## Chapter Three

### Research Methodology

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3. Research Methodology

3.0 Justification of this Scientific Research Paradigm

The nature of enquiry or paradigms determines approach to research problems. Paradigms are regarded as “the basic belief systems or worldview that guides the investigator” (Guba & Lincoln 1994 in Paelmke, 2007). According to Cohen et al. (2005) the subjective approach to social science follow realism, positivism, determinism and nomothetic. For Cohen et al. (2005) although positivism has been a recurrent theme in the history of western thought from the ancient Greeks to the present day, it is historically associated with the nineteenth-century French philosopher, Auguste Comte, who was the first thinker to use the word for a philosophical position (Beck, 1979 in Cohen et al., 2005).

Comte’s position was to lead to a general doctrine of positivism which held that all genuine knowledge is based on sense experience and can only be advanced by means of observation and experiment (Paelmke, 2007). According to Cohen et al. (2005) where positivism is less successful, however, is in its application to the study of human behaviour where the immense complexity of human nature and the elusive and intangible quality of social phenomena contrast strikingly with the order and regularity of the natural world. Realism research discovers knowledge of the real world by naming and describing broad, generative mechanisms that operate in the world (Healy & Perry 1998, Yin 1994 in Paelmke, 2007). Therefore the question of integrating HRP practices with institutional strategy would be answered through enquiry of realism. Objective Realism believes that organizations are real entities with life of their own. It also allows abstraction of reality, especially through mathematical models and quantities analysis (Paelmke, 2007).
The research design uses a survey and in-depth interviewing techniques for data collection implying use of quantitative and qualitative methods as realism better accommodates both approaches and is more appropriate than the other scientific paradigms facilitating the researchers to collect information and perceptions of people without having control over the behavioural aspects of the sample (Yin 1994 in Paelmke, 2007). As the purpose of this research being to explore integrations of HRP practices with institutional strategy, the quantitative and qualitative methodologies are relevant. Because most of HR management discourse is realist as can be expected from a discourse that is concerned with instrumental processes (Cullinane, 1998).

3.1 Overall Design

This study is designed to assess the state of integrated strategic human resource planning practices in Ethiopian institutions. This study focuses on how human resource planning integrated with corporate strategy. This is to see how human resource changing in terms forecasting the future human resource needed for future organization strategy. The culture of organization, the HR strategy, the HRP practices, the HR architecture and human resource information system (HRIS) that enable this activity will be investigated in Ethiopia institutions. The study observed the prevalence of practices that are expected to represent the new directions that human resources organizations must take in order to fit with the changes that are occurring in the organizations they serve. And these changes are related to the strategic role of HRP of institutions.

The study type is descriptive survey type. Normative (descriptive) survey deals with “what is”? Its scope is very vast. It describes and interprets what exists at present. In
a normative (descriptive) survey we are concerned with conditions or relationships that exist, practices that prevail, beliefs, points of view or attitudes that are held, processes that are going on, influences that are being felt, and trends that are developing (Singh, 2006). This method used to assess a wider variety of HR units behaviours and other phenomena in Ethiopia institutions.

The principal advantage of survey studies in contrast to qualitative methods is the generalisability of results (Gable, 1994 and Sekaran 2000 in Paelmke, 2007). Generalisability refers to the scope of applicability of the research findings in one organisational setting to the other settings. Next, surveys provide information on large groups of people, with very little effort, and in a cost effective manner (Marczyk et al., 2005) and can be executed in planned and structured manner. They permit accurate statistical and speedy analysis; given the survey design consists of carefully formulated questions to elicit non biased unambiguous answers (Paelmke, 2007). Besides this it is possible to develop valid standards of comparison. Last, the problem lends itself for verifiable procedure of collection data in both quantitative and qualitative way to investigate the study. In general descriptive studies are more valuable in providing facts needed for planning social action programmes (krishnaswami and Ranganatham, 2009).

Through this approach the study assessed the following HRP and peripheral areas directly or indirectly affect the integration of human resource planning with corporate strategy: the study tried to categorized the variables in to two fundamental groups. The first part of the analysis category totally committed to processes / prerequisites
that determine the end (integration of HRP with corporate strategy itself were fundamental variables frequently tested). This includes:

- Strategic initiatives and organizations strategic focuses
- HR organization, HR function and Role in strategy
- Strategic HR management
- Strategic HR planning practices
- Building institutional HR strategy

The second category included enabling factors for the occurrence of all factors in first category. These factors play significant role in building the mind set and mentality of strategic HR planning practices in institutions. Therefore, these variables situation investigated using mean, relationship and regression analysis with key variables. The variables are:

- HR manager skills
- Institutions’ HR architecture
- Human resource information system
- Organizational culture

Part one: Strategic HR management, building HR strategy and Planning

1. Strategic Initiative and organizations strategic focuses: within this dimension the study examined the existence of institutional long range strategy cascaded dawn to each functions including the HR unit. Besides this institutions strategic focuses examined to see how they contribute and relate with strategic orientation of HR unit. Existence of clear institutional strategy is not guarantee by itself for integration of HRP with institutional strategy. The line managers should have
shared responsibility and the HR unit has to involve in strategy formulation and implementation to change HR to value adding function.

2. **HR organization, functions and strategic role:** The study believes that the HRP is not independent activity it is integral part of the total institutional strategy, the total HR management function and strategizing HR activity. Modernization and change within this areas yield linking HRP practice with corporate strategy. Therefore the practice of these three dimensions considered to see their impact on HRP.

   **HR organization:** the HR place as member of management team starts when the organization sketches its structure that shows the place of each fundamental strategic function. HR function must have equal place within this raw unless it would be so difficult to see strategic role of HR as overall contributor to organization strategy and as implementer too (Greer, 2001). This situation examined by this study in Ethiopia to see its true place in integrating HR planning with corporate strategy.

   **HRM functions and strategic role:** Here the investigated focused on the HR unit shift from traditional approach to emerging trends of participating and implementing overall company strategy. HR function may range from administrative (conventional) to strategic. The dominant practice of HR role in Ethiopian institutions investigated making respondents to select among HR functions such as maintaining record, auditing and controlling, providing HR
service, developing HR system and finally strategic business partnering (Lawler III et al., 2006; Ingham, 2007; Greer, 2001).

3. Strategic HR Management, building HR strategy and Planning

HR unit strategic behaviour reflected when the HR unit hold the value and sentiment of strategic HR management, taken due action in building HR strategy and forecasting long range HR demand and supply. These are process determine the study end integrating HR planning with corporate strategy of institutions (Rao, 2010).

**Strategic Human Resource Management (SHRM):** Strategic HR management is overall way of managing HR in the way that contribute to organization overall strategy. Within the process of strategic management there is consideration of overall environment change and organization internal circumstance and designing HR fit for this change (Greer, 2001; Torrington et al., 2005).

**Human Resource Planning (HRP):** This is overall forecasting of manpower of the future that contributes for organization strategy. It includes both hard and soft aspect of HRP ((Bhattacharyya, 2006; Verhoeven, 1999). The number as well as kind of HR has to be well estimated to buffer future environment challenges. The process within Ethiopian institution and the models of HR forecasting investigated.
**HR forecasting Models**: linking human resource planning with corporate strategy requires forecasting both HR requirement and availability to achieve strategic alliance. Different subjective and scientific or objective models are in use in the world. The study intended to investigate the model prevalent in Ethiopia. HR effectiveness and gaining competitive advantage through it requires using appropriate forecasting tools working within exiting environment challenges (Bhattacharyya, 2006; Verhoeven, 1999).

**Integration of HRP with corporate Strategy (IHRPCS)**: Best HRP tools and models and effectively architected HR unit do nothing unless it has seat in the strategy formulation and development of the firm (Rao, 2010). HRP forecast manpower of the future. The base for forecasting the HR is overall environment and institutional strategy. Production of value adding rare people depends on HRP effort integrated with corporate strategy. The institutions holds unique strategy needs rare people to achieve this end. People prepared through planned effort of HR unit can yield competitive advantage never had before (Ingham, 2007). This dimension assesses integration aspect, the HR strategy and gaining competitive advantage through these practices. Finally the human resource manager competency assessed to see its ability to realize strategy linked HRP practice to gaining competitive advantage through HR that adds value.
Part two: Enabling Factors to Integrate HR Planning with Corporate strategy

4. **HR unit Architecture (HRA):** Overall HR systems, practices, competencies and performance behaviour are fundamental to formulate strategically integrated HRP with corporate strategy. The HR unit business and cultural awareness, strategic capability, organizational effectiveness internal consistency, service delivery, continues professional development and capability to use information technology are critical to strategically thing and integrate the whole HR strategy with institutional strategy (Armstrong, 2006).

5. **HR Manager Behaviours and skills:** HR manger skills and behaviours are important to gain place in organizational politics and power (Caldwell et al., 2010; Armstrong, 2006; Rao, 2010). Skills such as record keeping, strategic planning, information technology etc are mandatory to link HR planning with corporate strategy. The HR manger behaviours and skills were investigated to see his/her strategic ability and power to have place as member of management team and to influence line managers.

6. **HRIS that supports HRP:** the existence of completely integrated HR information technology is important to integrate HRP with corporate strategy (Rao, 2010; Torrington et al., 2005; Armstrong, 2006; Mellett, 2000). It is true that thinking planning without information is futile. Therefore well developed data base is the key to hold strategically linked HRP practice in institutions. Therefore HRIS of companies assessed that support SHRP practices.
7. Organizational culture Dimensions (OCD): the study determined to see HRP practice and corporate strategy. The value and sentiment or attitude and belief of all concerned are important to persuade the HR unit practice and its planning to integrate with companywide strategy. The organization culture ethos such as openness, confrontation, trust, authenticity, collaboration, leaders’ stewardship, pro activeness, autonomy and experimentation investigated (Singh, Puskas, and Gupta, 2010). Within organizational culture that do not trust the HR unit, ignore collaboration with HR unit and reactive in its nature, thinking about strategy linked HRP is difficult.

3.2 Sampling Techniques
As scholars agree strategically integrated HRP practices and its implementation affected by size of company, industry lifecycle, time horizon and existing HR competency etc... HRP is not the issue of single body, institution or function. It is holistic approach. This study planned to see the practice of mature and stable institution operating in manufacturing and service sector in Ethiopia. In the maturity stage, the organization and its culture are stabilized. Size and success enable the organization to develop even more formalized plans, policies, and procedures. Often, organizational politics flourish and HR activities expand. Extensive HR development occurs, coordinated by an internal training staff (Jay and Patrick, 1998; Russell, 1997).

Large and leading institutions of Ethiopia were target population because strategic effectiveness of companies better measured in large institutions than small institutions. According to Verhoeven (1999) “corporate manpower planning is planning for large organizations such as industrial firms, public services, hospitals, etc”. Study on HR
effectiveness (technical vs. strategic effectiveness) by Huselid, Jackson and Schuler (1997) on 293 firms in USA described that level of technical HR effectiveness was higher than levels of strategic HR effectiveness. The researchers concluded that technical HR competence contributes to a competitive advantage for smaller firms and for global firms competing in countries with unsophisticated HR practices.

But for most large U.S. firms, improvements to strategic HR activities have the greatest potential for financial gains. Schwind et.al (2002) confirmed that small organizations can expect similar advantages, but the gains in effectiveness are often considered less because their situation is less complex. Knowledge of HRP, thus, is useful to HR specialist in both small and large organization. But large organization can benefit from knowledge of HRP because it reveals ways to make the HR function more effective. Besides these Lawler III et al. (2006) work on assessment of HR organization strategic alliance in 1995, 1998, 2001, and 2004 used as a foundation to set target population.

These scholars sampled institutions on the basis of their structure. Lawler III et al. (2006) included largest group of institutions in their studies were multiple related business units. Institutions that are considered were large sized and have more than 20,000 employees. Organizational size is important to consider because it often influences how corporate staff groups, such as HR, are structured and operated. In Lawler III et al. (2006) study almost half of the institutions sampled had more than 20,000 employees. The minimum number of employees considered by Greer’s (2001) was institutions with 2000 employees as study target. Considering developing country situation and institution size the study intended to take the biggest symbolic
and well functioning institutions as area of target population. To gather empirical data from respondents’ the following procedure used:

- Institutions grouped under government, profit making service and manufacturing sectors and institutions working on policy and procedure of HRD. This is technically defined study universe.

- The total universe geographically located in Addis Ababa and within 100km vicinity to the east of Addis Ababa. Addis Ababa and these vicinities are centre of mega service and manufacturing business activities of Ethiopia. Besides this total ministerial and government strategic activities are formulated and cascade dawn to regional states from Addis Ababa. All activities out of the capital city Ethiopia-Addis Ababa are duplication of this central policy, rules and regulations. Small decentralized branches of mega companies follow instruction and standard of their head offices. The study therefore intended to take its sampling unit from pivotal place of everything called Addis Ababa and the vicinities. It is possible through survey of institutions within these places to generalize about Ethiopia.

- Institutions selected based on the following two criteria: firstly, institutions (government and private) with mature business culture and employed more than 2000 employees considered as target population. Secondly institutions less than 2000 employees considered due to symbolic characteristics or if they are policy makers. Because both organization development and number of employees determine HR planning activity (Baird and Meshoulam, 1988).
Regarding sampling procedure the following procedure is used. Area- Multi stage sampling is used to determine last sample size. “This is an important form of cluster sampling. In larger field surveys, clusters consisting of specific geographical areas like districts, villages or blocks in a city are randomly drawn. As the geographical areas are selected as sampling unit in such cases, their sampling is called area sampling. It is not separate method of sampling, but forms parts of cluster sampling” (krishnaswami and Ranganatham, 2009). Profit making government foundations and private business sectors in Addis Ababa and its vicinity are total study targets. Institutions within these areas grouped into five clusters:

a. Private profit oriented service giving organizations.
b. Government profit oriented organizations.
c. Government and private Manufacturing industries.
d. Government top organs that decide on manpower planning and development.
e. Top symbolic Civil Service or government units that use and mobilize big stock of HR.

There is no complete and sorted list of both manufacturing and service giving institutions in Ethiopia. Intensive efforts were made to obtain list of manufacturing and service giving institutions in Ethiopia. The data obtained from Ethiopia Investment Agency listed more than 6000 institutions from both manufacturing and service giving institutions since 1992. This is not enough. Since business incepted in Ethiopia all dominant and old institutions must be recorded with their starting capital and manpower. Such limitation forces the researcher to use purposive sampling.
Totally 23 institutions which are symbolic, well performing and fit to the study under concern selected based on the following data and experience:

a. Even if it is incomplete Ethiopia Investment Agency list of manufacturing and service giving institution since 1992 consulted. The institution listed 74 institutions (under operation and establishment) with more than 500 employees.

b. A document namely called “An enterprise Map of Ethiopia by Sutton and Kellow (2010)” consulted. Sutton and Kellow (2010) described (a total of 50 in all), and then provided shorter profiles of a typical subset of the industry’s middle rank firms. The median employment level of the 50 leading firms they profile was about 500, while all but two of the others have over 100 employees. By way of comparison, Ethiopia has, in total, 43 firms with over 500 employees in the sectors covered here, and 408 with employment between 50 and 500. They surveyed only manufacturing, agribusiness and construction industries. Sutton and Kellow (2010) put a remark in order, regarding the descriptive statistics presented above: the 50 large and mid-size firms profiled were not a random sample from some larger population. Nor do they comprise all industrial companies above a certain size. Rather, they comprise most of the leading firms within each major segment of their respective industries. The set of firms profiled is not quite comprehensive, in this regard, as it did not prove possible to access the appropriate information in all cases.

c. Annual Human Resource Statistical Report of Ministry of Civil Service (2011) used to select civil service institutions fit for the study purpose.

d. The researcher experience and observation.
As result the study took 23 institutions considered from which last sample size would be determined. Three private profit oriented service giving organizations; four government profit oriented organizations; four government and private manufacturing industries; five government top organs that decide on man power planning and development; and five top symbolic civil service or government units that use and mobilize big stock of HR were selected. The HR functional unit of this institution include 5-30 employees by average that lead the operation of the whole HR activities. Two institutions did not respond to involve voluntarily within the study.

The 250 sample size was determined by including all HR unit workers of HR department and corporate planning executives of the organization. The executives chosen had broad visibility to the human resource function across the corporation. This is to gather empirical data from all heterogeneous groups and to make the finding more creditable. Therefore selected institutions HR unit workers and cross functional departments have their own saying about strategy linked HRP practice in their own respective company or institution.

3.3 Measures

The study raised the following variables to measure the state of integration of HRP practice with corporate strategy in Ethiopia institutions.

1. Demographics of the respondent, organization and HR unit, type and ownership of institutions.
2. Strategic initiative of institutions and its cascading dawn to functions to integrate HRP practice with corporate strategy (strategic planning processes, strategic focuses and time scope).

3. The HR function in institutions investigated to see its shift to be included as strategic formulator and implementer (HR role in the strategy).

4. Strategic HR management activities and strategic contribution

5. Institutions’ HR strategy.

6. HR planning practices of forecasting long term manpower demand and supply in supporting institutional strategy.

7. Forecasting models and techniques and their strategic end.

8. Integration of institutional strategy and HRP

9. HR unit architecture for strategic business contribution and adequacy in long term HRP integrated with institutional strategy.

10. HR manager skills and behaviours

11. Organizational culture ethos/dimensions important for strategy linked HRP.

12. Existence of integrated Human resource information system that support HRP.

3.4 Data Collection Tools and Approaches

In conducting the study, to measure the above variable data collection methods would ideally included mixed methods that combined traditional quantitative and qualitative methodology. Some of these include:
3.4.1 Structured questionnaires

This method of data gathering is quite popular in case of big enquiries (Kothari, 2004). The quantitative data was collected through questionnaire. Primary data was collected through structured questionnaires about SHRP between institutions. The questionnaire included five categorical items to gather attitude or opinion of respondents about their institutions strategy linked human resource planning practice. Organizational culture towards SHRP; Manpower forecasting methods and models; Integration of HRP with institutional strategy, Institution HR strategy; HRM department archetype, composition and competency (existing capability and skills to understand institutional strategy and to align with their own unit strategy) and finally human resource information system (HRIS) were this primary data gathering questionnaire concerns. Using this questionnaire data was collected from 192 sample units.

Questionnaires structured in to two parts: the first part include demographic factors of respondents and situation of HR organization the second part composed of research central questions. In addition to designing new relevant questions the search for standardized questions initiated the inclusion of questions from previous research works of different scholars.

The study tried to inculcate this scholar’s work by including new enquiries following the research basic question and research area specific circumstance and nature of respondents. This is to keep validity and reliability of data gathering instrument in order to measure what is targeted to be measured. This is to maintain accuracy and relevance of the questions.
Therefore leading questions with five point scale (Likert) range from 5 to 1 posed to respondents to make them measure their institution HRP practices and its integration with companywide strategy. Summated scales (or Likert-type scales) were developed by utilizing the item analysis approach wherein a particular item was evaluated on the basis of how well it discriminates between those persons whose total score is high and those whose score is low.

The range 5 to 1 indicate the level of compliance of respondents for a given question, for example ”5” stands for strong agreement and “1” is for strong disagreement. According to Marczyk et.al (2005) this approach to measurement attempts to quantify a construct or variable of interest by asking the participant to rate his or her response to a summary statement on a numerical continuum. The participant would simply check on the appropriate number that best reflects his or her attitude. The strength of global ratings is that they can be adapted for a wide variety of topics and questions. They also yield interval or ratio data.

### 3.4.2 Interview

To Substantiate or triangulate the study using qualitative approaches interview was conducted with mangers of HR department, analysts and experts to obtain more credibility in over all process. Structured interview questions forwarded to top company officials to describe their HRP practices and its integration with institutional strategy. Effective interview was conducted with eight institutions top HR officials based on their willingness and the researcher pursuance of the interviewee according to their importance to the study.
3.4.3 Document analysis

Companies may explain their company experience in integrating HRP with business strategy to the researcher in questionnaire. But the tangible evidence will be obtained when the practice described in documented manner. Company strategic planning and other related documents were assessed to see inclusion of HR unit in their long-term planning process and implementation strategy. Document analysis of internal/external communications, strategic planning document, written curriculum, policies, newsletters, websites, correspondence, brochures, office automation for electronic data exchange etc were used to gather secondary data for the study. Seven institutions strategic documents were analysed to see their concern to integrate HR planning with business strategy. This analysis gave tangible evidence how strategic HRP practices going on in the study subject institutions. The real experience obtained when institutions show this evidences.

3.5 The Study Strategies for Increasing Reliability and Minimizing Survey Error

Survey research is basically a primary data collection method from a sample population using questionnaires and is susceptible to various forms of errors. If not avoided, these would diminish the validity and reliability of the research (Paelmke, 2000 and Marczyk et al., 2005). Survey errors are classified as random sampling and systematic errors. Since the sample companies are part of a larger population, random sampling error may arise. Systematic errors emerge when the research design is imperfect or executed improperly.
The study standardized the administration of the instruments and measurement strategy to make it consistent across respondents. Both questionnaire and interview cover pages designed holding clear information about the purpose of the study and confidentiality of their response. All respondents not mention their name on questionnaire therefore anonymity of respondents granted. Besides this the study issue required great subject matter understanding and professional skill to complete the questioner and to respond the interview questions forwarded.

The survey made tried to include professionals at least with bachelor degree and above or respondents with less education level with due experience in HR office or further training in HR management areas. To obtain knowledge based response from respondents the researcher personally administered the questionnaire at every spots and tried to make short brief to respondents on unclear items and confusing terms. Both questionnaire and interview contents and coherences were well standardized by consulting research supervisor, peer scholars and subject specialists. Finally, all responses are recorded, compiled and analyzed well. The overall strategy enhanced the study reliability and validity.

3.5.1 Validity and Reliability

Before administering questionnaire to have credible result it is fundamental to assess validity and reliability of data collection instruments. Validity is, therefore, a very important and useful concept in all forms of research methodology. Its primary purpose is to increase the accuracy and usefulness of findings by eliminating or controlling as many confounding variables as possible, which allows for greater confidence in the findings of a given study (Marczyk et al., 2005). Measuring the
content validity and reliability of measurement instrument is fundamental to build confidence on research destiny. The overall questionnaire designed exposed to experienced peer scholars, researchers and subject specialists. This is to obtain greater face validity.

Validity check on questionnaire designed forced modification of two double barrel questions and the other three questions suggested as difficult and confusing were cancelled. Besides this, Interrater reliability of instruments evaluated to minimize measurement errors. Finally, to improve the sensitivity of the measurements, the scales for responses were a five score measure giving the respondents a wider range of possibilities to express their attitudes and opinions.

Table 3.1 Cronbach Alpha Values of the Survey Instruments in This Study

<table>
<thead>
<tr>
<th>No.</th>
<th>Group of selected attributes Tested for Reliability</th>
<th>Cronbach Alpha</th>
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<tbody>
<tr>
<td>1</td>
<td>Strategic Focus</td>
<td>.78</td>
</tr>
<tr>
<td>2</td>
<td>Strategic HRM</td>
<td>.90</td>
</tr>
<tr>
<td>3</td>
<td>Strategic HRP practices</td>
<td>.78</td>
</tr>
<tr>
<td>4</td>
<td>HR strategy</td>
<td>.82</td>
</tr>
<tr>
<td>5</td>
<td>HR unit Architecture</td>
<td>.92</td>
</tr>
<tr>
<td>6</td>
<td>HR manager skill</td>
<td>.90</td>
</tr>
<tr>
<td>7</td>
<td>HR information system</td>
<td>.98</td>
</tr>
<tr>
<td>8</td>
<td>Organizational culture Dimensions</td>
<td>.82</td>
</tr>
</tbody>
</table>

Source: Primary data

Sensitivity refers to accurate measurement of variability in responses (McPhail 2003 in Paelmke, 2007). The Cronbach Alpha values of the instrument designed to gather data on integrating HRP practices with institutional strategy are provided in Table 3.1 above. Strategic Focus 0.78; Strategic HRM 0.90; Strategic HRP 0.78; Institutions HR strategy 0.82; Human Resource architecture 0.92; Organizational culture Dimensions 0.82, Human Resource Information System 0.98. The reliability test
showed the questionnaires as reliable instrument to gather empirical data form sampled respondents.

3.6 Data Collection

Questionnaires were sorted and personally administered to sampled institutions and the HR units within them. It was not an easy task collecting data from those busy institutions officials and attitude of respondents towards research and research activity in developing countries. Therefore, clear demonstration and briefing was made to each company respondents about the purpose of the research. As mentioned above the HR units within sampled institution were targets for collecting data.

The questionnaires distributed to these units fixing 15 days to return the questionnaire. Intensive communication and considerate approach with respondents yield 76.8% return. Out of 21 institutions officials and experts requested for interview 8 made themselves available for the interview. The only thing demanded was rescheduling of meeting due to managers busy schedule and unexpected and urgent meeting pose challenge to conduct timely interview with them. The personal structured interview took four month to accomplish it in desired manner and standard. Seven institutions strategic planning documents accessed for analysis but the rest denied access to their strategic documents.

3.7 Method of Data Preparation and Analysis

Data preparation is fundamental prerequisite for data analysis. It gives us all necessary information how data is filled and the pattern of response by respondents. All necessary steps should be taken by preparing data for farther analysis. Therefore
data editing, coding, classification and tabulation considered in the following manner within this study.

**Editing:** Editing is done to assure that the data are accurate, consistent with other facts gathered, uniformly entered, as completed as possible and have been well arranged to facilitate coding and tabulation (Kothari, 2004). Both in the field and home editing, two questionnaires with poor pattern of response were discarded.

**Coding:** Coding is a process of assigning numerical values, characters and symbols to answers of the survey questions for the subsequent computer based analysis (Paelmke, 2007). Further analysis and understanding of meaning of each response can be clearer by use of coding. Besides this computer can easily manipulate data stated in terms of continues or categorical variables. The attitude measurement scale was made by using five response category coded from ‘one’ to ‘five’ for each question. Some factors not fixed at designed stage transformed to fixed factors. For instance continues variable named “Training and workshop attended” with no categorical response pattern transformed in to only two fixed response. The coding was made to analyze data using Statistical Package for Social Science (SPSS). The preparation of SPSS template followed the following procedure.

The variable Strategic Focus (SF) coded as SF1...SF20, Strategic HR Management coded as SHRM1...SHRM15; For Strategic HR Planning coded as SHRP1...SHRP6; HR Architecture coded as HRA1...HRA16; Institutional current HR Strategy coded as IHRS1...IHRS12; Future HR Strategy coded as Future HRS1...FutureHRS15; Integrated HR Planning with Corporate Strategy coded as IHRPCS1-IHRPCS8; HR Information system coded as HRIS1...HRIS24; Organizational culture Dimensions
coded as OCD1...OCD14. These were variables used to measure the institutions integrated human resource planning practice in Ethiopia.

**Classification:** Most research studies result in a large volume of raw data which must be reduced into homogeneous groups if we are to get meaningful relationships. This fact necessitates classification of data which happens to be the process of arranging data in groups or classes on the basis of common characteristics. Data having a common characteristic are placed in one class and in this way the entire data get divided into a number of groups or classes. To this study major Statistical descriptive attributes grouped under: Background Data(respondent company HR organization, position, length of service, working department, institution affiliation, education status, area of educational specialization, training and workshops, background of HR Head). The other variables of research central issues grouped under institution strategic focus, Strategic HR management, strategic HRP, manpower forecasting methods, end of manpower forecasting, HR architecture, institutions HR strategy, Skill of HR manger, HR information system, and integration of HR planning practice.

Regarding class classification of variables based on intervals depending on response patter of respondents, the researcher experience and using certain standards inclusive type class intervals with equal magnitude used for variables requiring such classification. One thing should be understood is there can be no specific answer with regard to the number of classes. The decision about this calls for skill and experience of the researcher. However, the objective should be to display the data in such a way as to make it meaningful for the analyst. Typically, we may have 5 to 15 classes
(Kothari, 2004). Therefore respondents Length of experience and time spent on different HR activity classified using this interval.

Tabulation: One way, two-way tables, three-way tables and sometimes manifold tables are generated to describe the situation of integrated HRP practices in institutions and interrelationships among variables.

3.7.1 Data analysis

The distribution free test namely called non parametric test used to analyse overall data collected from respondents. Singh (2006) advised the effective use of non-parametric statistics in the situations: when non-probability sample is selected in the research study, the variables of the study are quantified at any level of measurement mainly nominal and ordinal scale. It may be in the discrete form. No assumption is required for this approach, free distribution of data, may be skewed or may be normally distributed, and objectives of the study. They are also useful when you have very small samples, and when your data do not meet the stringent assumptions of the parametric techniques (Pallant, 2005).

SPSS- Statistical Package for Social Science used for analysis of data obtained through questionnaire. Descriptive analysis used for frequency analysis of data gathered and to examine dispersion and bivariate relationship analysis between variables. Institutions different circumstances on integrated SHRP practices assessed using this statistical procedure. This would help to understand easily how the company behave regarding its company HRP practice and integration with companywide strategy. Descriptive analysis refers to the transformation of raw data
into understandable and descriptive information and helps to understand how the sample population behaves and what its characteristics are (Paelmke, 2007). To see relationship of SHRP variables possible relationship analysis were used. Tables, graphs, charts used to describe facts and events in selected institutions.

Man Whitney U-test and Kruskal Wallis test techniques were used to test for differences between independent groups on a continuous measure. These tests are the non-parametric alternative to the t-test and ANOVA for independent samples. Instead of comparing means of the two groups, as in the case of the t-test, the Mann-Whitney U test actually compares medians (krishnaswami and Ranganatham, 2009). It converts the scores on the continuous variable to ranks, across the two groups. It then evaluates whether the ranks for the two groups differ significantly. As the scores are converted to ranks, the actual distribution of the scores does not matter (Pallant, 2005). The Kruskal-Wallis Test (sometimes referred to as the Kruskal-Wallis H Test) is the non-parametric alternative to a one-way between-groups analysis of variance. It allows you to compare the scores on some continuous variable for three or more groups.

To see the predictive efficacy of institutions strategic focuses over IHRPCS standard regression analysis was used. To see the effect of HR planning prerequisite processes and enabling factors over IHRPCS hierarchical multiple regression analysis was used. The variables were grouped in to two bunches. The first group entered was prerequisites for IHRPCS (Integrated HR Planning with Corporate Strategy) such as Strategic HR management, institutions current HR strategy and long range HR planning practices. The second bunch was enabling factors such as HR manager skills and behaviours, HR architecture, organizational culture and HR information systems.
The variables included were: Background of HR head($x_1$), percentage of time spent on HR activity($x_2$), educational specialization of HR($x_3$), education Level of HR($x_4$), Institution type($x_5$), respondents Institutional affiliation($x_6$), Existence of institutional strategy ($x_7$), current and future HR strategy($x_8$), strategic HRM practices($x_9$), Human resource Information system($x_{10}$), organizational culture($x_{11}$), Strategic Human resource management ($x_{12}$), HR unit architecture and competency, ($x_{13}$). Relationships of these variable overall or explaining Strategic HRP practices in institutions ($Y_1$) tested using Man Whitney U-test and Kruskal-Wallis H test. They can be applied on categorical variable and skewed measurement on continues variables. The different or similarity of integrated HRP practices between two or more group or attributes tested using Man Whitney U-test and Kruskal-Wallis H Test respectively.

The selection of each variable to see relationship or dependence underlies on the notion that company strategic focus, strategic HRM, organizational culture, time spent on HR activity, company type and affiliation, HR head background and specialization, HR unit architecture, HR information system, HR forecasting models and techniques determine Integration of HRP practices with corporate strategy (Greer, 2001, Rao, 2010, Aswathappa, 2009).

### 3.8 Ethical considerations

Credibility of research and research methodology justified only when ethical concerns of research are maintained. The study seriously committed to maintain basic ethical principles of Belmont Report (Marczyk et al., 2005). The first ethical principle considered within this study is respect for person. This includes two ethical mandates:
first, that individual is treated as autonomous agents, and second, that individuals with diminished autonomy are entitled to protection”.

The concept of autonomy, which is clearly integral to this principle, means that human beings have the right to decide what they want to do and to make their own decisions about the kinds of research experiences they want to be involved in, if any. In cases in which one’s autonomy is diminished due to cognitive impairment, illness, or age, the researcher has an obligation to protect the individual’s rights. Respect for persons therefore serves as the underlying basis for what might be considered the most fundamental ethical safeguard underlying research with human participants: the requirement that researchers obtain informed consent from individuals who freely volunteer to participate in their research.

Therefore, no coercion or forcing made to someone to make her/him participate in this research to obtain data. Another ethical principle considered within this study is Beneficence. Beneficence means being kind, or a charitable act or gift. According to Marczyk et.al (2005:242) in the research context, the ethical principle of beneficence has its origins in the famous edict of the Hippocratic Oath, which has been taken by physicians since ancient times: “First, do no harm.” The study tried not to harm participants and, ultimately, the benefits to participants are maximized and potential harms and discomforts were minimized. Justice is ethical principle should be maintained during worthy research.

No bias or discrimination made in the selection and recruitment of research participants. Institutions and respondents within institutions were selected without
considering member of social, racial or ethnic group and they had equal chance to have their saying on the research concern. Besides these ethical principles the study tried to maintain the principle of informed consent. For Marczyk et al (2005:246) the principle mechanism for describing the research study to potential participants and providing them with the opportunity to make autonomous and informed decisions regarding whether to participate is in-formed consent.

For this study, informed consent has been characterized as the cornerstone of human rights protections. The three basic elements of informed consent maintained are that the participant must be competent, knowing, and voluntary. Clear description was made about the research purpose without deception to participants both in written introduction on data collection instruments and brief explanation by researcher on each and every point.

Chapter Four

4. Results of The study

4.0 Introduction

This chapter is totally concerned with substantiating the study’s initial target or answering the research questions based on analysis of the data collected. The study surveyed 21 key and symbolic institutions that must have strategic Human Resource Planning integrated with institutional strategy. Both government and private sectors were involved in the study. From these institutions 250 sample units were selected. Activities practiced within these institutions is believed to represent Ethiopia practice in human resource planning as these are the leading sectors in the country business; they represent the real face of Ethiopia institutions, and hold more than 2000