CHAPTER-3
RESEARCH
METHODOLOGY
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RESEARCH METHODOLOGY

The chapter sketches the data collection method, the sampling procedure, the survey procedure utilized and the method employed.

3.1- Rationale of the study

In present scenario, an increasing number of women are becoming career conscious and professional in their outlook. This is due to the reasons such as increase in women's education, changing socio-cultural values, increasing awareness and consciousness in women and the rise in economic independence. Women are much aware in terms of queries regarding self and her rights. Balancing work and family frequently means irregular work hours for women professionals leading to stress and various problems related to it. The working woman, regardless of whether she is married or single, faces higher stress levels. This is not so much in the workplace but at home also. She may feel guilty for leaving her children while she works; this not only increases her stress but also reduces her job satisfaction. Working women compose a large proportion of the workforce today and for them to be working as a manager is really a challenge which leads to stress in their life. Women performing dual role are under stress and several factors at home and at the work place cause it. They may be overload of work, responsibility, and inadequate authority, non-cooperation from subordinates, hostile boss, poor working conditions and conflicts in the organization. All of us are affected at one time or another by work-related stress.

This research study is an effort to investigate the impact of occupational role stress among female IT professionals.
3.2 Objectives of the study

Every research, in business studies, is supposed to be purposeful, i.e. it should have objectives to be achieved through study as the specification of them enables the researcher to zero in on the well-defined objectives. The main objectives of the research study are to find out the factors causing occupational role stress and impact behind the occupational stress among IT women professionals. The other objectives of the research study include:

1) To analyze relationship between occupational stress and level of stress and their outcomes in terms of performance/productivity and social balances of life.
2) To analyze role conflict among the professional working women in social life and IT profession.
3) To suggest the preventive measures to overcome occupational stress and ways to increase the social support network.
4) To analyze the strategic steps initiated at the employee level and corporate level.

3.3 Research methodology:

Research methodology is a systematic method/process dealing with identifying problem, collecting of facts or data, analyzing these data and reaching at certain conclusion either in the form of solutions towards the problem concerned or certain generalization for some theoretical formulation. It also comprised of a number of alternative approaches and inter-related and frequency overlapping procedures and practices. Since there are many aspect of research methodology, the line of action has to be chosen from a variety of alternative. The choice of suitable method can be arrived at through assessment of objectives and comparison of various alternatives. Research methodology used in the present study is as under:

3.3.1 Type of Research

A Research Design is the specification of methods & procedures for acquiring the information needed to structure or to solve problems. It is a series of
advanced decisions that taken together form specific master plan for the conduct of investigation.

Constraints with regard to accessibility, time and money and also multiplicity of objectives and research questions make limited allowance to collect or analyze all the data available. Many have argued that sampling as a whole does provide overall accuracy. Sampling is the process of making a selection of sampling elements from a defined set of elements called a population. Sampling techniques can be divided into two categories: Probability or representative sampling and Non-probability or judgmental sampling. Probability sampling techniques are those in which the researcher knows the probability of a sampling unit getting selected in the sample. In non-probability sampling methods, no such knowledge selection probability is possible. The biggest problem with real-life populations is that there is no accurate listing available of the sampling units or the sampling elements. This makes it difficult to use probability sampling techniques in practice. Therefore, in real life, researchers tend to combination of probability and non-probability techniques, or an adapted form of probability sampling techniques. The popular probability sampling techniques are simple random sampling, systemic sampling, stratified sampling, and cluster sampling. The non-probability techniques include quota sampling, judgment sampling, convenience sampling, and snowball sampling.

This research study is descriptive cum diagnostic study in nature and an effort to analyze the factors causing occupational role stress and impact behind the occupational stress among IT women professionals.

Thus a good sample is a miniature version of the population and a good sample design involve the following:

### 3.3.2 Universe and survey population:

The universe of the research titled "Occupational role stress among female IT professionals" is aggregate of all women executives working in Information Technology sector. The area of study is Delhi –NCR (national capital region) consisting of Delhi, Gurgaon, Noida, Greater Noida. IT companies operating in NCR are considered in the research study.
3.3.3 Sampling Unit

The sampling units form the basis of actual sampling procedure. It is that which actually chosen by the sampling process. In the present study Female IT Executives are considered for getting the response.

3.3.4 Sample Size

Sample size refers to the number of elements included in the study. After the population has been defined, the sampling frame established and specific sampling type selected, conceivably another important consideration is sample size determination. Appropriateness of sample size is quite complex for large enough sample for any researcher's objective may turn out to be too large for the amount of time, money and personnel requirement. So a trade-off has to be evolved between the required information and cost and resources has to strike off. So while specifying sample size, the factors such as the number of units to be included in the sample in which neither so few are selected as to render the risk of sampling error intolerably large, nor too many units are included which may raise the cost of the study to make it inefficient, must be weighed properly. To determine the adequate sample size a decisional approach has been considered. Any process of sample selection requires (a) specification of the error that can be tolerated (b) A specification confidence coefficient (c) an estimate of the standard deviation.

In the research study the sample size of 200 working women in IT sector are considered.

3.3.5 Sampling Technique:

The procedure that a researcher adopts in selecting the unit for the sample is known as sampling technique. In the present study, judgmental sampling and convenience sampling is used.

3.3.6 Pilot Testing

Actual data collection was preceded by a pilot survey. The pilots was carried out with a sample size of 50 respondents spread across with a view to clarifying questionnaire structure holistically and avoid any interpretation problems. Some teething problems were encountered during the data
collection. Suggestions and comments were invited from the respondents. This enabled me to develop an insight to bring about required modifications in the overall configuration or taxonomy of the questionnaire by incorporating suggestions and observations. This also helped me in improving the quality and texture of the questionnaire to ensure smooth data collection.

3.4 -Data Collection Method

The methods used to collect information about a situation, phenomenon, issue or group of people can be classified as: Primary Data Sources and Secondary Data Sources. The purpose of collecting information, the type of information being collected, the resources available, your skill in the use of particular method of data collection and the socioeconomic-demographic characteristics of your study population ascertain the choice of a particular method of collecting data. Each method has its own advantages and disadvantages and each is appropriate for certain situations. The choice of a particular method for collecting data is important in itself for ensuring the quality of the information. No method of data collection will guarantee 100 per cent accurate information. The quality of information banks on several methodological, situational and respondent-related factors and ability as a researcher lies in either controlling or minimizing the effect of these factors in the process of data collection. The construction of a research instrument is the most important aspect of any research endeavor as it determines the nature and quality of the information. This is the input of the study and the output is entirely dependent upon it. A research instrument must reflect the study objectives.

3.4.1 Primary data

Interviewing, Observation and the use of questionnaire are the three main methods classified under primary sources. Achieving best results warrants collecting authentic and accurate data irrespective of basic study research design. A formal list of questions is termed as questionnaire. Questioning as the name imply, is distinguished by the fact that the data are collecting by asking questions from the people who are thought to have the desired
information. Questions may be asked in person or in writing. When data are collected by observation, researchers ask no questions. Instead they keep track of the objects or the actions in which they are interested. No matter what research design is used, the necessary data are collected by one or both methods. The primary data are collected afresh and for the first time, and thus happens to be original by nature. The primary data for the present study has been collected from the female respondents from different IT companies through a structured questionnaire of ORS Scale (1983) of Udai Pareek and each was administered individually related to the research.

3.4.2 Secondary data

The data collected by persons or agencies for purposes other than solving the problem at hand are known as secondary data. Secondary data is collected from books, journals, magazines, news papers and various internet websites and literatures as a complementary of primary survey. Before using the secondary data, the researcher has to subject them to an in-depth evaluation and describe the circumstances under which it was gathered. The secondary data offers the greatest advantage of economy in terms of time and cost effectiveness. Any researcher may obtain information about published record compiled by someone else without bothering to printing data collection forms, hiring and deploying field workers throughout the field area and editing and tabulating the results. Finding information that exactly fits the needs of the projects at hand and being sure that data are sufficiently accurate are the two areas must be addressed before making use of secondary data.

3.5- Explanation of Questionnaire

The questionnaire consists of two sections. The first section includes the demographic details of the respondents. The second section consists of the impact of the organizational role stress. The various role stressors are as follows:

1. Inter-role Distance (IRD)
2. Role Stagnation (RS)
3. Role Expectation Conflict (REC)
4. Role Erosion (RE)
5. Role Overload (RO)
6. Role Isolation (RI)
7. Personal Inadequacy (PI)
8. Self-Role Distance (SRD)
9. Role Ambiguity (RA)
10. Resource Inadequacy (RIn)

3.6 Hypotheses
The following hypothesis is formed in the research study:

H1: There is no significant relationship between age and various other dimensions of stress.
H2: There is no significant relationship between marital status and various other dimensions of stress.
H3: There is no significant relationship between designation and various other dimension of stress.
H4: There is no significant relationship between work experience and various other dimensions of stress.
H5: There is no significant relationship between related diseases and various other dimensions of stress.

3.7 Data Analysis and Methods
As Data means raw information collected from sundry sources. This raw information needs filtrations in order to convert in to relevant information having been compiled, edited and coded i.e. it has to pass through a process of analysis and has to be interpreted accordingly before their meaning and implications are understood. Various statistical techniques are to be used for testing the hypothesis and drawing the inferences and conclusions about the relationships. In order to prove or disprove the framed hypothesis for the research in point one sample t-test, ANOVA Single Factor analysis is used and Chi-square test is done to measure the variance.

Structural Equation Modeling: It is a statistical technique for testing and estimating causal relations using a combination of statistical data and
qualitative causal assumptions. It allows both confirmatory and exploratory modeling, meaning they are suited to both theory testing and theory development. Confirmatory modeling usually starts out with a hypothesis that gets represented in a causal model. The concepts used in the model must then be operationalized to allow testing of the relationships between the concepts in the model. The model is tested against the obtained measurement data to determine how well the model fits the data. With an initial theory SEM can be used inductively by specifying a corresponding model and using data to estimate the values of free parameters. Often the initial hypothesis requires adjustment in light of model evidence. When SEM is used purely for exploration, this is usually in the context of exploratory factor analysis as in psychometric design.

Among the strengths of SEM is the ability to construct latent variables: variables which are not measured directly, but are estimated in the model from several measured variables each of which is predicted to 'tap into' the latent variables. This allows the modeler to explicitly capture the unreliability of measurement in the model, which in theory allows the structural relations between latent variables to be accurately estimated. Factor analysis, path analysis and regression all represent special cases of SEM.

In SEM, the qualitative causal assumptions are represented by the missing variables in each equation, as well as vanishing Covariance’s among some error terms. These assumptions are testable in experimental studies and must be confirmed judgmentally in observational studies.

- The term single factor ANOVA, One Way Analysis of Variance, and One Way ANOVA used interchangeably describe the situation where a continuous response is being described in terms of a single categorical variable or factor composed of two or more categories. It is generalization of the test for the independent samples to situations with more than two groups.
- The t-test which is expressed as the standard deviation of the difference between the means compares the actual difference between two means in relation to the variation in the data and two independent
samples t-test (Levine’s test of equality of variance) is used to compare the means of a normally distributed interval dependent variable for two independent groups.

- A chi-square goodness of fit test allows us to test whether the observed proportions for a categorical variable differ from hypothesized proportions.

Research Methodology forms the core of any research problem under study. The Research findings bank upon or determined to a great extent by sufficiency and accuracy of the process in the research methodology adopted.

**Software Used:** MS Excel, AMOS 18 and SPSS 18 are used for the purpose of data analysis.

### 3.8 Limitations of the study

The present study would be conducted by an individual scholar and therefore, it would be completed under certain constraints in terms of availability of time, financial resources, universe and sample of the proposed study.

It is important to highlight the limitations of a work especially in case of a research. The limitations help us to understand and appreciate the work in proper perspective.

'Sample' is only a sample; it can never be 'universe'. This truth, in fact is the real cause of the limitations in all studies based on sampling techniques. The "uncontrollable factors", also contribute positively towards the number of limitations and some of them are listed below:

1. No primary data collected through the sample survey are perfectly free from biases and inaccuracies on one count or other. The results of the present study are based on the opinions and the experiences of the respondents. There are always possibilities of individual biasness and result of the study look unreliable on that basis. However, in some cases biasness cannot be ruled out due to human nature.

2. There may be a drop error i.e., the respondents who are willing as well as able to respond may not be contacted.

3. There may be a go error i.e. the respondents who are unwilling as unable to respond may be included in the sample.
4. The present study is a study of sample. Alternatively, the complete universe would have been studied. This has not been done because of the two reasons.

First, it was not possible to study the entire universe with the limited resources and time available at hand. Secondly, it is well established fact that the study of universe and representative sample would provide similar results. It is in this background that a sample study was opted. It is hoped that the results obtained would be appropriate for the strata as well as the universe.