**RESEARCH METHODOLOGY:** The basic idea behind research methodology is to measure variables by asking people questions and then to examine relationships among the variables brought forth by the investigation. In most instances, such research attempts to capture attitude or patterns of past behaviour. About the only options are whether to ask people questions once or over time. In our research we found that the safest thing is to administer a well structured questionnaire and analyze the responses. Then take 10% of the sample chosen randomly and interview them so that the responses could be strengthened. It is not advisable to ask persons to get questionnaires filled as a part of the assignment unless there is absolutely no doubt in the mind of the investigator about the authenticity of the responses. Treatment of this important aspect of the thesis will be divided into (a) the Research problem, (b) the Research area, (c) the sample design, (d) the sampling size and sampling process and (e) analysis of data.

**(a) Research Problem:** The thesis is based on an empirical and critical study and which, at the end makes certain observations on the three seminal areas of HRM i.e. Recruitment & Selection, Training & Development and Compensation and Retention and concludes with an examination of the proposed hypotheses. On the basis of field survey conducted between 2004 and 2009 this investigator found that while the “possible problem areas” were identified the “real problems” were not. The issue then boils down to “Inadequate problem definition” and this leaves three glaring issues that need to be addressed through HR interventions. (I) In spite of high attrition rates and an almost continuous process of selection and recruitment, the reason for attrition of the knowledge worker to be addressed is blurred preventing HR interventions from squarely addressing the problem. (II) The general belief held by both CEO’s and HR specialists is that the “knowledge worker” is loyal to technology and seeks to upgrade his/her technological base at all times. Two things happen. Firstly HR interventions concentrate of Training and Development to upgrade the knowledge base and skill sets. Secondly since the speed with which knowledge is expanding leaves the older workers knowing less about up-to-date technological advances than the newer entrants. Consequently the older set to concentrate on administrative tasks leaving technology to the younger set of knowledge workers. This also causes a lot of disquiet and uncertainty among the older set leading to frustration and anomie. (III) Arising out of frustration and anomalies on the one hand and the craving to scale the hierarchical ladder as quickly formulated and proposed to test. as possible has led to job hopping. Compensation planning is then recommended by scholars and resorted to by HR specialists. Joining Bonuses (JBs) and Employee Stock Option Plans (ESOPs) become the usual sops available and used.

These combined to form the research problem: What should HR interventions concentrate upon to address the three critical issues mentioned above?
(b) **Research Area:** This section is divided into two parts (i) the geo-physical location and (ii) the academic ambit of inquiry. In terms of geo-physical location the scope of this study is limited to the Case Study of Pune from 2000 to 2010. The IT parks of Hinjewadi and Magarpatta were identified since all the companies that came in the selected sample were based there. In terms of the academic ambit the investigation has developed six hypotheses which were stated above and which goes towards addressing the research problem given in the above section.

(c) **Sample Design and Size:** The *descriptive method of research design* helps researchers plan and carry out descriptive studies, designed to provide rich descriptive details about people, places and other phenomena. This type of research is often associated with anthropology, sociology and psychology, but researchers in other fields, such as education, use it. The descriptive method often involves extensive observation and note-taking, as well as in-depth narrative. Because it does not lend itself to in-depth analysis or hypothesis testing, some researchers regard the descriptive method as unscientific. However, a descriptive research design can serve as a first step that identifies important factors, laying a foundation for rigorous research according to Taylor, Sinha and Ghoshal (2011). In consultation with and the approval of the Doctoral Guide this Research Design was selected by the investigator. The investigator identified the fifteen selected IT companies wherein the investigation was conducted. All of them have a marked presence in Pune either at Hinjewadi or Magarpatta. The process by which the companies were selected is discussed and out of 78 companies in Pune in 2010, the investigator selected 15. These companies were divided into three cohorts. In statistics and demography, a **cohort** is a group of subjects who have shared a particular time together during a particular time span e.g., people born in Europe between 1918 and 1939; survivors of an air crash; truck drivers who smoked between age 30 and 40). Cohorts may be tracked over extended periods in a cohort study. In this case it is knowledge workers who have worked together for a while.

In this stage she has identified the following companies based on proximity to the investigator. The research was constrained by time, space, travel and accessibility parameters. Accordingly, the investigator proposed to undertake a factual empirical study Design: analysis of a selected number of Information Technology companies only which might be broadly divided into three different categories i.e.

(1) I.T. companies of Indian origin
(2) I.T. companies having country of origin of other places than India i.e. having development centers in India only.
(3) I.T companies which are of joint venture in nature

This classification is a suggestive one, just a balanced understanding of the types of I.T. companies operational in the Indian environment as such. The above discussion is followed by comparative
matrices on the same industries. 5 top ranking companies (in terms of brand image) from each categorization were selected based on convenience.

(d) **Sampling Method:** Data was indeed very difficult to come by and so the investigator had to promise anonymity in the reportage and hence names of IT companies have been omitted. However, enough information has been provided for an intelligent guess to be made.

In this stage the investigator divided the sample into four *cohorts.*

(i) Senior Managers and Team Leaders
(ii) Operational Specialists and Team Members,
(iii) Human Resource Managers,
(iv) Managers from other specializations like finance, marketing, quality control and general administration & security that operates in industry.

Accordingly based on the knowledge of the environment the investigator selected 5 companies from each of the three categories mentioned above.

Furthermore assuming ‘n’ to be 10% of ‘N’ in the sample selected could be called representative. The methodology to select this sample is as follows:

The investigator listed out the number of persons on rolls in the relevant managerial category on an average working day during the year 2009-2010. This sample size of each group has already been decided. From a **Random Sample Table** the investigator selected the random numbers and identified the managers to be included as respondents. (Every employee has a given number and selection of employees was made by selecting their number from the random number table. To be on a safer side the investigator included 5% more managers in the sample under the assumption that some managers will not respond or respond inadequately.

Originally the investigator has given out 1000 questionnaires and only about 50% were found to be complete and usable for analysis. About 30% did not come back. Hence the calculation is restricted to 486 respondents distributed over 5 examples of each of the 3 types of companies or 15 **IT companies** with 4 *cohorts* from which responses were taken.

Accordingly analysis was conducted. This was followed up by focused interviews of (approx) 10% of each cohort to reinforce the validity of the findings i.e. the investigator selected 8 from senior managers, 19 from operational managers, 5 from HR managers and 15 from other managers.
(e) Data Analysis: Since there are five cohorts, the investigator will correlate the findings to see if a universal trend emerges. This universal trend will then be seen against the backdrop of the environment that is being investigated and the findings will be further confirmed through focused interviews. While keeping in mind the overall research objectives given, suitable statistical analysis techniques, bivariate or multivariate like t-test, F test and Z test will be administered to the data thrown up in the investigation. These tests will help the investigator in the statistical analysis of data and thence to either accept or reject each hypothesis. The data interpretation of findings will be done in tabular or graphical modes.