measures: It refers to the measures that are taken by the employing organization as per country’s law or socially accepted values to promote welfare of its employees by guaranteeing both financial and non-financial resources to them.

Counselling: It is a process of assisting persons with psycho-social problems through establishing a helping relationship with them which can enable them to explore the options available for solving their problems. Clients under counseling must come to the professionals voluntarily seeking solutions for their problems and the professional must be completely non-judgmental to them.

3.3. Research Design: An exploratory research design is used where a little is known about phenomena and the researcher needs to explore more specific and well defined conclusion about the fact so that it can form the base for more specific and systematic study about the subject in future. The goals of the exploratory research are

- To become more familiar with the basic facts, people and concerns involved
- To develop a well grounded mental picture of what is occurring
- To generate many ideas and develop tentative theories and conjectures
- To determine the feasibility of doing additional research
- To formulate questions and refine issues for more systematic inquiry
- To develop techniques and a sense of direction for future research
In this case the literatures reviewed for the research indicated that there were scopes for social work intervention in human resource management but the way how social work was related with HRM was not well defined. The philosophical foundation, methods, tools etc. related to social work; which could possibly be used to ensure effective management of human resources were not well explained throughout these literatures. On the other hand the discussions over the possible areas of HRM in which social work could intervene were found a little out there. In this case the researcher was required to know more specifically how social work can intervene to ensure a better HRM in an organization. The objectives of the research were designed to identify basic facts about the areas of HRM where social work could frequently intervene as well as to identify the tools, techniques and methods of social work which could have best possibilities to be used for better management of human resources of the selected industry/s. The objective to identify gaps between existing HRM strategy implementation and actual needs of the employees in industrial establishments was focused into generate a greater picture of the loopholes in the present practicing domain of HRM. Lastly the objective for suggesting the measures for application of Social work methods for effective HRM was implanted to formulate the base of future research in this field. The researcher therefore, adapted an exploratory research design for his research.

### 3.4. Selection of Industries:

On the basis of amount of capital investment, numbers of man power involved and scale of production industries can be classified into four basic categories i.e. Large Scale industries, Medium Scale industries, Small Scale industries and Micro industries.

Large scale industries are those industries which involve huge infrastructure, man power and a heavy flow of capital investment. The term 'large scale industries' is a generic one which includes various types of industries in its purview. All the heavy industries of India like mines, iron and steel industries, textile industries, automobile manufacturing industries come under the large scale industrial arena. In recent past due to the boom in Information Technology and the huge amount of revenue generated by it the IT industry it has also been included within the large scale industrial sector. Indian economy is largely depended on these large scale industries for its economic growth, generation of foreign currency and for providing job opportunities to millions of Indians.
A medium scale industry in production sector is such an industry where the investment in plant and machinery is more than five crore rupees but does not exceed ten crore rupees. In case of Service sectors an industry under medium scale must have an investment of more than two crore rupees which should not exceed five crores. As per the standard of European Union a medium scale industry must have a number of employees not less than 50 but not more than 250.

In case of small scale production or manufacturing sectors the capital investment must be more than rupees twenty five lakhs but should not exceed five crore rupees. In case of service sectors under the same category the investment of financial capital must be more than ten lakh rupees but should not exceed rupees two crores. According to European Union (EU) a small scale enterprise must have more than 10 workers but not more than 50 workers.

A micro industry engaged in production and manufacturing activities must have an investment of financial capital not exceeding rupees twenty five lakhs and in case of service sectors it must not cross rupees ten lakhs. As per EU the maximum number of workers in a micro industry must not exceed 10 employees.

Among all the four categories of industry maximum Human Resources are involved in Large Scale sectors. Among all the large scale industries, the extraction industries, production or manufacturing industries and construction industries create an opportunity for workforce involved in agriculture and semi-skilled unemployed population to get engaged into the production process as major workforce.

For a scientific conclusion of the study the researcher needed such industries which had maximum human resource involved as well as scope for employment of unskilled or semi skilled people who are larger part of the total working population in India as well as in West Bengal. Hence, the researcher initially decided to limit his study within the large scale manufacturing/production and extraction industries in West Bengal.

In addition to this, the researcher required such industries which had well defined HR policies for recruitment, welfare, development and motivation of workers. Regarding this he found that the large scale industries under both public and private sectors had well defined HR policies, visions, philosophies and objectives which were reflected in their annual reports. For such reasons the researcher decided to use the annual reports and other related documents of the selected
industries to get a clear understanding of the philosophical outlooks of such industries regarding their HRM practice.

Among all the extraction industries, production or manufacturing industries and construction industries it was found that in case of coal mines (Extraction Industry) the workers required to work underground mines during their working shifts for at least 8 hours. Their situation was worst than other production and manufacturing units. Working underground mines for such long duration could lead to physical and mental stress for the workers as it was an anti-natural set up. Absence of sufficient lights, proper toilet facilities and refreshment opportunities, lack of ventilation, absence of descent resting place underground mines created miserable work life for mining workers. Job of the workers underground mines was one of the most risk taking occupations. Over the years, many fatal accidents had been occurred in mines which led to loss of life. Since the beginning the miners had been facing many dangers during their job underground mines over the years. One of the most common of all underground mining accidents are cave-ins which may occur when the walls and ceilings of underground mines were not properly secured after cutting and separating of coals and minerals. Too deep excavation may also lead to cave-ins as cracks could occur in the floor and walls of the mines for the same. Unplanned drill and blasting activities could also cause cave-ins if exclusion zones were not correctly mapped and evacuated.

Gas explosions could often occur in coal mines from a build-up of methane gas. Ventilation system of the underground mines are often found poor which led to gas forming which might cause even death of the miners. Evidence of such accidents and deaths due to gas explosions had been found in abundance in the history of Indian coal mines.

Mining equipments are generally found large, heavy and moving at speed. Many autonomous and man operated machines are found there which may put the workers underground in great danger of being crushed, pinned or run over by equipment if a slight mistake was made. If such machines get out of control, the workers nearby may have a little chance to run away as the underground mines often have narrow tunnels and places adverse to move freely.
Chemicals are frequently used in mines to transform the ores from their natural state into usable products. Accidents may occur if the chemicals were not securely stored and if miners do not follow safety procedures correctly. Miners using chemicals must also have adequate ventilation but in case of underground mines the adequate ventilation facility is found missing which often lead to the risk of inhaling dangerous fumes and dust by the miners and causing of long-term physical damage for them.

Underground mines the use of heavy electrical equipment such as drill machines; industrial machines and lighting are always required. As often the mining environment is damp therefore, the workers could easily be electrocuted.

Use of explosives underground mines is often found as a regular part of everyday’s operation. If a minimum mistake is made by the miners in regard to use of such explosive it may lead to fatal explosions and injuries to them which may cause death also. If the explosion areas could not be evacuated properly the explosion could cause serious damage to the miners nearby. As the place is narrow and uneasy to move freely therefore, it is hardly possible for the miners nearby to run away from there in case of occurrence of such situation.

Fires could occur in mines for a range of reasons. The most common reason is gas leaks, electrical faults or the spillage of flammable chemicals. Because of narrow moving space, small exit area and insufficient opportunity to come out of the mines for large number workers such fire may also cause severe life loss and injuries.

All the underground mines are situated below the depth of underground layer of water therefore, it may lead to water logging into the mines if the nearby water layer could not be identified and measures for preventions could not be taken scientifically. If water is logged into the mines it generally cause death of a large numbers miners confined within the mines as the narrow moving space, small exit area and insufficient opportunity to come out of the mines prevent large number of workers to get out of the mines at a single time during the same emergency situation. Such accidents happened frequently in the history of coal mines in India.

From the writings of Sana, Bhat and Balkhi (2013) the researcher found that the workers of Cement Industries are very significantly vulnerable to deadly health risks. From their research it
is revealed that more than 90% of the workers in such industries suffer from wheezing. In between 80-90% of the workers suffer from chronic skin diseases. Near about 72% of the labours in Cement Industries are vulnerable to heart disease. Chest pains are complained by 50% to 59% of the workers. Near about 50% of the workers of the cement factories are vulnerable to respiratory problems like Asthma etc. They identified that the respiratory tract of the workers working in the cement factories are highly exposed to potentially harmful substances. Besides cement dust various gaseous pollutants are also contributed by cement factories which cause pollution and ultimately affect human health seriously especially on the health of the workers working out there. The various human organs are affected here because of the polluted atmosphere which results into allergic reactions that interfere with breathing, chronic bronchitis, asthma, emphysema, lung cancer, pneumonia, tuberculosis, shortness of breath, cough, wheezing, cardio arrest and irregular heartbeat. This findings was also supported by the HR manager and workers of Ambuja Cement Industry situated at Farakka, Murshidabad(W.B).

It is obvious that such risk factors in both the mining and cement industries lead to psychological stress, decreasing of physical abilities, family instability and increase vulnerability to socio-economic problems which may disturb the psycho-social stability of workers. To ensure better job involvement, motivation, happiness, psycho-social stability and retention of the workers in such industries, findings for scopes of Social Work intervention in HRM practice framework of such industries was therefore, highly recommended. Hence, the researcher decided to select both the underground mines and cement factories for the study. As both Eastern Coalfield Limited and Ambuja Cement Pvt. Limited are operating in West Bengal therefore, the researcher decided to select Pandaveswar Coal Mines area under ECL, Burdwan and Ambuja Cement factory situated at Farakka, Murshidabad for the collection of data for the study.

3.5. Sampling: Under Pandaveswar Area there were total 803 miners working underground mines. Among the workers the number of such workers, who has been working there for more than 5 years but would not be retiring within 5 years was 675. The number of such workers who would be retiring within 5 years was 90 and number of such workers who had not yet been completed 5 years of job within this industry was 38. In case of Ambuja Cement Factory, Farakka the number of the worker who has been working there for more than 5 years but would not be retired within 5 years was 243 the number of such workers who has been working there
for not more than 5 years was 87. No worker was found to be retired within 5 years. The distribution pattern of the total workers of both the selected industries on the basis of the duration of years they were working out there is reflected in the table below.

Table 1: Categories of workforce under both the selected industries as per tenure of service

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Category of workers</th>
<th>No. of Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Joined the industry not more than 5 years ago</td>
<td>125</td>
</tr>
<tr>
<td>2</td>
<td>Will be retired from the job within 5 years</td>
<td>90</td>
</tr>
<tr>
<td>3</td>
<td>Working for more than 5 years but would not be retiring within 5 years</td>
<td>918</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1133</strong></td>
</tr>
</tbody>
</table>

As there was variations in worker’s job duration in both of the selected industries and such factors contribute to the experience and psycho-social outlook of the workers related to the job and work place therefore, the researcher decided to take such a sample in which there could be the representation of all the aforesaid three categories of workers as per the their ratio within the
universe i.e. 1133 workers in total. The major data required for the study was available in qualitative forms therefore, it was required qualitative data analysis process. Qualitative analyses typically required a smaller sample size than the quantitative analyses because large size of sample in qualitative research might lead to saturation. Saturation might be defined as the point when gathering fresh data could no longer spark new theoretical insights, nor reveal new properties of core theoretical categories (Charmaz, 2006, p. 113 as cited by Dworkin, 2012). Therefore, the researcher took 120 workers as the sample out of the 1133 workers. Hence the sample size for the study with the workers was approximately 10% of the universe.

There were 12 personnel managers under Pandaveswar Coal Mines area and 1 HR manager in the Ambuja Cement factory, Farakka. In this case the universe was found very small therefore, the researcher decided to take 100% i.e all 13 personnel/HR managers for the study.

The sampling method used for selection of sample was ‘Stratified Proportionate Random Sampling’. The researcher divided the universe of the workers into three strata i.e. entry level workers, middle level workers and workers close to their retirement. The workers who had been working for less than 5 years were taken under ‘entry level category’, the workers who would be retiring within a period of less than 5 years were put under ‘close to retirement category’ and the workers whose service period had been continued for more than 5 years but who would not be retiring within 5 years were considered under ‘middle level category.’ The researcher decided to choose sample from each of the categories on the basis of their proportionate ratio within the universe. The sample pattern is described in the following table.

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Strata /Category</th>
<th>Number of respondents chosen as sample</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Workers under Entry Level</td>
<td>13</td>
<td>11%</td>
</tr>
<tr>
<td>2</td>
<td>Workers under Middle Level</td>
<td>97</td>
<td>84%</td>
</tr>
<tr>
<td>3</td>
<td>Workers close to retirement level</td>
<td>10</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>120</td>
<td>100%</td>
</tr>
</tbody>
</table>

3.6. Variables: The variables which were known to the researcher through review of literatures and could contribute to get the expected result for the research were the followings,
• Interpersonal relationship of the workers with each other in the workplace
• Worker-management relationship
• Involvement of the workers within the work-groups
• Existence of discrimination within the workplace in terms of age, class, caste, religion, languages etc.
• Financial benefits received by the workers
• Need based job involvement of the workers.
• Quality of work-life
• Personal and family involvement of the workers.

The resulted variables considered as per the known variables were,
• The level of worker’s involvement with the job and job place.
• The motivational level of the worker.
• The status of both professional and personal development of the worker and
• Sustainability of the worker with his job and job place.

3.7. Data Collection: Both social work and human resource management practice were based on dealing with the psycho-social dimensions of the human beings. The psycho-social dimensions included thoughts shaped by socio-cultural background and experience of the workers, their inter-personal relationships within the working place and outside, their group involvement and group influence, their family and peer involvement, motivation, psycho-social problems etc. These data were hard to get as many personal and confidential issues were related to them. Such data were hardly possible to be measured or compared by using only statistical methods. Hence, the collection of data was one of the crucial steps for this research.

3.7.1. Sources of data: The secondary sources for collection of data were basically the annual reports of the ECL and Ambuja Cement Limited and sustainability reports of Ambuja Cement Limited for the past 5 years. The philosophical outlook, policies, programmes and achievements related to the HRM practice of both the selected industries, reflected in such reports, of were studied and analyzed in this concern. Primary sources for collection of data were the 120 selected
workers and all the 13 personnel/HR managers employed under Pandaveswar Coal Mines area under ECL and Ambuja Cement Factory, Farakka.

3.7.2. Nature of data: Data related to the psycho-social dimensions of the human resources like thoughts shaped by socio-cultural background and experience of the workers, their inter-personal relationships within the working place and outside, their group involvement and group influence over their performances, their family and peer involvement, motivation, psycho-social problems etc. were collected under this study which were basically qualitative in nature. From secondary sources the researcher collected data on the philosophical outlook for HRM practice of the selected industries, specific programmes and activities taken by the selected industries for competent results in HRM in the past years and current year as well as in coming years and notable achievements of the selected industries in the field of HRM practice.

The researcher collected data from personnel managers/HR manager in respect to the following aspects viz.

- Factors responsible for involvement of workers with their jobs and job places.
- Factors responsible to ensure higher motivation for the workers.
- Areas important for personal and professional development of employees
- Methods to ensure overall development of the workers
- Factors important for retention of the workers in the industry

In case of the workers the data were collected related to the following aspects viz.

- Level of involvement of the workers with their job and work place and factors responsible there.
- Motivational levels of workers at work and the causes behind higher motivation.
- Level professional and personal development of the workers and the ways to ensure overall development for the workers
- Retention level of workers and the factors responsible for retention and lower labour turn over.

3.7.3. Data Collection Process and Techniques: As per the literatures it was found that the qualitative research typically depended up on four techniques for collection of data i.e.
(a) Participating in work place
(b) Observing respondents directly
(c) Interviewing the respondents in depth and
(d) Analyzing documents and material culture

In the course of the study the researcher used all the four techniques, for collection of data. The secondary source of data was the annual reports and sustainability reports of the selected industries. The researcher analyzed the contents of all the reports and tried to avail the required information regarding their philosophical outlook, HR Practice methods, motivational process, initiatives regarding development of workers etc.

Among these aforesaid four methods for collection of qualitative data the researcher adapted the first three during collection of data from primary sources. The researcher was permitted by Eastern Coal Field to visit the Pandaveswar Coal Mine area, to go underground mines and meet the workers. Hence, the researcher went deep underground mines and met the workers during their working hour. He participated in the formal and informal discussions underground mines with the workers. Similarly the researcher went into the plant of Ambuja Cement at Farakka and observed the daily operating procedures of the workers. He shared meals with them during lunchtime and participated in their discussion during their leisure time along with their permission.

During these sessions the researcher closely observed the worker’s day to day functioning within and outside workplace and tried to identify their interaction patterns with each others, and their involvement status with their work group members, their motivational standard and expectations, their satisfaction level regarding their personal and professional development and further expectations thereto. Beside these the researcher conducted in depth interview with each of the selected workers.

To find out their present status of involvement with their job and job place 7 open ended questions were framed for all categories of workers and 4 questions were framed especially for the worker under retirement level. These questions were aimed into identify their interest level regarding their job and job place, their familiarity about their company’s philosophy and production level as well as their respect about their industry.
For the workers under retirement level questions were aimed to find out, whether their interest and respect for their job and job place remained unchanged in their retirement phase also.

To understand the impact of different factors related to social work intervention on their job involvement standard the researcher framed 11 questions which were aimed into identify the pattern of interpersonal interaction of the workers with each other within their workplace, their bonding level with their co-workers in the workplace as peers or friends, their status of involvement with their work group members and impacts of their work groups as well as how their colleagues, superiors, work group members helped them to solve their problems that hindered their job involvement.

To identify the level of overall development of the workers the researcher framed 4 questions which aimed to know whether the workers were trained in relevant fields in time of their entry to their present job, the processes through which the workers, who were initially unskilled and semi skilled, were helped towards their personal and professional development and how much they were satisfied with the initiatives of their company for their personal and professional development. To find out various components of the initiatives, the workers received from their employer for their overall development, the researcher framed 2 open ended questions.

To understand the present motivational standard of the respondents the researcher prepared 6 questions which were aimed into find out whether the workers felt appreciated by their colleagues and superiors, their view about the glory and honour of the industry they work, their willingness to engage their relatives or offspring to join their company.

Along with these the researcher framed 8 questions to understand if there was any impact of psycho-social factors on the motivational level of the workers which could ensure social work intervention for worker’s motivation. The questions were aimed in to find out the workers’ level of satisfaction regarding financial benefits they obtained from their company, the impact of need identification and need based job involvement on motivational level, the impact of work group involvement and team work to increase motivational level, the impact of Interpersonal relationship with colleagues on motivational level, the impact of Positive worker- management relationship on motivational level and whether there were any techniques, tools and process related to social work intervention for increasing motivational level of the workers.
To explore the workers’ retention level with their job in their employing industry the researcher prepared 2 questions for workers under each of the entry level category and middle level category. The two questions were aimed into find out, whether the workers (whose age was permitted to join new job) wanted to shift from the job or shift to another working place and whether the workers (whose age was over for joining new job) wanted to shift from the job or shift to another working place if their age was permissible.

Analyzing their responses and observing their attitudes and activities on job the researcher identified work group involvement of the workers, their interpersonal relationship with colleagues and their relationship with management or superiors as the three most important factors behind retention of the workers. Therefore, to judge the impact of such factors the researcher framed 5 questions to find out how these three factors contributed in the retention of the workers. All the questions threw to the workers in the interview were open ended questions (Interview schedule is enclosed in Annexure I).

In case of the personnel managers, a specific Questionnaire was developed (Sample questionnaire is enclosed in Annexure II). The questionnaire was divided into four sections. The first section was aimed into identify the views of personnel managers regarding the importance of 9 selected factors to ensure job involvement of the three categories of workers i.e. the entry level workers, the middle level workers and the workers close to retirement. The factors were selected depending up on the responses gathered from the workers.

In this concern each of the 13 personnel/HR managers were requested to mark each of the aforesaid factors on the basis of the factor’s importance to ensure better job place involvement of the workers. The personnel managers were requested to mark the factors on the basis of their working experience in this industry. The maximum mark suggested was 5 (five). In the second section of the questionnaire the personnel managers were also requested to mark 9 factors same as above out of a maximum mark of 5 (five) on the basis of each of the factor’s importance towards ensuring higher motivation for workers at work place. The managers were also requested to depend up on their experience of working in this workplace. In the third section of the study the personnel managers were requested to mark out of a maximum marks of 5 (five), 6 areas required for overall development of the workers. These areas were suggested on the basis of literatures reviewed. In the same section another part was there in which the respondents were
requested to mark 8 types of methods on the basis of the importance of such methods and the frequency of scopes for usage of the same in this industry by the personnel managers to ensure overall development of the workers. In the fourth and last section of the questionnaire the respondents were asked to mark 10 factors on the basis of the importance of the same in their own opinion to ensure retention of workers in the industry. These factors were suggested on the basis of the responses from the workers through interview and observation. Details of questionnaire are enclosed in Annexure II.

3.8. Data Analysis: This was the most crucial part of this research. Methods like observation, participation with the respondents and in depth interview were used for collection of data from the workers. The annual reports and sustainability reports of selected industries were also used as the source of secondary data. Hence the researcher collected the data not in forms of number but in forms of text, content, thoughts, views, philosophical outlook, views on the basis of experiences etc. which were hard to analyze by using statistical methods though in case of collection of data from the personnel managers the researcher tried somehow to quantify the responses by asking them to mark (out of a full marks of 5) the options within the questionnaire under different categories, on the basis of their own experiences and philosophical overview.

3.8.1. Analysis of Data Collected from the Secondary Sources: The basic sources of secondary data were the annual reports and sustainability reports of the selected industries where the HR initiatives were described. These reports were descriptive in nature and lots of information was reflected in the reports though some of the information not relevant with the information required for the study. Therefore, the researcher adapted the Content Analysis process for analyzing the data collected from the secondary sources. The researchers adapted inductive content analysis process also for secondary data analysis. This process included open coding, creating categories and abstraction. Under open coding the researcher wrote down notes and headings on the text of the annual reports of the selected industries while reading it. Then the researcher went through the written notes and heading again, and once again wrote down more specific headings beside the margins to describe all aspects of the content. Then all the headings from all the documents were collected from the margins on to coding sheets and headings having similar senses were grouped into same category. After that the researcher gave higher order headings to each of the categories related to the interconnection of methods, tool and
philosophical overview of HRM practice of the selected industries related with social work practice. The aim of grouping these data was to reduce the number of categories by arranging the similar types together under the same group or separating dissimilar types under different groups. Then, on the basis of the different and similar categories the conclusions were drawn.

3.8.2. Analysis of Data Collected from the Workers: The objectives, perceived for collection of data from the workers, were in one hand to get familiar with the workers’ job involvement status, motivational standard, professional and personal development level and level of retention and on the other hand to get informed about their interaction pattern with each other in the workplace, their bonding with each other in the workplace, their relationship with the management and superiors, their involvement in the work-groups within their workplace, existence of discrimination within the workplace in terms of age, class, caste, religion, languages, satisfaction level for financial benefits, their involvement with the jobs as per their needs, talents, potentials, expectations, quality of their work-life, status of their personal and family involvement and personal and family satisfaction etc. and thus to find out the impact of the aforesaid situations on their job involvement, retention level, motivational level and development level. The researcher wrote down the descriptions of the observation about each of the respondents on separate data sheet. The researcher also recorded the responses of the workers against each of the interview questions on the same data sheet also. Thus 120 separate data sheets/profiles were made ready in this purpose. Data analysis was started from the very beginning of collection of data and continued up to the end. Content analysis technique was used here. Foremost, the researcher went through the writings on each of the data sheets/profiles carefully to get familiar with the response of each of the respondents. Next, the researcher red the write-ups word by word and highlighted relevant sections to extract the relevant key thoughts from the text. Then the researcher noted down the key thoughts separately. As the process continued the researcher analyzed the notes and identified labels for the similar types of concepts. Sometimes these labels were reflective to one key thought and sometimes these labels were reflective to more than one key thoughts identified from the text. Then the researcher fixed specific codes for the identified labels and then the final analysis was taken place on the basis of the similarities or differences among the codes for single respondents (Sample is enclosed in Annexure III)
3.8.3. Analysis of Data Collected from Personnel Managers: It is stated earlier that the personnel managers were given a questionnaire for collecting their responses on the same. The questionnaire was divided into four sections depending upon the four major areas of HRM practice and the variables selected for the study. Several factors, areas and methods, as described before, were suggested (which had interrelation with the intervention processes of social work) to them on the questionnaire and the personnel managers were asked to provide scores to each of the aforesaid factors out of a full score of 5 depending up on the importance of the same in their views and experiences. Responses from all the 12 personnel managers in the form of the scores given against each of the factors/areas/methods suggested in this questionnaire were analyzed using the method of calculation of the arithmetic mean to find out the importance of the factor/method/areas in regard to different areas of HRM on the basis of the average scores they obtained out of the full mark of 5 (five).

3.9. Limitations: As the research was restricted to the selected Industries of West Bengal, therefore, it had further scope for more exploration in industrial sectors of rest of the country also. The management of Human Resources is largely depended on their socio-cultural background and ethnicity. As India is a country of variety of socio-cultural backgrounds and ethnicity of people therefore, extending of this study in different states in India might reveal some more interesting and relevant facts related to social work intervention in HRM. The service sector industries have not been considered in this study which might help to expose new scenario as the background of the employees of service sectors is significantly different from the workers in Industrial sectors in terms of educational standard, needs and working conditions etc.