CHAPTER 1
INTRODUCTION
CHAPTER - 1

INTRODUCTION TO

ORGANIZATIONAL ROLE STRESSORS

1.1 Approaches to Studying Stress

The broad application of the stress concept in multiple fields — medical, behavioral, and social science research has lead to numerous definitions. An analysis of articles published in six eminent journals in the field of organizational behavior has concluded that 'stress' is defined from different perspectives: 1) as a stimulus (stress as the independent variable), 2) a response (as a dependent variable) and, 3) as a transaction (stress as a process). There is a growing consensus that stress results from a transaction between the individual and the environment. From the transactional view, no one component (i.e., stimulus or response) can be attributed as stress, because each must be understood within the context of the process.

1.1.1 Response-based Definition of Stress

The response-based view identifies stress as a response to threatening stimuli. In this conceptualization, stress is viewed as a dependent variable and the focus is on the response. This view evolved from the early layman representations of stress – which typically involved the use of the phrase like “being-under-stress”. This implies that it may not be possible to identify stress, only its consequences. Therefore, the main conceptual definition in the response-based approach is the manifestation of stress. This view has its roots in medicine, a discipline typically dealing with symptoms but not necessarily their causes.

Due to the emphasis on manifestation of stress, early studies in the 20th century typically studied bodily reactions of individuals to life events and
life experiences. This has led to research typically referred to as 'psychosomatic medicine'. Examples of works include changes in stomach activity, increase in gastric secretion and acidity, changes in blood flow etc. in response to stress conditions.

Early works of Hans Selye marks the beginning of using response based approach to study stress in the medical field. The emphasis in this view is on the outcomes or consequences rather than the nature of stress (i.e. whatever the disease, all patients looked and felt sick). Because of its application in the medical field this view takes a physiological approach. Selye introduced the notion of stress-related illness in terms of the general adaptation syndrome (GAS). In this view, stress is viewed as a nonspecific response of the body to any demands made upon it (Selye, 1956). Responses to stress are considered invariant, and thought to follow a universal pattern. GAS can be described in terms of three stages of response. In the presence of stimuli, the first stage consists of an alarm reaction. Here, the defense mechanisms are activated, forming the emergency reaction known as 'fight or flight' response. In this stage, typical physiological responses are increased heart rate and blood pressure in preparing the body for action. The second stage is resistance to the continued stimuli in which the alarm reaction is replaced by an adaptation response or return to equilibrium. However, because of the limited resources, if an alarm reaction occurs intensely or frequently over an extended period of time, the resources needed for adaptation become depleted, and exhaustion, collapse, or death could occur in the third stage (Selye, 1983).

This view is often criticized for its over-comprising definition in that stress is considered as a generic term that subsumes a large variety of manifestations. Also, medical research shows that responses to stimuli do not always follow the same pattern and could depend, for example, on hormonal secretion. Further, by ignoring the stimulus dimension of stress experiences, this view does not consider environmental factors in the stress process.
1.1.2 Stimulus-based Definition of Stress

This approach traces back to fifth century BC physicist Hippocrates and is based on the belief that characteristics of health and disease are conditioned by the external environment. This approach views stress as an independent variable that elicits some response from the person. This view has roots in physics and engineering, comparing stress to force, which when present could lead to distortion.

It is assumed that both organic and inorganic substances have tolerance levels, and if these levels are exceeded, temporary or permanent damage occurs. In this view, the focus is on the stimulus side. Since stress is viewed as an independent variable eliciting some response in an individual, this view typically identifies various sources of stress in the work environment and is the principal idea of stimulus-based view of stress.

Research related to this view is mainly involved in understanding the impact of industrialization on blue-collar workers. Different sources of stress are identified in order to provide optimal working conditions. In general, sources related to physical characteristics of the work environment e.g. heat, cold, noise, etc. are identified as sources of stress, and offer ways to improve the working conditions of blue-collar workers.

Typically, objective measures of work environment are identified as sources of stress. Therefore, this view does not explain why two individuals exposed to the same stimuli (i.e. sources of stress in terms of heat, noise, etc.) might respond differently. The inability to explain individual differences when exposed to the same situation is a drawback of this view. Notwithstanding this limitation, this view is useful in identifying common patterns of work environment that might affect the majority of the workforce.

1.1.3 Limitations of Response and Stimulus Definitions

The above definitions of stress are set within the simple stimulus-response paradigm. Since stimulus-response definitions each focus on a single component of the stress process, they say little about the process itself.
Research attention is typically focused on one dimension of process (i.e. either response or stimulus). Therefore, it is only possible to conclude that an event has the potential to be stressful or that a response may be a stress response. The above definitions largely ignore the individual differences and their underlying perceptual processes. There is little consideration of the context (e.g., levels of support, control) and the person’s role in the organization (e.g., job attributes) which are likely to produce different responses for the same stimuli. Therefore, the above definitions may not explain why what is stressful for one individual is not stressful for another. To address these limitations, we turn to the transactional view of stress.

1.1.4 Stress as a Transaction

The transaction view takes into account individual and environmental factors. The emphasis is on understanding the nature or the process of stress. The transactional approach explores psychological mechanisms of appraisal and coping that highlight a stressful encounter. The transaction process discusses two types of appraisal – primary and secondary. Primary appraisal involves individuals’ realization that something is at stake. In this process, the individual gives meaning to an encounter in terms of harm, the threat of harm, or challenge. Secondary appraisal begins after an encounter is appraised in some way as threat. This deals with identification and availability of coping resources to deal with the threat, harm, or challenge.

Therefore, stress is viewed as embedded in an ongoing process that involves individuals interacting with their environments, making appraisals of those interactions, and trying to cope with the situations that arise. As is evident in the name transaction, in this view, stress is neither viewed as a result of the individual or the environment, but in the relationship between the two. Stress arises when an individual appraises the demands placed by the environment to exceed the individuals’ resources, thereby threatening individuals’ well-being. As will be discussed later, the transactional definition provides a framework for modeling stress. The appraisal process places emphasis on the subjective experience (i.e. contingent upon the perception of
the situation) rather than the objective situation. This view also acknowledges interpersonal influence that is the potential source of strain is not perceived in social vacuum: The presence of others could be a source of distraction, or they can provide support mechanisms, help to increase self-efficacy etc. This alludes to the use of support and self-efficacy variables as potential moderators.

1.2 Stress Definitions

A natural result of research on stress in different fields is the inconsistency in which related concepts of stress are addressed. Although they are shown to be conceptually distinct, there is still considerable ambiguity in the way different aspects of stress (i.e. stress, stressors, and strain) are described. The main dissonance comes from how terms ‘stress’ and ‘strain’ are addressed. For example, in some studies ‘stress’ means the process and ‘strain’ is the outcome. In others, ‘stress’ is referred to as either a response or stimuli. In other words, the problems of ‘synonym’ and ‘homonym’ exist in stress literature.

By ‘synonym’, it is meant that same stress concept is referred to as ‘stress’ and ‘strain’ indifferent studies; and by ‘homonym’ it is meant that same term (i.e. stress, for example) is referred to mean different stress concepts. A recent review suggests that stress-related concepts have been used interchangeably.

Previous researchers have shown concern over the vast number of definitions and descriptions for stress-related concepts. In a review of 51 stress studies report that 41% used stimulus based definitions for stress, 22% used response based definitions for stress, 25% used stimulus-response definitions, and in 14% the usage was unclear. Further, as Nelson and Quick (1994) put it “Stress is one of the creatively ambiguous words in the English language, with as many interpretations as there are people who use the word. Even the stress experts do not agree on its definition”.

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Concerning how related terms are used interchangeably, Beehr and Newman (1998) point out that "Job stress is an area with the potential to be plagued by confusion, at least partly because of the general, nontechnical, popular usage of the word stress. Even among researchers, stress had sometimes been used to mean an environmental "stressor" stimulus and sometimes to mean an individual's strain or distress reactions ... this is probably still true in the 1990s ...". This point is clear from some of the definitions and descriptions synthesized in the table 1.1.

Table 1.1: Select Definitions of Stress Used in Literature Showing Inconsistency.

<table>
<thead>
<tr>
<th>Authors</th>
<th>Description</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aamodt (1999)</td>
<td>&quot;Stress will be defined as the psychological and physical reaction to certain events or situations (called stressors) in your life&quot;</td>
<td>As defined here, stress overlaps with the concept of 'strain' – as a response to stressors.</td>
</tr>
<tr>
<td>Earnshaw and Cooper (1996)</td>
<td>&quot;Stress is any force that puts a psychological or physical factor beyond its range of stability, producing strain within the individual&quot;</td>
<td>As defined here, stress is referred to as a cause – similar to the concept of 'stressor'.</td>
</tr>
<tr>
<td>Greenberg and Baron (2000)</td>
<td>&quot;We define stress as a complex pattern of emotional states, physiological reactions, and related thoughts in response to external demands. These external demands are referred to as stressors&quot;</td>
<td>As defined here, stress overlaps with the concept of 'strain' – as a response to stressors.</td>
</tr>
<tr>
<td>Hellriegel et al. (1992)</td>
<td>&quot;Stress is a consequence of or a general response to an action or situation that places special physical or psychological demands, or both, on a person&quot;</td>
<td>As defined here, stress overlaps with the concept of 'strain'.</td>
</tr>
</tbody>
</table>
Given these various interpretations, it is important to clarify the meanings of different terms in this study. Table 1.2 provides the description of stress related concepts used in this study. Consistent with the 'transaction view' of stress discussed previously, the overall transaction process is referred to as 'stress'. 'Stressors' are referred to as the stimuli encountered by the individuals and 'strain' as the responses to these 'stressors'. The consequences of 'strain', for example, in terms of individuals' well-being or job performance are referred to as 'outcomes'.

Table 1.2: Description of Stress Related Concepts.

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress</td>
<td>the overall transaction process</td>
</tr>
<tr>
<td>Stressors</td>
<td>the events or properties of events (stimuli) encountered by individuals</td>
</tr>
<tr>
<td>Strain</td>
<td>the individual's psychological and behavioral responses to Stressors</td>
</tr>
<tr>
<td>Outcomes</td>
<td>the consequences of strain at both the individual and the organizational level</td>
</tr>
</tbody>
</table>

Adapted from Cooper et al., 2001

In sum, there is considerable ambiguity among stress related terms. Further, stress has been defined in numerous ways. However, there is growing consensus on viewing stress as a transaction. Having looked at the basics of stress, the next section looks at theoretical approach to how stress is explained.

1.3 Theoretical Framework for Studying Job-Related Stress

Before discussing the theoretical approach, two broad theoretical paradigms that shed light on stress phenomenon are discussed. The first paradigm could be labeled as an epidemiological perspective. Researchers using this view typically link occupational conditions such as workload, vibration etc., to actual disease manifestations like coronary heart disease. In this view, how stressors are appraised by individuals has not received attention. The
advocates of this view argue for the use of objective measures for measuring stressors and their outcomes. The other paradigm could be labeled as a cognitive perspective. The main emphasis of this view is that stressful outcomes are determined by how people cognitively interpret or appraise environmental demands. In accordance with the central tenet of subjective assessment, the outcomes studied in this perspective are mainly psychological. The advocates of this view argue for the use of subjective measures, for example individual perceptions of occupational demands.

Consistent with the transaction view of stress, the cognitive perspective is used interviewing the theoretical models. The emphasis on undertaking both person and environment factors in understanding the stress phenomenon makes the selection of person environment (P-E) fit model appropriate. The person-environment fit model is the most contemporary view on stress and it acknowledges the transaction nature of stress i.e. it considers both the individual and environment factors. The next section provides an overview of person-environment fit model.

1.4 Person – Environment (P-E) Fit Model

The P-E fit model of stress is the one of the most widely used models in the literature. This model is based on the premise that there is equilibrium between a person and their environment. It proposes that when the relationship between the person and the environment is out of equilibrium, it results in strain. The lack of fit between the characteristics of the person and the environment could lead to unmet individual needs or unmet job demands. These unmet needs or demands result in strain. This view emphasizes the subjective-E fit, i.e., how the individuals perceive the encounter (see Figure 1.1). The misfit between person and environment could be further explored. In a review of person-environment fit literature, Edwards (1996) reports that this misfit could occur in two ways. First, a misfit could occur between the values of a person, and the environmental supplies available to fulfill those values. Typically, values represent conscious desires held by the person and encompass preferences and interests. Given the individuals preferences, a
misfit in terms of subjective evaluation of supplies provided by the environment leads to strain. A typical application of this fit approach is used to assess the perceived discrepancy between what the individual wants and what the job provides or how well the needs of individuals are met by their jobs.

A second type of misfit could occur between the abilities of the person, and the demands placed by the environment. Abilities could include the skills, knowledge, time and energy. Demands typically refer to the individuals' subjective evaluation of the requirements placed on the person. This implies that same requirements might be interpreted as different demands by different individuals. A typical application of this fit approach is used to assess the extent to which the demands of the job exceed individual's capabilities or to assess if individuals' capabilities are insufficient for the job demands. It should be noted that values supplies and demands-abilities fit form two complementary approaches and capture the degree to which the person and the environment each provide what the other requires (Edwards, 1991; Edwards et al., 2006).

![Diagram of person-environment fit](Figure 1.1: Pictorial depiction of person-environment fit.)
1.5 Sources of Strain

The job-stress literature identifies several factors that are sources of strain within the job environment. This stream has resulted in identification of numerous factors. This should be expected as the concept of stress is studied in multiple fields through different perspectives. Due to the extensiveness of this type of research in different jobs or occupations, this stream is sometimes referred to as occupational stress research. Based on the review of literature a summary of often cited stressors is provided below. This is achieved by utilizing the widely used categorization proposed by Cooper and Marshall (1979). The categories identified are characteristics of job, role characteristics, organizational factors, career concerns, relationships within organization, and work-home interface. In addition to these, invasion of privacy is also discussed as a potential stressor.

Various stressors from above categories are described in the following sections. Based on the various researches, the most relevant stressors in the context of the present study are identified. As derived from the literature, the stressors included in the present study are work overload, role ambiguity, job insecurity, work-home conflict, and invasion of privacy. These stressors reflect the gap or misfit along abilities-demands and values-supplies, as discussed below in the following subsections. For example, the stressor work overload reflects the degree to which work requirements (environmental demands) exceed the individual's abilities. Table 1.3 provides (i) a summary of the list of potential stressors identified in the literature, (ii) explanation as to why only certain stressors are selected.

1.5.1. Characteristics of Job

Factors related to physical demands and task requirements are placed in the job related factors category. Early research on blue-collar workers has identified several physical conditions that induce stress. Three physical characteristics of work environment, namely noise, vibration and temperature are discussed below. In terms of P-E fit model, these stressors could be viewed along the abilities-demands and values-supplies dimensions.
Noise is typically defined as unwanted sound. Exposure to noise can hinder hearing ability and mask detection of wanted sounds, for example warning sounds. Smith et al. (1978) suggest that the impact of excessive noise is to reduce individuals' tolerance to other stressors. Noise has been reported as a stressor particularly in manufacturing industries.

Along with noise, vibration and temperature are also acknowledged as sources of strain affecting the physical and psychological well-being of individuals. Vibration is found to be problematic in occupations that use machinery such as pneumatic drills, aircraft propellers, helicopters, offshore drilling rigs etc. Further, vibrations that transfer from objects to the body may adversely impact the performance and it can also be a nuisance factor.

Temperature is another physical characteristic of the work environment that can have significant impact on individuals. Jewell (1998) suggests that extreme temperatures can induce physiological responses that might have undesirable effects. This factor is especially stressful in work situations that demand critical decisions, fine discrimination, and performance of fast or skilled actions.

Table 1.3: Description of possible stressors.

<table>
<thead>
<tr>
<th>Stressor Category</th>
<th>Possible Stressor</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristics of Job</td>
<td>Physical</td>
<td>• Physical stressors (noise etc) are deemed inappropriate for studying the impact of information technologies.</td>
</tr>
<tr>
<td></td>
<td>Noise</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Temperature</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vibration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Task Related</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Work Overload</td>
<td>• Work Hours is somewhat related to Work Overload.</td>
</tr>
<tr>
<td></td>
<td>Work Hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exposure to Risk and Hazards</td>
<td>• Shift work component of Work Hours and 'Exposure to Risk and Hazards' are controlled through sample.</td>
</tr>
</tbody>
</table>
| Role Characteristics | Role Ambiguity | • As argued, Role Overload has considerable overlap with Work Overload.  
| | Role Conflict | • Role ambiguity is a stronger predictor of strain than Role Conflict. Further, it is not clear how technology could affect Role Conflict.  
| | Role Overload |  
| Relationships within organization | Interpersonal relationships | • Not dominant predictors of strain as compared to other stressors. Further, direct impacts of technology are not apparent.  
| | Leadership style |  
| Career Issues | Job Insecurity | • Job Insecurity is widely studied and dominant factor in this category.  
| | Career Advancement |  
| Organizational Factors | Climate | • Not dominant predictors of strain as compared to other stressors.  
| | Structure |  
| Work-Home Interface | Work-Home Conflict | • One of the new stressor fueled by telework phenomenon  
| Invasion of Privacy | Invasion of Privacy | • Growing concern as a cause of strain fueled by advances in ICTs.  

Work Hours, Exposure to Risks and Hazards, Work Overload In addition to the above physical characteristics, task requirements of job that are found to be stressful are work hours, work overload, exposure to risks and
hazards. In terms of the P-E fit model, these stressors can be viewed along the abilities-demands and values supplies dimensions. These are discussed below.

Work hours could refer to both the sheer number of hours that a person works and/or also to the working hours or work schedule. Both these factors are shown to be significant sources of strain. Sparks et al. (1997) in their meta-analysis report that the sheer number of hours worked affects the overall health of individuals. As compared to their counterparts, individuals who worked excessive hours showed more symptoms of ill health.

Another aspect of work hours refers to the actual work schedule hours of an individual. Most of the research on this aspect is related to shift work and changing pattern of work hours. Increasing demand for 24-hour service and ever-increasing competition are some of the factors that lead to increasing shift work. Organizations use shift work as an approach to improve their productivity and efficiency. Consequently, research efforts have tried to determine the effects of shift work on workers’ job performance, overall psychological and physical well-being. Evidence suggests that shift work leads to various problems leading to decline in physical health, satisfaction and overall subjective well-being.

Another factor is the exposure to risks and hazards. Some occupations are inherently risky and hazardous. Individuals working in these occupations, for example, police officers, mine workers, soldiers, prison personnel, firefighters etc, need to be ready to react immediately. This constant state of arousal is related to muscle tension, respiration problems, and could be a threat to long-term health.

Finally, work overload is probably the most dominant factor identified in the researches. Two types of overload are identified in the literature—quantitative and qualitative. Quantitative overload refers to the sheer amount of work required and the time frame in which work must be completed. The need to work under time pressure to meet deadlines is a major source of quantitative overload. Qualitative overload occurs when individuals believe that they do not have necessary skills or abilities to perform job duties
satisfactorily. It is apparent from the above descriptions that work overload presents a situation in which there is a misfit between the demands of work environment and the abilities of individuals. This misfit is shown to be a source of strain. The work overload construct is typically conceptualized as quantitative overload in stress and IT-stress literatures. There is strong evidence that suggests that overload is related to high levels of strain, anxiety, depression and outcomes like job performance or innovation with technology.

1.5.2 Role Characteristics: Role Ambiguity, Role Conflict, Role Overload

Roles refer to the behaviors and demands that are associated with the job an individual performs. Kahn et al. (1964) proposed that individuals’ roles in an organization could be a source of strain. The basic argument behind role variables (role ambiguity, role conflict, and role overload) being stressful is that role variables create situations of uncertainty. Therefore, in situations of uncertainty in an individual’s work environment are stressful if the individuals perceive it is beyond their ability to cope with uncertainty (misfit).

The two primary ways in which strain can occur are through role ambiguity and role conflict. Role conflict refers to incompatible demands on the individual. This conflict occurs within a single role or between multiple roles held by an individual. Four different kinds of role conflict can exist (i) Intrasender role conflict: situation when expectations from an individual are mutually incompatible (ii) Intersender role conflict: situation when expectations from two or more people are incompatible (iii) Person-role conflict: situation when an individual’s and organization’s expectations and values conflict (iv) Inter-role conflict: situation when an individual occupies roles that have conflicting expectations or requirements. Regardless of the type of conflict, evidence suggests that role conflict is a source of strain.

Role ambiguity refers to unpredictability of the consequences of one’s role performance and lack of information required to perform the role. Role ambiguity captures unpredictability of consequences and information deficiency regarding expected role behaviors. Kahn et al. (1964) suggest that lack of clarity about an individuals’ role could be a source of strain.
As defined by Spector (1997), “role ambiguity is the degree of certainty the employee has about what his or her functions and responsibilities are”. According to this definition, every position in a structured organization should have a specified set of tasks or position responsibilities. Role ambiguity reflects the degree of employees' uncertainty regarding the appropriate actions in performing job functions. Due to uncertain role expectation, employees feel that the situations they face are ambiguous. The ambiguous situations related to the accomplishment of their task will create the climate of anxiety, confusion and feel like there is no guideline that should be referred in completing tasks accurately and satisfactorily. Finally, employees will be dissatisfied with his role, experience anxiety, distort reality and thus perform less effectively (Rizzo et al., 1970). Those situations will be more detrimental when employees experienced a role conflict in their job. The ambiguous and conflicting situations will lead to the emergence of discomfort and insecurity, especially related to their job. Eventually, employees will experience job insecurity which then will influence on the increased of stress and strain at work. The increased of job stress on employees will raises negative outcome such as decreasing employee productivity, absenteeism, intention to leave and turnover.

Role overload has been consistently found to influence job-related strain. Role overload refers to the number of different roles a person has to fulfill. Considerable similarities exist between role overload and work overload at conceptual and measurement levels. It is possible that this overlap is due to the nature of research in the field. The fragmented nature of the field has lead to research on ‘role strain’—strain caused by role variables. To provide a holistic picture, role overload might have been used instead of work overload, along with role ambiguity and role conflict.

1.5.3 Relationships within the Organization

The quality of interpersonal relationships at the workplace affects stress and strain. In terms of P-E fit model, this stressor (due to interpersonal relationships) could be viewed along the values-supplies dimension. Basically,
negative interpersonal relationships at the workplace are a source of strain. Levinson (1978) suggests that some individuals may ignore the feelings and sensibilities of others and dealing with these types of ‘abrasive personalities’ at the workplace can be a source of strain. Further, research has also looked into the relationship between supervisor and supervisee as a source of strain. Specifically, authoritarian and autocratic leadership styles of supervision are shown to be a source of strain.

1.5.4 Organizational Factors

Organizational climate and structure are potential sources of strain. These factors have roots in the organization’s culture and management style. In terms of P-E fit model, these stressors could be viewed along the abilities-demands and values-supplies dimensions. Organizational climate studies typically place emphasis on communication processes within the organization. For example, organizations in which communications highlight employees in a negative way, or generate feelings of mistrust are suggested to be stressful. Also, hierarchical, bureaucratic structures can be stressful as they provide little opportunity for participation by employees.

1.5.5 Career Issues

Stressors in this category are career advancement and job insecurity. In terms of the P-E fit model, these stressors reflect the misfit along the values-supplies dimension. Issues related to promotion within the organization may be a source of dissatisfaction and psychological strain. Another related issue is that of career plateauing, which refers to individuals' leveling off in their skill development and advancement. In these situations, individuals feel less marketable and their career has limited opportunities for growth. Cooper et al. (2001) suggest that as individuals prefer continued development, any kind of plateau effect results in dissatisfaction and strain.

As Dollard and Winefield (2002) suggested, under the pressure of economic rationalism, workforce numbers have been reduced even though the amount of work to be done has not. As a consequence, many workers in full-time jobs are experiencing over employment, resulting in job intensification, increased work
pressures, and longer hours, all of which may result in increased levels of work stress. Indeed, the Work Cover Corporation of South Australia (1999) reported that workload pressures account for 37% of work-related stress claims, and almost half of the claim costs, in this area. Even jobs that were once considered relatively stress free, such as university teaching, are becoming increasingly stressful (Winefield & Jarrett, 2001). In addition, there has been a decrease in the number of full-time jobs and an increase in part-time, casual, and contract labor. Organizational downsizing has resulted in reduced job security and stability for many people. A rapidly changing workplace through globalization and technological advances has caused the nature of work to become more fluid, with many workers expected to learn new skills, perform multiple tasks, and self-manage (Kendall et al., 2000). This in turn has led to increases in role ambiguity, possibly resulting in increased work stress and illness (Dunnette, 1998). The financial costs of work-related stress reported by organizations such as the National Occupational Health and Safety Commission are likely to be quite conservative given the loss in productivity, staff turnover, absenteeism, and industrial accidents and the additional costs associated with return-to-work programs or redeployment, which are not accounted for in these financial estimates (Cooper & Cartwright, 1994; Kendall et al., 2000). Also, the stigma associated with making a compensation claim on the basis of intangible causes, such as occupational stress, could mean that the real incidence of stress in the workplace is much greater than the statistics suggest (see Dollard et al., 2002). In all likelihood, only the most serious stress cases will result in the lodging of a worker's compensation claim; workers who make claims may 150 Caulfield, Chang, Dollard, and Elshaugdo so as a last resort, often after all other leave entitlements have been taken. The problems associated with work-related stress surpass financial considerations. The human costs in individual suffering and organizational morale cannot be reduced to quantitative terms. The stress of overwork has been associated with psychological problems such as depression, anxiety, and burnout; physiological health problems, such as hypertension and heart attacks; and organizational problems, including
workplace violence and accidents (J. C. Quick, Quick, Nelson, & Hurrell, 1997).

There are a number of working conditions that we encounter on a daily basis which contribute to making work stressful. These working conditions are called "stressors" and consist of those things which have a negative effect on a worker's physical or emotional well-being. In addition these working conditions or stressors are associated with two job characteristics: job control and demand.

Job control determines how much or how little control a worker has over her/his job. It can be defined in terms of one's ability to make decisions about how work is done and the ability to use a range of skills on the job.

Job demand determines how much or how little production or productivity pressures there are on the worker and the quality of the physical work environment.

Examples of job control stressors include:

- Lack of control over your work,
- Lack of recognition for work done,
- Job insecurity,
- Fear of layoffs,
- Harassment,
- Lack of respect from supervisors,
- Racism,
- Sexism,
- Age discrimination,
- Inadequate pay,
- Isolation from fellow employees either physically or psychologically, and
- Lack of promotion opportunities.

Examples of job demand stressors include:

- Contracting out work,
- Fragmentation/job declassification,
- Poor ventilation and heating,
- Poor lighting,
• Forced overtime,
• Shift-work,
• Speed-ups,
• Conflicting job demands,
• Physical danger,
• Fear of accident or even death on the job,
• Poor computer workstation design,
• Monitoring (e.g., AWT standards),
• Lack of training, and
• Unnecessary paperwork.

1.5.6 The Psychology of Stress

For most people work is the central part of their lives. It's the place where they spend most of their waking hours and most of their energy. Moreover, how we judge ourselves and measure our self-worth is very much determined by the work we do. The status and rewards that society attaches to jobs is one of the primary ways others see us. Therefore, if work is unfulfilling in that it prevents workers from fully realizing their own potential and developing their human capacities, the nature of work becomes a primary stressor in our lives. Under these conditions, we experience an important aspect of our daily lives as an assault on our dignity as human beings.

The myth that our social and economic system is based on rewarding merit often results in people blaming themselves and co-workers for problems they encounter in dealing with stressful working conditions. In turn, management uses this "blame the worker" attitude to control and divide workers upon racial, ethnic, sexual, age, religious, and occupational differences.

Keeping workers divided, distrustful, and believing they are different from one another helps frustrate attempts by workers to challenge existing working conditions. Many of these strategies are devised by management consulting firms and then implemented in the workplace. Union-busting courses are now a multi-million dollar yearly enterprise. So keeping workers divided has become big business and it is up to workers and their unions to make sure that the natural alliances within the workforce are maintained and strengthened.
Besides the existing divisions that have been identified as some of those often used by management to keep workers divided, the belief that "you get what you deserve" also keeps us from relating to co-workers. How does this happen? When we are feeling inadequate, upset, insecure, or threatened, we often hesitate to talk about it, due to the belief that we are the only ones experiencing these problems. By doing this, we keep ourselves from connecting with co-workers and the Union and, thus, end up feeling isolated. Learning to appreciate co-workers as allies is the first step in overcoming the divisions and isolation. Moreover, it is only through the Union that workers can effectively develop and implement common strategies to challenge stressful working conditions.

Among the major negative effects of job stress are its impact on a person's self-image and self-esteem, which in turn, affects one's relationship with family, friends, and co-workers. The problems last far longer than the time we spend at work and are not easily left behind at the end of the day. So analyzing working conditions as a primary source of stress is an important first step in overcoming it, especially because in many situations the long-term effects show up in our private lives and the workplace link can be lost altogether.

Since the effects of occupational stress do not end when workers check out at the end of the day, the families of CWA members may also be affected by the problems of job stress. Many workers have long been subjected to criticism for "bringing their problems from home to work." Yet increasingly, people are becoming aware that the primary source of their stress is on the job—stress they then bring home—rather than the other way around.

Both single and married people face stress from work, which they bring home with them. Single people, however, often encounter the special problem of not having anyone to listen to them or "put band-aids on their fatigue," while having to do all the household chores themselves.

As more and more households are occupied by two wage earners (or working people), the impact of work stress on home life becomes compounded. We are taught that "our home is our castle" and expect it to be a refuge from the problems we encounter at work. Yet this myth only makes things worse when
our home lives are affected by the tensions we encounter at work. Both people need attention simultaneously, although neither has much to give. Then resentments on the part of both partners often surface and spill over into relationships with children and others. In addition, use of alcohol and drugs can create further tensions at home. Since work situations make no allowances for taking care of a family, working parents are under constant pressure to juggle the demands of their jobs with those of their families.

Job insecurity is the most widely studied stressor related to career issues. Job insecurity reflects the prospect or threat of job loss. Evidence suggests that involuntary unemployment is on the rise due to factors such as globalization and technological change among others. This factor also has received support as a source of strain. Initially, research focused on the manufacturing industry, where jobs disappeared rapidly. However, job insecurity is now source of strain in many industries and may be one of the dominant sources of strain in the new millennium, and its effects are experienced at all the levels in the organization. Individuals can be affected by job insecurity in many different ways. The individuals who actually suffer job loss have their general self-esteem affected, which is linked to well-being. The surviving employees feel they might be next, and there is evidence which suggests it could lead to low employee morale. Further, due to uncertainties in employment market, individuals may remain in jobs they dislike or which offer no future prospects. This perception of entrapment is shown to reduce psychological well-being of an individual.

1.5.7 Work-Home Interface

Work-home conflict has assumed growing prominence in the job stress literature. The participation of women in the workforce and advances in technologies (especially, the telework phenomenon) are the major causes for recent interest in work-family conflict. Research on this topic examines an individuals' ability to manage the interface between responsibilities on and off the job, and is shown to be a source of strain. In terms of P-E fit model, this stressor can be viewed along the abilities-demands and values-supplies
dimensions. As a contributing factor, the prevalence of ICTs allows people to work anywhere anytime. It is not surprising that work-home conflict has evolved as an important source of strain.

Work-home conflict may be examined using one of three. First, it can be viewed from the perspective of resources. Since individuals have limited time and energy, the demands from different roles (work and home) tax these limited resources. In this view, conflict is imminent, as more time and energy is required to perform specific roles successfully, the greater the extent of conflict. A second perspective is referred to as behavior-based conflict. This refers to the situation in which individuals have to portray different personality characteristics at work and home. These opposing behavioral expectations create tension in individuals. The third perspective examines conflict between the roles induced by emotional interference between work and home. For example, negative emotional reactions from home may be carried over to job roles and vice versa, resulting in irritability and lack of competence.

1.5.8 Invasion of Privacy

"Our future is becoming increasing dependent on a multiplicity of pervasive and invasive technological artifacts", Orlikowski and Iacono (2001). As the way people approach performing their job duties change, there are bound to be new factors that need to be considered in exploring job-related stress. This is apparent from the inclusion of work-home conflict as a stressor. This factor evolved as a stressor as a result of the timework phenomenon, which produced a fundamental shift in how individuals worked. Further, there have been calls to include appropriate factors in accordance with changing job design. Accordingly, the concept of ‘invasion of privacy’ enabled by the ability to use technology to monitor employees is gaining importance as a potential stressor. Invasion of privacy refers to the idea that individual’s have the right to be left alone. It is well known that the behaviors of individuals’ change when under supervision. The degree to which the individuals value their privacy, the perceptions of ‘invasion of privacy’ in the work environment leads to a misfit with individuals’ values. It is shown that individuals’ experience strain and
their well-being is affected when they feel that they do not have privacy in their actions.

1.6 Stress in IT Sector (Techno stress)

Technology is a part of every one's life from the use of computers to cellular phones. The use of technology has allowed individuals to become more productive and efficient both at work and home. But there is a cost to this potential increase of productivity in the form of technology stress. Technology stress or "techno stress" is a relatively new phenomenon in our society and culture and has affected many individuals in business. Techno stress can be defined as a personal stress that occurs because of a reliance on technology or the constant anxiety of being "connected" with technology and can cause individuals to be less effective and less productive at their job. This reduction of productivity in business translates into an organization becoming less productive.

Technology, more specifically, informational technology (IT) evolves so quickly that organizations that do not adapt cannot remain competitive against organizations that do. The application and implementation of new technologies can create stress with organization's employees and can negatively affect productivity. The cost of IT can be expensive for an organization, but it is necessary in order to obtain the most current and accurate data available to make the best business decisions. The term techno stress was coined in 1984 by a clinical psychologist, Dr. Craig Brod (1984):

"Techno stress is a modern disease of adaptation caused by an inability to cope with the new computer technologies in a healthy manner. It manifests itself in two distinct but related ways: in the struggle to accept computer technology and in the more specialized form of over identification with computer technology".

Although Brod (1984) looked at techno stress as a disease, other researchers considered it more as an inability to adapt to changes brought by technology. Davis-Milis (1998) identified techno stress as a condition whereby
a person has to adapt to new technology especially when there is inadequacy of the equipment, support, or the technology itself. Apart from that, according to Clark and Kalin (1996), the real definition of techno stress is “resistance to change”. They claimed that technology is not the culprit because computer and technologies are just tools and stress is a natural reaction. Thus, they suggested that in order to manage techno stress, it is the change that has to be managed not the technology. Their view was supported by Champion (1988) who stated that the information age was all about change, or to be more specific, response to “techno change”, not about technical components such as machines, programs, network, or fiber optics.

Tarafdar, Tu, Ragu-Nathan, and Ragu-Nathan (2007) described techno stress as a problem of adaptation as a result of a person’s inability to cope with or to get used to information and communication technologies (ICT). Additionally, they have identified five components of techno stress, also known as techno stress creators, which are:

1. Techno-overload: A situation where ICT users are forced to work faster and longer.
2. Techno-invasion: A situation where ICT users felt that they can be reached anytime or constantly “connected” which caused a blurring between work related and personal contexts.
3. Techno-complexity: A situation where ICT users feel that their skills are inadequate due to the complexity related to ICT. As a consequence, they are forced to spend time and effort to learn and understand the various aspects of ICT.
4. Techno-insecurity: A situation where ICT users feel threatened that they will lose their job, either being replaced by the new ICT or by other people who are better in ICT compared to them.
5. Techno-uncertainty: A situation where ICT users feel uncertain and unsettled since ICT is continuously changing and need upgrading.
Techno stress has been observed in many different industries. The most common industry is the informational technology field. Within this field, technology is constantly being implemented, integrated, and used by its workers. Businesses are continually reengineering their work processes in order to be more productive and efficient especially with the downturn of the economy. IT professionals in the informational technology field are not immune to techno stress. These workers are both implementers as well as sufferers of the technology they create and are impacted similarly as other workers in other industries. These IT professional learn how to cope with the techno stress by identifying the root cause of the stress and implementing coping strategies such as learning the functionalities and increasing training on the technology to help mitigate the techno stress.

Stress among information technology (IT) professionals is long recognized as a key factor affecting IT productivity and turnover and leading to substantial associated costs. It is estimated that, on average, IS employees work 50 hours per week; almost half work an average of six hours on Saturdays and Sundays; and about 70% have worked while sick. It has also been recently proposed that high stress levels affect the productivity of IT employees. In a recent survey of 16,000 international technology professionals in 28 nations, the productivity of U.S. programmers was shown to be on average 7,700 lines of code, compared to 16,700 lines for non-U.S. programmers. One reason cited for this difference is job stress from "putting in 70-hour work weeks to meet business pressures and deliver IT projects faster." Some employees are opting to switch careers as a result of job stress. It is estimated the average replacement cost for an IS employee runs between $32,000 and $34,000. Stress and the turnover it can cause may thus be a costly problem for an organization. It is becoming increasingly clear that steps must be taken to address the problem of high stress because of its effect on employee productivity and turnover. However, before such strategies can be articulated, it is essential to examine the key sources of stress for IT employees. The primary stressors for IT employees are categorized on the basis of their association with one of seven factors, described as follows:

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Fewer women work in or achieve the same job levels as men in corporate America today. In the IT profession, recent estimates suggest that women make up only 26% of IT professionals in the U.S. where they're outnumbered by men six to one in leadership positions. What explains these lower levels of professional achievement for women in IT? Unfortunately, few facts are available to inform the answer, though numerous suppositions have been offered, including that women have less innate ability or interest in the “hard” sciences, that their educational experience dissuades them from careers in IT, and that they are simply less comfortable working in what is, and has always been, a predominately male environment. However, the validity of such assumptions has not been tested extensively in the IT arena. What is needed is a large-scale study able to distinguish fact from supposition.

Thus, these integrated studies provide strong evidence to the causes and effects of stressors in organizations. However, specific studies on organizational climate and stress with special emphasis on women IT professionals are rare. While each job has its stress, IT jobs cause more stress as they are mostly contractual with less job security but high pay, and entail strong competitiveness, along with a globalized life style. So the present study is concerned with how the organizational climate affects stress level of women employees in the IT sector. This is particularly relevant because jobs in IT is the most coveted one in modern India, and the most brilliant section of the youth especially women enter into this sector.