CHAPTER - 3

METHODOLOGY
Chapter – III
Research Methodology

The objectives of a scientific endeavor are to ascertain facts and analyze them in an unbiased manner. In behavioural studies research design plays a significant role in collecting and analyzing data and drawing inferences. Lindquist (1956) pointed out that “the researches are designed to proceed in planned manner to control variance and to answer pertinent research questions.” The design is the general structure of the experiment not its specific contents.

Myers (1980) though there are different objectives of designing of an experiment, but the most important function of experimental design is to control variance. Mohsin (1984) opines that “research design depicts the plan which states the relation between observed facts and events on the basis of which conclusion could be drawn”. Main function of experimental designs is to maximize the effects of systematic variance, control extraneous source of variance, and minimize error variance (Broota, 1989).

Several methodological approaches and designs have been developed and discussed (Fergusan, 1981) but the choice of appropriate design depends upon the special characteristics and avail of the sample, nature of measuring instruments and restraints regarding the manipulation of variables being studied. Thus, the choice of method is governed by the aims of the study, the variables under investigation and the nature of the data.

It is customary in physical sciences to describe, explain, predict and control the phenomena with which they deal. The behavioural sciences attempt to describe behavior in a similar manner. For a scientific endeavor, as recognized by all sciences, is to use observation as a basis for answering questions of interest (Festinger and Katz, 1953; Selltiz et. al, 1964; Underwood, 1957).
In other words we can say that scientists ascertain facts and analyze them in an unbiased manner to draw conclusion. Research design obviously plays a significant role in inference making using behavioural observations on a limited number of subjects and making decisions or predictions about the behaviour of the large group represented by these subjects Edwards (1956), believed that “in research we do not haphazardly make observations of any and all kinds but rather our attention is directed towards those observations that we believe to be relevant to the questions we have previously formulated”. His contention reflects the point that researches should be well planned and must be carried out using sound means and techniques for investigations.

In the chapter one the variables that have to be studied are daily hassles, extra-organizational stressors and work-commitment.

**Tools Used** To measure the above mentioned variables the researcher made the use of the following measuring devices.

**Daily Hassles Scale** In order to measure daily hassles we used the Daily Hassles scale developed and standardized by Kanner et al (1981). The original scale consisted of 117 items. The pilot study was conducted and after item analysis only 74 items were found significant for Indian sample. It includes the areas of work, health, family, friends, environment, practical consideration and occurrences as guidelines, e.g. misplacing and losing things, declining physical abilities, not enough time for family, concerns about owing money, and pollution. Each event ranges from minor annoyances to major problems or difficulties. Events occurred few or many times in the past month are given in the scale. The three point scales and subscales are ranged from somewhat severe (1), moderately severe (2), or extremely severe (3).

**SOCIAL AND FAMILY ROLE STRESS:**
Extraorganizational stressors have been measured by a scale developed by Vadra and Akhtar (1990). This scale consisted of 25-items with a 5-point rating scale. There were 9 factors were labeled according to the factor loadings. Factors included in the scale were: Factor (1), role related tension; Factor (2), untrustworthy colleagues; Factor (3), bleak future; Factor (4), lack of family support; Factor (5), adverse effect on health; Factor (6), family responsibilities; Factor (7), underpaid, Factor (8), Foregoing career development. Opportunities and Factor (9), unsuitable job the split half reliability of the scale was found to be 0.81. The validation techniques used were internal coefficient and construct validity. The SFRS scale is a reliable and valid instrument for measuring the role stress emanating from family and social situations.

**WORK-COMMITMENT SCALE:-**

In order to assess the level of employee's work commitment investigator made the use of Work-Commitment Scale developed by Imtiaz (2000). This scale consist of 15-items related to work-commitment and is 7-point scale, ranging from strongly disagree (1) to strongly agree (7). This scale is based on three dimensions given by Meyer and Allen (1991), viz.

(i) Affective commitment which involve employee's emotional attachment to identification and involvement with organization.

(ii) Continuance Commitment, which refers to commitment based on cost that employees associate with leaving the organization and

(iii) Normative refers to employee's feeling of obligation to stay with organizations. The reliability of this scale was found by the application of split half technique, and it was found to be (r=0.80) and the validity of this scale was found (r=0.76).

**SAMPLE**

The sample was randomly selected from a large population of employees working in Maulana Azad Library, Administrative Block, and other offices of the university. The total strength of the sample was constituted 200, of which 100 were males and 100 females. In the processing of the samples, it was
further divided on the basis of marital status, work experience, and age. Male subjects whose age was less than 42 years were considered as younger and the subjects whose age was above 42 years were considered as older. Female subjects whose age was less than 35 years were considered as younger and the subjects whose age was above 35 years were considered as older. As far as job experience is concerned, the subjects (male) having more than 18 years job experience were classified into high job tenure category and the subjects having less than 18 years experience were classified into low job tenure. Female subjects having work experience more than 8 years classified into high job tenure category and the less than 8 years experience were classified into low job tenure. According to the marital status the subjects were divided into married and unmarried. Thus in the sample of 100 male employees, there were 49 younger and 48 older, 44 highly experienced and 45 low experienced, 60 married and 40 unmarried subjects. In the sample of 100 females, there were 49 younger and 45 older, 46 highly experienced and 49 low experienced, 60 married and 40 unmarried subjects.

PROCEDURE:–

The subjects were tested individually. In the beginning care was taken to remove the apprehensions of the subjects regarding the study. Most of them thought that it is a government projects and they will get some monetary benefit by participating in it. However, it was classified that this work is purely for research purpose in order to accomplish the PhD thesis and it was not affiliated to any government agency. It was also assured to the subject about the confidentiality of their responses, and was requested to extend their full cooperation.

Instructions of each scale were clearly mention before administering the scale.

Earlier we have mentioned the necessary of reliability and validity for the test used. The extraorganizational stressors scale has been developed in Indian by Vadra and Akhtar (1981). Now the two tests have been used which were developed outside India. We have tried to determine the efficacy of
these tests for the suitability to be used in India. For this purpose a pilot study was conducted.

**PILOT STUDY:**

For pilot study a sample of 50 subjects was randomly rejected from employees working in different faculties. Kenner's scale had 117 items. In order to calculate discriminative value of each item, high and low scoring respondents were selected on the basis of $Q_1$ and $Q_3$. The frequency of respondents falling below $Q_1$, were labeled as low scoring where as those falling above $Q_3$, were designated as high scoring. The discriminatory index of each item falling in 50 was not included for scoring. The result showed that significant differences were observed.

Table is showing difference between the mean score of Male and Females on Daily Hassles:

<table>
<thead>
<tr>
<th>Sample</th>
<th>Mean</th>
<th>S.D.</th>
<th>t-value</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>9.25</td>
<td>5.40</td>
<td>2.12</td>
<td>.05</td>
</tr>
<tr>
<td>Females</td>
<td>9.30</td>
<td>4.73</td>
<td></td>
<td>Sig.</td>
</tr>
</tbody>
</table>

The result shown in the Table indicating mean, S.D and t-value of male and females on daily hassles. The Man and S.D. scores of males and females are 9.25 and 5.40, 9.30, and 4.73 respectively. The calculated T-value of the two groups is 2.12 that is significant at 0.5 level.

Similar procedure was adopted for calculating discriminative value of each item of the work-Commitment scale was used by Imtiaz (2000), who used the scale in her PhD thesis (this scale was used by Imtiaz after necessary modification).

**STATISTICAL ANALYSIS**

The choice of a statistical method is linked to the type of data and the design of the study. In the present study there are two independent variables, namely daily hassles and extra-organizational stressors and one dependent variable i.e., work commitment. Regression is considered to be the most suitable and useful technique because it ascertains the influence of several
independent variables on the dependent one (Tabachnick & Fidell, 1983). Through this technique we are able to find out which independent variables are the significant predictors of the criterion or dependent variable. Another advantage is that there exists no necessity of selecting uncorrelated independent variables. Moreover, multiple regression technique relates independent to dependent variable in a manner which takes interactive effects into account.

There are three major analytic strategies in multiple regression namely: Standard, Hierarchical, and Stepwise Regression. To simply assess relationships among variables and answer the basic question of multiple correlation, the method of choice would be standard multiple regression. In hierarchical regression the researcher controls the entry of variables into the regression equation on the basis of logical or theoretical considerations. While in stepwise regression the order of entry of variables is based on statistical rather than theoretical criteria. Reasons for using these methods might be theoretical or for development of hypotheses.

In the present piece of research, we have made use of Standard Multiple Regression. This simultaneous or standard strategy calls for entry of all the independent variables into the regression equation at once. Each independent variable is assessed as if it had entered the regression after all other independent variables had been entered. Each independent variable, then can be evaluated in terms of what it adds to prediction of the dependent variable, over and above the predictability afforded by all the other independent variables.