CHAPTER 3
A CONCEPTUAL FRAMEWORK

Business process outsourcing (BPO) is a subset of outsourcing that involves the contracting of the operations and responsibilities of specific business functions (or processes) to a third-party service provider. Originally, this was associated with manufacturing firms, such as Coca Cola that outsourced large segments of its supply chain.¹ In the contemporary context, it is primarily used to refer to the outsourcing of business processing services to an outside firm, replacing in-house services with labor from an outside firm.

Often the business processes are information technology-based, and are referred to as ITES-BPO, where ITES stands for Information Technology Enabled Service.² Knowledge process outsourcing (KPO) and legal process outsourcing (LPO) are some of the sub-segments of business process outsourcing industry.

BPO service providers are building delivery centers around the world, often in newer nations, that provide a plentiful supply of educated but low-cost workers. WNS recently set up a delivery center in Costa Rica, which is not a conventional site for off-shoring, however it is strategic in terms of its proximity to the US. There has also been expansion of WNS's delivery centers in Philippines, Romania, Sri Lanka and India. This footprint provides clients tremendous flexibility in terms of cost, language capability,
real time processing as well as access to Innovation networks driven by a partner.

The Asia-Pacific region is home to the fast-growing offshored voice sector of the global business process outsourcing (BPO) industry. This voice sector has registered a turnover rate of as much as 50 per cent a year even if wages in this sector are now almost three times the minimum wage in both countries. The blame is not only on the nature of a call center job (dedicated character, high call quotas, etc.) but also, and more importantly, on the failure of the industry to address pressing industrial relations and HRD concerns.

The IT and ITES industries are undergoing major transformations in the recent past. Traditionally, cost rationalization was a compelling reason for corporates to consider outsourcing/off-shoring in the first place. Post the economic downturn, it came back to being an important reason for corporates to revisit their strategy.

With green shoots appearing in the economic scenario, proliferation of technology in various sectors and an increasing number of companies going global, Asia is witnessing a marked rise in IT spend. While Asia-Pacific constitutes about 10 percent share of the total global IT services market, IT spend in the region is growing at a much faster rate compared to the mature markets. IT spending is a precursor to IT and BPO outsourcing and Asia-Pacific will attract
increased competition, being the fastest growing geography with an estimated growth of 10 percent, according to a NASSCOM report.

At the turn of the millennium, India has numerous reasons to smile about. The economy is no longer passive and redundant; on the contrary it is one that is being steered by the winds of social and economic changes. During the past few years, the country has seen phenomenal developments in its political, social and economic infrastructure, accelerated by the strong forces of globalization and Information Technology. A country with a resurgent, progressive economy; India can be rightly called the foster-child of globalization.

The booming Information Technology (IT) segment comprising ITES (IT-enabled services) / BPO (Business Process Outsourcing) are the core sectors that have driven the country into the epicenter of change. The liberalization of the Indian Telecom sector in 1994 gave an unexpected boost to the ITES/BPO industry. In no time, India has turned into a hot destination for global offshore outsourcing companies. The expansion in this sector can be attributed to the leading IT giants, captive players and third party service providers, who dominate the Indian ITES/BPO market. While the countries around the world are vying for a fair share of
the cake, India has grabbed the pie as the preferred destination for offshore outsourcing. Indeed, India is shining.

India became familiar with ‘Business Process Outsourcing’ only in the early and mid 1990’s, but now the entire country seems to be quivering with the ‘BPO fever’. The foreign direct investment (FDI) in the country owes a lot to this sector, which is progressing at a break-neck speed. The different kinds of services offered by BPO's include Customer Support, Technical Support, Telemarketing, Insurance Processing, Data Processing, Internet / Online / Web Research and so on. The cheap labour costs and the pool of skilled, English-speaking Indians have always been the two foremost factors contributing to the BPO boom in the country. As the National Association of Software Services and Companies (NASSCOM) points out, the other equally motivating factors include strong quality orientation among players, ability to offer round-the-clock services based on the country's unique geographic location, positive policy environment which encourages investments and a friendly tax structure, which places the ITES/BPO industry on almost equal footing with IT services companies.
Where call centres are a part of life

For today’s youngsters, the call centers are a welcome addiction. The industry has woven such magic around the entire nation that these days a city without a call centre would be hard to find. Call centers contribute a fair share to the revenue of the Indian BPO industry. About 70% of the BPO industry’s revenue comes from call-centers, 20% from high-volume, low-value data work and the remaining 10% from higher-value information work.

The average Indian’s attitude towards life has undergone a drastic change in the last few years. The motto of today’s young Indian generation is “Live life king size”. The changing lifestyles, demand for luxury and emergence of high-income spending groups coupled with a thoroughly cosmopolitan outlook of life are changing the modern Indian. Call centers are a major turn on for young graduates. In addition to providing employment, the call centres offer excellent benefits, good working environment and attractive remuneration packages. So who wouldn’t choose to be a call centre employee?

Occupational stress among BPOs:

Jobs in the Business Process Outsourcing (BPO) industry undoubtedly involve high levels of stress in the form of tight target deadlines, monotonous nature of job and night shifts. Further,
outbound calls are more difficult as they have targets for call duration, wrap time and more call volume. Added to this are the sales or completion targets, which are closely monitored and upon which payment scheduled are partially based. This sector is very volatile and faces the problem of lack of job security and constant up gradation of skills to remain market able. Though pay structure is relatively higher comparing to other sectors, the working conditions in the Information System Profession is becoming very stressful (Vowler, 1995, Thong & Yap\(^3\), 2000) with average working hours extended to 50 hours per week. Due to long working hours and monotonous work the call centre jobs have been equated to electronic sweat shop, battery hens, electronically trapped prison (Shanawaz\(^4\), 2006). The most significant stressors are work overload, career opportunities, role ambiguity, role conflict and working with diversified personalities. Conditions of changing technology, redundancy and inadequate resource also place a high demand along with financial pressure, budget constraint s and other resource inadequacy problems (Vowler, 1995, Engler, 1998, Aziz\(^5\), 2003, 2004). The human-computer interaction factors also has an effect on work exhaustion (Rajeswary & Anantharaman\(^6\), 2005). The widespread nature of stress in IT has given rise to the term “techno-stress”, which is used to explain the phenomena of stress arising due to usage of computers.
When things go wrong…

It is true that the Indian BPO sector is witnessing an unprecedented boom but the flip side of the industry cannot be ignored. For some time, the Indian BPO industry has been battling certain complex problems such as labour attrition, poor infrastructure and lack of data protection laws.

The high attrition rate in the industry is primarily due to the restricted career options or growth opportunities for the youngsters. Fear of stagnation is a major factor that forces the employees to quit the industry. While some leave their career mid-way in pursuit of higher education, others are drawn in by the higher pay packages offered elsewhere. The new entrants into the BPO sector, who are consistently on the lookout for trained youngsters, offer higher remuneration. With the employees moving to other jobs in less than a year, the industry has to confront the gnawing problem of attrition. Another key problem which the researcher has undertaken to study, is the stressful workschedule, particularly night shifts, which may create both physical and mental disorders in the long run. Other reasons for the attrition problem include misguidance by the company, non-conducive policies and procedures, mental strain brought about by reclusive lifestyle and difficult relationships with peers or managers. According to analysts, labour attrition rates in
the outsourcing industry vary between 20 and 40 per cent in certain companies while at top firms it’s around an average of 15 per cent. If the current attrition rate continues, the outsourcing industry is likely to face a shortage of 262,000 professionals by 2012.

**Stress and its effects**

It has been concluded in several different reviews of the scientific literature on stress that there are essentially three different, but overlapping, approaches to the definition and study of stress (Lazarus, 1966; Appley & Trumbull, 1967; Cox, 1978, 1990; Cox & Mackay, 1981; Fletcher, 1988, Cox, 1993). The first approach conceptualizes occupational stress as an aversive or noxious characteristic of the work environment, and, in related studies, treats it as an independent variable – the environmental cause of ill health. This has been termed the ‘engineering approach’. The second approach, on the other hand, defines stress in terms of the common physiological effects of a wide range of aversive or noxious stimuli. It treats stress as a dependent variable – as a particular physiological response to a threatening or damaging environment. This has been termed the ‘physiological approach’. The third approach conceptualises work stress in terms of the dynamic interaction between the person and their work environment.
**Eustress and Distress**

Eustress is a term coined by endocrinologist Hans Selye, which is defined in the model of Richard Lazarus (1974) as stress that is healthy, or gives one a feeling of fulfillment or other positive feelings. Selye created the term as a subgroup of stress to differentiate the wide variety of stressors and manifestations of stress.\(^{11,12}\) Eustress is often defined not by the type stressor, but rather how one perceives that stressor (e.g. a negative threat versus a positive challenge)\(^13\). Eustress refers to a positive response one has to a stressor, which can depend on one's current feelings of control, desirability, location, and timing of the stressor.\(^{13}\) Potential indicators of eustress may include responding to a stressor with a sense of meaning, hope, or vigor.\(^{14}\) Eustress has also been positively correlated with life satisfaction and well-being.\(^{15}\)

**Etymology**

The word eustress consists of two parts. The prefix eu- derives from the Greek word meaning either "well" or "good". When attached to the word stress, it literally means "good stress".

**Origins**

The term eustress was first used by endocrinologist Hans Selye in 1975, when he published a model dividing stress into two major categories: eustress and distress.\(^{16}\) This article was an expansion on
an earlier article he wrote, where he discussed the idea of a General Adaptation Syndrome, or a system of how the body responds to stress.¹⁷

In his 1975 article, Selye talked about how persistent stress that is not resolved through coping or adaptation, deemed distress, may lead to anxiety or withdrawal (depression) behavior. In contrast, if the stress involved enhances function (physical or mental, such as through strength training or challenging work) it may be considered eustress.

**Compared with distress**

Distress is the most commonly-referred to type of stress, having negative implications, whereas eustress is a positive form of stress, usually related to desirable events in a person's life. Both can be equally taxing on the body, and are cumulative in nature, depending on a person's way of adapting to a change that has caused it. The body itself cannot physically discern between distress or eustress.¹⁸ Differentiation between the two is dependent on one's perception of the stress, but it is believed that the same stressor may cause both eustress and distress¹³. One context that this may occur in is societal trauma (e.g. the black death, WWII) which may cause great distress, but also eustress in the form of hardiness, coping, and fostering a sense of community.¹⁹
**Occupational Eustress**

Much of the research on eustress has focused on its presence in the workplace. In the workplace, stress can often be interpreted as a challenge, which generally denotes positive eustress, or hindrance, which refers to distress that interferes with one's ability to accomplish a job or task\(^9\). Relationships have been shown between how one appraises an occupational stress and how one chooses a coping style\(^{20}\). Emotion-focused coping strategies have been related to threat appraisals and distress while task-focused coping have been related to challenge appraisal and eustress\(^{20}\). Research has focused on increasing eustress in the workplace, in an effort to promote positive reactions to an inevitably stressful environment\(^{13}\). Techniques such as Stress Management Interventions (SMI) have been employed to increase occupational eustress. Rather than decrease stress in the workplace, SMI attempts to increase eustress with positive reactions to stressful stimuli.

**Methods**

Researchers have studied eustress using multiple subjective and objective measures. Occupational eustress may be measure on subjective levels such as of quality of life work life, job pressure, psychological coping resources, complaints, overall stress level, and mental health. Other subjective methodological practices have
included interviews with focus groups asking about stressors and stress level\textsuperscript{21}. In one study participants were asked to remember a past stressful event and then answer questionnaires on coping skills, job well-being, and appraisal of the situation (viewing the stressful event as a challenge or a threat)\textsuperscript{20}. Objective measures have also been used and include blood pressure rate, muscle tension, and absenteeism rates.

**Study of Stress…..**

When studied, stress is either inferred from the existence of problematic person-environment interactions or measured in terms of the cognitive processes and emotional reactions which underpin those interactions. This final approach has been termed the ‘psychological approach’. The engineering and physiological approaches are obvious among the earlier theories of stress, while the more psychological approaches characterise contemporary stress theory.

**Engineering Approach**

The engineering approach has treated stress as a stimulus characteristic of the person’s environment, usually conceived in terms of the load or level of demand placed on the individual, or some aversive (threatening) or noxious element of that environment.
Occupational stress is treated as a property of the work environment, and usually as an objectively measurable aspect of that environment. In 1947, Symonds wrote, in relation to psychological disorders in the Royal Air Force flying personnel, that “stress is that which happens to the man, not that which happens in him; it is a set of causes not a set of symptoms.”

Somewhat later, Spielberger (1976) argued, in the same vein, that the term stress should refer to the objective characteristics of situations. According to this approach, stress was said to produce a strain reaction which although often reversible could, on occasions, prove to be irreversible and damaging (Cox & Mackay, 1981; Sutherland & Cooper, 1990). The concept of a stress threshold grew out of this way of thinking and individual differences in this threshold have been used to account for differences in stress resistance and vulnerability.

**Physiological Approach**

The physiological approach to the definition and study of stress received its initial impetus from the work of Selye (1950, 1956). He defined stress as “a state manifested by a specific syndrome which consists of all the non-specific changes within the biologic system” that occur when challenged by aversive or noxious stimuli. Stress is treated as a generalised and nonspecific physiological response.
syndrome. For many years, the stress response was largely conceived of in terms of the activation of two neuroendocrine systems, the anterior pituitary-adrenal cortical system and the sympathetic-adrenal medullary system (Cox & Cox, 1985; Cox et al., 1983). Selye (1950, 1956) argued that the physiological response was triphasic in nature involving an initial alarm stage (sympathetic-adrenal medullary activation) followed by a stage of resistance (adrenal cortical activation) giving way, under some circumstances, to a final stage of exhaustion (terminal reactivation of the sympathetic adrenal medullary system). Repeated, intense or prolonged elicitation of this physiological response, it has been suggested, increases the wear and tear on the body, and contributes to what Selye (1956) has called the ‘diseases of adaptation’.

This apparently paradoxical term arises from the contrast between the immediate and short-term advantages bestowed by physiological response to stress (energy mobilisation for an active behavioural response) to the long-term disadvantages (increased risk of certain ‘stress related’ diseases). Scheuch (1996) considers stress as one of the psychophysiological activities of human beings as they attempt to adapt to changes in the internal and external milieux. This activity relates to the quantity and quality of the relationship between demands and individual somatic, psychological and social capacities or resources in a specific material and social environment.
Stress is understood by Scheuch as a reactive activity to a disturbed homeostatic state of organic functions, psychological functions and/or in the interaction between the human being and his or her social environment. The adaptation follows the principles of economisation of function, the principle of minimisation of effort, and the principle of well-being. Stress itself is the expression of a disorder of these principles (Scheuch, 1990, 1996).

**Criticisms of Engineering & Physiological Approaches**

Two specific criticisms have been offered of these two approaches: the first empirical and the second conceptual. First, engineering and physiological models do not adequately account for the existing data. In relation to the engineering model, consider the effects of noise on performance and comfort. The effects of noise on task performance are not a simple function of its loudness or frequency but are subject both to its nature and to individual differences and context effects (see, for example, Cox, 1978; Flanagan et al. 1998; Ahasan et al. 1999). Noise levels which are normally disruptive may help maintain task performance when subjects are tired or fatigued (Broadbent, 1971), while even higher levels of music may be freely chosen in social and leisure situations. Scott & Howard (1970) wrote: “certain stimuli, by virtue of their unique meaning to particular individuals, may prove problems only to them; other
stimuli, by virtue of their commonly shared meaning, are likely to prove problems to a larger number of persons.”
This statement implies the mediation of strong cognitive as well as situational (context) factors in the overall stress process (see below). This point has been forcefully made by Douglas26 (1992) with respect to the perception of risks (and hazards). Such perceptions and related behaviours, she maintains, are not adequately explained by the natural science of objective risk and are strongly determined by group and cultural biases. The simple equating of demand with stress has been associated with the belief that a certain amount of stress is linked to maximal performance (Welford,27 1973) and possibly good health. Belief in optimal levels of stress has been used, on occasions, to justify poor management practices.

The physiological model is equally open to criticism. Both the non-specificity and the time course of the physiological response to aversive and noxious stimuli have been shown to be different from that described by Selye (1950, 1956) and required by the model (see Mason,28 1968, 1971). Mason (1971), for example, has shown that some noxious physical stimuli do not produce the stress response in its entirety. In particular, he has cited the effects of heat. Furthermore, Lacey29 (1967) has argued that the low correlations observed among different physiological components of the stress response are not consistent with the notion of an identifiable
response syndrome. There is also a difficulty in distinguishing between those physiological changes which represent stress and those which do not, particularly as the former may be dissociated in time from the stressor (Fisher, 1986). There is now much research that suggests that if the stress response syndrome exists it is not non-specific. There are subtle but important differences in the overall pattern of response.

There is evidence, for example, of differentiation in the response of the catecholamines (reflecting sympathetic-adrenal medullary activation) to stressful situations (Cox & Cox, 1985). Several dimensions have been suggested as a basis of this differentiation but most relate to the expenditure of effort of different types, for example, physical versus psychological (Dimsdale & Moss, 1980a, 1980b; S. Cox et al., 1985). Dimsdale & Moss (1980b) studied plasma catecholamine levels using a non-obtrusive blood withdraw pump and radioenzymatic assay. They examined 10 young physicians engaged in public speaking, and found that although levels of both adrenaline and noradrenaline increased under this set of demands, the levels of adrenaline were far more sensitive. This sensitivity was associated with feelings of emotional arousal which accompanied the public speaking. S. Cox and her colleagues (1985) examined the physiological response to three different types of task associated with short cycle repetitive work: urinary catecholamine
excretion rates were measured using an adaptation of Diament & Byers (1975) assay technique. She found that both adrenaline and noradrenaline were sensitive to work characteristics, such as pay scheme and pacing, but differentially so. It was suggested that noradrenaline activation was related to the physical activity inherent in the various tasks, and to the constraints and frustrations present, while adrenaline activation was more related to feelings of effort and stress.

The second criticism is that the engineering and physiological models of stress are conceptually dated in that they are set within a relatively simple stimulus-response paradigm, and largely ignore individual differences of a psychological nature and the perceptual and cognitive processes that might underpin them (Cox, 1990; Sutherland & Cooper, 1990; Cox, 1993). These models treat the person as a passive vehicle for translating the stimulus characteristics of the environment into psychological and physiological response parameters. They also ignore the interactions between the person and their various environments which are an essential part of systems-based approaches to biology, behaviour and psychology. In particular, they ignore the psychosocial and organizational contexts to work stress.
**Psychological Approach**

The third approach to the definition and study of stress conceptualises it in terms of the dynamic interaction between the person and their work environment. When studied, it is either inferred from the existence of problematic person-environment interactions or measured in terms of the cognitive processes and emotional reactions which underpin those interactions. This has been termed the ‘psychological approach’. The development of psychological models has been, to some extent, an attempt to overcome the criticisms levelled at the earlier approaches. There is now a consensus developing around this approach to the definition of stress.

For example, psychological approaches to the definition of stress are largely consistent with the International Labour Office’s definition of psychosocial hazards (International Labour Organization, 1986) and with the definition of well-being recommended by the World Health Organization (1986). They are also consistent with the developing literature on personal risk assessment (see, for example, Cox & Cox, 1993; Cox, 1993; Cox & Griffiths, 1995, 1996). These consistencies and overlaps suggest an increasing coherence in current thinking within occupational health and safety.
Variants of this psychological approach dominate contemporary stress theory, and—among them—two distinct types can be identified: the interactional and the transactional. The former focus on the structural features of the person’s interaction with their work environment, while the latter are more concerned with the psychological mechanisms underpinning that interaction. Transactional models are primarily concerned with cognitive appraisal and coping. In a sense they represent a development of the interactional models, and are essentially consistent with them.

**Interactional Theories of Stress**

Interactional theories of stress focus on the structural characteristics of the person’s interaction with their work environment. Two particular interactional theories stand out as seminal among the various which have been offered: the Person-Environment Fit theory of French et al.\(^ {35} \) (1982) and the Demand–Control theory of Karasek\(^ {36} \) (1979). Neither is, however, without criticism: see, for example, Edwards & Cooper (1990) and Warr (1990).

**Person - Environment Fit**

Several researchers have suggested that the goodness of fit between the person and their (work) environment frequently offers a better explanation of behaviour than individual or situational differences (see, for example, Bowers,\(^ {37} \) 1973; Ekehamer, 1974). Largely as a result of such observations, French and his colleagues formulated a
theory of work stress based on the explicit concept of the Person-Environment Fit (see, for example, French et al., 1982). Two basic aspects of fit were identified:

- **The degree to which an employee’s attitudes and abilities meet the demands of the job.**
- **The extent to which the job environment meets the workers’ needs, and in particular the extent to which the individual is permitted and encouraged to use their knowledge and skills in the job setting.**

It has been argued that stress is likely to occur, and well-being is likely to be affected, when there is a lack of fit in either or both respects (French et al., 1974). Two clear distinctions are made in this theory: first, between objective reality and subjective perceptions, and, second, between environmental variables (E) and person variables (P). Given this simple 2 x 2 configuration of P x E interaction, lack of fit can actually occur in four different ways, and each appear to challenge the worker’s health. There can be both a lack of subjective and objective P-E fit: these are the main foci of attention with particular interest being expressed in the lack of subjective fit: how the worker sees their work situation. This provides a strong link with other psychological theories of stress. There can also be a lack of fit between the objective environment (reality) and the subjective environment (hence, lack of contact with
reality), and also a lack of fit between the objective and subjective persons (hence, poor self-assessment).

French et al. (1982) have reported on a large survey of work stress and health in 23 different occupations in the United States and a sample of 2010 working men. The survey was framed by the P-E Fit theory, and, in their summary, the authors commented on a number of questions of theoretical and practical importance. In particular, they argued that their subjective measures mediated the effects of objective work on health. Their data showed that there was a good correspondence between the objective and subjective measures and that the effects of those objective measures on self-reported health could be very largely accounted for by the subjective measures. This has been reflected more recently in the work of various researchers (see, for example, Bosma & Marmot,1997; Jex & Spector, 1996; Chen & Spector, 1991; Spector, 1987b). In French et al.’s study, objective occupation only accounted for some 2 to 6 percent of the variance in self-reported health beyond that accounted for by the subjective measures.

**Demand - Control Model**

Karasek (1979) drew attention to the possibility that work characteristics may not be linearly associated with worker health, and that they may combine interactively in relation to health. He
initially demonstrated this theory through secondary analyses of data from United States and Sweden, finding that employees in jobs perceived to have both low decision latitude and high job demands were particularly likely to report poor health and low satisfaction. Later studies appeared to confirm the theory. For example, a representative sample of Swedish working men was examined for depression, excessive fatigue, cardiovascular disease and mortality. Those workers whose jobs were characterised by heavy workloads combined with little latitude for decision making were represented disproportionately on all these outcome variables. The lowest probabilities for illness and death were found among work groups with moderate workloads combined with high control over work conditions (Ahlbom et al., 1977; Karasek, 1981; Karasek et al., 1981).

The combined effect of these two work characteristics is often described as a true interaction, but despite the strong popular appeal of this suggestion there is only weak evidence in its support (Kasl, 1989; Warr, 1990). Karasek’s (1979) own analyses suggest an additive rather than a synergistic effect, and he has admitted that “there is only moderate evidence for an interaction effect, understood as a departure from a linear additive model”. Simple additive combinations have been reported by a number of researchers, for example, Hurrell & McLaney (1989), Payne &
Fletcher (1983), Perrewe & Ganster (1989), and Spector (1987a). Other criticisms have been levelled against Karasek’s model. For instance, it was claimed that the model was too simple and ignores the moderating effect of social support on the main variables. Johnson (1989) and Johnson et al. (1991) expanded Karasek’s model by adding a third dimension, resulting in the “Demand-Control-Support” model. The dimension “social support” refers to overall levels of helpful social interaction available on the job from both co-workers and supervisors. “Social support” seems to play an essential role in the management of stress at work. It serves as a buffer against possible adverse health effects of excessive psychological demands (Theorell, 1997). Johnson et al. (1991) distinguish between four types of low social support work situations and four of high social supports. Winnubst & Schabracq (1996) found that high demands, low control and low support (high social isolation) were associated with an elevated cardiovascular risk. Most studies based on this model focus on jobs, i.e., broad occupational categories.

Junghanns et al. (1999) applied the “Demand-Control-Support” model to specific conditions of work and confirmed that job characteristics such as decision latitude, psychological demands and social support affect health. They found that white-collar workers in “high-strain” work situations had the highest level of health
complaints. Working situations characterised as highly demanding with low decision latitude and low social support predispose workers to experience health problems, especially musculoskeletal (shoulder and neck pain) and psychosomatic complaints (exhaustion, inner restlessness) (Ertel et al., 1997; Junghanns et al., 1999). The expanded “Demand-Control-Support” model has also been criticised for its failure to consider individual differences in susceptibility and coping potential: The relationship between the dimensions of the model and the outcome measures may depend upon workers’ individual characteristics (de Rijk et al., 1998). For instance, “disturbed relaxation ability” (also known as “inability to relax/work obsession”) was found to be a valid predictor of increased sympathetic activation and delayed recovery of cardiovascular parameters. It reflects experienced intensity of work and job-related exhaustion (Richter et al., 1988, Richter et al., 1995). “Disturbed relaxation ability” relates to excessive work involvement, characterized by an extreme degree of work effort and by work “carry-over” into domestic life (to the extent of affecting sleep, relaxation and leisure, and neglecting personal needs). While a certain degree of work involvement can be considered “healthy” and stimulating, in its extreme form involvement can become ‘work obsession’ and lead to the inability to relax after work, with the risk of negative health effects (Rotheiler et al.,
“Disturbed relaxation ability” can moderate the health effects of the work-situations generated by the “Demand-Control-Support” model. Junghanns et al., (1998) found that high psychological demands and a high level of disturbed relaxation ability predispose workers to ill-health.

Finally, Carayon (1993) has offered four possible explanations for the inconsistency in the evidence concerning Karasek’s model. First, the model seems to be supported in large, heterogeneous samples, but not in homogeneous samples: this may be due to the confounding effects of socio-economic status in heterogeneous samples or the lack of sensitivity of measures used in homogeneous samples. Second, inconsistencies may stem partly from the way job demands and decision latitude are conceptualised and measured. Karasek conceptualized decision latitude as a combination of decision authority (similar to control or autonomy) and skill discretion (similar to skill utilisation). Subsequent studies have included a wide variety of measures for decision latitude, and it is therefore possible that those that have used more focused measures are testing the effects of ‘control’ as opposed to the effects of ‘decision latitude’, which is a mixture of control and job complexity.

Similarly, as far as ‘demands’ are concerned, the original measures tapped one main construct, ‘workload’, but subsequent studies have
tended to employ a wider range of measures. Measures have varied considerably and are often far removed from Karasek’s original formulation. Third, much of the research into this model relies on self-report measures of both dependent and independent variables; ‘job satisfaction’ is an example where there is content overlap between the measures. A related issue concerns the predominance of cross-sectional rather than longitudinal data, limiting interpretations as to cause and effect. Fourth, Carayon suggests there may be methodological and statistical reasons for the failure to find interactive effects. However, whether perceived job demands and decision latitude combine additively or through a true interaction, it is clear from Karasek’s work that they are important factors determining the effects of work on employees’ health are most prevalent in occupations where situational constraints prevent workers from reducing “high cost - low gain” conditions.

**Transactional Definitions**

Most transactional theories of stress focus on the cognitive processes and emotional reactions underpinning the person’s interaction with their environment. For example, Siegrist’s transactional model of “effort-reward imbalance” (Siegrist\textsuperscript{52}, 1990) argues that the experience of chronic stress can be best defined in terms of a mismatch between high costs spent and low gains received. In other words, according to the model, stress at work
results from high effort spent in combination with low reward obtained. Two sources of effort are distinguished: an extrinsic source, the demands of the job, and an intrinsic source, the motivation of the individual worker in a demanding situation. Three dimensions of reward are important: financial gratifications, socio-emotional reward and status control (i.e., promotion prospects and job insecurity). Adverse health effects, such as cardiovascular risk, are most prevalent in occupations where situational constraints prevent workers from reducing “high cost - low gain” conditions.

Theories of Appraisal and Coping

Most transactional models appear to build on the conceptual structures suggested in the interactional models of the Michigan school and Karasek and colleagues. They focus on the possible imbalance between demands and ability or competence. This is most obvious in the models advanced by Lazarus and Folkman in the United States (for example, Lazarus & Folkman, 1984) and Cox and Mackay in the United Kingdom (for example, Cox, 1978; Cox, 1990; Cox & Mackay, 1981). According to transactional models, stress is a negative psychological state involving aspects of both cognition and emotion. They treat the stress state as the internal representation of particular and problematic transactions between the person and their environment.
Appraisal is the evaluative process that gives these person-environment transactions their meaning (Holroyd & Lazarus, 1982). Later refinements of the theory suggest both primary and secondary components to the appraisal process (Lazarus, 1966; Folkman & Lazarus, 1986). Primary appraisal involves a continual monitoring of the person’s transactions with their environment (in terms of demands, abilities, competence, constraints and support), focusing on the question ‘Do I have a problem?’ The recognition of a problem situation is usually accompanied by unpleasant emotions or general discomfort. Secondary appraisal is contingent upon the recognition that a problem exists and involves a more detailed analysis and the generation of possible coping strategies: ‘What am I going to do about it?’ Stress arises when the person perceives that he or she cannot adequately cope with the demands being made on them or with threats to their well-being (Lazarus, 1966, 1976; Cox, 1990), when coping is of importance to them (Sells, 1970; Cox, 1978) and when they are anxious or depressed about it (Cox & Ferguson, 1991).

The experience of stress is therefore defined by, first, the person’s realisation that they are having difficulty coping with demands and threats to their well-being; and, second, that coping is important and the difficulty in coping worries or depresses them. This approach allows a clear distinction between, say, the effects of lack of ability
on performance and those of stress. If a person does not have the necessary ability or competence—the knowledge or level of skill—to complete a task, then their performance will be poor. They may not realise this or if they do it might not be felt to be of importance or give rise to concern.

These are not stress scenarios. However, if the person (a) does realise that they are failing to cope with the demands of a task, and (b) experiences concern about that failure because it is important, then this is a ‘stress’ scenario. The effects of such stress might then cause a further impairment of performance over and above that caused by lack of ability.

The question of ‘consciousness’ has been raised in relation to stress and the appraisal process (Cox & Mackay, 1981). Appraisal is a conscious process. However, in its earliest stages, changes characteristic of the stress state may be demonstrated, yet the existence of a problem may not be recognized or recognition may only be ‘hazy’. It has been suggested that different levels of awareness may exist during the appraisal process. These may be described by the following sequence:

1. Growing awareness of problem markers, both individual and situational, including feeling uncomfortable, not sleeping, making mistakes, etc.
2. Recognising the existence of a ‘problem’ in a general or ‘hazy’ way.

3. Identifying the general problem area and assessing its importance.

4. Analysing in detail the nature of the problem and its effects.

It is useful to think of the stress state as embedded in an on-going process that involves the person interacting with their environment, making appraisals of that interaction and attempting to cope with, and sometimes failing to cope with, the problems that arise. Cox (1978) described this process in terms of a five-stage model.

The first stage, it was argued, represents the sources of demand faced by the person and is part of their environment. The person’s perception of these demands in relation to their ability to cope represents the second stage: effectively primary appraisal. Consistent with Lazarus & Folkman (Lazarus, 1966; Folkman & Lazarus, 1986) and French et al. (1982), stress was described as the psychological state that arose when there was a personally significant imbalance or lack of fit between the person’s perceptions of the demands on them and their perceived ability to cope with those demands. The psychological and physiological changes which are associated with the recognition of such a stress state, and which include coping, represent the third stage of the model. Emotional changes are an important part of the stress state. These tend to be negative in nature and often define the experience of stress for the
person. The fourth stage is concerned with the consequences of coping. The fifth stage is the general feedback (and feed forward) that occurs in relation to all other stages of the model.

This model has been further developed in several ways. The importance of perceptions of control and of social support have been emphasised as factors in the appraisal process, and there has been some discussion of the problem of measuring stress based on this approach (Cox, 1985a, 1990) with the development of possible subjective measures of the experiential (mood) correlates of the stress state (see Mackay et al., 1978; Cox & Mackay, 1985).

The experience of stress through work is therefore associated with exposure to particular conditions of work, both physical and psychosocial, and the worker’s realization that they are having difficulty in coping with important aspects of their work situation. The experience of stress is usually accompanied by attempts to deal with the underlying problem (coping) and by changes in cognition, behaviour and physiological function (e.g., Aspinwall & Taylor, 1997; Guppy & Weatherstone, 1997). Although probably adaptive in the short term, such changes may threaten health in the long term.

The experience of stress and its behavioural and psychophysiological correlates mediate, in part, the effects of many different types of work demand on health. This point has been made
by many authors over the last three decades (for example, Levi, 1984; Szabo et al\textsuperscript{56}, 1983; Scheck et al\textsuperscript{57}, 1997).

The effect of stress on the physical, mental and emotional well-being of a person can neither be discounted nor be disputed with. The effect of occupational stress is highly felt across all types of jobs; but none can deny the fact that the levels of stress, fatigue and exhaustion are exceptionally high in the IT and ITES sector. It is high time the concerned people look into this area, take stock of the situation and do the maximum possible to alleviate and reduce stress. Reducing stress is one thing; managing stress and coping with stress are the major areas that have been analysed in the next chapters.

Stress management is an important sector warranting much articulation and research. As experts point out work without the optimal level of stress also would not produce the desired results. Some amount of stress is essential to bring out the best in every employee; it is only when the stress levels shoot up beyond the tolerable levels, that problems arise. Workers engaged in different jobs resort to different stress management techniques - yoga, meditation, reading, listening to music, working out, etc; in fact the managements on their part arrange for various activities to lower the
stress levels of their employees like organizing get-togethers, picnics, sending off their employees for refresher courses, etc.

Occupational stress is extremely high in the BPO sector in India and elsewhere. In the forthcoming chapters an in depth discussion on job stress, factors that cause job stress, various stress coping strategies, and their effectiveness are analysed meticulously and methodically, basing the research on the responses of 120 workers employed in the BPO sector in Puducherry region, which is one of the fastest growing hubs in the BPO business.

References


10. Antoni, Michael H.; Baggett, Lane; Ironson, Gail; LaPerriere, Arthur; August, Sharon; Klimas, Nancy; Schneiderman, Neil; Fletcher, Mary Ann, (1991), “Cognitive-behavioral stress management intervention buffers distress responses and
immunologic changes following notification of HIV-1 seropositivity”, Journal of Consulting and Clinical Psychology, Vol 59(6), 906-915.


