Introduction
Chapter 1

Introduction

The modern world, which is said to be a world of achievements, is also a world of stress. Selye (1956) defined stress as “The force, pressure, or strain exerted upon a material object or person which oppose these forces and try to keep up its original state.” Steers (1981) points out that occupational stress has become an important topic for study of organisational behavior for several reasons: 1) Stress has harmful psychological and physiological effects on employees, 2) Stress is a main cause of employee turnover and absenteeism, 3) Stress experienced by one employee can affect the safety of other employees, 4) By controlling dysfunctional stress, individual and organisation can be managed more effectively.

During the past decade, the banking sector had undergone quick and striking changes like policy changes due to globalisation and liberalisation, increased competition due to the entrance of more private (corporate) sector banks, downsizing, introduction of new technologies etc. Due to these changes, the employees in the banking sector are experiencing a high level of stress. The advent of technological revolution in all walks of life coupled with globalisation, privatisation policies has drastically changed conventional patterns in all sectors. The banking sector is of no exemption. The 1990s saw radical policy changes with regarding to fiscal deficit and structural changes in India so as to prepare to cope with the new economic world order. Globalisation and privatisation led policies compelled the banking sector to reform and adjust to have a competitive edge to cope with multinationals led environment. The advent of technological changes, especially extensive use of computers in the banking sector has changed the work patterns of the bank employees and has made it inevitable to downsize the work force in the sector (Bakker et al., 2005). The implications of the above said transformations have affected the social, economical and psychological domains of the bank employees and their relations. Evidence from existing literature states that more than 60% of the bank
employees have one or other problem directly or indirectly related to these drastic changes (Xie & Jamal 1993; Haviovic & Keenan 1991; Ivancevich et al., 1990). Along with other sectors the banking sector also leaning towards the policy of appointing contract labours while various compulsive as well as rewarding options such as VRS, etc. All the factors discussed above are prospective attributes to cause occupational stress and related disorders among the employees. Although a lot of studies have been conducted on the psychosocial side of the new policy regime in many sectors, there are very few studies, as far as the banking sector is concerned, while the same sector has been drastically influenced by the new policies. The National Institute for Occupational Safety and Health (NIOSH), part of the U.S. Department of Health and Human Services, states that job stress, now more than ever, poses a threat to the health of workers and the health of organizations. NIOSH (1999) defines job stress as the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker. Stress also occurs when the situation has high demands and the worker has little or no control over it. Job stress can lead to poor health.

Stress is a term that is widely used in everyday life with most people having some appreciation about its meaning. Commonly it is believed to occur in situations where there is excessive pressure being placed on someone (Selye, 1956). Occupational stress can be defined as the physiological and emotional responses that occur when workers perceive an imbalance between their work demands and their capability and/or resources to meet these demands (NIOSH, 1999). Importantly, stress responses occur when the imbalance is such that the worker perceives they are not coping in situations where it is important to them that they cope (Lazarus, 1991). Worker's responses to stressors may be positive or negative depending on the type of demands placed on them, the amount of control they have over the situation, the amount of support they receive and the individual response of the person. Stress is becoming increasingly globalised and affects all countries, all professions and all categories of workers, including both blue and white collar workers (Ahmad & Ahmad, 1992).

There are three basic reasons why stress and coping with stress in organizations are becoming prominent topics of research and
organizational practices. First, Heath/Well-being: Employees are treated as an asset to the organization. Therefore, an employee’s health is important to the individual employee, organization and society. A variety of the health hazards associated with stress in organizations (Van et al., 2005). Physical hazards that may occur because of occupational stress include fatigue, headache, stomach problems, muscles aches and pains, chronic mild illness, sleep disturbances and eating disorders. Psychological and behavioral problems that may develop include anxiety, irritability, alcohol and drug use, feeling powerless and low morale. If exposure to stressors in the workplace is prolonged then chronic health problems can occur including cardiovascular diseases like stroke, high blood pressure and immune system dysfunction (Beehr & Newman, 1978; Reddy, & Yusuf, 1998). Prolonged occupational stress can lead to occupational burnout (Jick & Payne, 1980). The NIOSH (The National Institute for Occupational Safety and Health) conducted a study in the collaborations with Northwestern National Life Insurance Co, Princeton Survey Research Associates, St. Paul Fire and Marine Insurance Co., Yale University and The Families and Work Institute reported (in January, 1999) that 40% of workers reported their job was very or extremely stressful; 25% view their jobs as the number one stressor in their lives; Three fourths of employees believe that workers have more on-the-job stress than a generation ago; 29% of workers felt quite a bit or extremely stressed at work; 26 % of workers said they were “often or very often burned out or stressed by their work”; Job stress is more strong.

Second, Organizational Effectiveness: Job stress is negatively related to the organizational effectiveness. There are many forces which cause stress at work in an organization, such as, longer working hours, mismatch of job responsibility and authority, shift work, new technology, poor working conditions, boredom, job insecurity (Cox, 1987). Stress has been recognized as a factor which adversely affects organisational effectiveness by contributing to poor productivity, high employee turnover and absenteeism, poor organisational climate, low morale, and job dissatisfaction (Beehr & Newman, 1978 and Spector, 2003).

Third, Compensation and Other Financial Costs: Stress at work also results the various financial costs and compensations for the
organizations. The estimates of financial impact and compensation do offer reasons for growing concern over stress in organizations (Myers, 1986; Karasek, & Theorell, 1990).

1.1 CONCEPT OF STRESS

Concept of stress was first introduced in the life sciences by Hans Selye in 1936. It is a concept borrowed from the natural sciences. Derived from the Latin word “Stringere”, stress was popularly used in the seventeenth century to mean hardship, strain, adversity or affliction (Selye, 1976). It was used in the eighteenth and nineteenth centuries to denote force, pressure, strain or strong effort with reference to an object or person (Pestonjee, 1999). In Engineering and Physics, the term implies an external force or pressure exerted on something with the intention to distort and being resisted by the person or object on which it is exerted (Pestonjee, 1999). In psycho-physiology, stress refers to some stimulus resulting in a detectable strain that cannot be accommodated by the organism and which ultimately results in impaired health or behavior (Pestonjee, 1999). Stress is the phenomenon of being stretched by the demands, made on an individual, beyond the limits of his/her potential to cope (Srivastava, 1998). Stress is basically a pressure that impinges on man and makes him suffer under it. Such situations constitute the rules and not the expectation in the life (Srivastava, 1998). The confusion in definition of stress is believed to be primarily due to its different usage by scholars of different disciplines. Stress has been defined as a mismatch of individual’s resources, capabilities and the demands or requirements of one’s environment (David, 1998). Selye (1956) defined stress as “The force, pressure, or strain exerted upon a material object or person which oppose these forces and try to keep up its original state”.

1.1.1 STAGES OF STRESS

Selye’s (1956) General Adaptation Syndrome (GAS) has been widely held as a comprehensive model to explain the stress phenomenon. This three stage model states that when an organism is confronted with a threat, the general physiological response occurs in three stages:
1.1.1.1 Alarm Reaction - The first stage includes an ‘initial-shock phase’ in which resistance is lowered, and a ‘counter-shock phase’, in which defensive mechanisms become active. Alarm reaction is characterized by autonomous excitability; adrenalin discharge; increased heart rate, muscle tone and blood content; and gastrointestinal ulceration. Depending on the nature and intensity of the threat and the condition of the organism, the period of resistance varies and the severity of symptoms may differ from ‘mild invigoration’ to ‘disease of adaptation’ (Pestonjee, 1999; Caplan et al., 1975; Halls & Mansfield, 1971).

1.1.1.2 Stage of Resistance - Maximum adaptation occurs during this stage. The bodily signs characteristic of the alarm reaction disappear. The symptoms disappear because one has become adjusted to the stressor but one still not prepared to take any risk. Resistance increases to levels above normal (Pestonjee, 1999; Palmer, 1994; Quick & Quick, 1984; Selye, 1956).

1.1.1.3 Stage of Exhaustion - Adaptation energy is exhausted. Signs of the alarm reaction reappear and the resistance level begins to decline irreversibly. Indefinite persistence of the stressors leads to permanent damage due to persistence of stressors over long periods of time. The organism collapses (Beehr & Newman, 1978; McGrath, 1976; French et al., 1974; Pestonjee, 1999).

In the field of medical and health sciences Selye’s “General Adaptation Syndrome” (GAS) involving three stages - Alarm, Resistance and Exhaustion have considerably influenced the conceptualization of stress. Similarly for psycho-physiologists, stress refers to some stimulus resulting in a detectable strain that cannot be accommodated by the organism and which ultimately results in impaired health.

1.1.2 Stress Approaches

A major source of confusion is the divergence of opinion among researchers on where stress resides. Is it a characteristic of the environment, a response of the individual or a transactional phenomenon? Various researchers have defined stress by emphasizing on one or the other aspect as follows:
1.1.2.1 Stress as a Stimulus - The stimulus based stress approach assumes certain conditions to be stressful and dubs these stressors (i.e., workload, heat and cold, time pressure, etc.) (Caplan et al., 1975; Margolis et al., 1974; Halls & Mansfield, 1971). Historically this has resulted in researchers selecting such exogenous variables, applying them experimentally, and concluding that the outcome witnessed was likely the result of a “stress” manipulation. Under this approach stress is considered as an external force, which is perceived as threatening (Cooper & Marshal, 1976). According to Selye (1956) any external event or any internal drive, which threatens to upset the organism’s equilibrium, is stress. A stimulus definition of stress refers to a job stressor, which is an environmental condition in the workplace requiring some type of adaptive response (Cooper & Marshal, 1976; Caplan et al., 1975).

1.1.2.2 Stress as a Response - The response based stress approach holds that stress is defined by the pattern of responses (i.e., behavioral, cognitive, and affective) that result from exposure to a given stressor (Beehr & Newman, 1978; McGrath, 1976; French et al., 1974). In contrast to the stimulus based approach, these variables can be considered endogenous or coming from within the individual. This approach has relied heavily on the work of Yerkes & Dodson (1908) and later Selye (1956) and found its emphasis in physiological dimensions. This approach describes stress in terms of the reaction of an individual to the stress or how an individual functions when under stress. As a response it has been defined as a non-specific response to a situation, which demands that the individual adapt to the change physically or psychologically/physiological. A response definition of stress refers to an individual’s response to work related environmental stressors (Summers et al., 1994; Howard, 1980; Selye, 1956).

1.1.2.3 Stress as a Stimulus-Response Relationship - Stokes & Kite (2001) suggested that physiological measures have failed to provide a complete understanding of the human stress response and do not necessarily equate to psychological stress, and thus a third approach to understanding the human stress response has emerged, the transactional model (Perrewé & Zellars, 1999). Transactional models view stress as the interaction between the environment and individual, emphasizing the role of the individual’s appraisal of situations in

1.1.3 EFFECTS OF STRESS

Stress and health are closely linked. It is well known that stress, either quick or constant, can induce risky body-mind disorders. Immediate disorders such as dizzy spells, anxiety, tension, sleeplessness, nervousness and muscle cramps can all result in chronic health problems (Aldwin & Yancura, 2010). In the long run they may also affect the immune, cardiovascular and nervous systems (Aldwin & Yancura, 2010).

1.1.3.1 Effects of Stress on Brain

The human brain is an incredibly complex terrain of folds and valleys. Human brain has 72-82 % of water and 10-12 % of fat. The brain weights about 2 % of the total body weight. The brain feels no pain. Human brain consists of about 100 billion of neurons (the cells that make up your brain). These neurons can connect with one another in 100 trillion different ways. Each of these connections can link up at 10 different levels - there are 1,000 trillion possibilities endless possibilities of connection. The brain uses about 20 % of the total oxygen circulating through your body (World Book, 2001; Scientific American Book of the Brain, 1999). Stress affects the brain - mild stress helps memory, while intense and chronic stress hurts it. Stress can kill the brain. Researchers found that at high levels, the hormones released during stress response, cortisol and in particular glucocorticoids, kill brain cells in experimental animals (McEwan, 2006). Researchers believe that the same happens in humans. Prolonged exposure to glucocorticoids also seems to reduce the brain's ability to create new connections to new brain cells and re-route connections to other brain cells. This problem is mostly seen in the area of hippocampus part of brain that controls memory. Brain scans of people who have suffered long term stress show that their hippocampus has shrunk. Their ability to plan, concentrate, learn quickly, think ahead and act decisively has been compromised as a result of long term flood of stress hormones into the body and brain (Yolanda et al., 1999; McEwan, 2006).
### 1.1.3.1.1 Effect of Stress on Attention

Under stress, attention appears to channel or tunnel, reducing focus on peripheral information and tasks and centralizing focus on main tasks. What determines a main task from a peripheral task appears to depend on whichever stimulus is perceived to be of greatest importance to the individual or that which is perceived as most salient. Threat-relevance is believed to be strongly associated with salience (Arnold, 1960). Therefore, when environmental cues are threat-related, such stimuli are often considered to be most salient by the individual. Threat-relevance is strongly associated with salience. Therefore, when environmental stimuli are threat-related, such stimuli are often considered to be most salient by the individual. This tunneling of attention can result in either enhanced performance or reduced performance, depending on the nature of the task and the situation (Kornovich, 1992). For instance, when peripheral cues are irrelevant to task completion the ability to tune them out is likely to improve performance. On the other hand, when these peripheral cues are related to the task and their incorporation would otherwise facilitate success on the task, performance suffers when they are unattended. This finding may apply to both visual attention and auditory attention; however, auditory attention has received little study. Experimental designs that incorporate a stress manipulation check (assessing the effectiveness of the supposed stress manipulation) are unfortunately not common. Researchers often only assume that their manipulations (e.g., increased workload, time pressure, physical or emotional threat, etc.) function as psychological stressors (Ohman et al., 2001). Further, most of these studies fail to distinguish possible direct effects of manipulations from indirect effects. In their examination of the relationship between emotion and attentional processing, Ohman, et al., (2001) differentiated between active and passive attention. The former refers to a top down processing while the latter suggests a bottom-up, stimulus-driven process. Top-down processing implies a volitional search and organism-directed attentional processing while bottom-up processing involves cues in the environment that draw-in attention. Ellenbogen et al., (2002) explored the relationship between stress and selective attention as it relates to mood and emotional information processing. They found that individuals under stress (a competitive computer task
requiring spatial cueing and word recognition) did not selectively attend to negative stimuli when exposed to them but instead rapidly disengaged attention from these negatively valenced words (and not from positive or neutral words). This was not the case for individuals scoring high on a self-report measure of dysphoric mood. Davies & Tune (1970) indicated that vigilance tended to be enhanced by moderate levels of arousal; however, sustained attention appeared to decrease with fatigue and loss of sleep. Chajut & Algom (2003) reviewed the three main theories of selective attention under stress and the literature support for each theory. They indicated that the first, attention approach, states that stress depletes an individual’s attentional resources. This narrowing of attention results in greater focus on the central task which tends to enhance performance. The second, capacity-resource theory, also states that stress narrows attention; however, this is directional in that one attends to whatever is proximal, highly accessible, or automatic (be it relevant or irrelevant to task or goal completion). Finally, the third approach, thought suppression, states that attention is a conscious pursuit but that there is also an unconscious process of automatic search for “to-be-suppressed” material that occurs simultaneously (i.e. whatever you do, don’t look down). The ironic aspect of this process is that this sensitizes the individual unconsciously to monitor what he or she should not. This monitoring results in a draw on attentional resources (amplified under stress) which leads to a hypersensitivity toward task-irrelevant cues (the to-be-suppressed thoughts).

1.3.1.2 Effect of Stress on Memory

There is evidence that other sources of stress (noise, threat, thermal conditions, etc.) reduce working memory performance. For example, several investigations have found that noise increases the incidence of errors on working memory tasks (Gomes et al., 1999; Von Wright & Vauras, 1980; Finkelman et al., 1979). Hockey (1979) provided a review of the research on the effects of noise on performance and information processing. They concluded that noise has several effects: 1) it tends to over-arouse an individual, which results in a speed/accuracy trade-off in performance, 2) it changes attention allocation which reduces working memory, 3) it creates attentional selectivity or tunneling,
4) it increases response selectivity, and 5) it tends to reduce a person's confidence in his/her performance. Thus, Hockey viewed the negative effects of noise on memory as emanating from earlier effects on attention. Wickens et al., (1991) studied the effect of various “stressors” (time pressure, noise, and financial risk) on working memory. They found that these factors tended to worsen memory performance but not for declarative knowledge tasks. This finding may reflect the resilience of long-term memory despite the presence of stressful conditions. Cortisol, having previously been established as a physiological measure of stress, has also been examined in relation to memory functioning. Al'Absi et al., (2002) measured cortisol levels in subjects after they completed mental-arithmetic and public-speaking tasks. Their results indicated that high-cortisol responders performed worse than low-cortisol responders on mental arithmetic but better on dichotic listening. There are a variety of tasks and stressors under which memory has been measured. Anxiety is perhaps the most common stress condition under which researchers have examined memory performance (Eysenck, 1979).

Ashcraft & Kirk (2001) reported that individuals high in anxiety tend to be slower and more deliberate in their processing of various aspects of mathematical functions. For example, these individuals seem to have particular difficulty with the carry-over function (i.e. adding a column of numbers that sum greater than nine) (Hyman & Pentland, 1996). Several investigations have found that noise increases the incidence of errors on working memory tasks (Finkelman et al., 1979). Studies found that various “stressors” (time pressure, noise, and financial risk) tended to worsen memory performance but not for declarative knowledge tasks. This may reflect the resilience of long-term memory despite the presence of stressful conditions (Finkelman et al., 1979; Staal, 2004).

1.1.3.1.3 Effects of Stress on Judgment and Decision Making

In general, judgment and decision making under stress tend to become more rigid with fewer alternatives scanned (Dougherty & Hunter, 2003; Broder, 2000; Janis et al., 1983; Janis & Mann, 1977; Walton & McKersie, 1965). Furthermore, there is evidence that individuals tend to rely on previous responses (typically when they are familiar and well-learned), regardless of previous response success (Cohen, 1952). Thus, in addition to experiencing
greater rigidity, individuals may tend to persist with a method or problem-solving strategy even after it has ceased to be helpful (Staw et al., 1981; Cohen, 1952). In general, individual judgment and decision making is degraded under stressful conditions. However, just what elements are degraded and in what ways are less clear and are a much more complex issue. It has already been argued that stress can lead to hypervigilance, a state of disorganized and somewhat haphazard attentional processing. Janis & Mann (1977) were the first to formalize these observations under their decision-conflict theory. According to this theory, hypervigilance results in a frantic search, rapid attentional shifting, and a reduction in the number and quality of alternatives considered. Ultimately, this state leads to degraded judgment and decision making. Janis et al., (1983) found that this to be true for some decision making tasks under the stress of perceived threat. Keinan (1987) also reported similar findings. He examined performance on a multiple-choice analogies test in order to assess the range of alternatives considered by subjects prior to making a decision. Keinan (1987) employed the threat of electric shock as his stress manipulation. He observed that when individuals felt threatened they tended to abandon their previous organized and systematic scan patterns. This resulted in a failure to consider as many alternatives. Furthermore, those that were examined were less systematic in their evaluation of alternatives. Rotton et al., (1978) found that the stress of noise reduced individuals’ ability to distinguish between social roles, which resulted in greater difficulty in social judgments and decisions. Soetens et al., (1992) found that fatigue degraded individuals’ performance on complex decision tasks but not on more simplistic judgments. Yamamoto (1984) examined the stress caused by a simulated fire and found that such conditions tended to result in degraded cognitive performance related to judgment and decision making on a variety of laboratory tasks. Several groups (Wickens et al., 1991; Zakay & Wooler, 1984) have investigated the effect of time pressure on judgment and decision making. The results of these investigations have been consistent and negative. Ben & Breznitz, (1981) used a gambling paradigm in their examination of decision making strategies. These authors found that decision makers under time pressure tended to make lower risk choices and spend more time viewing negative dimensions related to their decisions. Rothstein (1986) also examined decision making under time pressure and found that subjects were able to implement
sound decision policies, but their behavior was more erratic than when time for their decisions was not as limited.

1.1.3.2 EFFECTS OF STRESS ON HUMAN BODY SYSTEM

1.1.3.2.1 Stress and Heart Disease

The impact of stress on heart may results as various heart diseases. Stress can certainly influence the activity of the heart when it activates the autonomic part of the nervous system that affects many organs, including the heart. Such actions and others could theoretically affect the heart badly in several ways as stress can increases the pumping action and rate of the heart, while at the same time causing the arteries to constrict (narrow) (Chandola et al., 2008). This restricts blood flow to the heart, emotional effects of stress alter the heart rhythms, which could pose a risk for serious arrhythmias (rhythm abnormalities) in people with existing heart rhythm disturbances (Chandola et al., 2008). Stress causes blood to become stickier (possibly in preparation for potential injury, stress appears to impair the clearance of fat molecules in the body, stress that leads to depression appears to be associated with increased intima-medial thickness, a measure of the arteries that signifies worsening blood vessel disease, stress causes the body to release inflammatory markers into the bloodstream. These markers may worsen heart disease or increase the risk of heart attack or stroke, there is an association between stress and high blood pressure, people who regularly experience sudden spikes in blood pressure (caused by mental stress) may, over time, develop injuries in the inner lining of their blood vessels (Chandola et al., 2008 ; Kuper & Marmot, 2003). Psychological stress is also recognized as a possible cause of acute coronary syndrome (ACS), a collection of symptoms that signify heart attack or approaching heart attack (Martin, 2002; Bosma et al., 1998; Athavale et al., 1997; Gupta & Gupta 1996).

1.1.3.2.2 Stress and Nervous System

The nervous system is a network of nerves (neurons) that are interconnected with each other through a complex network. It is comprised of the central nervous system (CNS), which includes the brain and the spinal cord and the peripheral nervous system (PNS), which is a large network of nerves
The nervous system responds to external as well as internal stimuli. To give specific instructions to various parts of the body on how to react to a specific stimulus, the neurons use electrochemical signals. Stress stimulates the CNS and prepares it to meet stressful situations. During the preparation, the body goes through various physiological changes that are initiated to enable fight or flight. This is the function of the autonomic nervous system, which is comprised of the sympathetic nervous system and the parasympathetic nervous systems. Both of these perform entirely opposite functions. The sympathetic nervous system is responsible for stress responses, while the parasympathetic nervous system readies the body for rest and relaxation (Klaus et al., 2002). When some event causes fear, dread or terror, the sympathetic nervous system senses the danger and increases the heart rate to send an extra supply of blood to different parts of the body. It also signals the adrenal glands near the kidneys to secrete adrenaline, the hormone that provides a boost to muscular energy (Thompson, 2001). The nervous system is very different from other systems in the body. It not only supervises stress but also controls the body’s reactions afterwards. It reduces the level of hormones in the blood stream and signals the heart to revert back to its normal beat rate (Thompson, 2001). When stress physically or psychologically the body suddenly shifts its energy resources to fighting off the perceived threat. In what is known as fight or flight response, the sympathetic nervous system signals the adrenal glands to release adrenaline and cortisol. These hormones make the heart beat faster, raise blood pressure, change the digestive process and boost glucose levels in the bloodstream. Once the crisis passes the systems usually return (Panossian & Wickman, 2010).

1.3.3.2.3 Stress and Musculoskeletal System

Muscles have three important functions: to produce movement, maintain posture and generate heat. Almost all movements by the human body result from muscle contraction. Muscles lend support to the body and help it maintain posture against the force of gravity. Even when the body is at rest (or asleep), muscle fibers are contracting to maintain muscle tone. Finally, any activity by muscles generates heat as a byproduct, which is vital in maintaining normal body temperature (Walker & Wood, 2003). Physical stress
can either produce development of greater density, resilience, and/or strength of the various muscles, including the heart muscle, or if it exceeds the capacity of the muscles to adapt, it can produce injuries that result in degeneration of the muscle tissue (Chrousos & Gold, 1992). A certain amount of muscle injury will be adapted to by increasing resilience and strength, but there is a fine line between the injuries that condition the muscles and those that degenerate them (Bernstein et al., 1988). Under stress muscles tense up (Chrousos & Gold, 1992). The contraction of muscles for extended periods can trigger tension headaches, migraines and various musculoskeletal conditions (Chrousos, 2009). Effects of stress on perceptual-motor performance consistently show that stress tends to degrade the performance. Most studies demonstrate this in terms of manual dexterity; however, other tasks or skills have also been shown to suffer negative effects. Evans & Johnson (2000) examined the effects of stress on a typing task. Their results indicated that exposure to low-intensity noise did not cause a decrement in performance; however, physiological measures of stress indicated greater arousal (elevated epinephrine) and decreases in motivation (negative mood reported). May & Rice (1971) studied the effects of loud abrupt noise on motor performance. Using a pistol shot, they demonstrated that performance was impaired immediately following the introduction of the noise. Enander (1989) examined the thermal stresses of heat and cold on a test of manual dexterity and strength. The author determined that both tasks were negatively affected by exposure to cold; however, other physical and cognitive domains (vigilance and endurance) were negatively affected by heat. Van & Van (2000) examined the effects of time pressure and workload on a perceptual-motor tracking task. They found that these stressors generally resulted in more errors, greater movement variability and greater cursor control pressure on the task. Matthews & Desmond (2002) examined the effects of fatigue and increased workload on tasks of perceptual-motor abilities (a driving task). Driving an automobile requires the management of divided attention and task division. The authors found that fatigue tended to increase errors in heading, steering, and reduced perceptual sensitivity. The negative effects of stress on perceptual- and psycho-motor tasks have been demonstrated under a variety of conditions. Most commonly this has been demonstrated using tasks of manual dexterity. Fine motor skills tend to be at
greater risk for impairment than gross motor skills (Matthews & Desmond, 2002).

1.1.3.2.4 Stress and Respiratory System

Stress can make to breathe harder and cause rapid breathing, which can bring on panic attacks in some people (Sriram & Silverman, 1998).

1.1.3.2.5 Stress and Cardiovascular System

Stress that is momentary, such as being stuck in the traffic cause an increase in heart rate and stronger contractions of the heart muscle. Blood vessels that direct blood to the large muscles and to the heart dilate, increasing the amount of blood pumped to these parts of the body. Repeated episodes of stress can cause inflammation in the coronary arteries, thought to lead to heart attack (Grippo, 2009; Paul, 1983). Stress plays a significant role in susceptibility, progress, and outcome of cardiovascular diseases. In particular, stress may cause or exacerbate disease processes depending on the type of stressor involved (e.g., physical, chemical, biological, mental, psychosocial etc.) and/or the duration of its influence on an organism. (Esch et al., 2002).

1.1.3.2.6 Stress and Endocrine System

When the body is stressed the brain sends signals from the hypothalamus, causing the adrenal complex to produce cortisol and the adrenal modulla to produce epinerphine sometimes called “stress hormones”. When cortisol and epinerphine are released, the liver produces more glucose, a blood sugar that would give the necessary energy to fight or flight in an emergency (Greenberg, 2009).

1.1.3.2.7 Stress and Gastrointestinal System

During stress, the gastrointestinal system is inhibited at the level of the stomach via the vagus nerve, while being stimulated at the level of the large bowel via the sacral parasympathetic system, which is activated by brainstem derived norepinephrine (Chrousos, 2007; Tache & Bonaz, 2007). Stress may prompt to eat more or much less than a person usually does.
(Chrousos, 2009). If he eats more or different foods or increase his use of tobacco or alcohol he may experience heartburn or acid reflux. Person’s stomach may react with “butterflies” or even nausea or pain. He can vomit if the stress is severe enough. Stress can affect digestion and which nutrients ones intestines absorb. It can also affect how quickly the food moves through body. One may find that he has diarrhea or constipation (Chrousos, 2009).

1.1.3.2.8 Stress and Reproductive System

Stress badly affects the reproductive system of male as well as of females (Schenker et al., 1992). In men excess levels of cortisol, produced under stress, can affect the normal functioning of the reproductive system. Stress can impair testosterone and sperm production and cause impotence. In women stress cause absent or irregular menstrual cycles or more painful periods. It can also reduce sexual desire (Schenker et al., 1992).

1.1.3.2.9 Stress and Immune System

The immune system is the internal system which is designed to protect us from any external bodies (viruses or bacteria). It costs a lot to the body meaning that it has very high energy usage (Huang et al., 2002). Stress has complex effects on the immune system and influences both innate and acquired immunity (Chrousos, 1995; Karalis, 1991). Under stress body needs energy to run or fight, this change its chemistry to suppress the immune system. This is why people usually get ill before or after examinations or big challenges at work (O’ Leary, 1990).

1.1.3.2.10 OTHER EFFECTS OF STRESS

Some other effects of stress which physically and psychologically harm an individual are as Aggression, Apathy, Guilt, Numbness, Headaches, Hot and Cold Waves, Depression, Diarrhea, Sweating, Tingle, Nightmares, BadMood, Inability to focus, Low self esteem, A sense of vomiting, Irritability, Disappointment, Loneliness, Speeded heartbeat, Being worried, Tiredness etc. (Cohen et al., 2007; Chrousos, 2009; Greenberg, 2009).
1.1.3.3 POSITIVE EFFECTS OF STRESS

Selye (1956) identified two types of stress: good stress and harmful stress. Seley called the good stress “eustress”. Good stress (eustress) is the spark that drives us to achieve more, to improve the quality of our life, to ask for a raise, to fight for justice, or simply to go on a holiday. Stress pushes us to grow, to change, to fight, and to adapt. All life events, even positive ones, cause a certain degree of stress. For example getting a new job is a positive change, getting married, falling in love, getting a raise, winning a tennis match. The challenge of a new situation and the stimulation that it creates might be beneficial to someone's life. It may propel someone to take a risk and take a course at University, or to go out and meet new people, to take on a new hobby, or to learn new sport.

In the ancient times people took instant decisions either to fight back or to retreat from the scene. These somehow are not the alternatives available now. In the modern societies, we are obliged to face the situations in their face and also control and repress our reactions of “pain” and “fear”, which have grave psychological consequences, leading to what we call the situations of “stress”.

1.2 JOB STRESS

Today is a competitive world and every job is so much demanding that job stress is not a new phenomenon now. Every worker faces job stress in one or another way and also deals with it differently. There are many working conditions inherently stress inducing, such as fear of job loss, excessive workload demands, lack of control or clear direction, poor or dangerous physical working conditions, inflexible work hours, and conflicting job expectations. The present study concerns itself with the study of stress within organisational boundaries. The terms ‘organisational stress’, ‘job stress’, ‘occupational stress’, ‘stress at work’, and ‘stress’ are used interchangeably to refer to organisational stress. French et al., (1974) defined stress as “Stress is a result of misfit between a person’s skills and abilities and demands of the job and a misfit in terms of a person’s needs supplied by the job environment”. Mc Grath (1976) defined stress as “Stress is involved in an environmental situation that perceived as presenting
demand which threatens to exceed the person’s capabilities and resources for meeting it, under conditions where he or she expects a substantial differential in the rewards and costs from meeting the demand versus not meeting it”. Lazarus & Launier (1978) described stress as “Stress occurs when a person appraises a given transaction with the environment as about to tax or exceed that person’s resources thus endangering well-being.” Okebukola & Jegeda (1989) defined stress as “a condition of mental and physical exertion brought about as a result of harassing events or general features of the working environment.” Summers et al., (1994) defined stress as “Stress is the manifestly uncomfortable feeling that an individual experiences when he or she is forced to deviate from normal or desired patterns of functioning.” Job stress can lead to poor health and even injury.

Kornhauser (1965) in his study of the mental health of blue collar workers found that poor mental health was directly related to unpleasant working conditions, the necessity to work fast, to expend a lot of physical effort and to work excessive and inconvenient hours. According to French & Caplan (1973), “Pressure of both qualitative and quantitative overload can result in the need to work excessive hours, which is an additional source of stress”. Having to work under time pressure in order to meet deadlines is an independent source of stress. Studies shown that stress levels increase as difficult deadlines draw near. Caplan et al., (1975) pointed out that Lack of participation in the decision making process, lack of effective consultation and communication, unjustified restrictions on behaviour, office politics and no sense of belonging are identified as potential sources of stressors. Lack of participation in work activity is associated with negative psychological mood and behavioural responses, including escapist drinking and heavy smoking. According to Cooper & Marshall (1976), “By occupational stress is meant the negative environmental factors or stressors associated with a particular job”. Beehr & Newman (1978) defined occupational stress as “A condition arising from the interaction of people and their jobs and characterized by changes within people that force them to deviate from their normal functioning”. Allen et al., (1982) have defined the occupational stress as “disruption in individual’s psychological and physiological homeostasis that forces them to deviate from normal functioning in interaction with their jobs and
work environment.” Arsenault & Dolan (1983) reported that qualitative changes in the job create adjustmental problem among employees. The interpersonal relationships within the department and between the departments create qualitative difficulties within the organization to a great extent. Akinnusi (1994) has the opinion that, “The responsibility load creates severe stress among workers and managers”. If the individual manager cannot cope with the increased responsibilities it may lead to several physical and psychological disorders among them. Gilberg (1993) pointed out that “In the organizational environment, stress has been implicated in the deterioration of performance efficiency by both managers and subordinates. When performance efficiency suffers the quality of the overall organizational environment and productivity deteriorates. A deterioration of the organizational environment is accompanied by deterioration in organizational communication”. Classifications of Stressors Occupationally related stressors tend to vary from job to job and from organization to organization. These stressors can be easily divided into three classifications. The first classification contains stressors that are common to a wide variety of jobs. This group includes issues regarding customer demands, time constraints, and ineffective training. The second classification contains stressors that are common to a wide variety of organizations. This group includes issues related to absence of support from organizational superiors, non-competitive wage structures, poor job descriptions, and ineffective organizational motivational strategies. The third, and last, classification contains factors related to interdepartmental activities within an organization. This group included issues such as poor cooperation, organizational politics, and similar activities. Occupationally related stressors also tend to evolve as changes occur in organizational environments, organizational staffing, and job tasks (Schaubroeck & Ganster, 1993). Job stress happens when the challenges and demands of work become excessive, the pressures of the workplace surpass workers’ abilities to handle them and satisfaction becomes frustration and exhaustion (Mark & Smith, 2008). When stress crosses the boundaries from normal to excessive, it can trigger physical and emotional responses that are harmful to employees and the organization as well (Schuler, 1980). It is generally viewed that stress in any organization is associated with three kinds of work situations i.e. demand, constraint and challenge. Where demand is a potential situation of loss, constraint is a dynamic
condition in which an individual is prevented from some gain. Challenge may be seen as a situation of potential gain (Schuler, 1980). There is no doubt that all these situations produce stress, but challenge related stress is different from the stress produced by the other two conditions i.e. demand and constraint. Challenge related stress is a positive stress, whereas demand and constraint related stress is negative and can be labeled as “distress” (Schuler, 1980). It is the hazardous nature of stress, which has evoked much response all over the world for its management. Without stress, one wouldn’t meet deadlines, strives to hit sales or production targets, or to line up new clients. Meeting the demands and challenges of a job is part of what makes work makes interesting and it’s often allows people to develop new skills. Thus stress can be stated as an individual’s state of mind when s/he encounters a situation of demand and/or constraint in an organization and perceives the same as harmful or threatening (Schuler, 1980). According to Garfield (1995), “Occupational stress is often associated with overachievers or workaholics. High levels of self-induced stress usually characterize these individuals. Stress, however, is also associated with so-called underload situations”. Studies of plant closures and involuntarily unemployed workers found that health problems, both physical and mental, are higher during layoff periods than during periods of employment (Schuler, 1980). Studies also found that stress is often higher among blue-collar workers than among managerial personnel. Job level, associated with job status was found to be tied to self-esteem. Lower self-esteem was associated with higher levels of stress. Even on the job, job underload creates as much stress as does job overload. Job underload means that an individual is not challenged in her or his work, and may be subject to periods of boredom or periods of fatigue stemming from boredom. Job underload may also create higher levels of anxiety, depression, and physical illness than job overload. Alienation has also been related to the development of occupational stress” (Schuler, 1980).

### 1.2.1 SOURCES OF JOB STRESS

The primary sources of occupational stress within an organization originate from four areas. These areas include task demands, physical demands, role demands, and interpersonal demands (Knotts, 1996). “Any demand, either of a physical nature or psychological nature, encountered in
the course of living is known as a ‘stressor’. A stress response will occur as a result of an individual’s interaction with and reaction to the stressor” (Knotts, 1996). Task-related stress is directly related to the specific characteristics of the job itself. This type of stress involves role ambiguity, conflicting task demands, work overload or work underload, inadequate resource support, no provision for meaningful participation in decision-making, and insecurity among others (Knotts, 1996). Physical demands of the workplace are another source to be considered. Environmental factors such as temperature variations, noise vibrations, and lighting may significantly affect individual stress. For example, “extremes in lighting can cause stress, which often results in headaches and nervous tension” (Van et al., 2002; Knotts, 1996). Role demands are external to the tasks associated with a job. This particular type of stress typically develops as a result of flawed organizational structures, ineffective organizational development, the inability of an individual to successfully pursue achievement goals within an organization, or some combination of all three (Knotts, 1996). The individual’s stress often results when his or her work role and responsibility has not been clearly defined (Knotts, 1996). The final source area of occupational stress relates to interpersonal demands. “Interpersonal stress at work is concerned with the demands that are placed on us in developing working relationships with other people in our organizations”. Job stress is often developed when an individual is assigned a major responsibility without proper authority and delegation of power. Interpersonal factors such as group cohesiveness, functional dependence, communication frequency, relative authority and organizational distance between the role sender and the focal persons are important in organizational behavior (Knotts, 1996).

Stress at job can manifest itself in four types. *Eustress* is a type of short-term stress that provides immediate strength (Paterson & Neufeld, 1989; Selye, 1978). Eustress arises at points of increased physical activity, enthusiasm, and creativity. Eustress is a positive stress that arises when motivation and inspiration are needed. *Distress* is a negative stress brought about by constant readjustments or alterations in a routine (Paterson & Neufeld, 1989; Selye, 1978). Distress creates feelings of discomfort and unfamiliarity. There are two types of distress, acute stress is an intense stress that arrives and disappears
quickly and chronic stress is a prolonged stress that exists for weeks, months, or even years (Paterson & Neufeld, 1989; Selye, 1978). Someone who is constantly relocating or changing jobs may experience distress (Selye, 1978). Hyper stress occurs when an individual is pushed beyond what he or she can handle (Selye, 1978). Hyper stress results from being overloaded or overworked. When someone is hyper stressed, even little things can trigger a strong emotional response. Hypo stress is the opposite of hyper stress (Selye, 1978). Hypo stress occurs when an individual is bored or unchallenged. People who experience hypo stress is often restless and uninspired (Paterson & Neufeld, 1989; Selye, 1978).

1.2.2 DYNAMICS OF JOB STRESS

Research by Cartwright & Cooper (1997) identified the areas of pressure covering almost all the potential stressors as depicted in the Figure 2.1.

Figure 1.1 Schematic diagram of Dynamics of Work Stress

(Source: Cartwright and S.L. Cooper, 1997, Managing Workplace Stress by Sage Publication Inc. USA.)
1.2.2.1 Factors Intrinsic to Job

It can be seen that every individual job description includes factors, which for individuals at some point in time will be a source of pressure. Two factors have received the major part of research effort in this area (the others being more speculative than proven sources of stress); One is Working conditions such as Crowded Work Area, Noise, Heat or Cold, Polluted area, Strong odor, Unsafe, dangerous condition, Poor lightning, Physical or mental strain, Toxic chemicals or radiation the other is Work load such as Over load or Under load (Cartwright & Cooper, 1997).

1.2.2.2 Role in the organization

Pareek (1983) pioneered work on role stress by identifying following role stressors:

- Inter Role Distance (IRD): It is experienced when there is a conflict between organization and non-organizational roles.

- Role Stagnation (RS): It is the feeling of being stuck in the same role. Such a type of stress results in the perception that there is no opportunity for furthering or progress of one’s career.

- Self-Role Distance (SRD): When the role person occupies goes against his self-concept or values, he feels self-role distance stress. This is essentially a conflict arising out of mismatch between the person and his job.

- Role Ambiguity (RA): It refers to the lack of clarity about the expectations regarding the role which may arise out of lack of information or understanding. It may exist in relation to activities, responsibilities, personal styles and norms.

- Role Expectation Conflict (REC): This type of stress is generated by different expectations by different significant persons i.e. superiors, subordinates and peers, about the same role and the role occupant are ambivalence as to whom to please.
• Role Overload (RO): When the role occupant feels that there are too many expectations from the particular role, he experiences role overload. There are two aspects of this stress, quantitative and qualitative. The former refers to having much to do, while the latter refers to too difficult.

• Role Erosion (RE): This type of role stress is the function of the role occupants feeling that some powers, which should be belonging to his role, are transferred to some other role. This can also happen when the particular role occupant performs the functions but the credit goes to somebody else.

• Resource Inadequacy (RI): This type of stress is evident when the role occupant feels that there are not sufficient resources, required to perform all the functions of his role efficiently.

• Personal Inadequacy (PI): This type of stress arises when the role occupant feels that he does not have the necessary skills and training for effectively performing the functions expected from the job.

• Role Isolation (RI): This type of role stress refers to psychological distance between the occupant’s role and other role in the same role set. It refers to the weak linkage of a particular role with the roles around.

1.2.2.3 Relationships at work

As early as in 1956, Selye had pointed out that ‘good relationships between members of a group are a key factor in individual and organizational health.’ There are following three critical interpersonal relationships at work:

• Relationship with the superior: Buck (1972) focused on the attitude and the relationship of employees with their boss. He found that considerate behavior of the superiors appeared to contribute significantly inversely to feelings of job pressure. (From considerate, he meant mutual trust, respect, and warmth). Thus if the relationship of employee with boss is
found to be inconsiderate (by the employee) the job is ought to be less stressful.

- Relationship with the subordinates: It has long been accepted that that an ‘inability to delegate’ might be a problem but now a new potential stressor is being introduced in the manager’s interpersonal skill- ‘managing by participation’. The reasons for stress in this case could be irreconcilable pressures, erosion of role and refusal by subordinates to participate (Cartwright & Cooper 1997).

- Relationship with colleagues: Lazarus (1966) found out that lack of social support is a difficult situation. Cartwright & Cooper (1997) reconfirmed that lack of cordial relationship among colleagues may lead to stress at work place.

1.2.2.4 Career Development Factors

Two major clusters of potential stressors can be identified in this area: (1) Lack of job security, fear of redundancy, obsolescence or early retirement. (2) Status incongruity, under-or-over promotion, frustration of having reached one’s career ceiling (Cartwright & Cooper, 1997). For many people career progression is of overriding importance- it promises improvement in terms of status as well as money earned. But more than that it breaks the monotony of being at same position and keeps them up for the new challenges. Performance appraisal (actual or even the fear of the potential) can be a stressful experience (Cartwright & Cooper, 1997).

1.2.2.5 Organizational Structure and Climate

The problem areas identified on this front are little or no participation in the decision making process, no sense of belonging, lack of effective consultation, poor communication restriction on the behavior, office politics and administrative policies being too restrictive or vague (Knotts, 1996). Besides this now a days the changes occurring at fast pace in the designs of the organization to meet the challenges of globalization, information technology
explosion, quality obsession and diversity keep the nerves of employees tense at job (Cartwright & Cooper, 1997).

1.2.2.6 Extra Organizational Sources of Stress

The sixth and final source of external job stress is more of a ‘catch all’ for all those interfaces between life outside and life inside the organization that might put pressures: family problems, pressure of relocation, life crisis, financial difficulties, dual family career (Cartwright & Cooper, 1997). Beyond the family life and life at work, all of us are connected to the wider social and physical environment. The government raises taxes and we feel pinch. Gas shortage occurs and we have to wait in long lines. All of us encounter such short-term stresses that come from the wider environment: impersonal, beyond our control, yet they invade our lives and work creating stress (Cartwright & Cooper, 1997).

1.2.2.7 Characteristics of the Individual

Besides the above-mentioned external factors there is another factor responsible for the stress, if not directly it lets one choose the extent of stress and its level of effect on the work. This an internal factor to job stresses, it predisposes stress on following fronts:

- Type A characteristics: Researches found that type A profile correlates highly with the experience of stress (Matthews, 1982). The traits of type A personality are extremes of competitiveness, restlessness, hyper alertness, explosiveness of speech (Matthews, 1982).

- Time managers: People who are good at ‘time management’ and ‘commitment management’ find themselves strong to evade situations causing stress thus relieving themselves of unnecessary stress (Pearlin & Schooler, 1978).

- Low self-esteem: The people with low self-esteem tend to under rate themselves and thus develop a negative attitude leading to stress (Pearlin & Schooler, 1978).
• Unhealthy habits: A single bad habit robs one of many comforts and a bunch of them would only leave one under stress (Shimimitsu, 1999).

• Age: Age also plays an important role in stress studies. In today’s stressful environment people at their earlier age are more stressed at job (Srivatava, 1998).

• Health problems: People, who are physically ill equipped, are more prone to stress (Charouses & Gold, 1992).

1.2.3 CATEGORIES OF STRESSORS

Stress tends to build up over a period of time through a combination of factors. The following are three broad categories of potential stressors which are the sources of stress for an individual.

• Personality traits: Personality traits include Type-A, Locus of control, Affectivity, Hardiness, and Proactive orientation etc. (Cartwright & Cooper, 1997)

• Intra-Organisational Factors: These include work overload, work autonomy and control, supervision, role ambiguity, role conflict, interpersonal relations, career growth, organisational structure and climate etc. (Cartwright & Cooper, 1997)

• Extra-Organisational Factors: These include all factors outside work; for example home-family relationship, financial constraints, and other social commitments (Cartwright & Cooper, 1997).

Beside the above mentioned three categories of stressors, the following are some general and important factors which affect the degree of stress experienced by a person.

• What is at stake; money, health, status, relationship, self esteem, values etc? Bigger the stake, higher will be the stress (Rittmayer, 1999).

• Uncertainty about the outcome; when there is uncertainty regarding whether the demand will be met, the constraint removed (the loss
avoided) there will be stress. Higher the degree of uncertainty, higher will be the stress experienced (Rittmayer, 1999).

- Personal experience; if the prior experience of coping with a similar situation was a failure, it will increase stress for the present situation and vice-versa (Rittmayer, 1999).

- Similar others’ experience; if others’ experience of coping with similar situation was a failure, it will also increase the stress for the individual for the present situation and vice-versa (Rittmayer, 1999).

- Coping resources; if one perceives or actually has enough resources available to cope with stress, one will experience less stress and vice-versa (Rittmayer, 1999; Miller & Mangan, 1983).

- Time; at what time the encounter takes place and for how long it continue, affect the degree of stress experienced (Rittmayer, 1999).

There is no doubt that all the above mentioned categories of stressors are important and inseparable but it is difficult to study all the stress dimensions in a single study. Therefore, the focus of the present study is limited to organisational factors only. According to Hendrix et al., (1994) job stress is affected mainly by intra-organisational variables while life stress is affected by extra-organisational variables. The following categories of intra-organisational stressors are considered.

1.2.3.1 Job Characteristics

Job characteristics are one set of factors, which can produce stress (Hendrix et al., 1994). The important characteristics of a job which can be the potential sources of stress are:

- Repetitive nature of task.
- Touring/travelling involved.
- Meetings.
- Frequent and higher degree of attention and alertness required.
• Spending maximum time in making and attending telephone calls.
• Over working.
• Higher risk and cost involved in decision making.
• Higher level of responsibility for the career of others.

1.2.3.2 Role Characteristics

Role is a set of potential behaviours expected of someone by others in his/her role set (Kahn et al., 1964). Role characteristics have been the most widely investigated organisational conditions in stress research. The important role characteristics which are the potential source of stress are:

(a) Role ambiguity
(b) Role conflict
(c) Role overload/underload: Role overload can be a quantitative and/or qualitative.

• Quantitative role overload: It occurs when the individual does not have enough time to complete his/her work that is required of a job and is characterized by demand (Kahn, 1964).

• Qualitative role overload: It occurs when an individual does not have required skills to do a particular job (i.e. difficult task) and is characterized by demand (Kahn, 1964).

• Role under load: It occurs when a person’s skills are under-utilized and is characterized by constraint (Kahn, 1964).

1.2.3.3 Interpersonal Relations

It refers to the quality of working relationship employees have with one another. This quality of relationship is characterized by trust, cooperation, respect, considerate behaviour of the superior etc. French & Caplan (1973) define poor inter-personal relations as “those which include low trust, low supportiveness and low interest in listening to and trying to deal with problems that confront the organisational members.” An individual’s relations with his boss, peer group, and subordinates can be a source of stress.
1.2.3.4 Organizational Structure and Climate

Litwin & Stringer (1968) have defined “Organisational climate as a set of measurable properties of the work environment perceived directly or indirectly by the people who work in that environment and which influence their motivation and behaviour.” It is another set of potential stressors. The following are some important dimensions considered as potential stressors.

- Degree of formalization.
- Degree of centralization.
- Rigidity in rules and procedures.
- Frequency of changes in policies and procedures.
- Physical working conditions.
- Lack of effective communication.
- Lack of feedback for performance.
- Restriction on expression of feelings.
- Inconsistent and unrealistic management attitude.
- Office politics.

1.2.3.5 Career Growth and Development

It is another set of organisational factors, which have a potential to produce stress (Cartwright & Cooper, 1997). It is characterized by

- Lack of opportunity for growth.
- Thwarted ambitions.
- Unmet financial needs.
- Lack of job security.

1.3 SYMPTOMS OF STRESS

Stress manifests itself at individual, group and organizational levels. At individual level, it may be manifested in the form of
physiological, psychological, and behavioural changes. Beehr & Newman (1978) have classified these symptoms in the following three categories:

1.3.1 Physiological: Heart rate, respiration, headache, ulcer, BP, and heart attack, adrenaline, non adrenaline, thymus deduction, lymph deduction, gastric acid production, and ACTH production.

1.3.2 Psychological: 1) Fight or withdrawal, 2) Apathy, resignation, boredom, 3) Regression, 4) Fixation, 5) Projection, 6) Negativism, 7) Fantasy, 8) Forgetfulness, 9) Tendency to misjudge people, 10) Uncertainty about whom to trust, 11) Inability to organize self, 12) Inner confusion about duties or roles, 13) Expression of boredom with much of everything, 14) Dissatisfaction, 15) High tolerance for ambiguity, does not deal well with new or strange situations, 16) Tunnel vision, 17) Tendency to begin vacillating in decision-making, 18) Tendency to become distraught with trifles, 19) Inattentiveness: loss of power to concentrate, 20) Irritability, 21) Procrastination, 22) Feeling of persecution, 23) Gut level feeling or inexplicable dissatisfaction.

1.3.3 Behavioural: Behavioural stress symptoms are of two types:

1.3.3.1 Individual consequences: 1) Loss of appetite, 2) Sudden, noticeable loss or gain of weight, 3) Sudden change of appearance: decline/improvement in dress, 4) Sudden change of complexion (Sallow, Reddened, Acne), 5) Sudden change of hair style and length, 6) Difficult breathing, 7) Sudden change of smoking habits, 8) Sudden change in use of alcohol.

1.3.3.2 Organizational consequences: 1) Low performance - quality/quantity, 2) Low job involvement, 3) Loss of responsibility, 4) Lack of concern for organization, 5) Lack of concern for colleagues, 6) Loss of creativity, 7) Accident proneness.

1.4 COPING WITH STRESS

It has been acknowledged that individual well-being is influenced not only by the amount of stress experienced by the individual but also by how an individual copes with stress (Buunk et al., 1991). Individuals and organizations cannot remain in a continuous state of tension they adopt ways of
dealing with it. These ways or strategies used to deal with stress are called coping with stress. The word coping has implications in stress literature. It has been used to denote the way of dealing with stress, or the effort to ‘master’ conditions of harm, threat, or challenge when a routine or automatic response is not readily available.

McGrath (1970) defined coping “as an array of covert or overt behaviour patterns by which the organism can actively prevent, alleviate, or respond to stress inducing circumstances.”

Folkman & Lazarus (1980) defined coping “as the cognitive and behavioural efforts made to master, tolerate or reduce external and internal demands and conflicts among them which tax or exceed a person’s resources.”

Burke & Weir (1980) coping refers to “any attempt to deal with stressful situations when a person feels he must do something about it, but which tax or exceed his existing adaptation patterns.” Houston (1987) defined coping as “a response or response whose purpose is to reduce or avoid stress. It is pointed out that such response may or may not be successful.”

Dewe (1987) defined coping “as active or passive attempts to respond to a situation of threat with the aim of removing the threat or reducing the emotional discomfort.”

Thus coping can be defined as “all those responses (regardless of their success) made by an individual to reduce stress.” Coping can occur in anticipation of stressful encounter or in reaction to a present or past situation. Coping responses aim at eliminating/reducing the sources of discomfort, altering one’s appraisal of the stressor, and managing/reducing the feeling of discomfort within the individual. These coping responses are possible at three levels:

- Efforts made by the individual.
- Efforts made by the group of employees.
- Efforts made by the organization.
In this study focus is on individual effort, because the importance of individual differences in both perception of and reaction to stress suggests the potential efficacy of individual coping efforts. A coping response is effective if it reduces stress and enhances well-being. The effectiveness of coping depends on an individual’s coping skills which can be defined as “an ability to use an appropriate coping response/mix of responses at the appropriate time to reduce stress.” (Latak & Havlovic, 1992)

1.4.1 TYPES OF COPING

There are large individual differences in the way individuals cope with their stress. It can be said with some certainty that stress and coping are ubiquitous in everyday life and affect everyone. Coping strategies play a critical role in an individual’s physical and psychological well being when faced with challenges, negative events and stress. (Folkman & Lazarus, 1980). Coping may also be conceptualized more broadly as part of an approach to life in which an individual’s efforts are directed towards goal management and the identification and utilization of social resources to achieve one’s goals (Lazarus, 1974). While the objective study of stress and coping has dominated the research sphere for the last three decades, with the cognitive revolution came the acknowledgement that intrapsychic processes can and often do intervene between stressful events and responses. Viewed in this way, coping is part of a psychosocial pattern of reactions – others include social support, self-efficacy, hardiness posited to mediate the relationship between stress and illness (Somerfield & McCrae, 2000). Making life manageable involves a functional consciousness which invokes purposive accessing and deliberating processing of information for selecting, constructing, regulating and evaluating courses of action. This is achieved through intentional mobilization and productive use of representations of activities, goals and other future events (Bandura, 2001). Coping entails planning, purposiveness and a cognitive representation of activities, both previous and future. Coping involves the purposive accessing and deliberative processing of information for selecting, constructing and evaluating action (Bandura, 2001). In this way, intentionality is merged with cognitive factors to form coping strategies that develop out of previous behavioural patterns while at the same time being future-oriented.
According to Schwarzer (2000), there are four types of coping.

- **Reactive coping**: Reactive coping is defined as an effort to deal with a stressful encounter that has already happened. Since the stressful events have already taken place, coping efforts are directed here to either compensating for a loss or alleviating harm. In general, this is the type of coping that has been assessed in much of the research on coping to date.

- **Anticipatory coping**: Anticipatory coping is defined as an effort to deal with imminent threat; individuals face a critical event that is certain to occur in the near future. In anticipatory coping, there is a risk that a future event may cause harm or loss later on, and the person has to manage this perceived risk. The situation is appraised as an imminent threat. The function of coping may lie in solving the actual problem at hand, such as increasing effort, getting help, or investing other resources. This type of coping also involves investing one’s resources to prevent or combat the stressor.

- **Preventive coping**: Preventive coping may be defined as an effort to build up general resistance resources that reduce the severity of the consequences of stress, should it occur, and lessen the likelihood of the onset of stressful events in the first place. In preventive coping, individuals face a critical event that may or may not occur in the distant future. Preventive coping involves risk management, but here one has to manage various unknown risks in the distant future.

- **Proactive coping**: Proactive coping consists of efforts to build up general resources that facilitate the achievement of challenging goals and promote personal growth (Greenglass, 2002). Individuals vary considerably in the resources they bring to stressful situations. Personal resources include coping strategies, personality attributes such as self-efficacy, and social support (Zeidner & Endler, 1996). Better individual resources empower individuals to cope more effectively with the stress. These ideas owe much to those put forth by Hobfoll in his Conservation of Resources
theory (COR). He argued that people work to obtain resources they do not have, retain those resources they possess, protect resources when threatened, and foster resources by positioning themselves so that their resources can be put to best use. According to this theory, stress is predicted to occur as a result of circumstances that represent (1) a threat of resource loss, or (2) actual loss of the resources required to sustain the individual (Hobfoll, 1989). In proactive coping, people have a vision. They see risks, demands, and opportunities in the far future, but they do not appraise these as threats, harm, or loss. Rather, they perceive difficult situations as challenges. Coping becomes goal management instead of risk management. Individuals are not reactive, but proactive in the sense that they initiate a constructive path of action and create opportunities for growth. Preventive and proactive coping are partly manifested in the same kinds of overt behaviours as skill development, resource accumulation, and long-term planning. However, the motivation can emanate either from threat appraisal or from challenge appraisal, which makes a difference. Worry levels are high in preventive coping but lower in proactive coping (Schwarzer, 2000).

Pearlin (1991) and Pearlin & Schooler (1978) identified coping as a behavior that is a protective mechanism that functions in three ways. First is by attempting to eliminate or modify the situation that is giving rise to the problem. Second is to perceptually control the meaning of the experience in a manner that neutralizes the problematic character of the situation. The third is to attempt to keep the emotional consequences of the situation manageable.

Moos & Billings (1982) have organized the dimensions of appraisal and coping included three domains:

- **Appraisal- Focused Coping**: It involves attempts to define the meaning of a situation and includes such strategies as logical analysis and cognitive redefinition.

- **Problem- Focused Coping**: This seeks to modify or eliminate the sources of stress to deal with the tangible consequences of a problem or activity change the self and develop a more satisfying situation.
- **Emotion-Focused Coping:** This includes responses whose primary function is to manage the emotions aroused by stressors and thereby maintain effective equilibrium.

  Lazarus (1974) has suggested a classification of coping processes which emphasizes two major categories of coping, namely, “direct action” and “palliative modes”. Direct action deals with the behavior of actions, which when performed by the organism in face of a stressful situation is expected to bring about a change in stress causing environment. Palliative approach of coping refers to those thoughts or action whose purpose is to relieve the organism of any emotional impact of stress.

- Problem-focused or approach coping happens when efforts are directed at solving or managing the problem that is causing distress. It includes strategies for gathering information, making decisions, planning, and resolving conflicts. This type of coping effort is usually directed at acquiring resources to help deal with the underlying problem and includes instrumental, situation specific and task-oriented actions. (Lazarus & Folkman 1984)

- Emotion-focused or avoidant coping is coping that is directed at managing or reducing emotional distress, which includes cognitive strategies such as looking on the bright side, or behavioral strategies such as seeking emotional support, having a drink, or using drugs. (Lazarus, 1991; Lazarus & Folkman, 1984)

- Meaning-focused coping involves searching for meaning in adversity and drawing on values, beliefs, and goals to modify the meaning given to and personal response to a stressful situation. (Lazarus & Folkman, 1984).

- Positive appraisal is the reframing a situation to see it in a positive light. Positive reappraisal has been significantly and independently associated with increases in positive affect. (Lazarus & Folkman, 1984).

  Lazarus & Folkman (1984) were the first to make the distinction between problem-focused coping and emotion-focused coping.
Problem-focused coping seeks to ameliorate the stress being caused by a given situation by identifying and making efforts to deal with the source of the problem. It may involve taking action to remove a stressor or to evade a threatening stimulus. For example, changing trails to avoid a snake while on a nature walk would be an example of the problem-focused method of coping: By effectively removing oneself from the threatening situation, one lowers the stress it induces. (Lazarus & Folkman, 1984) The goal of emotion-focused coping is to reduce the intensity of distressing emotions associated with stress that is, the aim is to make oneself feel better about a real or perceived threat or stressor without addressing the source of the stress. Emotion-focused coping often occurs when problem-focused coping fails to reduce the stress in a situation or when the stressor is so great that problem focused coping has no real likelihood of helping. It can also come into play when many aspects of a situation are out of one’s control, such as when one is dealing with a terminal illness or the sudden death of a loved one (Lazarus & Folkman, 1984).

### 1.4.2 COPING RESOURCES

Coping resources refer to what is available to people to generate coping responses (Hobfoll, 1989). It will determine the menu of coping responses i.e. the number and variety of coping responses the individual is equipped with. Coping resources can be Physical (health, energy, stamina, etc.), Material (money, tools, equipment, etc.), Psychological (beliefs, self esteem, values, morale, etc.), and Social (information, tangible assistance, emotional support, etc.). Pearlin & Schooler (1978) also made a distinction between social and psychological resources at one’s disposal and coping responses people use in stressful encounters. According to Lazarus & Folkman (1984), some of the most important coping resources are health and energy, positive belief, problem-solving skills, social skills, social support and material resources.

- Health and energy assists individuals in coping, since healthy, robust individuals are better able to manage external and internal demands than frail, sick people. (Somerfield & McCrae, 2000).
• Positive belief is an important coping resource. The ability to cope with stress is enhanced when people believe they can successfully bring about desired consequences. (Lazarus & Folkman, 1984).

• Closely allied to the previously mentioned resource is a problem-solving skill. Knowledge of a specific topic may assist an individual in understanding a problem he/she may be experiencing. (Lazarus & Folkman, 1984).

• Social skills refer to a person’s confidence in his/her ability to get other people to co-operate, and this can be an important source of stress management. This ability is closely related to the fifth coping resource. (Hobfoll & Leiberman, 1987; Moos & Billings, 1982).

• Social support is another important coping resource, and refers to an individual’s feeling of being accepted, loved and prized by others. (Moos & Billings, 1982).

• Material resources are also of vital importance in assisting coping. Having the financial means to purchase certain products and services can decrease the stress of other problems (Schwarzer, 2000).

According to Hammer & Marting (1988), people make use of coping resources to enable them to handle stressors more effectively. They defined coping resources as “those resources inherent in individuals that enable them to handle stressors more effectively, to experience fewer or less intense symptoms upon exposure to a stressor, or to recover faster from exposure” (Hobfoll & Lilly, 1993). Individuals with low resources tend to be vulnerable and constitutionally fragile while those with high resources can be described as resilient and hardy (Kobasa, 1979). Hammer & Marting (1988) stated five different domains of coping resources, namely Cognitive, Social, Emotional, Spiritual/Philosophical, and Physical. Each of these different domains are briefly outlined below.

• The Cognitive domain considers the extent to which an individual maintains a positive sense of self-worth, a positive outlook towards others and an optimism about life in general.
• The Social domain looks at the degree to which an individual is embedded in social networks that are able to provide support during stressful times.

• The Emotional domain is concerned with the degree to which an individual is able to accept and express a range of affect, based on the premise that a range of emotional response aids in ameliorating long-term negative consequences of stress.

• The Spiritual/Philosophical domain looks at the degree to which an individual’s actions are guided by stable and consistent values derived from religious, familial, or cultural tradition or from personal philosophy.

• The Physical domain is concerned with the degree to which individuals enact health-promoting behaviours believed to contribute to increased physical well being.

1.4.3 COPING RESPONSES

It refers to what actually people do to deal with stress. Coping has been researched and measured in the following different ways:

• **As a disposition, trait or style**: It refers to the tendencies of an individual to use a particular type of coping across a variety of stressful situations (Goldstein, 1973). Coping trait/style concept acknowledges that people may have a tendency to cope in a certain way over a period of time. This coping style may result either because the person tends to appraise the situation in a certain way or s/he has a tendency to behave in a certain way (Goldstein, 1973). A pattern may be conditioned or socialised by a particular environment or even by largely a product of the existence in a certain type of environment, for example, a very high demand environment (Newton, 1989). The trait/style approach has been criticised for assuming consistency in coping behaviours. Lazarus and his colleagues suggest that patterns of coping change across situations and over time. Different coping behaviours are used in dealing with different stressful situations and at different stages in a single stressful encounter.
Lazarus also acknowledges that people do have coping styles and some coping responses such as positive thinking, which are relatively stable across encounters. He also suggests that knowledge of neither the person nor the environment alone is sufficient to understand the stress process. It is the knowledge of the transaction between the person and the environment that is the central issue. It can be said that coping is neither a trait/style nor is contextual alone; rather, it is a continuous transactional process (Folkman & Lazarus, 1980).

- **As an episodic indicator**: It refers to coping responses individuals actually use in a particular situation. But coping style/trait approach does not suggest any rigidity in coping over a period of time and across situations. It has been found that patterns of coping change with age too; older adults depend more than younger ones on distancing and less on active confrontation (Morse & Weiss, 1955). According to Norbert (1997) stable individual differences in coping do not require that certain people will always employ strategy A and others B. There may also be differences at a ‘meta level’ in that some people are habitually flexible in their strategies. It has become increasingly clear that people also have person-specific tendencies to use certain coping strategies (Carver et al., 1989).

- **As a process**: It refers to coping as a continuous, transactional process which is modified by experience within and between stressful situations (Folkman & Lazarus, 1980). The process approach fails, however, to fully acknowledge the potential for coping style, or a consistent reliance on a particular type of coping mechanism. If coping style is acknowledged, then coping becomes a moderator variable, rather than a mediator as specified in the transaction process model. (Harris, 1994). The moderating influence would change the causal structure of the transaction model because coping style would become an antecedent condition. As an antecedent, coping style would moderate the perception of the situation and how it is appraised (Harris, 1994).
There is a long list of proposed coping responses and these responses cover a wide array of potentially-effective operations. Latack’s (1986) conceptualisation of coping responses is used in the present study and is as follows:

- Control: It consists of both actions and cognitive reappraisals that are proactive, take charge in tone.
- Escape: It consists of both actions and cognitive reappraisal that suggest an escapist avoidance mode.
- Symptom Management: It consists of strategies that manage the symptoms related to job stress in general.

1.4.4 COPING PROCESS

Coping is a process that requires time and the following decisions to be made for its accomplishment.

- Generating coping responses.
- Evaluating coping responses.
- Selecting a coping response.

There is no consensus among researchers about how individuals select a coping response. Some researchers are of the view that individuals adopt a rational decision while selecting a coping response (Goldstein, 1973; Newton, 1989). This requires viewing all the coping responses prior to selection, considering all potential consequences of each response, and selecting a response which minimizes stress and maximizes well-being. However, research suggests that individuals seldom adopt such a rational approach in selecting a coping strategy (Newton, 1989). It seems plausible that an individual may start coping with coping responses available immediately and go on generating more coping responses until s/he copes with the problem successfully or accepts that the problem is uncontrollable. It is also not always necessary that the potential consequences will be considered prior to the use of a coping response. However, people use coping responses simultaneously rather than sequentially (Violanti, 1992; Krohne, 1978). Similarly, the criteria for the
selection of a response may not be the maximum contribution it could make in
terms of minimization of stress and maximization of well-being, rather it might
be the marginal contribution it could make to minimize stress and maximize well-
being. The following factors will affect the coping decisions to be made by an
individual. (Krohne, 1996; Schwarzer & Schwarzer, 1996; Roth & Cohen, 1986).

- Diagnose of the problem
- Level of stress.
- Coping resources available.
- Cost of coping.
- Degree of uncertainty about coping outcomes.
- Time gap involved (between perception of a stressor and its resolution).
- Experience of coping with similar situations.
- Others’ experience of coping with similar situations.
- Contribution expected of a response.
- Inherited attractiveness Vs Aversiveness of coping response

1.4.5 COPING METHODS

It refers to the mechanism or mode the person uses to cope
with stress. These can be classified as follows:

1.4.5.1 Social vs. Solitary Method

When an individual involves other people to cope with
stress, s/he is using a social mode of coping and is labelled as social coping. A
number of coping responses available in various coping measures represent this
mode of coping, e.g. sharing, involving people, seeking tangible or intangible
assistance (Bolger & Eckenrole, 1991). On the other hand when an individual
copes with stress alone, s/he is using a solitary mode of coping and is labelled as individual coping e.g. doing things oneself instead of with others. In this mode of coping an individual does not take any help from others rather s/he does things individually (Schwarzer, 2000). This social and solitary mode of coping further operates through behavioural or cognitive mode.

1.4.5.2 Behavioural vs. Cognitive Method

- This behavioural and cognitive distinction is prominent in coping literature. Coping can be behavioural, e.g. discussing the problem with supervisor, being organised, getting additional people involved, work faster and more efficiently, seeking help or advice etc., and cognitive, e.g. try to think oneself as winner – who always comes through, tell oneself that one can probably work things to one’s advantage, think about the challenge one can find in this situation etc. The behavioural and cognitive modes of coping further operate through Control or Escape mode. (Lazarus & Folkman, 1984).

1.4.5.3 Control vs. Escape Method

In control mode of coping an individual uses all those responses which try to find out as much as possible about the situation and emotions. It attempts to have control over the situation and/or emotions, e.g. being organized, putting extra attention on planning and scheduling, try to think oneself as winner – as someone who always comes through, works faster and more efficiently etc. Whereas in escape mode of coping an individual uses all those responses which take (temporarily or permanently) him/her mentally and/or physically away from the stressful situation, e.g. avoid being in this situation if one can, tell oneself that time takes care of situations like these, separate oneself as much possible from the people who created this situation, try to find some other job, move on to other activities, that one knows one can get satisfaction from, etc. (Krohne, 1993; Newton, 1989; Latack’s 1986; Goldstein, 1973).
1.5 Objectives of the Study

The following were the objectives of the present study:

- To study the level of job stress among the managers of public and private sector banks.
- To study the organisational factors which were the potential to produce stress?
- To study the relationship (if any) between organisational factors & stress symptoms.
- To study the level of stress among male and female managers.
- To study the role of age in job stress.
- To study the role of various coping strategies.

1.6 Hypothesis

1.6.1 Null Hypothesis

- It was hypothesized that there would be no difference in the level of stress among private bank managers and public bank managers.
- It was hypothesized that there would be no difference in the stress level between males and females.
- It was further hypothesized that age would not play an important role in job stress.
- It was hypothesized that there was not any relationship between organisational factors, job stress symptoms and coping strategies.

1.6.2 Alternate Hypothesis

- It was hypothesized that there would be a difference in the level of stress among private bank managers and public bank managers.
- It was hypothesized that there would be a difference in the stress level between males and females.
• It was further hypothesized that age would play an important role in job stress.

• It was hypothesized that there was a relationship between organisational factors, job stress symptoms and coping strategies.

1.7 Limitation(s) of the Study

• The present study was based primarily on survey conducted with the help of a standardized questionnaire on the managers working in public and private banks located in Punjab.

• Stress as experienced on the job was also partly a function of factors off the job. By not considering these ‘life events’ the present study was limited in predicting stress for an individual.

• The items related to organisational structure and climate, interpersonal relations and working of superior, were subject to defensive responses.

• Although an effort had been made to cover almost all factors that affect stress in an organization and coping strategies, yet survey approach had its limitations in exploring human perceptions and practices.

1.8 Delimitation(s) Of the Study

• The present study was delimited to 300 male and female managers of public and private banks located in Punjab.

• The present study was further delimited to the above mentioned aims.

• The present study was delimited to the contents of the standardized questionnaire used for demographic characteristics, representing various dimensions of a job as well as an organization, stress symptom measures and coping & stress symptom management.
1.9 Significance of the Study

In today’s competitive environment there is considerable reason to believe that people who are working in banking sector are significantly more at risk of poor health because the jobs in banking industry are becoming more and more stressful. There are a variety of factors which may be sources of stress for the people working in this industry. Very few research studies are available on bank managers especially who are working in Punjab, to study stress and stress related problems and coping strategies studied together on them.