CHAPTER – III

RESEARCH METHODOLOGY

This study employs both analytical and descriptive type of methodology. The study is conducted in two stages format, with a preliminary pilot study followed by the main study.

3.1 STUDY AREA

3.2 QUESTIONNAIRE DESIGN

The questionnaire was based on the initial research model and propositions. Primary data were collected through questionnaire survey. The respondents were asked to give their opinion relating to the five major HRM competencies. The first part of the questionnaire comprises demographic factors with optional questions. The second part contains statements relating to Management Policies, Performance Evaluation, Role of Women and Goal Achieving with Likert’s 5 point scale. It further consists of benefits from the organization, intellectual/mental demands, physical stress due to environmental and job conditions with Likert’s 5 point scale. The third part consists of various outcomes of stress with Likert’s 5 point scale. The fourth part consists of various stress management technique with Likert’s 5 point scale. Some optional questions are included along with the rating questions in the form of Yes/No. The fifth part contains statements relating to stress management technique impact on individual and at the organizational level with Likert 5 point scale and open ended questions to general information. The researcher circulated questionnaire among women employees and were subsequently collected.

3.3 PILOT STUDY

The Pilot study is conducted over Public, Private and MNC employees to check the reliability and validity of the instrument (Questionnaire). The questionnaire comprises of questions namely Optical type, Likert Five point scale and Bipolar scale (Yes/No) the analysis is conducted for three types of option separately. For optional type Gaussian Method Distributions is applied to check the normality for 60 responses.

The results showed that the age wise distribution need to be segmented more in number to underpin the factors causing stress. For independent demographic variable Age, Marital status, Family status, Job position, Educational qualification, Working hours, Shift system, Level of management, Nature of employment and Salary per month formed Normal distribution and Bell shaped curve at 5% level of significance expect age, all classification can be accepted for the main study.
Confirmatory Factor analysis followed by Corn Bach Alpha method are applied to check the reliability as well as validity for the blocks management policies, performance evaluation goal achieving, role of women, organizational benefit, intellectual and mental demands, stress outcomes, stress management technique and organizational level showed the high Corn Bach values above 80%. This shows respondents are able to identify the statements passed on to them to study stress dynamics among Public, Private and MNC.

In case of goal achieving, performance evaluation and role of women there is a carotene response identified. Therefore the researcher is advised to personally interact with the respondent during their response towards performance evaluation, goal achieving and role of women to avoid same type of responses without significant variances.

Logistic Regression Method is applied at pilot study stage to identify the impact of organizational variables on stress levels in the second part of Part D questions. It estimates variance of these dichotomies variables to measure the stress level sharply.

On the whole, the pilot study revealed a wide distribution of sample domain spread across Public, Private and MNC Companies which is required to get flawless results regarding stress dynamics among Women employee.

3.5 SCALE DEVELOPMENT

This thesis employs two different scales in its measurement of the perception of respondents about stress, outcomes and techniques. Each scale has its own range options. The variety and number of scales are Likert’s five point scale and Bipolar scale (eg. Yes/No type).

The questionnaire comprises both optional type and statements in Likert’s 5 point scale. The responses of these sections are obtained from the women employees in the five point scale ranges as follows: 5 – strongly agree, 4 – agree,
3 – Neutral, 2 – Disagree, 1 – Strongly Disagree. This allowed for the standardization of results as well as making it easier for respondents to complete the questionnaire.

3.6 DATA COLLECTION

A total of 650 questionnaires were circulated to the women employees working in public sector, private sector and MNC and 600 questionnaires were collected. Convenience sampling was utilized with individual subjects representing individual sampling units. This method has been suggested satisfactory for theory testing purposes (Mittal 1995).

3.7 SECONDARY DATA

The secondary data are collected from journals, magazines, publications, reports, books, dailies, periodicals, articles, research papers, websites etc.

3.8 DATA ANALYSIS

All data analysis was conducted using SPSS V-15. Sample means, standard deviation and N are presented in the analysis chapter for all the variables of the study. Factor analysis, cluster analysis, association of cluster, Karl Pearsons co efficient of correlation, t-test, analysis of variance and discriminant analysis are discussed here.

3.8.1 Factor Analysis

Both Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were used in this thesis. Factor analysis is a branch of multivariate analysis that is concerned with sharp internal relationship of a set of variables. The numerous variables used in a multi-item scale such as those utilized in the thesis, can be analyzed to note if those variables could be seen as approximately explaining a single factor (De Groot et al.1982).
3.8.2 Cluster Analysis

This procedure attempts to identify relatively homogenous groups of cases based on selected characteristics using an algorithm that can handle large number of cases (COX 1999). However, the algorithm requires to specify the number of clusters. It allows the researcher to analyze the existence of different perceptions of the respondents. The number of clusters may be derived by trial and error method or by computing the large scale differences among co-efficient obtained from hierarchical clusters. This technique is considered appropriate, whenever the research is concerned with a comparison of mean scores, especially in the case of experimental study, involving manipulations (Bray and Maxwell1988). The basic assumptions of cluster analysis are, the variables should be quantitative at the interval or ratio level. The distances are computed using simple Euclidean distance among appropriate variables. In the case of this thesis, clusters are formed with respect to the factors obtained through factor analysis.

3.8.3 Analysis of Variance (ANOVA)

ANOVA allows for the study of a single factor or several factors, but will only measure one variable (Bray and Monwall 1985, Towncend 2002). An ANOVA works by measuring the variance of the population in two different ways; the first is by noting the spread of values within the samples; the second is by the spread out of the sample means. If the samples are from identical populations, these methods will give identical results. The basic assumptions for ANOVA are random sampling, independent measurements, normal distribution and equal variance.

3.8.4 Karl Pearson’s Co-Efficient of Correlation

The Karl Pearson’s Co-efficient of Correlation measures how variables or rank orders are related. This is useful in a linear relationship among variables. It also develops the linear parametric relationship among any of the factors.
3.8.5 T-Tests

T-Tests are used in situations where the researcher wants to compare two statistics. The basic utility of t-tests is that it produces a straightforward easy to interpret results of significance. In the case of this thesis, two tailed t-tests were used. The basic assumptions for t-tests are random sampling, independent measurements, normal distribution and equal variance. The t-tests were further strengthened by the use of the Bonferroni correction test which uses t-tests to perform pair-wise comparison between group means. It controls overall error rate by setting error rate for each test, to the experiment-wise error rate divided by the total number of tests. Hence, the observed significance level is adjusted and the multiple comparisons are being made (SPSSIn, 2001).

3.8.6 Discriminant Analysis

Discriminant analysis is a technique used to build a predictive model of group membership based on observed characteristics of each case. For example, it is possible to group children into two main groups of Very Clever or Just Clever children based on their performance on the three core subjects English, Mathematics, and Science. Discriminant analysis generate functions from a sample of cases for which group membership is known; the functions can then be applied to new cases with measurements for the predictor variables but unknown group membership. That is, with a child's score on three subjects, we can use the discriminant function to determine whether the child belongs to the Very Clever group or the Just Clever group. When there are two groups, only one discriminant function is generated. When there are more than two groups, several functions will be generated.
3.9 HYPOTHESIS

The following null hypothesis are formed and taken for study.

Null Hypothesis

1. The factors causing stress do not differ significantly among working women.

2. Women employees do not differ in the perception towards causes of stress.

3. There is no association among the factors of stress.

4. There is no influence of demographic details of women employees on cause and effects of stress.