CHAPTER – I

INTRODUCTION AND DESIGN OF THE STUDY

1.1 INTRODUCTION

Human resources have been the most important and vital assets of any organization as the productivity of all other resources would depend upon people (Chandramohan2007, P.1). An individual would usually work to satisfy his needs. Needs would vary from individual to individual and from culture to culture. Human resource management (HRM) should seek to realize the optimum potential of human beings and utilize the same for organizational ends as well as individual development through proactive approach (Naga Raju Baths 2006, P.18). The employees would have razor sharp brain and pulsating hearts. Being thinking machines, what they have done could provide a cutting edge to the organization. Therefore, the management of personnel would require qualities of both mind and heart. (Singh: 1988, p.1)

HRM should be understood as an art of developing people and their potentialities for their personal growth and for the growth of the organization. It would be a process of bringing people and organization together to ensure that individuals and collective goals were closely aligned. People have always been considered as initial in organizational set up.

Unlike other resources such as technology, finance and materials which could be purchased human resource have been a critical and sensitive element and it needs to be handled with care. Organizations have been concerned not only with employer productivity but also with employee commitment and harnessing of their potentialities for maximum growth (Jothi Venkatesh: 2007, p.vi)\(^4\)

HRM is normally insisting upon all activities undertaken by an enterprise to ensure the effective utilization of employees towards the attainment of individual, group and organizational goals. It has envisaged practices that help the organization to deal effectively with its people during the various phases of the employment cycle, including pre-hire, staffing and post-hire phase. The organization develops HRM practices for managing people effectively and help in their development. These practices have been designed to maximize the performance and satisfaction of employees by providing them with necessary knowledge and skills to perform their occupation and by creating conditions that would energize, direct and facilitate employee's effort towards meeting the organizational objectives.

1.2 INTRODUCTION ON STRESS

Stress is an inevitable concomitant of organizational life. Its source in an organization is task or role related. An organization, being a network of roles performed in interconnected positions, is dynamic in nature. The complex and dynamic environment of organization adds to further stress at work. These environmental forces include: 1. Rapid technological advancements, 2. The demands

made on employee skills, 3. Increased employee expectations about the quality of work - life and incongruence between these expectations and the perceived organizational outcomes, and 4. Changes in organizations like downsizing, mergers, etc. These factors influence employment security, social relations at work and upward mobility, which, in turn, will result in stress of the employees.5

A number of researches have been conducted about stress over the last hundred years. Some of the theories behind it are now settled and accepted; others are still being researched and debated. During this time, it seems that open warfare between competing theories and definitions does exist. Views have been passionately held and aggressively defended.

Stress occurs when there is an imbalance between demands made on a person and the resources available to respond to the demand. The demand may be real (i.e. things outside the person's control, such as departure time of a plane and traffic) or perceived (how the person views the situation, i.e. within his/her control or sphere of influence). Similarly, the resources may be real (fact) or perceived (what one thinks, feels, imagines, etc).

1.3 CONCEPT OF STRESS

Definitions

Hans Selye was one of the founding fathers of stress research. His view in 1956 was that –stress is not necessarily something bad – it all depends on how you take it. The stress of exhilarating, creative successful work is beneficial, while that of

failure, humiliation or infection is detrimental. Selye believed that the biochemical effects of stress would be experienced irrespectively whether the situation was positive or negative.

Since then a great deal of further research has been conducted, ideas have moved further. Stress is now viewed as a "bad thing", with a range of harmful biochemical and long-term effects. These effects have rarely been observed in positive situations.

The most commonly accepted definition of stress (mainly attributed to Richard S Lazarus) is that stress is a condition or feeling experienced, when a person perceives that demands exceed the personal and social resources, the individual is able to mobilize. In short, it's what we feel when we think of losing control over the events.

We also recognize that there is an intertwined instinctive stress response to unexpected events. The stress response inside us is part instinct and part to do with the way we think.

It is generally thought that stress will always have bad effects. It is not always true. Stress may result in better effects also. The twin effects of stress are: the stress which results in good effects is called eustress and that which results in bad effects is called distress.

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6 Hans Selye, -The Nature of Stress-, International Institute of Stress, University of Montreal, Canada.
7 Ibid.,
Eustress

Good stress (i.e.) Eustress can have a positive impact on a person. This form of stress is achieved, when the brain and body feel challenged and want to extend themselves in order to respond to the situation. This is caused when a person feels as though (he or she):

1. has ideas of possible solutions to the challenge ("Look at all these possibilities!")
2. has the resources (internal and external) to solve the challenge ("I can do it!");
3. has some control over what is happening ("I have choices!");
4. has had sufficient rest between his/her challenges.

Distress

When we talk of bad stress (Distress), we're talking about something that directly causes the brain and body to shrink in its working capacity, resulting in low-performance levels. It is caused when a person feels anxious, threatened (may be embarrassed, pressed for time, loss of prestige) or is overwhelmed with feelings of helplessness. This occurs when a person feels he or she:

1. is being forced to face a challenge that he does not want to ("I do not want to do it");
2. cannot think of a solution to the challenge ("I do not know how");
3. lacks the resources (internal, as in brain capacity, or external as in materialistic) to solve the challenge ("I cannot do it");

4. has little or no control over the situation ("I am helpless").

These perceptions can be real (the person actually has no control or power over changing the situation) or imagined (the person could have influence over the situation) but the effects are the same: the person feels threatened and in danger. This danger could be physical safety or his psychological state of mind.

1.4 FACTORS THAT INFLUENCE THE SEVERITY OF STRESS

The severity of stress is the amount or level of stress that is felt as a result of a stressor. There are certain factors which influence the degree of stress experienced; these have an impact on the person's wellbeing both physically and mentally. The characteristics of the stressor that influence stress include the following:

Significance

How much changes will an event exert depends upon how much the event is important and critical to the individual. For example, the death of his/her beloved one, failing in an examination, breakup with boy/girl friend, etc., may have adverse effect on the individual. Similarly, a pass in an interview, winning a lottery, promotion to higher position, etc, may have positive effect on the individual. The greater the significance and change is, the higher the impact of the stressor is.
Time length

If a stressor continues over a long period of time, it will result in higher stress levels. For example, insufficient sleep over an extended period of time will result in higher stress.

Cumulative Effect

This is when stressors are built up over a period of time and left unnoticed. It results in cumulative effect. For example, a long series of little irritations and annoyances could result in a massive blowout between two people.

Multiplicity

A number of stressors at one time will result in higher stress levels than their sum. For example, a fight with one's parents, final exams around the corner and loss of a loved one, etc., all this happening at a time will be more stressful than each of these events that happened separately.

Approaching deadline

If a demand has been made a few weeks or months in advance of the deadline, the degree of stress will increase as the due date approaches. For example, if a person is given a project assignment two months in advance, it will probably seem too far away to get worked up about. As the deadline approaches, his stress level will increase until he does something about the project.
1.5 INDIAN PAPER INDUSTRY

In India, the first machine-made paper was manufactured in 1812. During this time there were 15 mills with a total production of lakh tones. In India the soft wood is the principal raw material used for making paper especially newsprint and high class printing papers. With the rise in population and broadening of education, the demand for paper has been constantly escalated. Owing to very narrow forest resources, wood pulp is in a shortage. As soft woods grow in temperate climate, India is in short supply of such woods. Thus, in such circumstances, the Bamboo became the major raw material for the manufacture of paper in the country as it grows very quickly even after cutting.

India is the 15th largest paper industry in the world. It provides employment to nearly 1.5 million people and contributes Rs.25 billion to the government's kitty. The government regards the paper industry as one of the 35 high priority industries of the country.

Work related stress affects productivity and that result in dissonance among workers and poor quality of products. Moreover, labour unrest is considered to be the common cause of stress. Paper industry is known for hazardous work environment. Hence the present study aims at bringing a better understanding on stress related problems in paper industry.
1.6 NEED FOR THE STUDY

The word ‘stress’ has been repeatedly used in the recent years as a way to describe many symptoms seen in working individuals. The studies suggest that work-stress may increase a person's risk for cardiovascular disease, psychological disorders, workplace injury and other health problems. Early warning symptoms may include headaches, sleep disturbances, difficulties in concentration, job dissatisfaction and low morale. Stressful working conditions are also associated with increased absenteeism, tardiness, disability claims, and other factors that reduce a company's productivity and competitiveness. The studies indicate that one fourth of the work force views their jobs as the number one stressor in their lives and that worker widely perceives job stress as being on the rise.\(^9\)

Corporate profitability is affected due to employee stress. But certain factors are avoidable. Heavy work load, conflicting job responsibilities and job insecurity are stressors across organizations. The risk for the job stress can be reduced through smart strategic action.

The cost of the effects of stress is very high in American industry which is estimated over $300 billion annually as a result of accidents, absenteeism, and employee turnover, diminish productivity, direct medical, legal and insurance costs.\(^10\)

In this context, managers must recognize the financial impact of stress. An organization can be significantly higher in its performance in the absence of stress

\(^9\) Susan Cantrell and David Smith, -(Workforce of One||, Book Excerpt, April 30, 2010.

\(^10\) Ron Ball, Inroads, LLC, -Workplace Stress Sucks $300 Billion Annually From Corporate Profits||, TMC Customer Interaction Solution, November 2004.
among its employees. Under these circumstances a study on stress management to suggest measures to reduce the impact of stress is very much important.

1.7 SCOPE OF THE STUDY

The organizations have now realized the importance of stress management. As already mentioned, stress in due to work environment and family circumstances. However, the organizations focus on the reduction or management of the job-related stressors alone. But the impact of personal stressors like family and social commitments which have a bearing on the emotional stability and physical ability of the employees has not been taken care of by these organizations. The scope of the study is extended to include the personal stressors also. It is just not enough to treat the causes but the consequences of stress on physical, emotional and behavioral areas also require due attention. This study focuses on the identification of the consequences of stress with a view to enabling the employees in the better management of their response to stress.

1.8 STATEMENT OF THE PROBLEM

The expectations of modern society are that everything should be fast track. As the pace of life has speeded up, the incidence of certain forms of stress illness such as coronary heart disease, stomach ulcers and strokes has also increased. With the introduction of new high speed information technology, increased global competitiveness and reduced staff levels, employees have less job security. They carry heavier workloads and longer working hours for the purpose of continuing in
their jobs. A marked increase in the stress levels at work is being experienced on a universal scale.

Stress affects different people in different ways. While some take stress home with them everyone tries to make some personal changes to deal with it.

However, it is shocking to note that, stress is considered something glamorous among certain individuals and industries. Many people lead a hard lifestyle, just to show their commitment to their career. While this belief damages an individual personally, it harms the institution too. Stress would deteriorate the employees‘ efficiency and organizational effective functioning.

Now the institutions have started realizing the impact of Job stress; they no more think that dealing with job stress is the individual responsibility. Encouragingly, many institutions have come out with such interventions as they feel necessary to combat the effect of stress on the individuals and organizations.

In this context, it will be worthwhile and social relevant for the health of employees for undertaking a study to identify the occupational stress and coping strategies of stress with reference to select paper manufacturing units of Tamilnadu.

1.9 OBJECTIVES OF THE STUDY

The following are the objectives of the study,

1. To identify the major sources of stress prevailing among the employees of select paper manufacturing units of Tamilnadu.
2. To evaluate the level of occupational stress among the employees in the select paper manufacturing units.

3. To find out the impact of occupational stress in different dimensions among the employees in select paper manufacturing units.

4. To suggest better ways and means to reduce stress among the employees in select paper manufacturing units.

1.10 RESEARCH METHODOLOGY

Research design

A research design is the basic framework or plan for a study that guides the collection of data and analysis of the data. The present study is descriptive in nature. A descriptive research is one which is concerned with describing the characteristics of a particular individual or of a group. Since this study describes the characteristics and different behavioural pattern of employees influenced by stress, this research is certainly a descriptive one.

Study units

The researcher selected two paper manufacturers in Tamilnadu who have employed more than 1,000 employees. These are Tamilnadu Newsprint and Papers Limited and Seshasayee Paper and Boards Limited. The factory employee's strength of those units is depicted in the following table:
TABLE NO. 1
SIZE OF EMPLOYEES EMPLOYED IN SELECT MANUFACTURING UNITS OF THE STUDY

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of the Company</th>
<th>Total No. of Factory Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tamil Nadu Newsprint and Papers Ltd.</td>
<td>2900</td>
</tr>
<tr>
<td>2</td>
<td>Seshasayee Paper and Boards Ltd.,</td>
<td>2360</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>5260</td>
</tr>
</tbody>
</table>

Population of the study

The population of the study includes the employees working in the said paper manufacturing units.

Sample Design

As already stated, select units employing more than 1,000 factory employees each, have been taken for the study and the sample was selected from these units.

The total number of factory employees working in the study units was 5260. Of this, the researcher decided to study not less than 1000 employees (around 20%) for the study. The sample size was 1052. Stratified sampling technique was applied to select sample employees from each unit. The required number of employees was selected in proportion to the total number of employees. Based on the proportion, the number of employees selected from each unit has been given in Table No.2.
TABLE NO. 2
DISTRIBUTION OF RESPONDENTS IN THE STUDY UNITS

<table>
<thead>
<tr>
<th>Name of the Company</th>
<th>Factory Employees</th>
<th>20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tamil Nadu Newsprint and Papers Ltd.</td>
<td>2900</td>
<td>580</td>
</tr>
<tr>
<td>Seshasayee Paper and Boards Ltd.,</td>
<td>2360</td>
<td>472</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5260</strong></td>
<td><strong>1052</strong></td>
</tr>
</tbody>
</table>

**Sampling Techniques**

The employees from each unit were stratified on the basis of proportionate and 20 percent of them were chosen on a random basis for conducting the research study.

**Data Collection**

The necessary data have been collected from both primary sources and secondary sources.

**Primary Data**

The primary data was collected afresh. The primary data was collected with the help of a questionnaire. Moreover, the researcher used personal interview method and observation method for collecting the required primary data.

**Secondary Data**

The secondary data for this study was collected from the company records, company reports, magazines, and websites and published articles.
Data Collection Tools

i. Questionnaire: A well structured questionnaire comprising both open and closed-ended questions, dichotomous questions and Likert's scale was designed and used for conducting the personal interview. The questionnaire thus framed was pre-tested by conducting a pilot study among the portion of respondents.

ii. Personal interview: The questionnaire was used to collect opinions of the respondents about their experience on stress. But, some of their opinions and feelings which could not be expressed through the questionnaire were collected through personal interviews.

iii. Observation: The researcher felt that there was certain information which could not be collected from either questionnaire or personal interview. Therefore, the researcher observed the problems faced by the respondents due to stress at the work place.

1.11 TOOLS FOR ANALYSIS

The statistical tools used to analyze the data with reference to the selected objectives of the study, include Simple Percentage, Mean, Range (Minimum and Maximum), Standard Deviation, Chi square Test, ANOVA, Multiple Regression, Henry Garrett Ranking Technique, and Factor analysis.
Chi-square Test:

The degree of influence of the independent variables pertaining to respondent’s level of perception towards their life and work was studied by applying chi-square test. In order to identify the factors influencing the level of perception among the employees in the paper industry, a Chi-square ($\chi^2$) test was applied and the formula is given below.

$$\text{Chi–square test} \ (\chi^2) = \sum \frac{(O - E)^2}{E}$$

With Degree of Freedom (D.F.) = (c-1)(r-1) where,

- $O =$ Observed frequency,
- $E =$ Expected frequency,
- $c =$ Number of Columns,
- $r =$ Number of Rows.

Multiple Regression Analysis

The regression is a statistical relationship between two or more variables. When there are two or more independent variables, the analysis that describes such relationship is the multiple regression. This analysis is adopted where there is one dependent variable that is presumed to be a function of two or more independent variables. In multiple regression, a linear composite of explanatory variables is formed, in such a way that it has maximum correlation with an active criterion variable. The main objective of using this technique is to predict the variability of the
dependent variable, based on its co-variance with all the independent variables. It is useful to predict the level of dependent phenomenon through Multiple Regression Analysis models, if the levels of independent variables were given. The linear multiple regression problem is to estimate coefficients of \( \beta_1, \beta_2, \ldots, \beta_j \) and \( \beta_0 \) such that the expression,

\[
Y = \beta_0 + \beta_1 X_2 + \ldots + \beta_j X_K
\]

provides a good estimate of an individual Y score based on the X scores,

Where,

- \( Y = \) Level of Stress
- \( X_1 = \) Respondents’ Age
- \( X_2 = \) Respondents’ Gender
- \( X_3 = \) Respondents’ Education
- \( X_4 = \) Respondents’ Designation
- \( X_5 = \) Respondents’ Department
- \( X_6 = \) Respondents’ Salary
- \( X_7 = \) Respondents’ Marital Status
- \( X_8 = \) Respondents’ Number of dependents
- \( X_9 = \) Respondents’ Family system
- \( X_{10} = \) Respondents’ Working Experience
- \( X_{11} = \) Respondents’ Working company name
- \( X_{12} = \) Respondents’ Working Time

and \( \beta_0, \beta_1, \beta_2, \ldots, \beta_j \) are the parameters to be estimated.
**Discriminant function analysis**

Discriminant analysis is a technique designed to characterize the relationship between a set of variables, often called the response are predictor variables, and a grouping variable with a relatively small number of categories. To do so, discriminant function creates a linear combination of the predictors that best characterizes the differences among the groups. The technique is related to both regression and multivariate analysis of variants, and as such it is another general linear model technique. Discriminant attempts to find the linear combinations of the predictors that best separate the populations. The study assumes two predictor variables i.e., X are the low, Y are the high. How respondents do managing stress while in working in paper industry? Does all the factors selected in the analysis differ among these groups? In general, what are all the variables which significantly discriminate the respondents of one group from other group. Discriminant function analysis answers these questions in three stages viz., 1. Construction of discriminant function 2. Classification 3. Interpretation.

**Garrett Ranking Technique**

This technique was used to rank the different problems faced by the paper industry employees and managing methods followed by them. In this method the respondents were asked to rank the given problem and coping strategies according to the magnitude of the problem. The order of merit given by the respondents are converted into ranks by using the following formula.
Percentage Position = \( \frac{100(R_{ij}^{0.5})}{N_j} \)

The percentage position of each rank thus obtained is converted into scores by referring to the table given by Henry Garrett. Then for each factor the scores of individual respondents were added together and divided by the total number of respondents for whom the scores were added. These mean scores for all the factors were arranged in order of ranks and the inference were drawn.

**Factor analysis**

Factor Analysis is used to study a complex product or service in order to identify the major characteristics or factors considered important by the respondent. The purpose of factor analysis is to determine the responses to the several numbers of statements, which are significantly correlated. Factor analysis is applied to assess the significance of the factors that are responsible for employees' occupational stress.

**1.12 LIMITATIONS OF THE STUDY**

The following were the limitations of the study.

1. The behavioural symptoms of stress were excluded from the study.
2. Due to time constraint, only large scale units were taken up for this study.
3. The study was confined to the factory employees working in paper manufacturing units.
4. Any generalizations drawn from the findings of the study are used with caution.
1.13. CHAPTER SCHEME

The study is presented in six chapters. A brief content of these chapters is given below:

*The First Chapter* deals with the introduction and design of the study.

*The Second Chapter* presents Review of Literature.

*The Third Chapter* evaluates an overview of the paper industry.

*The Fourth Chapter* gives the glimpses of occupational stress.

*The Fifth Chapter* analyses the data and interpreted the employees' opinion about occupational stress.

*The Sixth Chapter* presents the summary of findings, suggestions and conclusion.