EMOTIONAL INTELLIGENCE AND ORGANISATIONAL ROLE STRESS - A STUDY AMONG MANAGERS IN SELECTED INDUSTRIAL ORGANISATIONS IN KERALA.

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By

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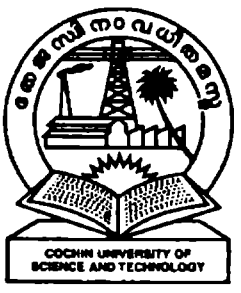

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DECLARATION

I, Shaji Varghese, hereby declare that the thesis entitled "Emotional Intelligence and Organisational Role Stress – A study among managers in selected industrial organisations in Kerala" is a record of bonafide research work carried out by me under the supervision of Dr.James Manalel, Reader, School of Management Studies, Cochin University of Science and Technology, Cochin-682022. I further declare that this thesis has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or other similar title or recognitions.

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CHAPTER 1
INTRODUCTION

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In the present complex business scenario, organisations are compelled to give emphasis to improving effectiveness at individual, collective, as well as organisational levels. Organisational effectiveness is generally measured by objective considerations such as profitability, productivity, growth, turnover, etc. But effectiveness is also characterised by certain socio-psychological factors, such as job involvement, job satisfaction, organisational commitment, organisational attachment, consensus, etc., (Argyris, 1960). Studies have established that it is only when such socio-psychological factors are taken care of, the goals of profitability, productivity etc., can be achieved and sustained over a long time.

Individual's occupational stress is an important impediment that has long been recognised and examined. A large number of research studies have been done on occupational stress. These studies can broadly be classified into three streams. The first stream consists of studies in which the antecedents of stress are explored (stimulus). The second stream consists of studies in which the consequences of stress are investigated (response). The third stream consists of studies that have explored the individual difference variables that moderate stress and its consequences (stimulus-response) (Frone, 1990). Majority of the studies belong to the first two streams where the factors contributing to stress and the impact of stress on individual/ organisation have been explored. But due to the complexity of work environment it is being recognised that it is not possible to drastically change the stressful situations or stressors. Instead our approach to the problem is to be changed. That is to say, how individuals approach or perceive the situation play an important role in the stress process. An individual's perception or appraisal of the situation very

much depends on how he /she recognises and evaluates his/her emotions. Hence emotions play an important role in the stress coping process.

Of late, Emotions and Emotional Intelligence have been recognised as very important in achieving organisational effectiveness as it is related to most of the organisationally relevant variables. Goleman (1995) recognised that effectiveness of workers, work group and the whole organisation is influenced by emotional and social competencies. Therefore, there is a need for scientific study in exploring the role of emotions and emotional intelligence in organisations to achieve effectiveness. Muchinsky (2000) opined that the time has come for researchers to acknowledge emotions as a legitimate domain of scientific inquiry.

Emotional intelligence represents a set of dispositional attributes (i.e., self-awareness, emotional management, self-motivation, empathy, and relationship management) for monitoring one's own and others' feelings, beliefs, and internal states in order to provide useful information to guide one's and other's thinking and action (Goleman, 1995; Salovey & Mayer, 1990). Individuals with high score on emotional intelligence are able to relate with others with compassion and empathy, have well-developed social skills, and use this emotional awareness to direct their actions and behaviour. Emotional intelligence dimensions have been considered as critical for effective performance in most jobs (Bradbury, 2002). When it comes to improving organisational effectiveness, management scholars and practitioners have begun to emphasise the importance of manager's emotional intelligence (Harrison, 1997; Hesselbein et al, 1996).

The ability to manage feelings and handle stress is an important aspect of emotional intelligence that has been found to be important for success. Emotional intelligence includes, among other abilities, abilities to handle the day-to-day problems and stress. Goleman (1995) says that

emotional intelligence includes abilities of self-awareness, impulse control and delaying gratification and handling stress and anxiety. According to Bar-on (1997), emotional intelligence is an array of non cognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures. Matthew & Zeidner (2001) suggest that successful coping with stressful encounters is central to emotional intelligence. Hence it is presumed that emotional intelligence is a stress-moderating variable and emotionally intelligent people are better able to control their stress level.

The modern world, which is said to be a world of achievements, is a world of stress. One finds stress everywhere, whether it be in a family or an organisation- economic, social or political. Right from the time of birth until the last breath drawn, an individual is invariably exposed to various stressful situations. The extent of stress, however, varies from individual to individual. Even though all the individuals working in an organisation are exposed to the same environment, where the stressors, i.e. factors contributing to stress, are the same, the levels of stress experienced by some people are very high when compared with others. It depends on how they appraise the situation as stressful. This means that individual-difference variables are viewed as either mediators or moderators in the stress phenomenon (Cox & Ferguson, 1991). Mediating variables are facilitating mechanisms in the stress process (Baron and Kenny, 1986) whereas moderator variables try to reduce or control the stress level in the stress process.

The mediator-focused research emphasises the processes that intervene between stressors and strain. Strain refers to maladaptive behavioural, psychological, and somatic response to stressors resulting from prolonged and intense experienced affect reactions and physiological arousal (Kahn et al, 1964). A mediator-focused approach to understanding the stress

response is provided in the cognitive appraisal theory of Lazarus and his colleagues (DeLongis et al, 1988). Lazarus proposed that appraisal processes mediate the relationship between the environment (stressor stimuli) and the person, and result in emotional and adaptational outcomes. This theory focuses on the individual's appraisal of a situation as stressful and treats cognition and emotion as interdependent factors concurrently involved in the mediating process (Folkman et al, 1979). In the transactional model of stress, Lazarus and Folkman (1984) suggest that it is the interaction of the person and environment that creates a felt stress for the individual. It is thus clear that stress arises out of the transaction between the people and the environment, and emotions play an important role in the stress coping process.

The two major coping strategies generally adopted by individuals in the stress process are problem-focused and emotion-focused coping strategies. Problem-focused coping is more likely when situational demands are appraised as controllable and emotion-focused coping may be used more frequently and more effectively when stressful situations are appraised as unchangeable or uncontrollable (Folkman and Lazarus, 1980, Roth and Cohen, 1989). But in the present business environment of globalisation, takeovers, mergers and downsizing most of the stressful situations are unchangeable, i.e. problem-focused coping is not always possible. Individuals who have control over their emotions can effectively apply emotion-focused coping. In other words, individuals with high score on emotional intelligence are expected to successfully apply emotion-focused coping in stressful situations.

In the past few decades, empirical researches on stress have increased manifold. One of the major areas of research appears to be organisational stress in general and role stress in particular. The concept of organisational stress was first evolved in the classic work of Kahn et al., (1964). Organisational stress originates from organisational demands, which

are experienced by the individual. Because of its negative effects in the workplace, organisational stress has significant implications for organisations. Research studies have shown that although most of the costs of stress are health related, physical and mental, there is considerable loss due to the effect of stress on organisations as stress leads to low productivity, high absenteeism, more tiredness, low enthusiasm for work, low creativity, and high dissatisfaction with work (see, for example, Cooper & Marshall, 1978; Matterson & Ivancevich, 1987). A number of research studies on organisational stress have focused on its relationship with job satisfaction. These studies generally indicate that job stress and satisfaction are inversely related (Hollon & Chesser, 1976). Similar findings of the indirect effect of stress on turnover intentions through job satisfaction have been reported by Hendrix, Ovalle, and Troxier (1985). It has also been found that stress has a negative relationship with mental health (Gavin, 1975), psychosomatic symptoms (Gavin Axelrod, 1977), psychological well-being (Tetick & LaRocco, 1987), commitment (Erickson, Pugh, & Gunderson, 1972), attitudes toward role senders (Miles & Petty 1975), job threat and anxiety (Tosi, 1971), non-work satisfaction (Lance & Richardson, 1988) and job involvement (Hollon & Chesser, 1976). Brief, Schuler and Van Harison (1981) have also reported that stress could result in decreased job satisfaction and low level of performance and effectiveness. Organisational stress is positively related to turnover, turnover intentions, absenteeism (e.g., Jamal, 1984) and tension (Kemery et al. 1985).

Stress is often described as the silent killer because the effects of stress are not readily apparent, they may either go undiagnosed or take a long time before they are manifested leading to permanent damage. Stress can affect anyone and its impact on physical and psychological well-being is well studied. It is also well documented that stress-related illnesses severely impact employers as well as individual employees (Singh, D. 2003).

Stress, particularly occupational stress, is a menace to every organisation. Managers are the main targets of attention as they are the key people in every organisation and organisations' performance very much depends on the performance of managers. Studies on organisational behaviour reveal that stress among managers in organisations is becoming an important matter of concern since it has an adverse effect on health, mental and social well-being and effectiveness. It is for this reason that organisations are expending a huge amount for reducing the stress level of its human resource by way of providing various types of training programmes.

It is now clearly established that emotional intelligence is very important in organisations and the ability to manage feelings and handle stress is an important aspect of EI. Even though a number of studies have been done to prove that EI is related to organisationally relevant variables like leadership effectiveness, job satisfaction, performance, career success etc., and the theoretical grounding for emotional intelligence-stress-relationship seems sound, only a few studies have been done to establish this linkage. Hence, there is a need for scientific studies to establish this linkage and this study is an attempt to empirically examine the relationship between EI and organisational role stress among managers.

CHAPTER 2

THEORETICAL FRAMEWORK OF THE STUDY

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This chapter is divided into four parts. Part I tries to explain what are emotions, why emotions are important in workplace, roots and history of emotional intelligence, and different models of emotional intelligence. It also discusses briefly the different instruments used for measuring EI and whether EI can be developed. Part II attempts to explain the concepts of stress and what is organisational role stress. Part III tries to give a brief theoretical framework on emotional intelligence – stress relationship and Part IV contains a review of literature on the topic.

Part I

2.1.1 Emotions

Any discussion on Emotional Intelligence (EI) has to begin with a clear understanding of the term emotion. An emotion is a psychological feeling, usually accompanied by a physiological reaction. Emotions are either pre-programmed (genetic) or learned and they can be manifested in various ways, such as by facial expressions, tone of voice, and actions that reflect the emotions. According to the functional theory of emotions of Oatley and Johnson-Laird (1987) there are five emotions basic to all human beings: Happiness, anxiety, anger, sadness and disgust.

According to Webster's Dictionary emotion means a moving of the mind or soul; excitement of the feelings, whether pleasing or painful; disturbance or agitation of mind caused by a specific exciting cause and manifested by some sensible effect on the body. It is customary to look at emotion as a stimulus-response mechanism. An emotion thus is a patterned bodily reaction of either protection, destruction, reproduction, deprivation,

incorporation, rejection, exploration or orientation, or some combination of these, which is brought about by a stimulus (Robert Plutchik 1970).

According to Buck, D (1995) emotion is the process by which motivational potential is 'realised' or 'read out', when activated by challenging stimuli. In other words, emotion is 'read out' mechanism carrying information about motivational system.

Emotions are triggered by the arousal and appraisal of anything that impacts on values. Ortony, Clore and Collins (1988) view emotions as valenced reactions to stimuli, that is, as reactions tied to appraisals or evaluations of desirability. This is much the same as saying that emotional arousal arises from emotive stimuli being very positively or very negatively appraised against values.

Although the exact definition of emotion differs widely among researchers, there is a general agreement that emotion consists of three distinct aspects: physiological arousal, emotional expression, and emotional experience (Malalesta, C.Z & Izard, C.E, 1984).

According to Segal (2000), our Intelligence Quotient (IQ) may help us to understand and deal with the world at one level, but we need our emotions to understand and deal with ourselves and, in turn, others. Without an awareness of our emotions, and without the ability to recognise and value our feelings, we cannot get along well with other people.

2.1.2 Importance of emotions in workplace

Emotions play an important role in thinking and decision making process. Psychologists Gordon Bower (1981) and Isen, A (1987) have studied the interaction of mood and thinking for many years. They have found that emotions influence our thinking in different ways. Positive emotions tend to

open us to our environment for exploration and discovery. The broaden and build theory of Frederickson, B.L (2001) suggests that positive emotions do more than make us feel good. Positive emotions expand our thinking, help generate new ideas, and encourage us to consider possibilities. Generally, pleasant or positive emotions motivate us to explore the environment, broaden our thinking, and enlarge our repertoire of behaviours. Positive emotions dare us to be different. It helps us see new connections and generate new and novel solutions to problems.

Negative emotions are also important, as they can enhance thinking in very useful and practical ways. Some of the effects of negative mood or emotion on thinking include providing a clear focus, allowing details to be examined more efficiently and motivating a more efficient search for errors. Negative emotions call for us to change what we are doing or thinking. They narrow our field of attention and perception, and they motivate us to act in very specific ways (Forgas, J.P, 2000). This means that whatever are the emotions, positive or negative, we have to acknowledge them as important and use them effectively.

The team members in organisations share moods and emotions, both good and bad, with better moods improving performance (Tolterdell, et al, 1998). The positive mood of the team leader at the workplace promotes workers' effectiveness and fosters retention (George & Bettenhausen, 1990). How mangers feel has much to do with how they influence people. This is so because emotions can be transferred from individual to individual intentionally and through this process a particular mood can be spread to a group of individuals. So the mood of the individuals holding important positions in organisations has an important role in influencing the group. Staw and Barsade (1993) proved that, how managers feel is a useful indicator and predictor of organisational performance. Barsade et.al (2000) has also demonstrated that

how a management team feels has a direct impact on a company's earnings. Barsade proved that a top management team that shares a common, emotional outlook that is positive would have 4 to 6 percent higher market-adjusted earnings per share than companies whose management team consists of members with diverse emotional outlooks (Barsade et.al, 2000). Emotions and moods can assist our thinking, enhance our problem solving, and aid reasoning. According to Ekman, (2003) those who are able to harness moods and alter them are more likely to engage in creative thinking.

Organisations are notorious for their attempts at controlling emotions, especially the display and expression of emotions. In many service-oriented jobs, employees are explicitly taught to suppress their feelings and to put on a happy face; it is termed as "emotional labour". There are a few ways through which people try to display the emotions that their employer demands. One is through surface acting, when you feel one way but do not show the true, underlying feeling. In deep acting, you actually try to change your current feeling to match the desired feeling. Both surface acting as well as emotional labour has been linked to performance burnout and job turnover (Ashforth & Humphrey, 1993).

At the organisational level, emotional experiencing refers to the quality of an organisation's efforts in identifying the variety of emotions aroused during radical change, accepting and internalising them, and acting on a deep level of understanding. These experiencing behaviours can involve organisational activities such as training and coaching all organisation members, and especially change agents, to experience the same or other appropriate emotion in response to other's feelings and to communicate to act on this internal experience (Salovey & Mayer, 1990). Organisation members can be trained on the ability to accurately 'read' the subtle social cues and signals given by others in order to determine what emotions are being

expressed and understanding the perspective of the other individual (Schmidt, 1997). Emotions as intelligence and as a competence that could be acquired, was a powerful "zeitgeist" (Mayer and Salovey, 2000).

Managing emotions is the keystone of emotional intelligence. The first step in managing emotions is to be aware of them and accept them. Emotional awareness is the building block of successful emotion regulation, but we need more than simply to be aware of our own and other's feelings. We require a bit of sophisticated processing of the emotions we experience (Caruso & Salovey, 2004). Successfully managing emotions means that both our thoughts and feelings guide our conduct. This ability allows us to integrate cognition and affect to generate effective solutions. It helps us recognise that emotions contain powerful and important information and that decision-making cannot succeed in the absence of emotion. In general, emotions at work influence judgment, job satisfaction, helping behaviour, creative problem solving, and decision-making (Brief and Weiss, 2002).

2.1.3 Roots and History of Emotional Intelligence

2.1.3.1 Roots of Emotional Intelligence

At the outset, it may be pointed out that the term Emotional Intelligence is not a new concept. Even though the term has received considerable attention recently, earlier psychologists and philosophers had already laid down the foundation. EI has its root in the concept of social intelligence first identified by Thorndike in 1920. Thorndike kept a special place for social intelligence away from other types of intelligence and defined it 'as the ability to understand and manage men and women to act wisely in human relations'. When psychologists began to write and think about intelligence, they focused on cognitive aspects, such as memory and problem solving. However, there were researchers who recognised early on that the non-cognitive aspects were also important. For instance, Wechsler, D (1940)

defined intelligence as the aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment. As early as in 1940 he referred to "non-intellective" as well as "intellective" elements, by which he meant affective, personal, and social factors.

Ellis (1962) had pointed out that human emotion and thinking are not separate processes, but they can significantly overlap and can never be viewed completely apart from each other. Tomkins (1962) wrote, while reason without affect would be important, affect without reason would be blind. According to McClelland (1973) conventional concept of IQ simply could not predict how well people would perform in the workplace, and hence there had to be something more to it, which were later developed by scholars as social and emotional competence.

Sternberg (1985) talked about triarchic theory of intelligence that consists of componential intelligence, experiential intelligence and contextual intelligence. This third component, contextual intelligence is very much overlapping with EI because it manages our ability to handle everyday life affairs in an efficient and practical way. In both the concepts the central idea is our capacity to make adjustment to various contexts with a proper selection of contexts so that we can improve our environment in a better way to meet our needs.

Gardner (1983) included intrapersonal and interpersonal intelligences in his theory of multiple intelligences. According to Gardner, social intelligence, which is one among seven intelligence domains, comprises an individual's interpersonal and intrapersonal intelligences. Intrapersonal intelligence relates to one's ability to deal with oneself and to symbolise complex and highly differentiated sets of feelings within the self. Interpersonal intelligence relates to one's ability to deal with others and to notice and make distinctions among other individuals and, in particular, among

their moods, temperaments, motivations and intentions. Interestingly these are the very same concepts, which are used in EI also.

Thus it is clear that even though the term EI got popularity of late, earlier psychologists and scholars had recognised most of the concepts of EI. All the same, most of the scientific studies in this area were done only after 1990 with the works of Mayer & Salovey.

2.1.3.2 History of Emotional Intelligence

In 1985 a graduate student at an alternative liberal arts college in USA wrote a doctoral dissertation, which included the term 'emotional intelligence' in the title. This seems to be the first academic use of the term emotional intelligence.

Then in 1990 the works of two American university professors, John Mayer and Peter Salovey, were published in two academic journal articles. Mayer (University of New Hampshire) and Salovey (Yale University) tried to develop a method for scientifically measuring the difference in people's ability in the area of emotions. They found that some people were better than others at things like identifying their own feelings, identifying the feelings of others, and solving problems involving emotional issues. They defined EI as the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions. The first scientific study on EI is said to be of Mayer and Salovey. The concept of EI however, received popularity with publication of the best selling book, 'Emotional Intelligence', by Goleman, D (1995) and the cover article on Time magazine (Gibbs, 1995). This was followed by a few other popular books (Salerno, 1996; Cooper & Sawaf, 1997; Gottman, 1997; Segal, 1997 etc).

2.1.4 Models of Emotional Intelligence

To get clarity on the concept Emotional intelligence (EI) it is necessary to look at how it has been defined by different scholars. Different people define EI in different ways. While the definitions of EI are often varied for different theorists, they nevertheless tend to be complementary rather than contradictory (Ciarrochi, Chan, and Caputi, 2000). Mayer, Salovey and Caruso (2000) have classified EI models under two categories. First, ability model that is proposed by Mayer and Salovey (1997), according to which, EI is the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion and regulate emotion in the self and others. Second, the mixed model, proposed mainly by two proponents, namely Goleman (1995) and Bar-on (1997). It explains EI as the ability to recognise and use emotions in motivating oneself and others, to maintain better social relationships and the capacity of the individual to deal with the environmental demands and pressures.

2.1.4.1 Ability model of EI

According to Mayer and Salovey (1997) EI abilities can be divided into four branches. These branches can be arranged from more basic psychological processes to higher more psychologically integrated processes. For example, the lowest level branch concerns the (relatively) simple abilities of perceiving and expressing emotion. In contrast, the highest-level branch concerns the conscious, reflective regulation of emotion. They add that abilities that emerge relatively early in development are to the left of a given branch and later developing abilities are to the right. They also say that, people high in emotional intelligence are expected to progress more quickly through the abilities designated and to master more of them.

The Four branches of EI as per this model are:

1. Perceptions, Appraisal and Expression of Emotion
2. Emotional Facilitation of Thinking
3. Understanding and Analysing Emotions, Employing Emotional Knowledge
4. Reflective Regulation of Emotions to Promote Emotional and Intellectual Growth

Perception, Appraisal and Expression of Emotion

This branch of EI includes the following abilities:

Figure 2.1.1

The first branch of the ability model of EI

Ability to identify emotion in one's physical states, feelings, and thoughts.	Ability to identify emotions in other people, designs, artwork, etc. through language, sound, appearance, and behaviour.	Ability to express emotions accurately, and to express needs related to those feelings.	Ability to discriminate between accurate and inaccurate, or honest Vs. dishonest expressions of feeling.

Emotional Facilitation of Thinking

This branch of EI discusses how emotions are useful in thinking, decision-making etc.

Figure 2.1.2

The second branch of the ability model of EI

Emotions are sufficiently vivid and available that they can be generated as aids to judgment and memory concerning feelings.	Emotions prioritise thinking by directing attention to important information.	Emotional mood swings change the individual's perspective from optimistic to pessimistic, encouraging consideration of multiple points of view.	Emotional states differentially encourage specific problem-solving approaches such as when happiness facilitates inductive reasoning and creativity.

Understanding and Analysing Emotions; Employing Emotional Knowledge

This branch of EI includes the following abilities:

Figure 2.1.3

The third branch of the ability model of EI

Ability to label emotions and recognise relations among the words and the emotions themselves, such as the relation between liking and loving.	Ability to interpret the meanings that emotions convey regarding relationships, such as that sadness often accompanies a loss.	Ability to understand complex feelings: simultaneous feelings of love and hate or blends such as awe as a combination of fear and surprise.	Ability to recognise likely transitions among emotions, such as the transition from anger to satisfaction or from anger to shame.

Reflective Regulation of Emotion to Promote Emotional and Intellectual Growth.

This branch of EI includes the following abilities:

Figure 2.1.4

The fourth branch of the ability model of EI

Ability to stay open to feelings, both those that are pleasant and those that are unpleasant.	Ability to reflectively engage or detach from an emotion depending upon its judged informativeness or utility.	Ability to reflectively monitor emotions in relation to oneself and others, such as recognising how clear, typical, influential or reasonable they are.	Ability to manage emotion in oneself and others by moderating negative emotions and enhancing pleasant ones, without repressing or exaggerating information they may convey.

2.1.4.2 Mixed models of EI

The five components of emotional intelligence at work as proposed by Goleman (1995) are as follows:

1. **Self-awareness**. It is the ability to recognise a feeling as it happens, to accurately perform self-assessments and have self-confidence. It is the keystone of emotional intelligence.

2. **Self-management or self-regulation**. It is the ability to keep disruptive emotions and impulses in check (self-control), maintain standards of honesty and integrity (trustworthiness), take responsibility for one's performance (conscientiousness), handle change (adaptability), and be comfortable with novel ideas and approaches (innovation).

3. **Motivation**. It is the emotional tendency guiding or facilitating the attainment of goals. It consists of achievement drive (meeting a standard of excellence), commitment (alignment of goals with the group or organisation), initiative (acting on opportunities), and optimism (persistence in reaching goals despite set backs).

4. **Empathy**. It is the understanding of others by being aware of their needs, perspectives, feelings, and concerns, and sensing the developmental needs of others.

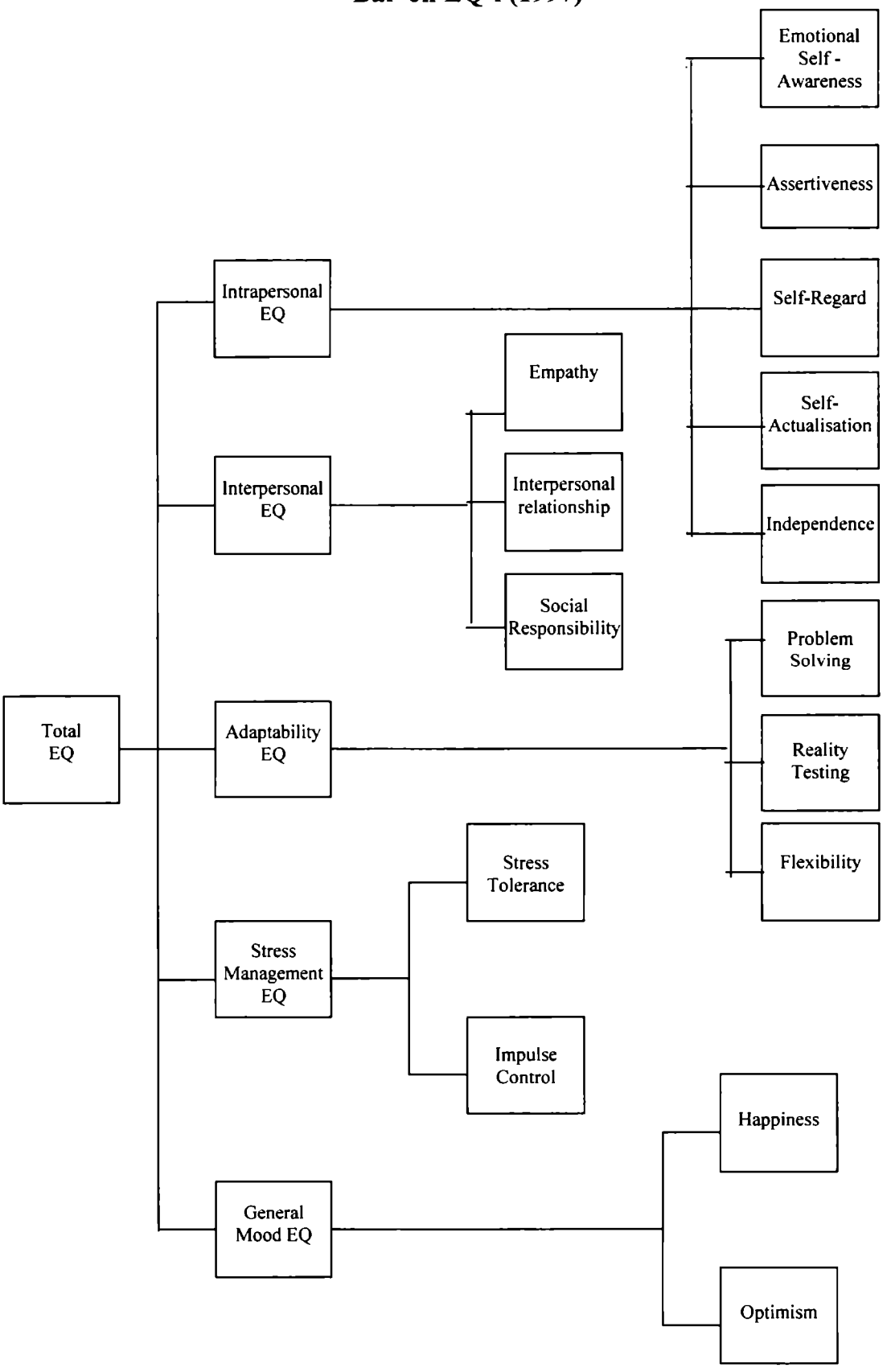
5. **Social skills**. Social skills are fundamental to emotional intelligence. They include the ability to induce desirable responses in others by using effective diplomacy to persuade (influence); listen openly and send convincing messages (communicate); inspire and guide groups and individuals (leadership); nurture instrumental relationships (building bonds); work with others toward a shared goal (collaboration, cooperation); and create group synergy in pursuing collective goals.

Bar-On (1997) defined emotional intelligence as an array of noncognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures. He interprets findings from a self-report scale of emotional intelligence that he developed,

the EQ-i, as indicating that it is divisible into five broad categories. First is intrapersonal EQ, which is further divided into emotional self-awareness, assertiveness, self-regard, self-actualisation, and independence. Second is interpersonal EQ, which is further divided into empathy, interpersonal relationship, and social responsibility. Third is adaptability EQ, which is again subdivided into problem solving, reality testing, and flexibility. Fourth is stress management EQ, which includes stress tolerance and impulse control. Fifth and last is general mood EQ, which is further divided into happiness and optimism (Bar-On EQ-i, 1997) (see Figure 2.1.5). These are further discussed in Chapter 3.

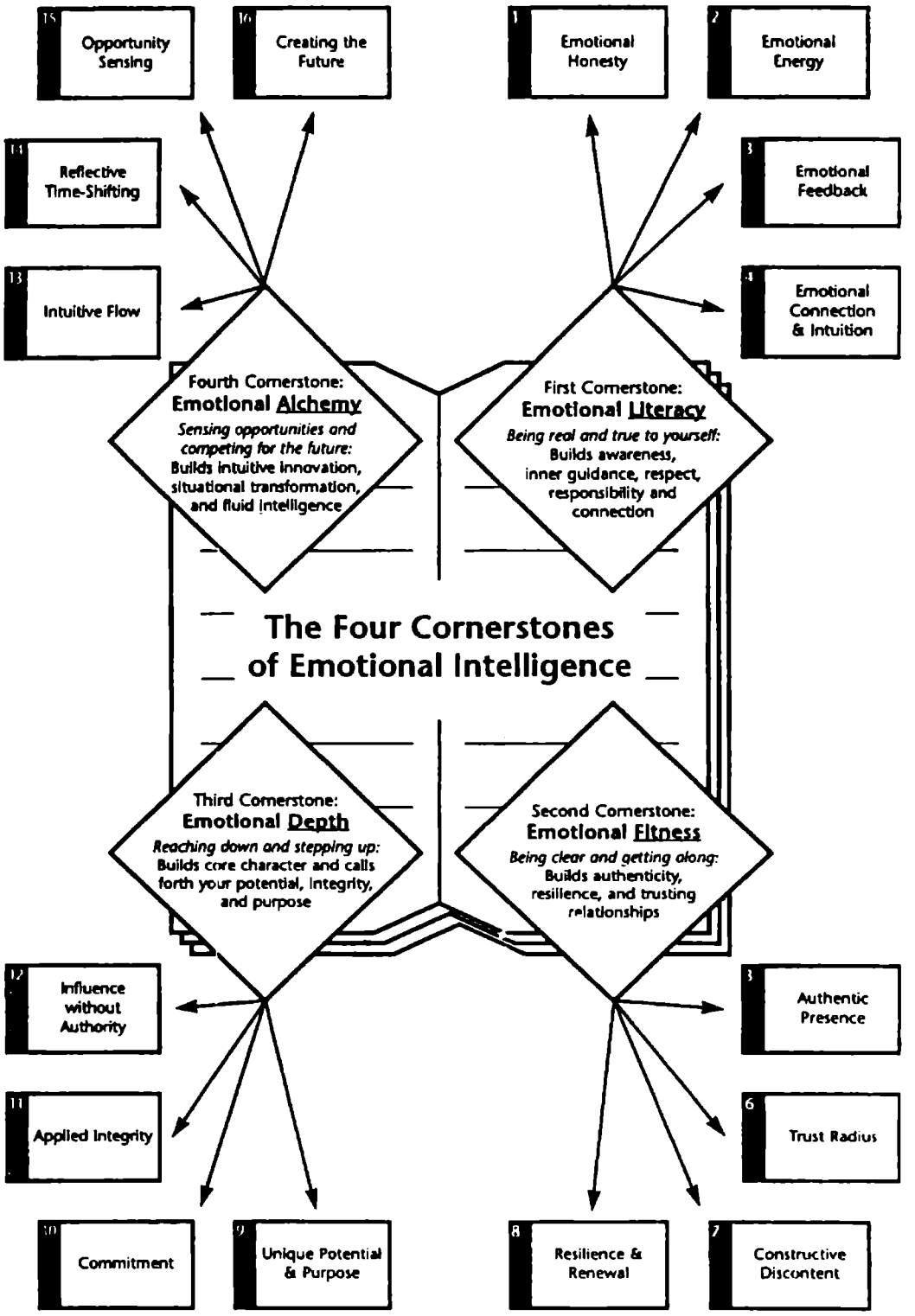
Figure 2.1.5

EQ-i, its composite scales and subscales developed based on Bar-on EQ-i (1997)



Cooper (1997), who also uses the mixed model approach, explains emotional intelligence using a four corner stone model. According to him, Executive EQ begins with the cornerstone of emotional literacy, which builds a locus of self-confidence through emotional honesty, energy, emotional feedback, intuition, responsibility, and connection. The second cornerstone, emotional fitness, strengthens one's authenticity, believability, and resilience, expanding one's circle of trust and capacity for listening, managing conflict, and making the most of constructive discontent. In emotional depth, the third cornerstone, one explore ways to align his/her life and work with one's unique potential and purpose, and to back this with integrity, commitment, and accountability, which, in turn, increase one's influence without authority. From here it extends to the fourth cornerstone, emotional alchemy, through which one extend his/her creative instincts and capacity to flow with problems and pressures and to compete for the future by building one's capacity to sense more readily – and access - the widest range of hidden solutions and untapped opportunities (see Figure 2.1.6).

Figure 2.1.6
The Four corner stone model of EQ developed by Cooper (1997)



Source: Cooper, R.K & Sawaf, A. (1997). Executive EQ. Emotional Intelligence in Business, Orion Business Books, U.K.

To sum up, the term EI has been conceptualised under two models: ability model and mixed model. The ability model defines EI as the ability to perceive, express, understand and recognise emotions in oneself and others and the mixed model defines EI as the abilities, skills, and competencies to understand and regulate emotions in oneself and others, motivate oneself and others, and be successful in handling the environmental demands. The ability models looks only into perception, expression, understanding and recognition of emotions whereas the mixed model also looks into how emotions are utilised in motivating oneself and others, and dealing with the environmental demands. Hence, the mixed model is more comprehensive than the ability model.

2.1.5 Measures of Emotional Intelligence

Only if it is possible to measure emotional intelligence can one get a clear picture of one's level of EI and thereby he/she can try for developing it. Fortunately, like IQ emotional intelligence also can be measured. A number of measures have been developed recently to measure EI. Some of them are ability measures while others are self-report ones. The major ability measures are the Multi-Factor Emotional Intelligence Scale (MEIS) developed by Mayer, Caruso & Salovey, (1999) and Mayer-Salovey-Caruso Emotional Intelligence Scale, MSCEIT V.1.1 and V.2.0. The MSCEIT was designed to resolve some of the problems associated with the MEIS (Mayer, Salovey, & Caruso, 2000a). This ability-based MSCEIT scale consists of 141 items and measures how well people perform tasks and solve emotional problems. This instrument yields a single overall performance score in addition to the two area scores for Emotional Experience and Emotional Reasoning. Guided by the Four-Branch Model of emotional intelligence, these area scores are further elaborated to encompass the four central areas of emotional intelligence, viz., the ability to: (1) accurately perceive emotions; (2) use emotions to facilitate thinking, problem solving, and creativity; (3) understand emotions; and (4)

manage emotions for personal growth. MSCEIT youth version is also available (MSCEIT:YV). MSCEIT:YV is designed to assess emotional intelligence among pre-adolescents and adolescents.

Emotional Competence Inventory (ECI), a multi-rater instrument of Boyatzis et al., (2000) is another measure of EI. The ECI encompasses 20 competencies, organised into four clusters: Self-Awareness, Social-Awareness, Self-Management, and Social Skills.

Among the self-report measures, Bar-On Emotional Quotient Inventory (EQ-i) (Bar-On, 2000) is the most popular. It consists of 133 items and is divided into five composite scales and fifteen sub-scales. The five composite scales are Intrapersonal EQ, Interpersonal EQ, Adaptability EQ, Stress Management EQ and General Mood EQ. It gives an overall EI score, five composite scale scores and fifteen sub-scale scores. This scale is being used for most of the studies as its validities and reliabilities are well proved (see Chapter III for more details).

Another self-report scale that has been promoted commercially is the EQ-Map (Orioli et al.,1999). It helps to discover many facets such as current environment, awareness, competencies, values/beliefs and life outcomes that make up a person's EI and its relationship to his performance, creativity and success. It is made up of 20 scales measuring EI and the effect it has on one's life, both personally and professionally. The factors in the EQ Map are related to one's ability to stay healthy under pressure, develop trusting relationships, and creatively sense and pursue opportunities for future. Schuttle Emotional Intelligence Scale (SEIS) (Schuttle, et.al., 1998) is another self-report scale. It is a 33 item self-report inventory to measure Salovey and Mayer's (1990) model of EI.

To sum up, the measures of EI can generally be classified into two: ability measures and self-report measures. The ability measure is developed based on the ability model of EI and the most widely used ability model is MSCEIT. As the ability measure is developed based on ability model of EI, it will not measure the capacity of individuals to motivate themselves and others, and handling of environmental demands. Hence, self-report measure is more reliable and among the self-report measures, Bar-On Emotional Quotient Inventory (EQ-i) (Bar-On, 2000) is the most popular.

2.1.6 Development of Emotional Intelligence

Emotional intelligence attributes are viewed as essential to be successful in career and personal life, and happily for us, EI can be increased or developed, fostered and tapped by giving appropriate training (Brown, Richmond, and Rollin 2004). For example, a study reported that after supervisors in a manufacturing plant received training in emotional competencies such as how to listen better and help employees resolve problems on their own, time lost by accidents were reduced by 50 percent, formal grievances were reduced from an average of 15 per year to 3 per year, and the plant exceeded productivity goals (Pesuric & Byham, 1996). In another manufacturing plant where supervisors received similar training, production increased 17 percent. There was no such increase in production for a group of matched supervisors who were not trained (Porras & Anderson, 1981). At International Beverage, division leaders who honed their EI skills exceeded their performance targets by over 15%, while their peers who did not develop EI competencies fell short of their targets by 15% (McClelland, 1999). In fact it is now proved beyond doubt that EI can be increased or developed by providing appropriate training. The website http://www.xleaders.com/Examples.htm gives several instances about the increase in performance of individuals after receiving training in EI.

Sales Success

- At L'Oreal, sales increased by over $91,000 per salesperson trained in EI Competencies. This training also reduced turnover by 63%.
- American Express Financial Services saw such a jump in sales success as a result of a pilot EI training program after only three months, that it incorporated EI into its standard training programme.
- The sales staff of Hallmark Communities increased sales by 25% after EI development. (Bradbury, 2002)

Operational Success:

- At International Beverage, division leaders who honed their EI skills exceeded their performance targets by over 15%, while their peers who did not develop EI competencies fell short of their targets by 15% (McClelland, 1999).
- The members (from line supervisors to senior executives) of AT&T's operations management team who had increased EI Competencies were 20% more productive than their average EI counterparts (91% of top performers were high in EI and only 26% of low performers were high in EI) (Bradbury, 2002).

Hence the productivity and overall effectiveness of individuals as well as organisations can be increased with the existing employees by giving them well framed training to increase their emotional competencies as EI is positively related to organisational and individual effectiveness.

Part II

This part tries to give conceptual clarity to the stress process and it also describes the concepts of Role and Organisational Role Stress.

2.2.1 Stress

Derived from Latin, the word stress was popularly used in the seventeenth century to mean hardship, strait, adversity or affliction. It was used in the eighteenth and nineteenth centuries to denote force, pressure, strain or strong effort with reference to an object or person. In engineering and physics, the term implies an external force to an object or pressure exerted to distort and being resisted by the object on which it is exerted.

Stress has been conceptualised in the following ways:

(i) as an external force which is perceived as threatening;

(ii) as response to a situation demanding an individual to adapt to change, physically or psychologically;

(iii) as an interactional outcome of the external demand and internal resources; and

(iv) as a personal response to a certain variation in the environment (Srivastav, 1997).

McGarth (1976) explains that there is a potential for stress when an environmental situation is perceived as presenting a demand, which threatens to exceed the person's capacities and resources for meeting it. According to McLean (1979) stress is neither a stimulus, nor a response, nor an intervening variable, but rather, a collective term, which deals with any demands that tax

the system (physiological, psychological or social) and the response of that system to the taxing demands.

Ivancevich and Matterson (1980) define stress as an adaptive response, mediated by individual characteristics and / or psychological processes, which are a consequence of any external action, situation or event that places special physical and / or psychological demands upon a person. Stress is also described as an aversive or unpleasant emotional and physiological state resulting from adverse work experiences, particularly experiences that are uncertain or outside the employee's control (Beehr & Bhagat, 1985; Hart & Cooper, 2001).

There is a general agreement amongst scholars that stress is fundamentally a psychological phenomenon with immediate and direct physiological manifestations as well as an experience of discomfort. There are actually two stress concepts, which are relevant, one in physiology (systemic stress) and the other in psychology (psychological stress). But all of them, whether physiologists or psychologists or management theorists have unanimously upheld stress as a major issue of modern times.

Pestonjee (1983) had attempted to diagrammatically present the nature and consequences of the stress phenomenon (see Figures 2.2.1 to 2.2.5). He identified three important sectors of life in which stress originates. These are;

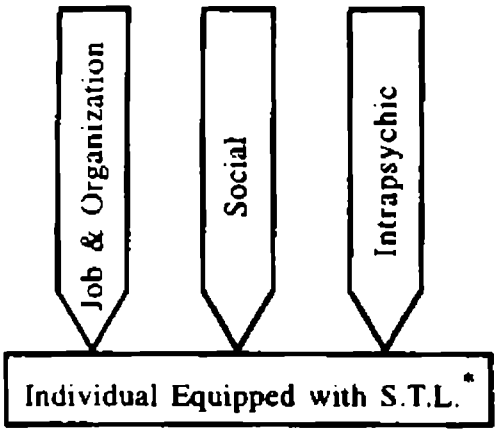
(1) job and the organisation,

(2) the social sector, and

(3) intrapsychic sector.

Figure 2.2.1

Effects of stressors or loads on Individual



Minor Surface Changes

Adaptation Attempt

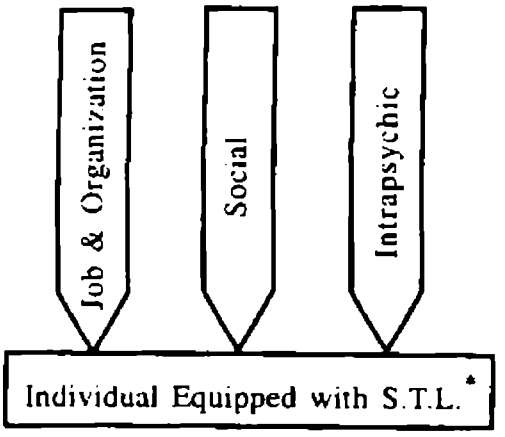
A. Extra Effort
B. Excessive Concern About Task
C. Worries
D. Anxiety

* Stress Tolerance Limit

Source: D. M. Pestonjee, 1983.

Figure 2.2.2

Effects of stressors or loads on Individual

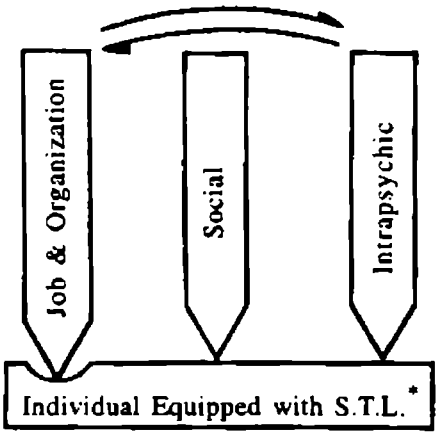


Organization–Individual
Normal Interaction Pattern

* Stress Tolerance Limit

Source: D. M. Pestonjee, 1983.

Figure 2.2.3
Effects of stressors or loads on Individual



Major Surface Disfiguration

Frantic Coping

A. Extraordinary Effort
B. Worry and Anxiety About the Self
C. Onset of Physiological Symptoms (Psychosomatic/somato-psychic)
D. Aggressive Tendencies (Extragression, Introgression, Impression)

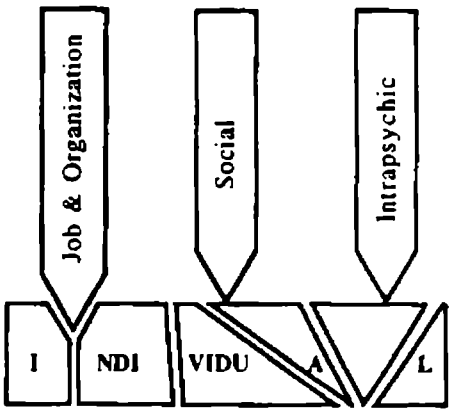
Coping with Physiological Symptoms

Drugs • Palliatives • Analgesics • Tranquilisers, etc.

* Stress Tolerance Limit

Source: D. M. Pestonjee, 1983.

Figure 2.2.4
Effects of stressors or loads on Individual



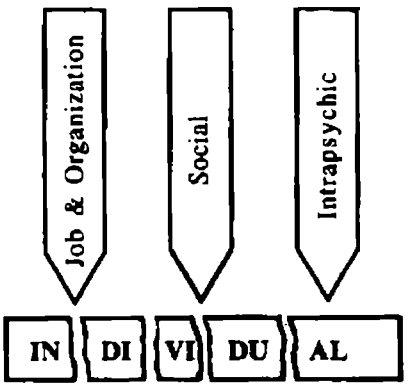
Breakdowns and Cracks

Failure in Coping

A. Work-related Symptoms • Lack of Concentration • Affected Clarity of Thinking and Decision-making • Frequent Absenteeism • Affected Teamwork • Aggressive Behaviours
B. Physiological Symptoms • Headache/Migraine • Insomnia • Lack of Appetite • Digestive Disorders • Coronary Heart Disorders • Sexual Disorders Temperamental Changes

Source: D. M Pestonjee, 1983.

Figure 2.2.5
Effects of stressors or loads on Individual



Disintegration or falling apart

Dissociative Personality

A. Somnambulism (Sleep Walking)
B. Multiple Personality
C. Feeling and Thought Disturbance

The Stage of Medical or Psychological Help

Source: D. M. Pestonjee, 1983.

environment (task, atmosphere, colleagues, compensations, etc.). The social

The first, viz; job and organisation, refers to the totality of the work environment (task, atmosphere, colleagues, compensations, etc.). The social sector refers to the social/cultural context of one's life. It may include religion, caste, language, dress, food habits etc. The intrapsychic sector encompasses those things, which are intimate and personal like temperament, values, abilities and health. It is contended that stress can originate in any of these three sectors or in combinations thereof.

From the above explanations it is clear that stress is a psychological phenomenon usually accompanied by physiological responses when one encounters a situation, which he/she perceives as threatening and the available resources are not adequate to meet the demands. In other words we can say that stress arises out of the emotional response of the individual when an environmental situation is perceived as demanding and hence its intensity depends on the individual's perception.

2.2.2 Role Stress

In order to understand role stress, we have to first see what role is. Human behaviour in an organisation is influenced or directed by several physical, social or psychological factors. One of the key concepts to understand the integration of the individual in an organisation is role. It is through the role that the individual interacts with, and gets interacted with the system (Pareek, 1976). Role has been defined in several ways. The word 'role' is used for any position a person holds in a system (organisation) as defined by the expectations various significant persons, including himself, have from that position (Pareek, 1976). According to Katz and Kahn (1966) an organisation can be defined as a system of roles. However, role itself is a system. From the point of view of an individual, two role systems are important, the system of various roles an individual occupies and performs, and the system of various

roles of which his role is a part, and in which his role is defined by other significant roles. The first is called as 'role space' and the second as 'role set'.

Role Space

Each individual occupies and plays several roles. All these roles make up his role space. In the centre of the role space is the self. The dynamic interrelationship both between the self and the various roles an individual occupies, and amongst these roles can be termed as role space (Pareek, U, 1976).

Role Set

An individual's role in an organisation is defined by the expectations of significant role senders in that organisation, including the individual himself. Role set is the pattern of relationship between the role being considered and other roles (Pareek, U, 1976).

Role Stress

Pareek's (1976) definition of role indicates that there are inherent problems in the performance of a role and therefore, stress is inevitable. The concept of role and the related concepts of role space and role set have built-in potential for conflict and stress. So the stress experienced by a an individual while performing a role when the role expectations exceed the incumbent's resources can be termed as role stress and organisational role stress is the stress experienced by an individual while performing a role in an organisation. Most of the earlier studies on role stress have used role ambiguity and role conflict to operationalise stress.

Pareek (1983) who pioneered work on role stress in India has identified ten types of organisational role stressors. These are: Inter role distance, Role stagnation, Role expectation conflict, Role erosion, Role

overload, Role isolation, Personal inadequacy, Self-role distance, Role ambiguity, and Resource Inadequacy (see Chapter 3 for detailed discussion). Hence total organisational role stress experienced by individuals working in organisations is measured by considering these ten stressors.

Part III

2.3 Theoretical Framework on EI - Stress relationship

The twentieth century has been variously called the age of stress and anxiety, and more recently, coping (Endler, 1996). Coping refers to a person's efforts to manage or control a situation viewed as stressful, or as overtaxing or challenging one's personal coping resources (Lazarus and Folkman, 1984). As mentioned earlier in Chapter I, individual difference variables play an important role in the coping strategies applied by individuals in the stress coping process. Research suggests that the existence of stress may be less important to an individual's well being than how the individual appraises and copes with stress (Aldwin and Revenson, 1987).

Some of the research on job stress has focused on the importance of objective stressors (Bischoff and Terborg, 1995, Melin, Lundberg et al., 1999, Ganster and Duffy, 1995). Objective stressors are the objects or factors, which contribute to stress and these, have been conceptualised as not being influenced by an individual's cognitive or emotional process (Frese and Zapf, 1988). Although the examination of objective work stressors may be useful to broadly predict strain, the focus is too limiting. In order to truly understand the components of stress process, the primary focus should be on how individuals interpret objective conditions rather than simply relating stressors to strains.

The theoretical framework of this study is mainly based on the transactional model of stress propounded by Lazarus & Folkman (1984), the

attributional model of stress by Weiner (1985), the transactional attributional model of stress and the theoretical support given by various theorists to the idea that effective coping is central to emotional intelligence. The following section examines how different models of stress attempt to explain the stress phenomenon and also tries to establish the linkage between emotional intelligence and the stress coping process. The various models examined here are the following:

2.3.1 Transactional model of Stress

A fundamental proposition of the transactional model of stress (Lazarus, 1968, Lazarus & Folkman, 1984) is that it is the interaction of the person and environment that creates a felt stress for the individual. Stress is not a property of the person, or of the environment, but arises when there is conjunction between a particular kind of environment and a particular kind of person that leads to a threat appraisal (Lazarus, 1991). What it means is that the intensity of stress depends on how the individual appraises the situation as threatening. Two appraisals, primary and secondary, are central to Lazarus' cognitive appraisal theory of stress (1982, 1991). An individual's primary appraisals concerns whether or not there is any personal stake in the encounter and it has been referred to as the motivational relevance of an encounter. The primary appraisal process is an evaluation as to the significance of an encounter or transaction for a specific individual. In this context, Lazarus and his colleagues have suggested three types of evaluations. First, an irrelevant encounter is one that has no personal significance for the individual and is ignored. Second, a benign-positive encounter is one that is considered beneficial and/or desirable. Third, a stressful encounter is one that is considered to be harmful, threatening, or challenging (Lazarus, 1994). If individuals determine that they have a stake in the encounter, the transactional model proposes that they will engage in a secondary appraisal in order to

change the conditions perceived to be undesirable. Secondary appraisal focuses on the available coping options for altering the perceived harm, threat, or challenge so that a more positive environment is created. The transactional model depicts coping as a choice that is affected by the primary and secondary appraisals. Coping is expected to be consistent with a determination of whether anything can be done to change the situation (Folkman and Lazarus, 1985), i.e., the individual's choice of a coping mechanism is determined by his perception of personal control over the stressful situation. Lazarus (1993) included a third cognitive appraisal, which he labelled 'reappraisal'. Reappraisal represents the feedback process wherein changes in both primary and secondary appraisals are brought about via individual reactions/coping and the environmental counter reactions. These reactions and counter-reactions are appraised by the individual leading to reappraisals of the person-environment relationship. A significant amount of research (e.g., Lazarus, 1966, 1968., Lazarus and Folkman, 1984, 1987) has supported the transactional model by demonstrating that the way people evaluate what is happening with respect to their well-being and the way they cope with it influence whether psychological stress will result, and its intensity (Lazarus, 1993).

2.3.2 Attributional model of stress

Attribution theorists propose that the result of an action depends on two sets of conditions, namely, factors within the person and factors within the environment (Heider, 1958). Weiner (1985) proposed a theory of motivation and emotion in which causal ascriptions play a key role. In his discussion, the perceived causes of success and failure are analysed along three dimensions: locus (whether or not the cause of the outcome is perceived to be located within the individual such as ability or effort, or outside the individual such as the task or luck), stability (the individual's perception that the cause will continue over time), and controllability (whether a cause is under the volitional control of an

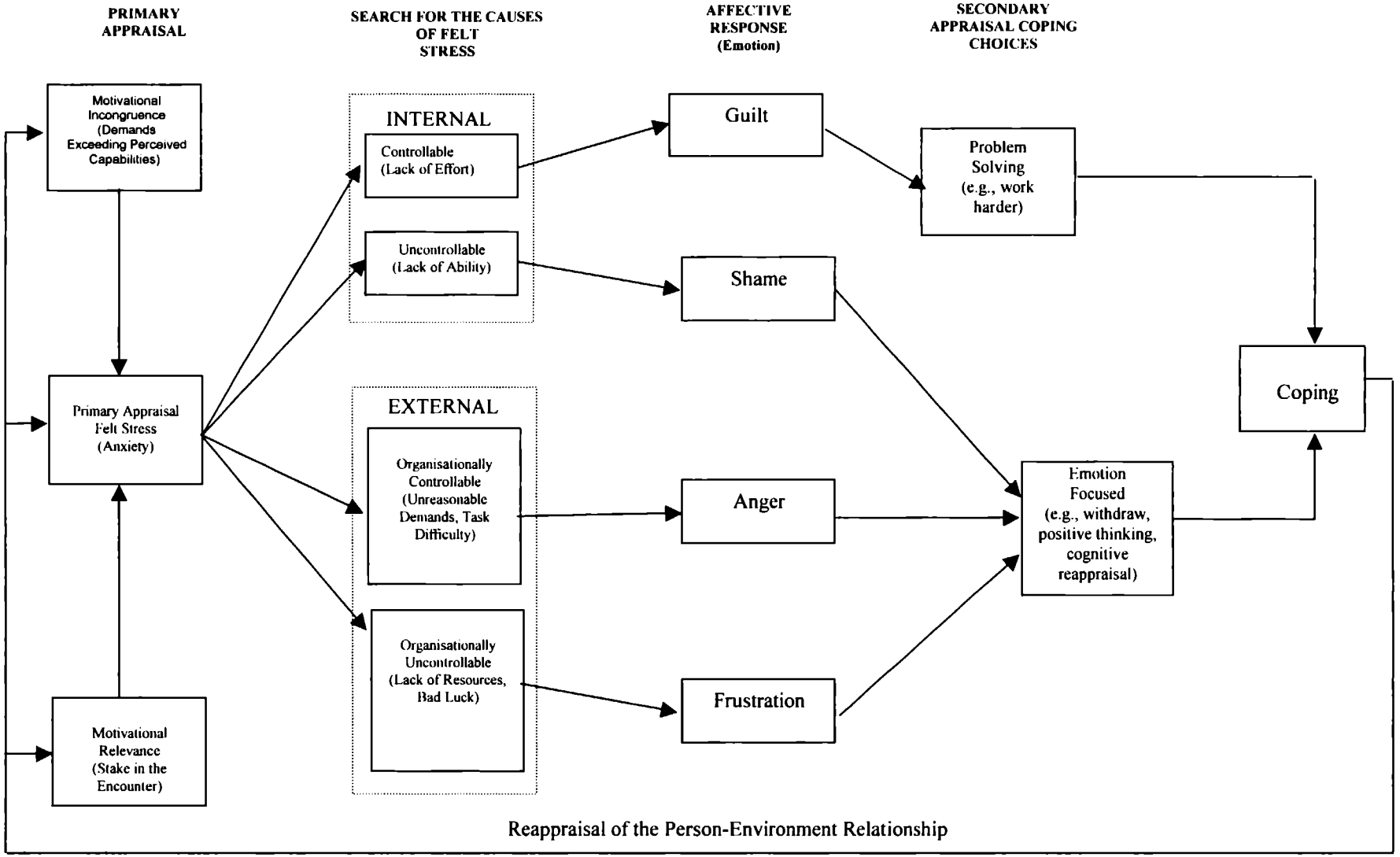
individual. In the attributional model of stress (Weiner, 1985), locus of causality and controllability dimensions are considered as attributions regarding the sources of stress. The controllability dimension described by Weiner appears to be analogous to situational perceptions of control (Folkman, 1984) and has been found to be a significant influence on interpersonal emotions and behaviour (Betancourt and Blair, 1992).

2.3.3 Transactional attributional model of stress

Transactional attributional model is proposed by incorporating Weiner's attributional model into Lazarus's transactional model of stress process. The model extends Lazarus' transactional model by specifically considering the role of causal attributions and related emotions (see figure 2.3.1). Locus of causality and controllability dimensions of attribution model are included in the transactional attribution model as attributions regarding the sources of the stress.

Figure 2.3.1

Transactional attributional model of stress



Source P.L. PERREWE & K.L.ZELLARS (1999). Journal Organisation Behaviour, 20, P.743

The various terms used in the transactional attribution model are explained in detail in the following paragraphs:

Primary appraisals and causal attributions

Because of different goals and beliefs, because there is often too much to attend to, and because the stimulus array is often ambiguous, people are selective both in what they pay attention to and in what their appraisals take into account (Lazarus, 1993). Therefore, not all potential stressors actually cause stress for an individual, and what one individual appraises as a stressful situation may not be for another. For example, the assignment of additional tasks to an individual becomes a source of stress (e.g., role overload) only when he perceives that he has a stake in the outcome of his performance (motivational relevance) and the tasks are creating demands that exceed his capabilities (motivational incongruence) (Smith and Lazarus, 1990). Individuals may perceive their stress as an outcome arising from either a lack of effort or a lack of ability (both internal attributions). At the same time other individuals may perceive the stressor as being imposed upon them by external sources: the manager, the organisation, or the time frame. The causes of their stress, therefore, might be the unreasonable demands of others or the difficulty of the task. The different attributions made by different individuals for falling behind will likely to lead to different emotional responses (Weiner, 1985).

Causal dimensions and emotions

An individual's determination of the source of his felt stress includes an assessment of the causal dimensions. Each dimension is specifically related to a set of emotions. These emotions arise from how an event is construed (Weiner, 1985). An emotion is aroused not just by an environmental demand, constraint, or resource but by their juxtaposition with

an individual's motives and beliefs (Lazarus, 1993) that summarises a person's relationship to the environment in terms of a particular type of harm or benefit (Smith and Lazarus, 1990).

Controllability

In the transactional attributional model an individual's affective responses are generated from the different attributed causes of stress. Controllability is a critical aspect of these attributions. For example, the perception of organisational controllability (an external attribution) over the situation may significantly influence the individual's reaction or the intensity of his reaction to the stressor.

Secondary appraisals and coping behaviours

Secondary appraisals are evaluative process in which the individual considers available coping options, the likelihood that a given activity will accomplish the desired outcome, whether one is capable of performing a particular coping response, and the consequence of using a particular strategy. The coping process includes the constantly changing cognitive and behavioural attempts a person makes to manage specific internal and external demands that are appraised as taxing or exceeding his personal resources (Lazarus & Folkman, 1984). Studies have found that coping efforts are strongly related to an individual's cognitive appraisal of a situation (Peacock, Wong & Reker, 1993).

From the above models of stress it is seen that individual variables such as appraisals, cognitions, attributions and emotions are to be considered to understand the complex stress process.

Thus it is clear that emotions are integral to the coping process throughout a stressful encounter as an outcome of coping, as a response to the situation and as a result of reappraisal of the status of the encounter. If the

encounter has a successful resolution, positive emotions will predominate; if the resolution is unclear or unfavourable, negative emotions will predominate. Whatever may be the outcome, the nexus between emotions and stress coping process is loud and clear. At the same time, regulation of emotions is important in the stress coping process.

Emotion regulation is the process by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions. Emotion regulatory process may be automatic or controlled, conscious or unconscious, and may have their effects at one or more points in emotion generative process (Gross, 1998). To the extent that coping is aimed at ameliorating negative emotions or promoting positive emotions, it falls under the rubric of emotion regulation. Eisenberg et.al. (1997) classify both coping and emotion regulation under the larger category of self-regulation and note that coping involves the regulatory process that occur in stressful contexts. Hence it can be concluded that emotion regulation has an important role in the stress coping process and as emotion regulation is an important aspect of emotional intelligence, emotionally intelligent individuals will be better able to cope with the stressful situations.

2.3.4 Stress coping techniques

In the stress process, generally people are engaged in two types of coping processes: Problem-focused and emotion-focused coping.

2.3.4.1 Problem-focused coping

Problem-focused coping has been shown to be used more often in situations where an individual's causal analysis suggests that something can be done to alter a negative situation (Folkman & Lazarus, 1980, 1985; Folkman et al., 1986) i.e., one perceives some control over the situation. Seeking

A study on stress – coping styles based on the five dimensions of coping; Appraisal – focused, Emotion – focused, Problem – focused, Secondary – coping and Collective – coping, conducted by Singh and Pandey (1985) on 45 male university students revealed that the use of coping dimensions varied with the nature of problem of an individual.

It is thus seen that different types of coping strategies may be adopted by individuals in stressful encounters and more than one coping style may be applied at the same time but one among them predominates. In situations where the stressors cannot be changed, emotion focused coping is found to be more appropriate. It is also a fact that emotion regulation is important in emotion focused coping, which is an important aspect of emotional intelligence. Hence individuals with high score on emotional intelligence would be able to apply emotion-focused coping effectively in stressful situations.

2.3.5 Emotional intelligence and effective coping

Now we can see how various theories support the concept that effective coping is central to emotional intelligence. Goleman (1995) mentioned that keeping our distressing emotions in check is the key to emotional well-being. He also says that emotional intelligence includes abilities of self-awareness, impulse control and delaying gratification, and handling stress and anxiety. Drawing on the emerging evidence from neuroscience, the stress literature and his own research, Slaski (2002) suggests that it would be more fruitful in tackling stress issues by taking into account the importance of emotions. He also points out that treating stress and emotion as if they were separate fields is absurd, and he went on to add that where there is stress, there are also emotions.

According to Bar-On (1997), EI is an array of noncognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures. He included stress management and adaptability as two major components of EI. Salovey, Bedell, Detweiler & Mayer (1999) claim that more emotionally intelligent individuals cope more successfully, because they accurately perceive and appraise their emotional states, know how and when to express their feelings, and can effectively regulate their mood states. Matthew & Zeidner (2001) suggest that successful coping with stressful encounters is central to emotional intelligence.

From the above discussion it is clear that emotions play an important role in the stress coping process and emotionally intelligent people are therefore able to handle the stressful demands of situations effectively.

To sum up, stress arises out of the transaction between people and their environment. During this transaction different individuals adopt different methods for successful coping, depending on the perception of their available resources and how they interpret the situation. It is also seen that regulation of emotions, which is an important aspect of emotional intelligence, is important in the stress coping process. It is also seen that there is enough theoretical support for emotional intelligence-stress relationship.

Even though there is strong theoretical support for EI – Stress relationship, only very few studies have been done to establish this relationship. Hence there is a need for more scientific studies in this area. A review of available literature shows that although some international studies have been done to establish the relationship between EI and stress, there is hardly any study in India to establish the relationship between EI and Stress. Hence this study is an attempt to empirically examine the relationship between

emotional intelligence and organisational role stress among managers in selected industrial organisations in Kerala.

Part IV

2.4 Review of Literature

This part discusses major studies conducted in India and abroad on Emotional Intelligence, Organisational Role Stress and on EI - Stress relationship.

2.4.1 Studies on Emotional Intelligence

From the extensive survey of literature it is observed that emotional intelligence and its related dimensions are very important in business and personal life. Hence increasingly, leading organisations have begun to invest in this somewhat untapped resource. Emotional intelligence influences how one handles oneself, other people, clients, customers and colleagues and it is related to leadership effectiveness, performance, job satisfaction, employee turnover and career success. Even though a large number of studies are done on emotional intelligence, only very few studies are done in India. Hence in the following section, an attempt is made to examine the important studies done abroad and in India on EI, ORS and EI-stress relationship.

2.4.1.1 Emotional Intelligence and Leadership effectiveness

There is a very strong positive correlation between emotional intelligence of leaders and their performance in organisations. The more the leader exhibits competencies like initiative, nurturing others, team leadership, self-confidence, drives to achieve and empathy, the more is the performance.

According to Bunker (1997), in the present complex organisational environment of stress and strain, it is extremely important that the leaders first be aware of and manage their own feelings of anxiety and uncertainty.

Goleman (1998) claimed that IQ and technical skills are important but emotional intelligence is the sine qua non of leadership. Cooper and Sawaf (1998) say that in positions of leadership EQ is absolutely crucial.

Goleman's research tracking over 160 high performing individuals in a variety of industries revealed that emotional intelligence was two times as important in contributing to excellence than intellect and expertise alone. Also, research based on hundreds of top executives from some of world's largest corporations showed that close to 90% of leadership success is attributable to EQ (Goleman, 1998). Barling (2000) who examined the relationship between the transformational leadership paradigm and EI suggested that EI predisposes leaders to use transformational behaviours. A research finding, based on data from 500 competence models, inferred that EI has much more impact on leadership performance than intellect. It concluded that emotional intelligence contributes to 80 to 90 percent of the competencies that distinguish outstanding leaders from average leaders – and sometimes more (Goleman et al., 2002).

Cavallo and Brienza (2002) had conducted a detailed study to find out if there is any relationship between emotional competence and leadership excellence, on 358 managers across the Johnson & Johnson Consumer Companies (JJCC) globally, showed that the high performing managers have significantly more emotional competence than other managers. According to Johnson (2002), the emotional dimensions of leadership is first or primal because (i) leaders throughout history have served as emotional guides, and (ii) creating positive emotions remains the most important responsibility of

leaders. This study is consistent with the conclusions reached by McClelland (1998) in a study of leaders in 30 different organisations that found the most powerful leadership differentiators were self-confidence, achievement drive, developing others, adaptability, influence and leadership. In other words, emotional intelligence skills are essential, not optional, for the leaders in the new millennium.

A study conducted in India by Kailash B.L.S & Bharamanaikar (2004) among 291 Indian army officers found a very strong relationship between EI and transformational leadership. It also showed significant relationship between EI and career success, and EI and job satisfaction.

Intelligent Quotient (IQ) and Leadership

A number of earlier studies have proved that traditional cognitive intelligence (IQ) is related to leadership (Schmidt and Hunter 1998, Locke, 1991, Fiedler and Garcia's, 1987). However, Fiedler's cognitive theory (1986) suggests that when leaders are under a great deal of stress, their intellectual abilities will be diverted from the task. When under stress, intelligent leaders' attentional resources that could otherwise be devoted to planning, problem solving, and creative judgment are instead focused on worries over possible failure, crisis of self-efficacy, and evaluation anxiety. As the cognitive resource theory proposes, intelligence will be more strongly related to leadership when leaders are experiencing low levels of stress. In the present complex business environment it is not practical to avoid stressors prevalent in the environment. Hence an emotionally more intelligent individual will able to cope with the stressful situations more effectively. In this sense emotional intelligence is more important than IQ for a leader for better performance.

2.4.1.2 Emotional Intelligence and Behaviour

Emotional Intelligence and its related constructs determine how people deal with peers, superiors, and clients in workplace. Some of the studies to substantiate these are discussed below:

Goleman (1998) found that managers who do not develop their emotional intelligence have difficulty in building good relationships with peers, subordinates, superiors and clients. Some of the characteristics of the people with high score on EQ, as identified by Hein (1996), encompass clarity in thoughts and expressions, high optimism, ability to read non-verbal communication, emotional resilience and moral autonomy, and high level of self-motivation. They balance their feelings with reason, logic and reality. In contrast, people with lower EQ blame others for their feelings. They also do not articulate their feelings and are prone more to criticise and judge others.

Some empirical studies have found the usefulness of EI as an important construct related to positive outcomes such as prosocial behaviour, parental warmth, and positive family and peer relations (Mayer, Caruso & Salovey, 1999; Rice, 1999). Gonsalez-Molina & Coffman (2002) found that applying EI principles could result in 70 percent more loyal customers and 40 percent more profits. Studies also showed that lower EI is related to negative outcomes, including illegal drug and alcohol use, deviant behaviour, and poor relations with friends (Brackette, Mayer & Warner, 2003).

The above studies show that EI and related dimensions are very important in how individuals relate with other people in organisations as well as in personal life.

2.4.1.3 Emotional Intelligence and Performance

Various studies have shown that IQ by itself is not a very good predictor of job performance. IQ and technical skills are essential to get an entry into an organisation and to perform one's duties, but emotional competencies are rated as a must for better or outstanding performance. Some of the studies to prove this link are quoted here:

Hunter & Hunter (1984) estimated that at best IQ accounts for about 25 percent of the variance in performance. Another good example on the limits of IQ as a predictor is the Sommerville study, a 40-year longitudinal investigation of 450 boys who grew up in Sommerville, Massachusetts. Two-thirds of the boys were from welfare families, and one-third had IQs below 90. However, IQ had little relation to how well they did at work or in the rest of their lives. What made the biggest difference were childhood abilities such as being able to handle frustration, control emotions, and get along with other people (Cherniss, 2000).

Sternberg (1996) has pointed out that studies vary and that 10 percent may be a more realistic estimate for the importance of IQ in performance of individuals. In some studies, IQ accounts for as little as 4 percent of the variance. In fact there are a large number of studies, which support this close linkage between EI and performance. An analysis of job competencies at 286 organisations worldwide indicated that eighteen of the twenty-one competencies in their generic model for distinguishing superior from average performers were EI based (Spencer & Spencer, 1993).

Similarly a 500-company study by Goleman (1998) (including IBM, PepsiCo and British Airways) found that EI competencies explained more than 80% of executive job performance. It also found that EI skills had more impact on job performance than IQ and experience combined. In a national insurance

company, insurance sales agents who were weak in emotional competencies such as self-confidence, initiative, and empathy were very poor in their performance compared with those who were very strong in emotional competencies (Hay/McBer Research and Innovation Group, 1997). Competency research in over 200 companies and organisations worldwide suggests that about one-third of this difference is due to technical skill and cognitive ability while two-thirds is due to emotional competence (Goleman, 1998).

In research at Met Life, Seligman and his colleagues found that new salesmen who were optimists sold 37 percent more insurance in their first two years than did pessimists (Schulman, 1995). What this implies is that optimism, which is an important aspect of EI, contributes to superior performance.

Sinha & Jain (2004) who examined the relationship between EI and some organisationally relevant variables among 250 middle-level male executives of two-wheeler automobile manufacturing organisations in India showed that the dimensions of EI were meaningfully related with personal effectiveness, organisational commitment, reputational effectiveness, general health, trust, employee turnover, organisational effectiveness and organisational productivity.

The above studies have shown that emotional intelligence and its related dimensions are positively related to performance.

2.4.1.4 Emotional Intelligence and career success

The Multiple Intelligences Theory (Gardner, 1983) and the Emotional Intelligence Theory (Bar-On, 1997; Salovey & Mayer,1990; Goleman, 1995) suggest that career success is associated with noncognitive interpersonal and intrapersonal skills.

EI helps to predict success because it reflects how a person applies knowledge to the immediate situation. New behavioural research shows that IQ provides, at best, a narrow view of human intelligence. Factors such as self-awareness, impulse control, persistence, zeal, self-motivation, empathy, and social deftness contribute greatly to an individual's success. These qualities collectively referred to as 'emotional intelligence', often determine if people excel in life, relationships, and the workplace. Some of the studies to establish the relationship between emotional intelligence and career success are discussed below:

Feist & Barron (1996) conducted a study among 80 PhDs in science who underwent a battery of personality tests, IQ tests, and interviews in the 1950s when they were graduate students at Berkeley. Forty years later, when they were in their early seventies, they were tracked down and estimates were made of their success based on resumes, evaluations by experts in their own fields, and sources like American Men and Women of Science. It turned out that social and emotional abilities were four times more important than IQ in determining professional success and prestige.

Empathy is a particularly important aspect of emotional intelligence and researchers have known for years that it contributes to occupational success. At the individual level, empathy represents a central attribute of emotional intelligence. It is a person's ability to understand someone else's feelings and to re-experience them. Empathy determines the success of social support and is a motivator for altruistic behaviour (Salovey and Mayer, 1990). Rosenthal and his colleagues at Harvard discovered over two decades ago that people who were best at identifying others' emotions were more successful in their work as well as in their social lives (Rosenthal, 1977). In another study among retail sales, buyers found that apparel sales representatives were valued primarily for their empathy. The buyers reported that they wanted

representatives who could listen well and really understand what they wanted and what their concerns were (Pilling & Eroglu, 1994).

2.4.1.5 Emotional Intelligence and Job Satisfaction

Emotions and emotional intelligence seem to have link with job satisfaction. Some of the studies to establish this link are discussed below:

Cote & Morgan (2002) found that amplification of positive emotions increased job satisfaction while suppression of unpleasant emotions decreased job satisfaction. A compilation of studies called "The Business Case for Emotional Intelligence" by Rutgers University researcher Cary Cherniss found repeated evidence that possession of such emotional competencies as cooperation, accurate self-assessment, optimism, and ability to handle stress led to greater productivity, job satisfaction or worker retention (http://www.eiconsortium.org/research/ business_case_for_ei.htm). Similarly, Fisher (2000) also found strong association between emotions and moods with job satisfaction.

The study by Sinha and Jain (2004), referred to earlier, have also found that 'Controlled Problem Solving' is the most important predictor variable of job satisfaction. Controlled Problem Solving refers to using one's cognitive capacities for productive purpose by keeping oneself cool and calm in adverse conditions, which involves self-regulation, an important aspect of emotional intelligence. Thus it is seen that emotional intelligence and its related dimensions are related to job satisfaction.

Even though it is said that emotional skills are very important, it is meaningless to suggest that cognitive ability is irrelevant for success. One needs a relatively high level of cognitive ability to get admitted to a reputed school or college. Once admitted, however, what matters most in comparing with the peers has less to do with IQ differences and more to do with social

and emotional factors. To put it in another way, to become a scientist, we need a higher level of IQ, but then it is more important to be able to persist in the face of difficulty and to get along well with colleagues and subordinates than it is to have an extra 10 or 15 points of IQ. The same is true in many other occupations. We also should keep in mind that cognitive and non-cognitive abilities are very much related. There is enough research support suggesting that emotional and social skills actually help improve cognitive functioning. For instance, in the famous 'marshmallow studies' at Stanford University, four year olds were asked to stay in a room alone with a marshmallow and wait for a researcher to return. They were told that if they could wait until the researcher came back before eating the marshmallow, they could have two. Ten years later the researchers tracked down the kids who participated in the study. They found that the kids who were able to resist temptation had a total SAT score that was 210 points higher than those kids who were unable to wait (Shoda, Mischel & Peake, 1990).

To sum up, it is seen that emotional intelligence and its related dimensions are positively related to most of the organisationally relevant variables. It is also very much important in personal and career success of individuals.

2.4.2 Studies on Organisational Role Stress

Most of the studies on organisational or occupational stress in general and organisational role stress in particular are done to examine the relationship between stress and organisationally relevant outcomes viz., job satisfaction, performance, employee turnover, etc. As already mentioned in Chapter 1, stress inversely affects the health of the employees and most of the organisationally important outcomes. Hence the costs of stress to organisations are very high either by way of affecting health of employees or their

performance. Some of the studies, which examined how organisational role stress affects individuals as well as organisations, are cited below:

2.4.2.1 Relationship between Organisational Role Stress and Job Satisfaction

Most of the international studies on occupational stress and organisational role stress have used role ambiguity and role conflict to operationalise stress. Majority of such studies on stress are done to examine the relationship between stress and job satisfaction. These studies generally indicate that job stress and satisfaction are inversely related (e.g., Miles & Petty, 1975; Hollon & Chesser, 1976). Studies of Hendtix et.al (1985) and Kemery et.al (1985) have shown the indirect effect of stress on turnover intentions through job satisfaction.

Studies have also examined individual, group and organisational level variables that might moderate the relationship between organisational stress and job satisfaction. Some of them are given below:

Individual level variables:

Bhagat & Allie (1989) who examined the moderating effect of sense of competence on the stress-satisfaction relationship of 276 elementary school teachers found that when organisational stress was high, individuals with a high sense of competence reported greater satisfaction with work and co-workers and reduced feelings of depersonalisation, compared to those with lower sense of competence. In addition to sense of competence, the moderating effect of perceived control on the stress-satisfaction relationship has been examined in a number of studies. For example, Tetrick and LaRocco (1987) employed a sample of 206 physicians, dentists, and nurses from a naval hospital to investigate this issue. They examined the role of the ability to

understand why and how organisational events happen, to predict the frequency, timing and duration of such events, and to control important outcomes by influencing events and significant others in the work environment. They found that such perceived control could indeed moderate the stress-satisfaction relationship.

Group level variables:

Social support has been extensively researched by examining the interaction of social support with organisational stress on various valued outcomes. This interaction is known as the "buffering effect." The buffering effect suggests that the relationship between stress and outcomes is dependent upon the amount of social support available. Studies of the buffering effect of social support have focused on the relationship between stress and outcomes including stress-satisfaction relationship (Cohen & Wills, 1985).

Organisational level variables

Studies have shown that organisational interventions can moderate stress-satisfaction relationships. For example, Abdel-Halim (1981) who studied the effect of technology on the stress-satisfaction relationship found that the technology used in organisations affected the experienced role stress and stress-satisfaction relationship.

Some of the Indian studies, which have established the relationship between **organisational role stress and Job satisfaction**, are discussed below:

Hinger, Jain & Chaudhary (1997) had conducted a study among 100 officers from Geological Survey of India. The respondents belonged to three different levels: higher (20), middle (30) and junior (50). The results of the study showed that role stress and job satisfaction are negatively correlated

irrespective of their level. In another study by Pestonjee & Singh (1987) among 70 EDP managers and 70 system analysts from public and private sectors showed that out of 77 coefficient of correlation between role stress and job satisfaction variables, 51 were reported to be negative and statically significant. Chaudhary (1990) who conducted a study among 100 bank officers of two age groups (below 35 and above 35) proved that the overall indices of role stress and job satisfaction have been found to be negatively correlated in higher as well as lower age group of bank officers. Another study by Chandraiah, Agrawal, Marimuthu & Manoharan (2000) among 105 industrial managers showed that managers with higher occupational stress experience less job satisfaction.

2.4.2.2 Relationship between Organisational Role Stress and Job Performance

Generally an inverted U-shaped relationship exists between stress and performance. At low levels of stress, individuals are not activated or aroused enough for high performance. Similarly, at high levels of stress, individuals expend their energy for coping with stresses rather than directing efforts towards enhancement of performance. Thus, performance is high when a moderate amount of stress is present. Under conditions of moderate stress, individuals are not only activated to perform, but devote substantial energy towards performance enhancement rather than coping with stresses.

Potter and Fielder (1981) who conducted a study among 102 Coast Guard Regional Headquarter employees found that when stress with the supervisor was high, performance was consistently low.

Individual differences also influence the stress-performance relationship. Baker et.al (1966) in a study among 80 career army officers found that some individuals were stimulated by stress and were high performers,

whereas, other individuals showed behavioural disorganisation and a reduction in effectiveness. Hence they suggested that a person's readiness to react to stress with negative or positive emotion due to their task involvement is a critical cause of performance. Jamal (1984) and Jamal (1985) found evidence that commitment moderates the stress-performance relationship.

Dwivedi (1985) who conducted a study among Public sector and Private sector managers in India found that all organisational role stress elements have negative impact on organisational performance. Srivastav (1983) conducted a study among 60 skilled workers to explore the stress-performance relationship. The findings of the study established that employees who maintained a constantly high production level experienced less role stress as compared to employees with low production capacity.

2.4.2.3 Relationship Between Organisational Role Stress and Other Organisationally Valued Outcomes

Organisational stress has been proved to negatively affect the health of the employees and most of the organisationally valued outcomes. In general, it has been found that stress has a negative relationship with psychological well-being (Tetick & LaRocco, 1987), psychosomatic symptoms (Gavin & Axelrod, 1977), mental health (Gavin, 1975), attitudes toward role senders (Miles, 1975), commitment (Erickson et.al, 1972), job threat and anxiety (Tosi, 1971), non-work satisfaction (Lance & Richardson, 1988) and job involvement (Hollon & Chesser, 1976). Organisational stress is positively related to turnover, turnover intentions, absenteeism (e.g., Jamal, 1984; Kemery et.al., 1985), and tension (Erickson et al., 1972; Miles & Petty, 1975).

Srivastav (1991) who conducted a study among 300 LIC supervisors in India to examine the relationship between role stress and mental

health showed significant positive correlation of various dimensions of role stress with the symptoms of mental ill health.

A number of other moderators have also been examined by various researchers with respect to stress-strain relationships. For example, organisational and professional commitment has been found to moderate the relationship between stress and anticipated turnover, absenteeism and tardiness (Jamal, 1984). Self-competence moderated the relationship between stress and emotional exhaustion and depersonalisation (Bhagat & Allie, 1989). Self-consciousness moderated the relationship between stress and well-being and somatic symptoms (Frone & McFarlin, 1989). Type A Behaviour and tolerance for ambiguity moderated the relationship between stress-psychological strain whereas locus of control moderated the stress-tension relationship (Keenan & McBain, 1979).

Type A personality was found to have a positive relationship with total role stress and approach style of coping (Mittal, (1992). Banerjee and Gupta (1996) studied the moderating effect of social support on occupational stress-strain relationship among 200 male and female occupants from four different occupations, viz., police officers, advocates, doctors and clerks. The results of the study indicated that social support could moderate the relationship between occupational stress and strain.

2.4.3 Studies on EI – Stress relationship

Even though a large number of studies have been done on emotional intelligence to examine its effect on organisationally important variables like leadership effectiveness, performance, career success, job satisfaction etc., only very few studies have been done to examine EI – stress relationship and from the review of literature no study is seen done in India to

examine the relationship between EI and Stress. Some of the studies, which have been done on EI – stress relationship are discussed below:

According to Ciarrochi et al., (2002) emotional intelligence has been reported to moderate the relationship between stress and mental health in university students. The study reported that high EI students are less likely to suffer psychological morbidity. EI measures emotion perception (EP) and emotion management (EM). High scorers on EP may perceive more stress whereas high scorers on EM perceive less stress.

In a recent study by Pau, A., Croucher, R., Muirhead, V & Sohanpal, R among dental undergraduates attending a UK dental school to investigate the emotional intelligence, perceived stress and coping strategies showed that High EI students were less likely to perceive stress. The study has shown that experiences of stress have emotional, social and behavioural components (http://www.ltsn-01.ac.uk/resources/features/pau_report).

Another study by Clarke (2000), who conducted the study in UK among 100 police officers, 18 female and 82 male, who had just completed a training session to improve emotional competencies, has shown that there existed a strong correlation overall and between each of the five EQ abilities (self-awareness; managing emotions; self-motivation, relating to others and emotional mentoring) and lower levels of stress, with emotion management showing the strongest relationship. In essence what the study revealed was that those front-line operational police officers who were able to understand and manage their emotions, reported lower levels of stress and were, according to their reported lifestyles, at less risk of suffering from stress in the future.

Cherniss & Adler (2000) conducted a study among American Police Officers and observed that if police officers could learn to better understand and manage their own, and others' emotions (particularly anger), then they

would be likely to experience lower levels of stress in their working lives. In this study they observed that ability to understand and manage their own and others' emotions are inversely related to stress. As the ability to understand and manage emotions of oneself and others are central to emotional intelligence, it can be presumed that emotional intelligence will be inversely related to experienced stress.

There are a few other studies done abroad which have proved that some personality traits are related to stress. According to Zeidner & Mathews (2000) most personality traits may be associated with a blend of adaptive strengths and weaknesses. There is a tendency for individual variables like extraversion, conscientiousness, and agreeableness to relate to lower emotional distress (Trull & Sher, 1994). Conscientiousness and agreeableness are important dimensions of emotional intelligence in the definition of Goleman (1995). Hence in the Indian context we can presume that emotional intelligence dimensions may be related to lower emotional distress.

Even though some studies are done abroad to establish the EI- stress relationship hardly any study is seen done in the Indian context except one study by Roberts (2002), who conducted an empirical study in a U.S based multi-national company with a worldwide market to find out the impact of emotional intelligence on 'burnout' and conflict resolution styles. The results show that managers with high EQ were low on the burnout dimensions implying thereby that individuals with high EQ can cope with stress effectively.

Summing up, the various research studies have shown that emotional intelligence have link with organisationally relevant variable like leadership effectiveness, career success, performance, behaviour in workplace, job satisfaction etc. But there is a dearth of studies to establish the link

between emotional intelligence and stress. Hence there is a need for more scientific studies in this aspect. As no study is reportedly done to establish the relationship between EI and Organisational Role Stress (ORS), this study is an attempt to establish the relationship between EI and ORS among managers.

CHAPTER 3
METHODOLOGY OF THE STUDY

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3.1 Objectives of the study

This study is an attempt to measure emotional intelligence and organisational role stress of managers working in industrial organisations and to examine the relationship between Emotional Intelligence and Organisational Role Stress. It also attempts to explore the influence of personal and occupational variables viz., age, education, gender, marital status, experience, department, type of organisation and designation on emotional intelligence. The investigator has also examined the difference in the level of role stress experienced by junior, middle and senior-level managers.

The main objective of the study is to examine the relationship between emotional intelligence and organisational role stress. To achieve the main objective, the following specific objectives have been framed:

1. To measure the level of emotional intelligence among industrial managers and to grade them on intrapersonal, interpersonal, adaptability, stress management and general mood dimensions of their emotional intelligence.
2. To measure the organisational role stress experienced by the managers and to portray them on the factors of organisational role stress.
3. To establish the relationship between criterion factors of emotional intelligence and organisational role stress of managers.
4. To check whether emotional intelligence and organisational role stress vary among senior, middle and lower level managers.
5. To explore the variations in emotional intelligence of managers as functions of their personal and organisational factors.

3.2 Hypotheses of the study

Based on review of literature and past studies the following hypotheses have been formulated for verification through empirical investigation:

Hypothesis 1

Higher the managerial level, higher is the level of emotional intelligence of industrial managers.

Hypothesis 2

Higher the managerial level, lower is the organisational role stress experienced by industrial managers.

Hypothesis 3

Higher the emotional intelligence, lower is the organisational role stress experienced by industrial managers.

(a) Higher the Intrapersonal EQ, lower is the organisational role stress experienced by industrial managers.

(b) Higher the Interpersonal EQ, lower is the organisational role stress experienced by industrial managers.

(c) Higher the Adaptability EQ, lower is the organisational role stress experienced by industrial managers.

(d) Higher the Stress management EQ, lower is the organisational role stress experienced by industrial managers.

(e) Higher the General Mood EQ, lower is the organisational role stress experienced by industrial managers.

3.3 Methodology

3.3.1 Universe and respondents of the study

Respondents in this study consist of managers selected from four industrial organisations, two each from Public sector and Private sector. As the main objective of the study is to examine the relationship between emotional intelligence and organisational role stress, the geographical location of the organisations is not expected to make any significant influence in the result. Hence, the organisations selected for the study were from two districts of Kerala for convenience viz., Ernakulam and Trichur. The Fertilizers And Chemicals Travancore (FACT) Ltd, Aluva and The Travancore Cochin Chemicals (TCC) Ltd, Aluva are the two public sector organisations and The Apollo Tyres Ltd, Perambra, Chalakudy and The Binani Zinc Ltd, Edayar, Aluva are the two private sector organisations considered for this study. The common features of these organisations are that these are large and medium sized industrial organisations engaged in manufacturing process. A brief description about the organisations selected for the study is provided below:

Fertilizers And Chemical Travancore Ltd (FACT)

FACT is one of the largest central public sector organisations in Kerala engaged in manufacturing of Fertilizers and Chemicals, Caprolactum, and Engineering and Designing works. It was a profit making organisation up to 1995 with a turnover around Rs.2000 crores and total manpower strength of around 9500. The financial performance of the company during the last three years is: 2001-2002, its sales turnover was Rs.978.12 crores with a profit of Rs.0.57 crores. In the year 2002-2003, the sales turnover was Rs.1204.98 crores and it made a loss of Rs.199.93 crores. During the last financial year (2003-2004) its sales turnover was Rs.978.12 crores with a loss of Rs.167.22

crores. Its total manpower strength during the years 2001-2002, 2002-2003 and 2003-2004 were 6466, 5788 and 4402 respectively (see Table 3.1.1).

Table 3.1.1
Financial performance and total manpower strength of each organisation

Name of the organisation	Sales Turnover in Crores, Rs.			Profit/Loss in Crores, Rs.			Total manpower strength		
	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004
FACT	978.12	1204.98	978.12	0.57	-(199.93)	-(167.22)	6466	5788	4402
TCC	109.88	86.72	109.32	-(6.67)	-(6.92)	0.83	1199	952	868
Apollo Tyres	1712.75	2027.01	2321.80	36.81	120.02	70.42	2002	2401	2538
Binani Zinc	205.47	183.32	198.40	Not available	0.80	1.31	432	421	393

Travancore Cochin Chemicals (TCC)

TCC is a medium scale public sector undertaking owned by the state government of Kerala located at Aluva. The company manufactures Chemicals like Caustic Soda, hydrochloric acid, liquid chlorine and sodium hypo chloride. The financial performance of the company during the last three years shows that in 2001-2002 period it made a loss of Rs.6.67 crores with total sales turnover of Rs.109.88 crores and in 2002-2003 period it continued to make a loss of Rs. 6.92 crores on a sales turnover of Rs. 86.72. It has succeeded in making a profit of Rs. 0.83 crores with a sales turnover of Rs. 109.32 crores during the latest financial year. Its total manpower strength during the period 2001-2002, 2002-2003 and 2003-2004 are 1199, 952 and 868 respectively (see Table 3.1.1).

Apollo Tyres Ltd

It is a large-scale private sector organisation engaged in the manufacturing of automotive tyres with branches in Kerala and Gujarat. Only the unit situated at Perambra, Trichur district was considered for the study. It is a profit making organisation and its financial performance during the last three financial years is: 2001-2002, its sales turnover was 1712.75 crores and made a

profit of 36.81 crores. In the year 2002-2003 its profit was 120.02 crores with a sales turnover of 2027.01. During the last financial year (2003-2004) it made a profit of 70.42 crores with a sales turnover of Rs 2321.80 crores. Its total manpower strength during 2001-2002, 2002-2003 and 2003-2004 period are 2002, 2401 and 2538 respectively (see Table 3.1.1)

Binani Zinc Ltd

It is a medium scale private company located at Aluva engaged in the production of Zinc, which is used for making Batteries. It is a profit making company. In the period 2001-2002 it was profitable with a sales turnover was Rs 205.47 crores, but its profit figure was not available separately in the Balance Sheet as the Profit and Loss account was prepared for the entire group, Binani Industries Ltd. During 2002-2003 period it made a profit of Rs 0.80 crores with a sales turnover of Rs 183.33 crores. In the last financial year it made an increase in profit with a profit of Rs 1.31 crores and a sales turnover of Rs 198.40 crores. Its total manpower strength during the period 2001-2002, 2002-2003 and 2003-2004 are 432, 421 and 393 respectively (see Table 3.1.1).

3.3.2 Sampling Design

After having selected four organisations for the study, the investigator planned to take equal sample size (100) from each of the four organisations. However, it was not possible to take equal sample size from each organisation as the size of the universe differed substantially. Hence it was decided to take equal sample size from the Public sector and Private sector organisations. Of the total sample size of 366, 181 (49.5%) is from Public sector and 185 (50.5%) is from Private sector organisations. Similarly, it was not possible to collect equal sample size from each department namely production, maintenance and administration as the size of the universe was

different in different departments. The percentage of respondents from production, maintenance and administration departments is 34.7, 36.1 and 29.2 respectively. The number of respondents from administration was less, as the total number of managers employed in administration department is less compared with other departments. Hence a stratified disproportionate random sampling method was applied to collect data from each organisation.

The final number of respondents from FACT Ltd, APOLLO TYRES Ltd, BINANI ZINC Ltd and TCC Ltd are 105, 99, 86 and 76 respectively. Its frequency chart is given below.

Table 3.1.2
No. of respondents selected from various organisations

Organisation	Frequency	Percent
Public sector		
FACT	105	28.7
TCC	76	20.8
Total	181	49.5
Private sector		
APOLLO	99	27.0
BINANI	86	23.5
Total	185	50.5
Grand Total	366	100.0

The data collected from FACT Ltd is from its Petrochemical Division, FEDO (Fact Engineering and Design Organisation) and Head office. The size of the universe in each division is 145, 107 and 67 respectively and hence total size of the universe in FACT Ltd is 319. The size of the universe in Apollo Tyres, Binani Zinc and TCC are 227, 109 and 90 respectively. As the size of the universe is different in different organisation, as already mentioned, it was not possible to collect equal sample size from all the organisations. The number of respondents from each category viz, junior, middle and senior level

and their total strength in each organisation are given in Table 3.1.3. 'N' represents size of the universe and 'n' represents sample size.

Table 3.1.3
Size of the universe and sample of respondents from each category of managers

Name of Organisation	Junior level N	Junior level n	Middle level N	Middle level n	Senior level N	Senior level n	Total N	Total n
FACT	214	61 (28.5)	86	38 (44.2)	19	6 (31.6)	319	105 (32.9)
TCC	48	38 (79.2)	32	29 (90.6)	10	9 (90)	90	76 (84.4)
APOLLO	225	80 (35.6)	26	16 (61.5)	7	3 (42.8)	258	99 (38.4)
BINANI ZINC	40	34 (85)	52	46 (88.5)	17	6 (35.3)	109	86 (78.9)
TOTAL	527	213 (40.4)	196	129 (65.8)	53	24 (45.3)	776	366 (47.2)

* Figures in bracket represent percentage of sample to total

The total number of respondents from junior, middle and senior level is 213, 129 and 24 respectively. The number of respondents from senior level is very less due to the following two reasons: first, the total number of managers belonging to senior level is very less in these organisations and secondly, most of them in this category were not approachable to collect data.

3.3.3 Process of data collection

Formal permission was sought from the Head of the Human Resource departments of all the four organisations before starting the data collection. Then each of the respondents was approached personally and the researcher explained to each of them the objective of the study and the method of answering the questionnaires. After handing over the questionnaires they were approached again after a few days, according to their convenience, for collecting it back. Some of the respondents answered all the questions and returned it on the same day while others took a few days to complete it. Out of

the 164 questionnaires distributed in FACT Ltd only 113 were returned. Out of 113 received 8 responses were not used as it was either not filled in completely or not done sincerely. 126 respondents in Apollo Tyres and 95 in Binani Zinc and 82 in TCC were approached and questionnaires were distributed to them. Of this, the number of managers who responded from Apollo Tyres, Binani Zinc and TCC were 104, 89 and 78 respectively. Out of these 5 responses from Apollo Tyres, three from Binani Zinc and two from TCC were discarded as these were either not filled in completely or not done carefully (see details given in Table 3.1.4). Thus a total of 467 managers were approached and a total number of 384 managers filled in the questionnaires. Out of these 18 responses had to be discarded. The overall response is thus 78.37 percent. This high response was possible because of the full-time involvement of the investigator for data collection. Hence a total of 366 responses were thus available for final tabulation and analysis.

Table 3.1.4
Organisation wise number of respondents approached and their response

Name of the Organisation	No. of respondents approached	No. of respondents responded	No. of responses discarded	Final No. of responses	Final % of response
FACT	164	113	8	105	64.0
APOLLO TYRES	126	104	5	99	78.6
BINANI ZINC	95	89	3	86	90.5
TCC	82	78	2	76	92.7
TOTAL	467	384	18	366	78.4

3.3.4 Tools used for data collection

Besides the questions on the respondent's personal and occupational variables, two standard questionnaires have been used for collecting primary data viz., Emotional Quotient inventory (EQ-i) for

measuring emotional intelligence and Organisational Role Stress (ORS) scale for measuring the total role stress of respondents.

3.3.4A Justification for the tools used

There are two models to explain emotional intelligence; the ability model proposed by John Mayer and Peter Salovey (1990) and mixed model developed mainly by Bar-On (1997) and Daniel Goleman (1995). Even though the concept EI was popularised by the Daniel Goleman with the publication of two books viz., Emotional Intelligence and Working with Emotional Intelligence most of the research studies were conducted by Reuven Bar-On. The ability model mainly talks about the perception, appraisal, understanding, analysing and regulation of emotions.

According to Bar-On (1997) emotional intelligence is an array of noncognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures.

As the main objective of this study is to examine the relationship between emotional intelligence and organizational role stress, the mixed model seems to be the appropriate model.

Based on the mixed model Bar-On (1997) developed an instrument, EQ-i, for measuring emotional intelligence. The validity and reliability of EQ-i are well established (Bar-On Technical Manual, 2002). The following nine types of validity studies were conducted: content, face, factor, construct, convergent, divergent, criterion-group, discriminant, and predictive validity. The internal reliability of EQ-i was also examined by him using the Cronbach alpha (see section 3.3.5.1 for detailed discussion on reliability and validity of EQ-i).

ORS Scale

ORS scale developed and standardized by Pareek (1983) is generally regarded as the best instrument available for measuring the role stress in organizations. The importance of ORS scale in measuring role stress is evident from its application in a number of empirical studies across varied service settings, see, for example, Joshi & Singhvi, 1997, in a study conducted among teachers; Ahmed & Mehta, 1997, in a study conducted among industrial managers; Nath, 1988, in a study among bank employees (see section 3.3.5.2 for detailed discussion).

3.3.4.1 Emotional Quotient Inventory (EQ-i)

EQ-i instrument was developed by Dr.Reuven Bar-On. His efforts to develop a cross cultural approach to describe and assess emotional intelligence has led his research to cross borders into eleven countries including India and hence is suitable to be used in India also.

The Bar-On Emotional Quotient Inventory is designed to measure a number of constructs related to emotional intelligence.

The Bar-On EQ-i consists of 133 items and takes approximately 30 minutes to complete. It uses a five point rating scale ranging from I= very seldom or not true of me to 5= very often true of me or true of me. The instrument provides a total EQ score as well as the following five EQ composite scale scores based on 15 subscale scores (this is also referred to as the 1-5-15 hierarchical structure of the EQ-i).

The Bar-On EQ-i Composite Scales and Subscales are:

1. Intrapersonal Scales
    a. Self-Regard
    b. Emotional Self –Awareness
    c. Assertiveness
    d. Self-Actualisation
    e. Independence
2. Interpersonal Scales
    a. Empathy
    b. Social Responsibility
    c. Interpersonal Relationship
3. Adaptability Scales
    a. Reality Testing
    b. Flexibility
    c. Problem Solving
4. Stress Management Scales
    a. Stress Tolerance
    b. Impulse Control
5. General Mood Scales
    a. Optimism
    b. Happiness

The questionnaire is given in Annexure I

Operational definitions of emotional intelligence constructs

The operational definitions of various emotional intelligence constructs used in the EQ-i as defined by Bar-on (1997) are given below:

Self-Regard

Self-Regard is the ability to respect and accept oneself as basically good. Respecting oneself is essentially liking the way one is. Self-acceptance is the ability to accept one's perceived positive and negative aspects as well as one's limitations and possibilities. This conceptual component of emotional intelligence is associated with general feelings of security, inner strength, self-assuredness, self-confidence, and feeling of self-adequacy. Feeling sure of oneself is dependent upon self-respect and self-esteem, which are based on a fairly well developed sense of identity. A person with good self-regard feels fulfilled and satisfied with himself/herself.

Emotional Self-Awareness

Emotional Self-Awareness is the ability to recognise one's feeling. It is not only the ability to be aware of one's feelings and emotions, but also to differentiate between them, to know what one is feeling and why, and to know what caused the feeling. Serious deficiencies in this area are found in alexithymic (inability to express feelings verbally) conditions.

Assertiveness

Assertiveness is the ability to express feelings, beliefs and thoughts, and defend one's rights in a non-destructive manner. Assertiveness is composed of three basic components: the ability to express feelings, the ability to express beliefs and thoughts openly and the ability to stand up for personal rights. Assertive people are not over-controlled or shy. They are able to outwardly express their feelings (often directly), without being aggressive or abusive.

Self-Actualisation

Self-Actualisation pertains to the ability to realise one's potential capacities. This component of emotional intelligence is manifested by becoming involved in pursuits that lead to a meaningful, rich, and full life. Striving to actualise one's potential involves developing enjoyable and meaningful activities and can mean a life long effort and an enthusiastic commitment to long-term goals. Self-actualisation is an ongoing, dynamic process of striving toward maximum development of one's abilities, capacities and talents. This factor is associated with persistently trying to do one's best and trying to improve oneself in general.

Independence

Independence is the ability to be self-directed and self-controlled in one's thinking and action and to be free of emotional dependency. Independent people are self-reliant in planning and making important decisions. They may, however, seek and consider other people's opinions before making the right decision for themselves in the end; consulting others is not necessarily a sign of dependency.

Empathy

Empathy is the ability to be aware of, to understand and to appreciate the feelings of others. It is being sensitive to what, how, and why people feel the way, they do. Being empathetic means being able to "emotionally read" other people. Empathetic people care about others and show interest in and concern for others.

Interpersonal relationship

Interpersonal relationship skill involves the ability to establish and maintain mutually satisfying relationships that is characterised by intimacy and by giving and receiving affection. Mutual satisfaction includes meaningful social interchanges that are potentially rewarding and enjoyable. Positive interpersonal relationship skill is characterised by the ability to give and receive warmth and affection and to convey intimacy to another human being.

Social Responsibility

Social responsibility is the ability to demonstrate oneself as a cooperative, contributing and constructive member of one's social group. This ability involves acting in a responsible manner, even though one may not benefit personally. Socially responsible people have social consciousness and a basic concern for others, which is manifested by being able to take on community –oriented responsibilities.

Problem Solving

Problem solving aptitude is the ability to identify and define problems as well as to generate and implement potentially effective solutions. Problem solving is multiphase in nature and includes the ability to go through a process of (1) sensing a problem and feeling confident and motivated to deal with it effectively (2) defining and formulating the problem as clearly as possible (3) generating as many solutions as possible, and (4) making a decision to implement one of the solutions.

Reality Testing

Reality testing is the ability to assess the correspondence between what is experienced and what objectively exists. Reality testing involves a

search for objective evidence to confirm, justify, and support feelings, perceptions and thoughts. It involves 'tuning in' to the immediate situation, attempting to keep things in the correct perspective, and experiencing things as they really are, without excessively fantasising or daydreaming about them. An important aspect of this factor is the degree of perceptual clarity evident when trying to assess and cope with situations; it involves the ability to concentrate and focus when examining ways of coping situations that arise.

Flexibility

Flexibility is the ability to adjust one's emotions, thoughts and behaviour to changing situations and conditions. This component of emotional intelligence refers to one's overall ability to adapt to unfamiliar, unpredictable, and dynamic circumstances. Flexible people are agile, synergistic, and capable of reacting to change, without rigidity. These people are able to change their minds when evidence suggests that they are mistaken.

Stress Tolerance

Stress tolerance is the ability to withstand adverse events and stressful situations without "falling apart" by actively and positively coping with stress. It is the ability to weather difficult situations without getting too overwhelmed. This ability is based on:

(i) a capacity to choose courses of action for coping with stress,

(ii) an optimistic disposition toward new experiences and change in general and towards one's ability to successfully overcome the specific problem at hand, and

(iii) a feeling that one can control or influence the stressful situations.

Impulse Control

Impulse control is the ability to resist or delay impulses, drive or temptation to act. It entails a capacity for accepting one's aggressive impulses, being composed, and controlling aggression, hostility, and irresponsible behaviour. Problems in impulse control are manifested by low frustration tolerance, impulsiveness, anger control problems, abusiveness, loss of self-control, and explosive and unpredictable behaviour.

Happiness

Happiness is the ability to feel satisfied with one's life to enjoy oneself and others, and to have fun. Happiness combines self-satisfaction, general contentment, and the ability to enjoy life. Happiness is a by-product and/or barometric indicator of one's overall degree of emotional intelligence and emotional functioning. A person who demonstrates a low degree of this factor may possess symptoms typical of depression, such as a tendency to worry, uncertainty about the future, social withdrawal, lack of drive, depressive thoughts, feelings of guilt, dissatisfaction with one's life and, in extreme cases, suicidal thoughts and behaviour.

Optimism

Optimism is the ability to look at the brighter side of life and to maintain a positive attitude, even in the face of adversity. Optimism assumes a measure of hope in one's approach to life. It is a positive approach to daily living. Optimism is the opposite of pessimism, which is a common symptom of depression.

3.3.4.2 Organisational Role Stress (ORS) Scale

ORS scale developed by Pareek, U (1983) was used for measuring organisational role stress. This comprises 50 questions, 5 each for each stressor. The following ten stressors have been considered for preparing the instrument: Inter role distance, Role stagnation, Role expectation conflict, Role erosion, Role overload, Role isolation, Personal inadequacy, Self-role distance, Role ambiguity and Resource Inadequacy.

It is a 5-point scale, indicating how true a particular statement is for the role. The score of each role stress may range from 0 to 4 and the total organisational role stress score may range from 0 to 200.

The ORS scale is given in Annexure II.

Operational definitions of role stress dimensions.

The operational definitions of the ten dimensions of role stress used for the construction of ORS scale by Pareek, U (1983) are given below:

Inter role distance (IRD)

This stress is experienced when there is a conflict between organisational and non-organisational role. An individual occupies more than one role. There may be conflicts between two roles he occupies. For example, an executive often faces the conflicts between his organisational role as an executive and his family role as the husband and the father.

Role stagnation (RS)

In Role stagnation, the changing demands of the role may produce stress, especially when the role occupant has been occupying another role for a long time, and finds it difficult to make the transition. Role stagnation also includes stress related to career progression. At middle age, and usually at the

middle management levels, a career becomes increasingly problematic and most executives find that their progress slows down. The fear of demotion or obsolescence can be strong for those who know they have reached their career ceiling, and most will inevitably suffer some erosion of status before they finally retire.

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's ambivalence as to whom to please.

Role erosion (RE)

This type of role stress is the function of the role occupant's feeling that some functions, which should properly belong to his/her role, are transferred to/or performed by some other role. This can also happen when the role occupant performs the functions but the credit for them goes to someone else. Another manifestation is in the form of under utilisation in the role.

Role overload (RO)

When the role occupant feels that there are too many expectations from the significant roles in his/her role set, he/she experiences role overload. There are two aspects of this stress: quantitative and qualitative. The former refers to having too much to do, while the latter refers to things being too difficult.

Role Isolation (RI)

This type of role stress refers to the psychological distance between the occupant's role and other roles in the same role set. It is also defined as role distance which is different from inter-role distance (IRD), in the sense that

while IRD refers to the distance among various roles occupied by the same individual, role isolation (RI) is characterised by the feeling that others do not reach out easily, indicative of the absence of strong linkages of one's role with other roles.

Personal Inadequacy (PI)

This arises when the role occupant feels that he/she does not have the necessary skills and training for effectively performing the functions expected from his/her role. This is bound to happen when the organisations do not impart periodical training to enable the employees to cope with the fast changes both within and outside the organisation.

Self-role distance (SRD)

When the role a person occupies goes against his/her self-concept, then he/she feels self-role distance type of stress. Self-Role Distance is the conflict between the self-concept and the expectations from one's role by other role senders (members of the role set).

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 and may operate at three stages (i) when the role sender holds his/her expectations about the role, (ii) when he/she sends it, and (iii) when the occupant receives those expectations.

Resource inadequacy (RIn)

This type of stress is evident when the role occupant feels that he/she is not provided with adequate resources, such as information, people,

material, finance, facilities etc, for performing the functions expected from his/her role.

3.3.5 Reliability and Validity of Tools

3.3.5.1 Reliability and Validity of EQ-i

Reliability

Reliability indicates the extent to which individual differences in test scores are attributable to "true" differences in the characteristics under consideration and the extent to which they are attributable to chance errors (Anastasi, A & Urbina, S, 2003). The EQ-i is a valid and reliable instrument based on 17 years of research and extensive testing (Bar-On 1997). EQ-i was designed to assess those personal qualities that enabled some people to possess better emotional well-being than others. It has been used to assess thousands of individuals, and its reliability is seen good (Gowing).

The reliability of all the fifteen sub-scales of EQ-i examined by the investigator in this study with the help of SPSS showed acceptable reliability and the values of Cronbach alpha coefficients obtained for each sub-scales are as follows: Emotional Self-Awareness= 0.7060, Assertiveness= 0.6396, Self-Regard =0.7865, Self-Actualisation 0.5835, Independence = 0.6027, Empathy = 0.6365, Social Responsibility= 0.5425, Interpersonal Relationship= 0.7791, Reality Testing = 0.7186, Flexibility= 0.6547, Problem Solving= 0.7215, Stress Tolerance= 0.7392, Impulse Control= 0.8001, Optimism= 0.7576 and Happiness= 0.7496.

The reliability measures checked by Sudhakar (2000) in the Indian context also showed significant reliability coefficients, the average Cronbach alpha coefficients being high for all the subscales, ranging from a low of 0.53 (Flexibility) to a high of 0.87 (Stress Tolerance).

Validity

The validity of a test denotes what the test measures and how well it does so. It tells us what can be inferred from test scores. An extensive standardisation and validation process on emotional intelligence and its factorial components has been reported. Nine types of validity studies were conducted: content, face, factor, construct, convergent, divergent, criterion-group, discriminant, and predictive validity (Bar-on, 2002). In one study the EQ-i was predictive of success for U.S. Air Force recruiters. In fact, by using the test to select recruiters, the U.S. Air Force is said to have saved nearly 3 million dollars annually. Also, there were no significant differences based on ethnic or racial group (Bar-On, in press). According to Salovey et al., (1999) the convergent and discriminant validity of EQ-i is found good. Another study (Dawda & Hart, 2000) highlighted that the average correlation between measures of the big five personality factors (i.e., Neuroticism, Extroversion, Openness, Agreeableness, and Conscientiousness) and general EI derived from the Bar-On EQ-i approaches 0.5 showing that it has acceptable validity.

Goodness of Fit of EQ-i

Goodness of Fit of the EQ-i was checked by creating structural equation model and different fitness indices like Normed fit index, Relative fit index, Incremental fit index, Tucker-Lewis index, and comparative fit index were examined. The resultant values of the tests are given in Table 3.1.5. Values of 0.95 and above are generally considered as good. The regression weights of all the subscales of EQ-i toward composite scales, and composite scales toward total EQ are presented in Table 3.1.6. All vales are significant at P=0. From the above values it can be said that the relationships between different subscales and composite scales, and composite scales and total EQ are significant and thereby establishing the Goodness of Fit of Bar-On's model used in this study.

Table 3.1.5
Fit Indices of EQ-i

Fit indices	Values
Normed fit index	0.969
Relative fit index	0.959
Incremental fit index	0.973
Tucker-Lewis index	0.964
Comparative fit index	0.973

Table 3.1.6
Regression coefficients

Regression Weights of EQ						
EQ-i composite scales and subscales			**Estimate**	**S.E.**	**C.R.**	**P**
Inrapersonal EQ	<--	Total EQ	0.866	0.087	9.980	0.000
Interpersonal EQ	<--	Total EQ	1.000			
Adaptability EQ	<--		1.209	0.085	14.269	0.000
Stress Management EQ	<--		1.229	0.089	13.774	0.000
General Mood EQ	<--		1.237	0.087	14.279	0.000
Independence	<--	Intrapersonal EQ	1.000			
Self-Actualization	<--		1.105	0.107	10.341	0.000
Self-Regard	<--		1.509	0.134	11.223	0.000
Assertiveness	<--		1.353	0.132	10.231	0.000
Emotional Self-Awareness	<--		1.439	0.133	10.838	0.000
Empathy	<--	Interpersonal EQ	1.000			
Social Responsibility	<--		0.796	0.069	11.561	0.000
Interpersonal Relationship	<--		1.276	0.088	14.558	0.000
Problem Solving	<--	Adaptability EQ	1.000			
Reality Testing	<--		0.974	0.059	16.575	0.000
Flexibility	<--		0.851	0.067	12.659	0.000
Stress Tolerance	<--	Stress Management EQ	1.000			
Impulse Control	<--		0.812	0.077	10.514	0.000
Optimism	<--	General Mood EQ	1.000			
Happiness	<--		0.960	0.061	15.662	0.000

3.3.5.2 Reliability and Validity of ORS scale

Retest reliability and validity of ORS scale was checked by Sen (1982) and it showed acceptable reliability and validity. The importance of ORS scale in measuring role stress is evident by its application in a number of empirical studies across varied service settings (Joshi & Singhvi, 1997, in a study conducted among teachers; Ahmed & Mehta, 1997, in a study conducted among industrial managers; Nath, 1988, in a study among bank employees). The reliability measures checked by the researcher in this study for the items meant for all the ten stressors have shown significant reliability coefficients. The average Cronbach alpha coefficients obtained are: Inter role distance=0.7619, Role stagnation=0.6554, Role expectation conflict= 0.7834, Role erosion= 0.6561, Role overload= 0.7724, Role isolation= 0.7154, Personal inadequacy=0.6955, Self-role distance=0.7336, Role ambiguity= 0.8101 and Resource Inadequacy=0.7838.

Validity of ORS Scale
Factor Analysis

Construct validity of the instrument was tested by factor analysis by using the data collected by the researcher from 366 respondents. Table 3.1.7 gives the summary of factor loadings, mentioning the frequency of loadings of .2+, .3+, .4+, .5+, .6+, and .7+.

Table 3.1.7
Summary of Factor Loadings of Role Stress

Factors	Frequency of Loadings					
	.2+	.3+	.4+	.5+	.6+	.7+
1	9	5	10	1	1	1
2	10	10	1	2	2	0
3	9	7	3	1	2	0
4	10	3	2	2	2	1
5	11	5	4	1	1	0
6	2	1	0	0	0	2
7	8	4	1	1	1	0
8	7	1	1	0	0	2
9	6	3	2	0	1	0
10	3	3	0	0	1	0

From the values given in Table 3.1.7 it is seen that except factor 6 and factor 10 all other factors have high loadings on role stress. But factor 6 has two high loadings of .7+, two loadings of .2+ and one loading of .3+. Similarly factor 10 has one high loading of .6+, three loadings of .2+ and three loadings of .3+ on role stress. Hence we can conclude that all the factors are important in measuring role stress.

Table 3.1.8 gives the summary of factor loadings of .4 and above of the 10 factors on different role stress dimensions. Factor 1 has high loadings on 5 items of role overload, 3 items of resource inadequacy and one item each of inter role distance (IRD), role expectation conflict (REC), role erosion (RE), role isolation (RI) and role ambiguity (RA). Factor 10 has loading only on one item of inter role distance. From the loading of other factors given in Table 3.1.8 it is seen that the factor loadings to different role dimensions are not in the same sequence as what is given in the scale. However as the main objective of this study is to examine the relationship between emotional intelligence and total organizational role stress by considering role stress as dependent variable it will not affect the result of this

study. But when we use this instrument for studies in which role stress is considered as independent variable and if each factor's causal relationship with some dependent variable is checked by methods like multiple regression the problem of multicollinearity may arise.

Table 3.1.8
Summary of factor loadings (0.4 and above) on Role Stress Dimensions

Factors	Inter Role Distance	Role Stagnation	Role Expectation Conflict	Role Erosion	Role Overload	Role Isolation	Personal Inadequacy	Self Role Distance	Role Ambiguity	Resource Inadequacy
1	1		1	1	5	1			1	3
2		2		1		1			1	1
3			1				2		1	3
4	4	1			1					
5		1	4					1		
6				3						
7		1						2		1
8						1	2			
9		1					1	1		
10	1									

3.3.6 Source of Data

The data used in this study being primary in nature, researcher has chosen to collect data only from the respondents who constitute the primary source. The variables involved in this study are innately personal in concept and content and the responses to the items in the EQ-i and ORS scales are intended to blot out one's internal thoughts, feelings and experiences rather than what might reflect in outward behavioural expressions. The conceptualisations of the prominent variables thus pre-empt data elicitation from sources other than the respondents. Though an attempt to collect information from multiple sources would have added to the verifiability, such an attempt has been precluded in appreciation of the truly subjective nature of domains on which data are sought.

3.3.7 Pilot study

A pilot study was conducted to check the feasibility of the study among 25 respondents; five from senior level and ten each from junior and middle level executives, before starting the data collection. The study results established strong negative correlation between emotional intelligence and organisational role stress. After the study, the investigator made some minor modifications to some of the questions based on comments from the respondents. Some words used for the construction of certain questions were changed to make it easy to understand. The responses collected for pilot study are not used for the final data analysis.

3.3.8 Tools applied for data analysis

The responses from the respondents were first edited and some of the responses were omitted as these were either not filled in completely or not done sincerely. The valid responses were then coded and entered into the spreadsheet of SPSS 11 (Statistical Package for Social Sciences) software. Most of the data analyses were done using SPSS. Statistical software, AMOS also was used for checking the construct validity of ORS scale through factor analysis and for examining the Goodness of Fit of EQ-i. Out of 133 items in EQ-i, 66 items were negative ones and the answers to these items were transformed into positive by applying formulae in SPSS. The items included in positive impression (PI) and negative impression (NI) scales were avoided and hence only 117 items were finally used for this study. The PI and NI scales check whether respondents tried to make positive and negative impression in their response, which is useful when we measure the emotional intelligence of

people to get the exact EI score. In this study as the main objective of the study was to examine the relationship between EI and organisational role stress, PI and NI scales were not considered. As the number of items asked for each scale was different, the score of each composite and sub-scales were converted into standard scores to get a maximum score of 100 for all the scales and overall EQ score.

Descriptive and inferential statistical tools were used to obtain different measures, coefficients and test results. Statistical tests like F-test, ANOVA, Post Hoc test, scatter plot test, multiple regression analysis, and canonical discriminant analysis were used to establish linkages between predictor variables and dependent variables.

Descriptive measures like Mean and Standard deviation, Standard error, coefficient of correlation have also been used in this study.

3.3.9 Limitations of the study

Like any other research study this study also has some limitations. The following are the limitations of the present study:

i. The study results can be generalised to manufacturing sector only as service sector was not considered.
ii. Only managers were considered for the study, workers were excluded.

3.3.10 Chapterisation scheme

This thesis is presented in seven chapters. The first chapter gives an introduction to the topic and it talks about the relevance of the study in the present complex industrial scenario.

The second chapter gives the theoretical framework of the study. It is divided into four parts. Part I explains what are emotions, why emotions are important in workplace, roots and history of emotional intelligence, and

different models of emotional intelligence. It also discusses briefly the different instruments used for measuring EI and whether EI can be developed. Part II attempts to explain the concepts of stress and what is organisational role stress. Part III tries to give a brief theoretical framework on emotional intelligence – stress relationship and Part IV contains a review of literature on the topic.

Chapter 3 presents the objectives and hypotheses of the study. It also discusses the methodology adopted for conducting the study, its limitations and chapterisation scheme of the report. The fourth chapter gives the results of the analysis of data to examine the influence of personal and organisational variables on emotional intelligence and a discussion on it. Chapter 5 looks into the difference in the organisational role stress experienced by different levels of managers by analysing the data on organisational role stress of managers.

Chapter 6 gives the results and discussion of the analysis of data to examine the main objective of the study, viz., the relationship between emotional intelligence and organisational role stress of managers. The last chapter presents the findings, conclusion and implications of the study.

CHAPTER 4

PERSONAL AND ORGANISATIONAL VARIABLES, AND EMOTIONAL INTELLIGENCE

CHAPTER 4
PERSONAL AND ORGANISATIONAL VARIABLES, AND EMOTIONAL INTELLIGENCE

This chapter and the following two chapters deal with the results of the analysis of data collected. This Chapter deals with the personal and occupational variables of the respondents surveyed and the influence of these variables on the emotional intelligence score of managers. The personal variables considered were: age, gender difference, marital status and educational qualification and the occupational variables included were: experience, managerial level, department, type of organisation and size of organisation. The following are the results of the analysis:

4.1 Age and Emotional Intelligence

Earlier studies have shown that emotional intelligence (EI) increases with age. Jha (1997) had reported that emotional maturity was positively related with physiological maturity. Several other studies (e.g. Philippot & Feldman, 1990, Salovey & Mayor, 1990) have shown that EI developed with increasing age. Wong, Wong and Law (2002) found that EI is positively correlated with age among incumbents of six different types of jobs. In this study it was examined whether EI increases correspondingly with age in the case managers.

Results and Discussion

To examine the relationship between age and EI, respondents were first divided into four age groups, viz., 21-30, 31-40, 41-50, and 51-60 years of age and then one-way ANOVA test was applied. Table 4.1.1 summarises the resultant values of the test. The mean values obtained for emotional intelligence of managers of different age groups are 76.4103, 75.6355, 74.3305

and 76.1333 respectively and the mean value of the total sample is 75.2333. The F-Ratio value obtained is 1.214 at p = 0.304. It shows that there is no significant difference in emotional intelligence among various age groups and hence age has no significant influence on emotional intelligence. This observation is in contrast to earlier studies. For example, studies by Feldman, Coats & Spielman (1996), and Philippot (1990) have shown that EI developed with increasing age and experience. What we can presume from this study is that even though EI increases from childhood to adult stage through adolescence, there will not be such increase in the EI in professional life. In this study the minimum age of managers is 21 and maximum 60. Hence we can say that there is no significant difference in EI among managers of 21-60 ages.

Table 4.1.1

Resultant values of one-way ANOVA test of different age group managers

Age	N	Mean	Std. Deviation	F-Ratio	Sig.
21-30	22	76.4103	6.90806	1.214	0.304
31-40	109	75. 6355	8.61538		
41-50	156	74.3305	7.95321		
51-60	79	76.1333	7.96579		
Total	366	75.2333	8.11077		

4.2 Gender difference and EI

There is a general belief that women are more emotional than men. According to Goleman (1995), women on the average, experience the entire range of emotions with greater intensity and more volatility than men and in this sense, women are more emotional than men. In contrast, according to Bar-On (2000) there is no difference between males and females regarding overall emotional and social competence, though both gender groups do show slight differences in some domains. Females score higher on interpersonal skills, while men score higher on stress management and adaptation.

In this study, as the number of females working in industrial organisations was very less, the investigator could not collect equal number of responses from male and female categories. Only 25 responses (6.83% of the total sample) could be collected from female category and subject to this limitation the investigator tried to examine whether there is any difference in emotional intelligence among male and female managers.

Results and Discussion

One-way ANOVA test was applied to examine the significance in the difference in emotional intelligence among male and female managers. Table 4.1.2 depicts the results of the test and values of mean and standard deviation. The mean values of emotional intelligence of male and female managers are 75.4047 and 72.8957 respectively and the mean value of the total sample is 75.2333. The F-Ratio obtained is 2.236 at p 0.136. These values indicate that there is no significant difference in emotional intelligence among male and female managers.

In fact, there are a number of research studies, which support this observation. See for example, Roberts (2002) and Brown, Richmond & Rollin (2004). Pant and Prakash (2004) who had conducted a study in India among 60 participants, 30 each from males and females, comprising of equal number of students and executives found that there is no significant difference in EI among males and females. In another study, Tiwari and Srivastava (2004) investigated the developmental change in EI on a sample of 270 primary school children. The results of this study also could not demonstrate any significant difference in EI among boys and girls.

Table 4.1.2

Resultant values of one-way ANOVA test of male and female managers

Gender	N	Mean	Std. Deviation	F-Ratio	Sig.
Male	341	75.4047	8.23657	2.236	0.136
Female	25	72.8957	5.76909		
Total	366	75.2333	8.11077		

4.3 Marital Status and EI

It is generally presumed that a person's life gets a sea change after marriage due to change in attitude towards life, change in priorities in life and increase in responsibilities. In this study it was examined whether marital status affects the emotional intelligence of managers in industries. As the minimum age of managers is 21, the number of unmarried managers in the sample was very less, with only 17 (4.64%) remaining unmarried.

Results and Discussion

Using one-way ANOVA test the investigator tested the association between marital status and emotional intelligence of respondents. Table 4.1.3 summarises the values of mean, standard deviation and F-Ratio. The mean values of emotional intelligence of married and unmarried respondents are 75.0883 and 78.2102 respectively and the mean value of EI of the total sample is 75.2333. The F-Ratio value obtained is 2.411 at p 0.121. It shows that there is no significant difference in emotional intelligence among married and unmarried managers.

This is in conformity with the existing literature. For example, in a study among 250 Indian executives working in industrial establishments which examined how marital status affected emotional intelligence of executives, it was seen that there is no significant difference in emotional intelligence among

married and unmarried executives (See Punia, B.K, in http://blake.montclair.edu/~cibconf /conference/DATA/ Theme4/India1.pdf).

Table 4.1.3

Resultant values of one-way ANOVA test of married and unmarried managers

Marital status	N	Mean	Std. Deviation	F-Ratio	Sig.
Married	349	75.0883	8.16179	2.411	0.121
Unmarried	17	78.2102	6.47802		
Total	366	75.2333	8.11077		

4.4 Educational Qualification & EI

It is now accepted fact that EI is made up of a set of skills and that these skills can be improved through education, see for instance the study by Jha (1997) among school students in India, which conclusively proved that EI increases with education. But we cannot expect the corresponding increase in EI among professionals unless they put concerted, continuous and long lasting effort to develop emotional competencies. In this study the investigator tried to examine whether there is any significant difference in EI among managers with different educational background.

Results and Discussion

The respondents were categorised into five groups based on their educational qualification viz., undergraduates, graduates, postgraduates, diploma holders, and engineers or other professionally qualified. The mean values of emotional intelligence of these five categories are 73.0484, 73.6778, 74.8543, 73.9886 and 75.9557 (Table 4.1.4) respectively and the mean value of the total sample is 75.2333. The F-Ratio obtained is 1.383 at p 0.239. The resultant values of one-way ANOVA test clearly demonstrate that there is no significant association between educational qualification and emotional intelligence among managers.

Earlier studies have proved that emotional intelligence can be increased or developed, fostered and tapped (Porras & Anderson, 1981; Pesuric & Byham, 1996; Brown, Richmond & Rollin, 2004). It is a fact that EI can be increased, but for this specific training programmes have to be developed and applied. But as our education system is not giving emphasis for improving emotional competencies we cannot expect a corresponding increase in EI with increase in educational qualification.

Table 4.1.4
Resultant values of one-way ANOVA test of managers with different educational qualification

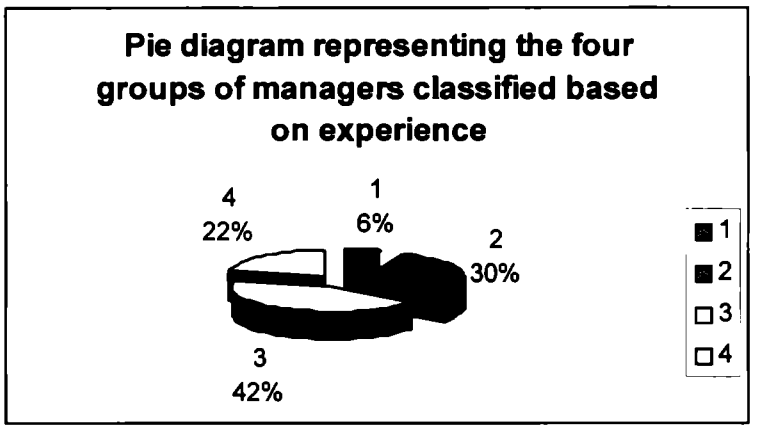
Education	N	Mean	Std. Deviation	F-Ratio	Sig.
Undergraduates	9	73.0484	7.44179	1.383	0.239
Graduates	65	73.6778	7.95122		
Post graduates	39	74.8543	8.19432		
Diploma Holder	24	73.9886	8.33245		
Engineers or other professionally qualified	229	75.9557	8.11409		
Total	366	75.2333	8.11077		

4.5 Experience and EI

The number of years of experience of respondents varied from a minimum of one year to a maximum of 37 years. Based on experience, the respondents were divided into four groups viz., 1-5 (1), 6-15 (2), 16-25 (3) and 26-37 (4) years of experience. The first five years in a job is generally considered as unstable and the role occupants generally take decisions during this period whether to stick on to that job or leave it. This is the reason why respondents from one to five years experience were considered as a separate group. Rest of the respondents were grouped with ten years intervals except the last group, their experience is between 26 and 37 years. The percentage of respondents belonging to the above groups is 5.7, 29.5, 42.6 and 22.1

respectively. The following pie chart gives the composition of the various groups on the basis of their experience.

Figure 4.1.1



Results and Discussion

The relationship between number of years of experience and emotional intelligence of the respondents was tested by using one-way ANOVA. Table 4.2.1 summarises the values of mean and standard deviation. The mean values of emotional intelligence of various group of respondents based on experience are 78.4778, 75.4843, 74.9310, and 74.6397 and mean value of the total sample is 75.2333. The F-Ratio obtained is 1.376 at p 0.250. These values clearly show that there is no significant difference in emotional intelligence among managers of various experience groups. This shows that increase in the number of years of experience in organisations may increase the expertise in a particular role but it does not lead to any increase in EI. To increase EI special effort is needed from individuals' as well as from organisations' part.

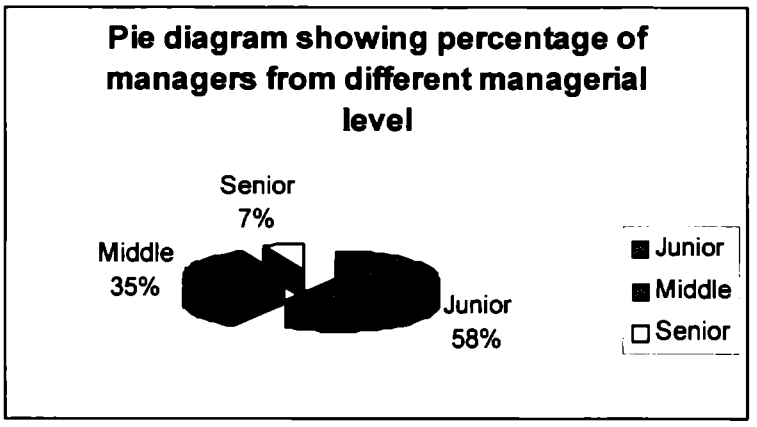
Table 4.2.1
Resultant values of one-way ANOVA test of managers grouped based on experience

Experience	N	Mean	Std. Deviation	F-Ratio	Sig.
1-5	21	78.4778	7.72092	1.376	.250
6-15	108	75.4843	8.27787		
16-25	156	74.9310	8.21823		
26-37	81	74.6397	7.70380		
Total	366	75.2333	8.11077		

4.6 Managerial level and Emotional Intelligence

The managers working in the organisations selected for survey were categorised into three - junior, middle, and senior level. This classification was based on their position or nature of work they performed in their organisation. Of the total sample, junior level managers comprised 58.2% and middle level managers 35.2%, and only 6.6 % belonged to the senior level. The pie chart given below depicts the distribution.

Figure 4.1.2



Even though the number of junior level mangers in every organisation is large, only very few are promoted to the top level. Many of them may be equally qualified and experienced. What makes them different? Studies have shown that individuals with high score on emotional intelligence are more successful in their career than people with less emotional intelligence. The Multiple Intelligences Theory (Gardner, 1983) and the

Emotional Intelligence Theory (Salovey & Mayer 1990; Goleman, 1995) etc., suggest that career success is associated with noncognitive interpersonal and intrapersonal skills. Success depends on several intelligences and the ability to control emotions. According to Goleman (1998), while IQ serves as the entry-level requirement for executive positions, emotional intelligence is the sine qua non of leadership.

Based on these observations the investigator formulated the following hypothesis and tested it.

Hypothesis 1: **Higher the managerial level, higher is the level of emotional intelligence of industrial managers.**

Results and Discussion

As the number of groups is more than two, the analysis was done in two steps. In the first step, the significance of difference in emotional intelligence among different groups (junior, middle and senior) was examined by using one-way ANOVA test. Table 4.2.2 shows the values of mean, standard deviation and F- Ratio. The mean values of emotional intelligence of junior, middle and senior level managers are 74.1591, 75.9995 and 80.6481 respectively and the mean value of emotional intelligence of the total sample is 75.2333. The F - Ratio value obtained has turned out to be significant. ($F= 8.095$, $p< 0.01$). The resultant values of the test clearly indicate that there is significant difference in emotional intelligence among junior, middle and senior level managers.

This observation is supported by a number of earlier studies. For example, Dulewics and Higgs (2000) showed that EI was predictive of the career success of managers. Cherniss & Adler (2000), and Feist & Barron (1996) have also proved that EI is associated with success in career as well as in personal life.

Table 4.2.2

Means and SDs of scores indicating Total EQ and its five composite scales of junior, middle and senior level managers and the value of F – Ratio

Dependent Variable	Designation	N	Mean	Std. Deviation	F-Ratio	Sig.
Total EQ	Junior	213	74.1591	7.75171	8.095	0.000**
	Middle	129	75.9995	8.42115		
	Senior	24	80.6481	7.13261		
	Total	366	75.2333	8.11077		
Intrapersonal EQ	Junior	213	74.2113	8.26235	5.013	0.007**
	Middle	129	75.7016	8.82369		
	Senior	24	79.6667	7.97914		
	Total	366	75.0943	8.53967		
Interpersonal EQ	Junior	212	74.4733	8.53687	1.968	0.141
	Middle	128	75.2539	8.88930		
	Senior	24	78.0556	7.46031		
	Total	364	74.9840	8.62183		
Adaptability EQ	Junior	213	73.4381	9.06433	12.335	.000**
	Middle	129	76.2194	8.92887		
	Senior	24	82.2436	7.73206		
	Total	366	74.9958	9.21121		
Stress Management EQ	Junior	213	71.2415	10.33846	10.959	.000**
	Middle	129	74.3669	10.77368		
	Senior	24	80.9259	10.10767		
	Total	366	72.9781	10.76188		
General Mood EQ	Junior	213	77.0119	9.17961	3.907	.021*
	Middle	129	78.1031	10.88067		
	Senior	24	82.7941	8.00791		
	Total	366	77.7756	9.82525		

*The F Ratio is significant at the 0.05 level

**The F Ratio is significant at the 0.01 level

In the second step, Post Hoc Test was used to examine the significance of mean difference in emotional intelligence of each group with other groups. Table 4.2.3 shows the resultant values and it clearly shows that

the mean difference in emotional intelligence of each group with all other groups is significant. These values further confirm that there is significant difference in emotional intelligence between junior and middle, junior and senior, and middle and senior level managers.

The resultant values of the above tests demonstrate that there is significant difference in EI among junior, middle and senior level managers and the EI of senior level managers are very high (80.6481) compared with junior (74.1591) and middle (75.9995) level managers and hence hypothesis 1 viz., **Higher the managerial level, higher is the level of emotional intelligence of industrial managers,** stands established.

Table 4.2.3
Multiple Comparisons results of Post Hoc Test

Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.
Total EQ	(I) Designation	(J) Designation			
	Junior	Middle	-1.8403	.88779	.039
		Top	-6.4890	1.71340	.000
	Middle	Top	-4.6487	1.76899	.009
Intrapersonal EQ	(I) Designation	(J) Designation			
	Junior	Middle	-1.4903	.94242	.115
		Top	-5.4554	1.81885	.003
	Middle	Top	-3.9651	1.87786	.035
Adaptability EQ	(I) Designation	(J) Designation			
	Junior	Middle	-2.7814	.99715	.006
		Top	-8.8055	1.92447	.000
	Middle	Top	-6.0242	1.98691	.003
Stress Management EQ	(I) Designation	(J) Designation			
	Junior	Middle	-3.1254	1.16917	.008
		Top	-9.6844	2.25647	.000
	Middle	Top	-6.5590	2.32968	.005
General Mood EQ	(I) Designation	(J) Designation			
	Junior	Middle	-1.0912	1.08753	.316
		Top	-5.7822	2.09889	.006
	Middle	Top	-4.6911	2.16699	.031

* The mean difference is significant at the .05 level.

In the same way the investigator examined the difference in the scores on all the five composite scales of emotional intelligence: intrapersonal EQ, interpersonal EQ, Adaptability EQ, Stress management EQ and General mood EQ among different categories of managers to know whether junior, middle and senior level managers differ on all these measures by using one-way ANOVA test. The mean scores on the five scales, SDs, and F-Ratio values are given in Table 4.2.2. The resultant values of post hoc tests are shown in Table 4.2.3. In the following sections, each of the five composite scales is discussed.

4.6.1 Managerial level and Intrapersonal EQ

The mean values of intrapersonal EQ among junior, middle and senior level managers are 74.2113, 75.7016 and 79.6667 respectively and the mean value of intrapersonal EQ of the total sample is 75.0943. The F-Ratio value obtained has turned out to be significant ($F=5.013$, $p<0.01$). The resultant values of post hoc test indicate that there is no significant difference in intrapersonal EQ among junior and middle level managers (mean difference is -1.4903 at $p=0.115$). The resultant values of one-way ANOVA and post hoc tests show that even though there is significant difference in intrapersonal EQ among managers, the difference is not significant among junior and middle level managers. But there is significant difference among junior and senior, and middle and senior level managers.

4.6.2 Managerial level and Interpersonal EQ

The mean values of interpersonal EQ among junior, middle and senior level managers are 74.4733, 75.2539 and 78.0556 respectively and the mean value of the total sample is 74.9840. The F-Ratio value obtained is 1.968

at p=0.141. It shows that there is no significant difference in interpersonal EQ among junior, middle and senior level managers.

4.6.3 Managerial level and Adaptability EQ

The one-way ANOVA test results (Table 4.2.2) show that there is significant difference in Adaptability EQ among junior, middle and senior level managers (F= 12.335 at p< 0.01). The multiple comparison results of post hoc test in Table 4.2.3 show that the difference in Adaptability EQ is significant between all levels of managers.

4.6.4 Managerial level and Stress Management EQ

The resultant values of one-way ANOVA test shown in Table 4.2.2 indicate that there is significant difference in Stress Management EQ among junior, middle and senior level managers (F=10.959 at p<0.01). The multiple comparison results of post hoc test indicate that the difference in Stress Management EQ is significant between all levels of managers. These results show that there is significant difference in stress management EQ among Junior, middle and senior level managers.

4.6.5 Managerial level and General Mood EQ

The one-way ANOVA test result values indicate that there is significant difference in General Mood EQ among junior, middle and senior level managers (F= 3.907 at p=. 021). The multiple comparison results of post hoc test shown in Table 4.2.3 indicate that there is no significant difference in General Mood EQ among junior and middle level managers. But the difference is significant between junior and senior level, and middle and senior level managers.

To sum up, junior, middle and senior level managers differ significantly on their total emotional intelligence score as well as all its

criterion composite scales except interpersonal EQ. From the mean values of each variable mentioned in Table 4.2.2 it is clear that these values are very high among senior level managers compared with the junior and middle level managers. As the personal and organisational variables considered in this study had no relation with EI level of managers it can be inferred that it is because of their higher score on EI that senior managers could go up in the managerial level. At the same time, it must be added that it does not provide conclusive evidence as other abilities or personality variables have not been considered in this study. However one thing is very clear that EI is very important in determining career success of managers.

4.7 Department and EI

During data collection the investigator had given due attention to have equal representation from various departments like production, maintenance and administration. This was done in order to examine whether the nature of work managers perform have any influence on their emotional intelligence level. Production department includes process, quality control and waste treatment units. Maintenance department includes mechanical, electrical and instrumentation departments and administration department includes personnel, finance, computer, purchase, sales, and marketing. The percentage of respondents from production, maintenance and administration departments was 34.7, 36.1 and 29.2 respectively. The following pie diagram depicts the frequency of respondents.

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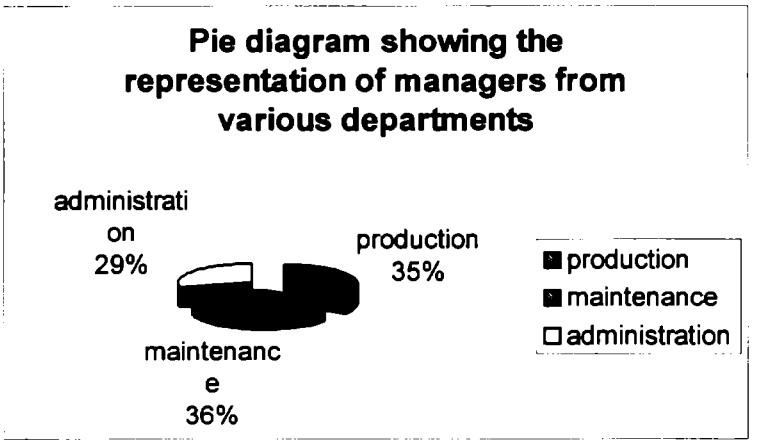
Figure 4.1.3



Results and Discussion

The investigator examined the difference in emotional intelligence among respondents working in different departments using analysis of variance test. Table 4.2.4 summarises the values of mean, standard deviation and F-Ratio. The mean values of emotional intelligence of respondents working in production, maintenance and administration departments are 74.2203, 75.9039 and 75.6083 respectively and the mean value of the total sample is 75.2333. The F – Ratio has not turned out to be significant (F – Ratio = 1.561 at p 0.211). These values clearly indicate that there is no significant difference in emotional intelligence among managers working in different departments and hence we can conclude that there is no significant relationship between departments where the respondents work and their emotional intelligence. It implies that the nature of work the managers perform has no influence on their emotional intelligence level.

Table 4.2.4
Resultant values of one-way ANOVA test of managers from various departments

Department	N	Mean	Std. Deviation	F-Ratio	Sig.
Production	127	74.2203	7.62100	1.561	.211
Maintenance	132	75.9039	7.90462		
Administration	107	75.6083	8.85061		
Total	366	75.2333	8.11077		

4.8 Type of organisation and EI

Two organisations each from public sector and private sector were selected for the study. In the sampling design it was decided to collect equal sample size from both types of organisation. Out of 366 respondents, 181 (49.5%) were from public sector and 185 (50.5%) from private sector organisations.

Results and Discussion

The relationship between the type of organisation where the respondents work and their emotional intelligence was examined by using one-way ANOVA test. Table 4.2.5 summarises the values of mean, standard deviation and F – Ratio. The mean values of emotional intelligence of managers working in public sector and private sector organisations are 74.4336 and 76.0157 and the mean value of emotional intelligence of the total sample is 75.2333. The F- Ratio obtained is 3.505 at p0.062. These values clearly indicate that there is no significant difference in emotional intelligence among managers working in public sector and private sector organisations and hence there is no significant relationship between type of organisation and emotional intelligence.

Table 4.2.5

Resultant values of one-way ANOVA test of managers from different sectors

Type of Organisation	N	Mean	Std. Deviation	F-Ratio	Sig.
Public Sector	181	74.4336	8.17977	3.505	.062
Private Sector	185	76.0157	7.98736		
Total	366	75.2333	8.11077		

4.9 Size of organisation and EI

The investigator also examined the difference in EI level of managers working in large-scale and medium-scale industrial organisations by

using one-way ANOVA test. The resultant values of ANOVA test are shown in Table 4.2.6. The mean values of emotional intelligence of managers working large scale and medium scale are 74.1118 and 76.6456 respectively. The F –Ratio value obtained is 9.005 at p 0.003. These values show that there is significant difference in emotional intelligence among managers working in large scale and medium scale industrial organisations. The emotional intelligence level of managers working in medium-scale organisations is higher than those working in large-scale industrial organisations.

Table 4.2.6

Resultant values of one-way ANOVA test of managers working in large scale and medium scale organisations

Organisation	N	Mean	Std. Deviation	F-Ratio	Sig.
Large scale organisations	204	74.1118	8.08231	9.005	0.003
Medium scale organisations	162	76.6456	7.94819		
Total	366	75.2333	8.11077		

The reasons for such a result can be attributed to the possibility of having stronger interpersonal relationship among managers when the size of the organisation is small. The organisations selected from medium scale were Binani Zinc Ltd (universe size 109) and Travancore Cochin Chemicals Ltd (universe size 90) and large scale organisations were Fertilisers And Chemicals Travancore Ltd (universe size 319) and Apollo Tyres Ltd (universe size 258). As the size of the universe in Binani Zinc Ltd and TCC were small a healthy and stronger relationship could be expected to exist in these organisations. When the personal and professional relationship is stronger it will in turn improve the self-awareness. The self-awareness and interpersonal

relationship are important ingredients of emotional intelligence and hence these will improve the emotional intelligence level.

To sum up, four personal variables viz., age, gender difference, marital stats and educational qualification were surveyed in this study and their influences on EI were examined. The results of the study have shown that these personal variables have no significant influence on emotional intelligence of managers. What this implies is EI will not be increased automatically, but it can be increased or developed only by appropriate training and development programmes. Similarly, the five organisational variables viz., experience, managerial level, department, type of organisation and size of organisation and their influence on EI were examined. The results of the study showed that except the managerial level of managers and size of organisation, other variables have no influence on emotional intelligence level of industrial mangers. The resultant values of ANOVA and post hoc tests showed that there is significant difference in EI among junior, middle and senior level managers.

CHAPTER 5
ORGANISATIONAL ROLE STRESS AMONG MANAGERS

CHAPTER 5
ORGANISATIONAL ROLE STRESS AMONG MANAGERS

This chapter deals with the results of the analysis of data on organisational role stress (ORS) among managers. ORS is the stress experienced by individuals while performing their role in organisations when they feel that the role expectations are beyond their capacity. Every individual adopts different strategies to cope with the stressful situations and hence the intensity of stress depends on how individuals appraise the situation as threatening and the strategies they adopt for coping. It therefore follows that individual differences are of utmost significance in the stress coping process. Hence it may be presumed that the stress level experienced by different levels of managers may depend on how they approach or perceive the situation.

Some of the earlier studies have proved that there is significant difference in role stress among different levels of managers. According to Sahgal (1990) who conducted a study among 222 executives belonging to junior, middle and senior level, the middle level executives experienced more stress than junior and senior level executives. In another study by Srivastav et al. (1994) among 50 top managers, 50 middle managers and 50 workers it was seen that middle level managers experienced more role stress than top level managers and workers. Some other studies have demonstrated that junior level executives experienced more role stress than middle and senior level executives; for example, Jha et.al (1994) who conducted a study among 40 upper level, 40 middle level and 40 lower level technocrats found that lower level technocrats experienced more role stress as compared to middle and upper level technocrats. Similarly Mukherjee (1997) who conducted a study among 71 managers (27 senior level and 44 junior level) showed that junior

level managers experienced higher stress on all the role stress dimensions as compared to senior level managers. Considering the above, it is proposed that organisational role stress experienced by different levels of mangers will be different. This leads to the second hypothesis of the study:

Hypothesis 2: **Higher the managerial level, lower is the organisational role stress experienced by industrial mangers.**

ORS scale developed by Pareek, U (1983) was used for measuring organisational role stress of managers. Ten role stress dimensions viz., Inter role distance, Role stagnation, Role expectation conflict, Role erosion, Role overload, Role isolation, Personal inadequacy, Self-role distance, Role ambiguity and Resource Inadequacy were considered for preparing the tool.

The investigator examined the difference in organisational role stress experienced by junior, middle and senior level managers by the analysis of variance test. Table 5.1.1 summarises the values of mean, standard deviation and F - Ratio. The mean values of role stress experienced by junior, middle and senior level managers are 58.8498, 52.4419 and 35.6250 respectively and the mean value of role stress of the total sample is 55.0683. The F – Ratio value obtained is 7.710 at p.001. This shows that the difference in organisational role stress experienced by junior, middle and senior level managers is significant and hence hypotheses 2 viz., **Higher the managerial level, lower is the organisational role stress experienced by industrial mangers,** stands established.

Table 5.1.1
Resultant values of one-way ANOVA test

	N	Mean	Std. Deviation	F - Ratio	Sig.
Junior	213	58.8498	30.32148	7.710	0.001
Middle	129	52.4419	27.17648		
Senior	24	35.6250	27.01660		
Total	366	55.0683	29.57430		

Multiple comparisons were done by using Post Hoc Test to examine the significance of mean difference in organisational role stress of each category of managers with other categories. Table 5.1.2 depicts the values of mean difference, standard error and significance. These values clearly indicate that there is significant difference in role stress between each category of managers with all other categories.

Table 5.1.2

Resultant values of post hoc test

		Mean Difference (I-J)	Std. Error	Sig.
(I) Designation	(J) Designation			
Junior	Middle	6.4079	3.24043	.049
	Senior	23.2248	6.25392	.000
Middle	Senior	16.8169	6.45683	.010

* The mean difference is significant at the .05 level.

The results of the tests clearly indicate that there is significant difference in organisational role stress among junior, middle and senior-level managers; and junior level manager are experiencing more role stress than middle level managers and middle level managers experience more role stress than senior-level managers. These results are in consonance with earlier research studies such as Khanna (1997). This was a study conducted among 391 industrial executives from different functional departments and it showed

that junior level executives experienced higher role stress than middle level and senior level executives.

5.1.1 Canonical Discriminant Analysis

It is seen that total organisational role stress differs significantly among junior, middle and senior level managers. According to Pareek, U (1983) ten stressors are there which predict the total role stress among managers. To assess the relative importance of each predictor variables (stressors) on the criterion variable (total role stress) canonical discriminant analysis test was applied. The mean values of the discriminant analysis are given in Table 5.1.3.

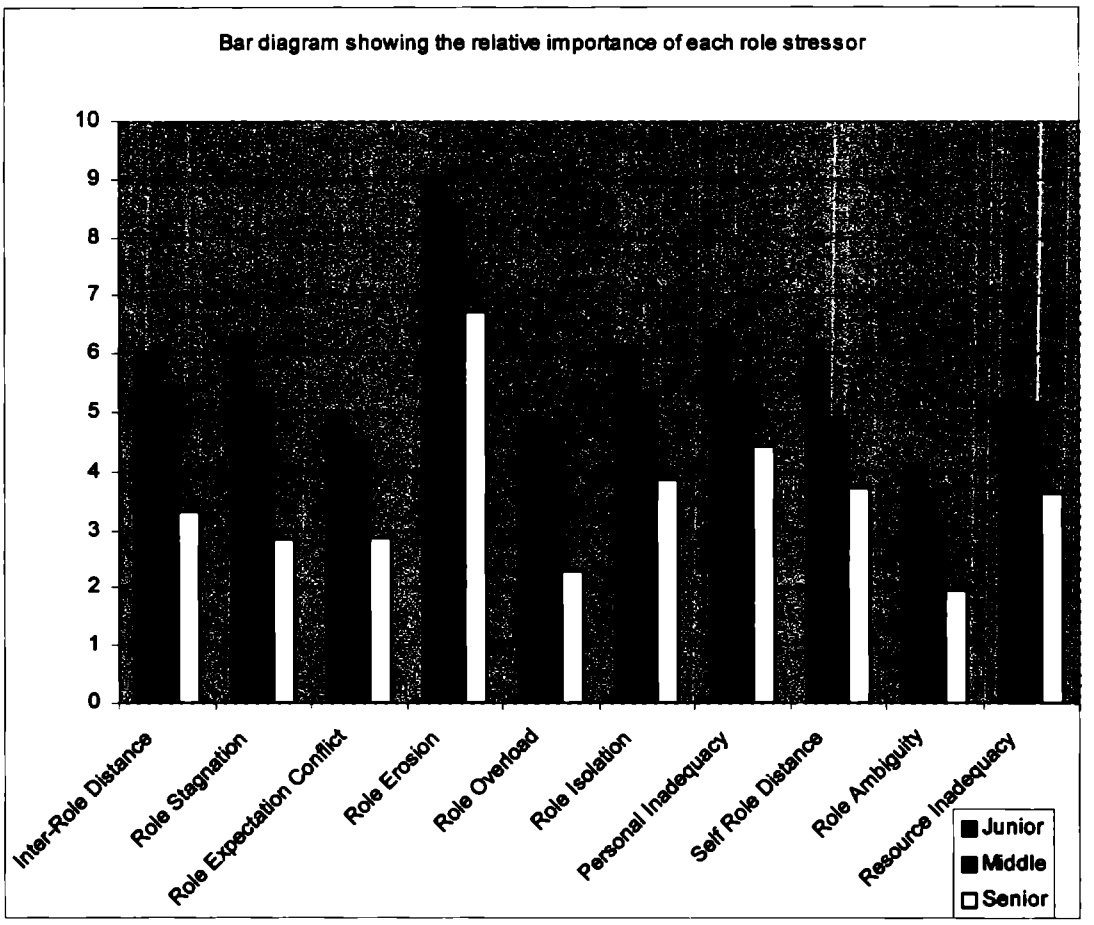
Table 5.1.3
Mean values of Discriminant Analysis of each stressors among managers

Stressors	Mean discriminant values of each stressors			
	Designation			Total
	Junior	Middle	Senior	
Inter-Role Distance	5.9531	5.4574	3.3333	5.6066
Role Stagnation	6.3333	5.2713	2.8333	5.7295
Role Expectation Conflict	4.9859	4.4729	2.8750	4.6667
Role Erosion	9.0610	8.4961	6.7083	8.7077
Role Overload	4.8592	4.7519	2.2917	4.6530
Role Isolation	6.0939	5.2171	3.8750	5.6393
Personal Inadequacy	6.4038	5.4651	4.4167	5.9426
Self Role Distance	5.9671	4.9147	3.7083	5.4481
Role Ambiguity	3.9859	3.2326	1.9583	3.5874
Resource Inadequacy	5.2066	5.1628	3.6250	5.0874

From the discriminant analysis role erosion has emerged as the most dominant contributor and role ambiguity as the least contributor to total organisational role stress among junior, middle and senior level managers. The

mean discriminant value of role erosion among junior, middle and senior level managers are 9.0610, 8.4961 and 6.7083 respectively and the mean values of role ambiguity are 3.9859, 3.2326 and 1.9583 respectively. The dominant contributor (role erosion) value is significantly different from all other stressors. The graphical presentation given below gives a clear picture about relative significance of each of the stressors.

Figure 5.1.1



The most dominant contributor to total ORS among junior level managers is role erosion, which is followed by personal inadequacy (6.4038) and role stagnation (6.3333). Among middle level managers role erosion is followed by personal inadequacy (5.4651) and inter-role distance (5.4574). The second most significant contributor among senior level managers is personal inadequacy (4.4167), which is followed by role isolation (3.8750).

Hence, the two most dominant contributors to total role stress among junior, middle and senior level managers are the same viz., role erosion and personal inadequacy. This is in conformity with earlier research findings. In the study by Khanna (1997), referred to earlier, role erosion was found to be the most dominant contributor to total role stress among junior, middle and senior level executives.

Similarly, Pandey (1994) also found that, role erosion was the most dominant contributor to organisational role stress in all the three job hierarchy levels.

5.1.2 Type of organisation and organisational role stress

The investigator examined the difference in organisational role stress experienced by public sector and private sector managers by using one-way ANOVA test. The resultant values of ANOVA test shown in Table 5.1.4 indicate that there is no significant difference in organisational role stress experienced by public sector and private sector managers.

Table 5.1.4

Resultant values of one-way ANOVA test of managers working in public sector and private sector organisations

Organisation	N	Mean	Std. Deviation	F-Ratio	Sig.
Public sector	181	52.9724	27.84230	1.802	0.180
Private sector	185	57.1189	31.11474		
Total	366	55.0683	29.57430		

The results of this study is in contrast to the results of previous studies, for example, Pestonjee D.M and Singh G.P (1987), which proved that private sector managers experienced more organisational role stress as compared to public sector managers. The reason for the absence of any

significant difference between public and private sector managers in this study can be attributed to the change in industrial scenario in which the work of managers in public sector also is equally stressful, especially in the wake of the on-going liberalisation, privatisation and globalisation.

5.1.3 Size of organisation and organisational role stress

This study also examined the difference in organisational role stress (ORS) experienced by managers working in large scale and medium scale industrial organisations by using one-way ANOVA test and the resultant values are given in Table 5.1.5. The mean values of ORS experienced by managers in large scale and medium scale organisations are 54.2304 and 56.1235 respectively. The F-Ratio obtained is 0.369 at p=0.544. These values show that there is no significant difference in ORS experienced by managers working in large scale and medium scale industrial organisations. This shows that size of organisation has no impact on the level of organisational role stress.

Table 5.1.5

Resultant values of one-way ANOVA test of managers working in large scale and medium scale organisations

Organisation	N	Mean	Std. Deviation	F-Ratio	Sig.
Large scale organisations	204	54.2304	29.81455	0.369	0.544
Medium scale organisations	162	56.1235	29.32698		
Total	366	55.0683	29.57430		

To sum up, the results of the various tests showed that there is significant difference in organisational role stress among junior, middle and senior level managers, and there is a corresponding increase in organisational role stress among junior, middle and senior level managers. But no significant difference in organisational role stress could be observed among managers

working in public sector and private sector as well as large scale and medium scale industrial organisations. From the discriminant analysis, role erosion has emerged as the most dominant contributor and role ambiguity the least contributor to the total organisational role stress among all the three levels of managers. The finding that role erosion is the most significant contributor across all the three managerial levels of managers is very interesting. This shows that the most important cause for organisational role stress is a factor that is beyond the control of the individuals and therefore it is only the conscious effort on the part of the management of the respective organisations, which can reduce the ORS caused by role erosion. We know that role erosion arises out of the feeling that the tasks, which are supposed to be done by the role occupants, are performed by other people or the credit for the performance goes to other role occupants. So it can be reduced by properly assigning the jobs to each individual with clear job description, and through appropriate measures such as implementing proper reward systems and issuing appreciation letters for better performance, etc. The implication of this finding is that organisations can reduce the total organisational role stress of managers significantly by taking effective steps to reduce their role erosion stress.

CHAPTER 6
EMOTIONAL INTELLIGENCE AND ORGANISATIONAL ROLE STRESS

CHAPTER 6
EMOTIONAL INTELLIGENCE AND ORGANISATIONAL ROLE STRESS

This chapter deals with the results of the analysis of data to examine the main objective of the study viz., the relationship between emotional intelligence and organisational role stress among managers. It also presents the implications of the constituent elements of EI on ORS.

6.1 Emotional Intelligence and Organisational Role Stress

According to the Transactional theory of stress of Lazarus and Folkman (1984), stress arises out of the transaction between the person and his environment, and the stress level depends on how the individual appraises the situation. Transactional theory of stress also says that regulation of emotions, which is an important aspect of emotional intelligence, is important in the stress coping process. It therefore follows that individuals with high score on EI have effective emotional regulation and hence they will be better able to cope with stressful situations. Different models of emotional intelligence have established that emotional intelligence includes, among other abilities, the ability to handle day-to-day problems and stressful situations. See for example, Goleman, (1995) and Bar-On, (1997) (refer Chapter 2 for more details).

Considering the above it can be said that managers with high score on emotional intelligence better cope up with stressful situations and hence their stress level would be lesser than the stress level of those mangers with low score on EI. Based on these, the third hypothesis of the study was formulated as follows:

Hypothesis 3: **Higher the emotional intelligence, lower is the organisational role stress experienced by industrial managers.**

Results and Discussion

EQ-i, a self-report scale, developed by Reuven Bar-On (1997) was used for measuring emotional intelligence. The details of this tool are discussed in Chapter 3. It consists five composite scales and fifteen sub-scales. To examine the relationship between emotional intelligence and organisational role stress, respondents were first categorised into four groups based on their emotional intelligence (EI) and then the total organisational role stress (ORS) of each group was calculated. Here EI is the independent variable and ORS, the dependent variable. Analysis of variance test was applied to examine the variations in ORS among the four groups of managers. The number of respondents in each group, their mean values of role stress and standard deviation are shown in Table 6.1.1.

Table 6.1.1

Mean, SD, F-Ratio and coefficient of correlation values between EI and ORS

Dependent Variable	Groups	N	Mean	Std. Deviation	F Ratio	Sig.	Pearson' coefficient of correlation value
Total Role Stress	1	89	75.4831	29.68590	39.417	0.000	-0.504**
	2	95	58.4526	29.12547			
	3	90	52.5889	22.24778			
	4	92	34.2500	20.78018			
	Total	366	55.0683	29.57430			

The mean values of total ORS of 1st, 2nd, 3rd and 4th group are 75.4831, 58.4526, 52.5889 and 34.2500 respectively and the mean value of ORS of the total sample is 55.0683. The F Ratio value obtained has turned out to be highly significant ($F= 39.417$ at $p < 0.01$). These values show that there is significant difference in total organisational role stress among various groups.

Post Hoc Test was also conducted to do multiple comparisons to know whether the mean difference of role stress among all the four groups is significant. The values of mean difference, standard error and significance are shown in Table 6.1.2. The resultant values indicate that the mean differences between all groups except between second and third are significant.

Table 6.1.2

Resultant values of post hoc test

			Mean Difference (I-J)	Std. Error	Sig.
Dependent Variable	(I) NTILES of Emotional intelligence	(J) NTILES of Emotional intelligence			
Total Role Stress	1	2	17.0305	3.80346	.000
		3	22.8943	3.85422	.000
		4	41.2331	3.83334	.000
	2	3	5.8637	3.79253	.123
		4	24.2026	3.77131	.000
	3	4	18.3389	3.82250	.000

* The mean difference is significant at the .05 level.

The resultant values of ANOVA and post hoc tests showed that there is significant difference in ORS experienced by the four groups of managers. The relationship between EI and ORS was tested by using Pearson's coefficient of correlation and the correlation value obtained is -0.504 at p=0.01. The mean values of emotional intelligence and organisational role stress (ORS) of the total sample and its standard deviation is shown in Table 6.1.3. From the resultant values of the above tests it is clear that there is significant negative relationship between EI level of industrial managers and the ORS experienced by them and hence the hypothesis 3 viz., **Higher the**

emotional intelligence, lower is the organisational role stress experienced by industrial managers, stands established.

Table 6.1.3
Mean values of standardised EQ and ORS of total sample

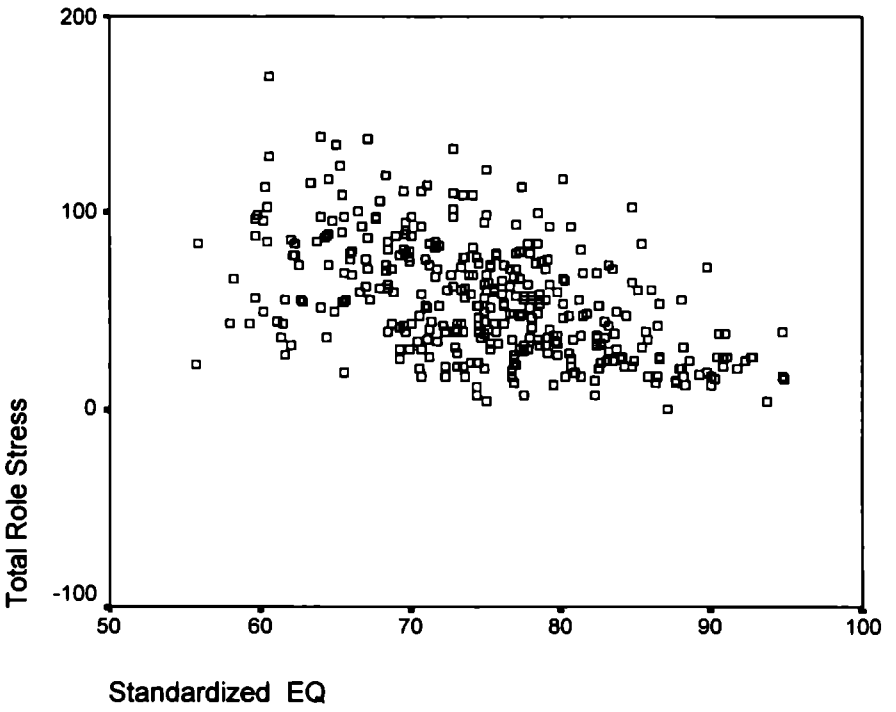
	Mean	Std. Deviation	N
Standardised EQ	75.2333	8.11077	366
Total Role Stress	55.0683	29.57430	366

6.1A Scatter plot test

The relationship between emotional intelligence (EI) and organisational role stress (ORS) was also examined by applying scatter plot test. EI is given on the 'x' axis and total ORS on the 'y' axis. Scatter plots in the graph presented below indicate that as EI score of managers' increases, the ORS experienced by them decreases.

Graph 6.1.1

Scatter plot test: relationship between EI & ORS



6.1B Regression Analysis

The functional relationship between all the dimensions of emotional intelligence and organizational role stress was examined by using step - wise multiple regression analysis. The problem of multicollinearity was examined by checking Variance Inflation Factor (VIF), Durban Watson statistic and Homoscadasticity. VIF values less than four are generally considered as having no multicollinearity. Here all the values obtained are less than 4 (see table 6.1.3B). Durban Watson statistic up to 2 means no autocorrelation and the value obtained in the regression analysis being 1.966 (see Table 6.1.3A) it means that there is no autocorrelation. The scatter diagram between Regression Standardized Residual and Regression Standardized Predicted Value (see Graph 6.1.2) shows that there is no Homoscadasticity as it does not reveal any specific pattern.

Table 6.1.3A
Regression Analysis Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	F-Ratio	Sig.
1	.588(a)	.346	.344	23.9354		191.275	.000(a)
2	.597(b)	.356	.352	23.7809		99.744	.000(b)
3	.602(c)	.363	.358	23.6853		68.339	.000(c)
4	.612(d)	.374	.367	23.5086	1.966	53.637	.000(d)

a Predictors: (Constant), Reality Testing
b Predictors: (Constant), Reality Testing, Impulse Control
c Predictors: (Constant), Reality Testing, Impulse Control, Self Actualisation
d Predictors: (Constant), Reality Testing, Impulse Control, Self Actualisation, Optimism
e Dependent Variable: Total Role Stress

From the results of the analysis shown in Table 6.1.3A only four dimensions of emotional intelligence viz., Reality Testing, Impulse Control, Self-Actualisation and Optimism are found to have significant functional relationship with organizational role stress. These four dimensions together

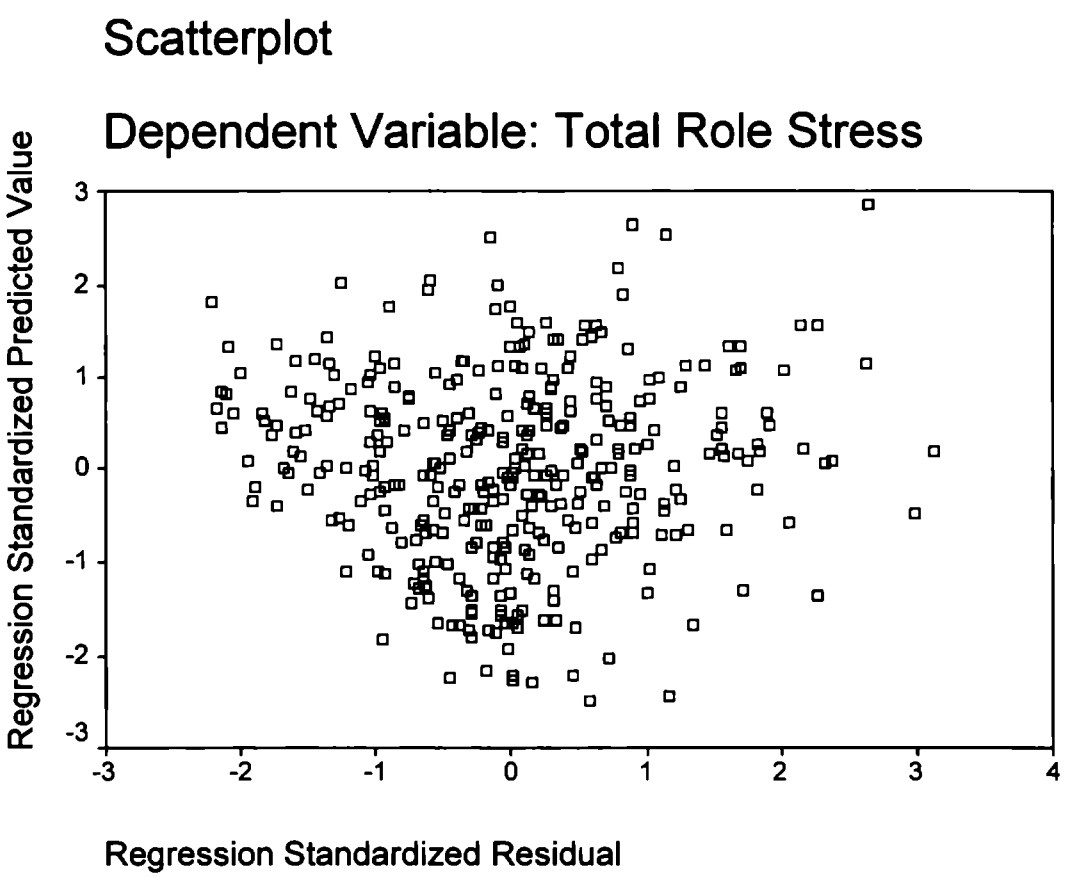
explain 37% variations. As the B value obtained for optimism is + .376, only three dimensions of emotional intelligence viz., Reality Testing, Impulse Control and Self-Actualization are important in reducing the role stress level of industrial managers and these three dimensions together explain 36% variations.

Table 6.1.3B
Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	Collinearity Statistics
		B	Std. Error	Beta	VIF
1	(Constant)	176.453	8.853		
	Reality Testing	-1.619	.117	-.588	1.000
2	(Constant)	182.474	9.149		
	Reality Testing	-1.409	.146	-.512	1.572
	Impulse Control	-.288	.120	-.127	1.572
3	(Constant)	195.393	11.209		
	Reality Testing	-1.232	.170	-.447	2.165
	Impulse Control	-.303	.120	-.133	1.579
	Self Actualisation	-.330	.167	-.103	1.523
4	(Constant)	188.682	11.435		
	Reality Testing	-1.367	.177	-.496	2.376
	Impulse Control	-.297	.119	-.131	1.579
	Self Actualisation	-.499	.178	-.156	1.772
	Optimism	.376	.148	.138	1.709

a Dependent Variable: Total Role Stress

Graph 6.1.2
Scatter plot to test Homoscadasticity



From the review of literature no previous Indian studies claiming the hypothesised relationship between EI and organisational role stress could be located. However, a number of international studies have established the relationship between EI and stress. For example, Clarke (2000), reports a study among 100 police officers, 18 female and 82 male officers in UK who had just completed a training session to improve emotional competencies where it was found that police officers who were able to understand and manage their emotions, which are important aspects of emotional intelligence, experienced lower levels of stress. Another study by Cherniss & Adler (2000) conducted

among American Police Officers observed that if police officers could learn to better understand and manage their own, and others' emotions (particularly anger), they would be likely to experience lower levels of stress in their working lives. It is also supported by Ciarrochi et al., (2002) that emotional intelligence moderates the relationship between stress and mental health among university students (more details of such studies are given in Chapter 2). Roberts (2002) conducted an empirical study in India in an American multi-national company with a worldwide market, to find out the impact of emotional intelligence on 'burnout' and conflict resolution styles. The results of the study showed that managers with high EQ were low on the burnout dimensions. Burnout dimensions can be defined as the end result of stress experienced but not properly coped, resulting in symptoms of exhaustion, irritation, ineffectiveness, inaction, discounting the self and others, and problems of health and drug use (Joshi, P.C & Singhvi, M.K, 1997). The results thus indicate that individuals with high EQ could cope with stressful situations effectively.

The negative relationship between EI and ORS may be appreciated in the light of Transactional theory of stress (Lazarus, 1984), which establishes that regulation of emotions is very important in the stress coping process. Regulation of emotions being an important aspect of emotional intelligence, individuals with high score on EI can have better regulation of their emotions and thereby cope more effectively with stressful situations in life.

It is seen that emotional intelligence (EI) of managers is negatively related to total organisational role stress (ORS). ORS is measured by considering the ten role stress dimensions viz; Inter role distance, Role stagnation, Role expectation conflict, Role erosion, Role overload, Role isolation, Personal inadequacy, Self-role distance, Role ambiguity and Resource Inadequacy. This study therefore tried to examine whether EI is related to all the ten dimensions of ORS by applying one-way ANOVA,

Pearson's correlation test and post hoc test. Here also the respondents were first categorised into four groups. The results of the tests are discussed below:

6.1.1 Emotional Intelligence and Inter Role Distance

Table 6.1.4 summarises the values of mean, standard deviation, F-Ratio and coefficient of correlation. The mean values of inter role distance of the four groups of managers are 7.1798, 5.9579, 5.7111 and 3.6196 respectively and the mean value of inter role distance of the total sample is 5.6066. The F –Ratio obtained is significant (F=14.426 at p <0.01). The correlation value obtained is -0.337 at p 0.01. The resultant values of post hoc test shown in Table 6.1.5 indicate that the mean difference between all categories except between 2nd and 3rd are significant. The resultant values of the tests clearly show that there is significant negative relationship between emotional intelligence and inter role distance (IRD) and hence managers with high score on EI will experience less inter role distance. Since IRD is the stress experienced when there is a conflict between organisational and non-organisational roles, the inference from these results could be that managers with high score on EI can better resolve or manage the conflict between organisational and non-organisational roles.

Table 6.1.4
Mean, SD, F-Ratio and coefficient of correlation values between EQ and criterion variables of ORS

Dependent Variable	Groups	N	Mean	Std. Deviation	F Ratio	Sig.	Pearson' coefficient of correlation value Standardized EQ
Inter-Role Distance	1	89	7.1798	3.88342	14.426	0.000	-0.337**
	2	95	5.9579	3.96236			
	3	90	5.7111	3.65429			
	4	92	3.6196	3.30781			
	Total	366	5.6066	3.91112			
Role Stagnation	1	89	8.0225	3.36755	32.946	0.000	-0.475**
	2	95	6.2947	3.78371			
	3	90	5.4111	2.68535			
	4	92	3.2391	3.25262			
	Total	366	5.7295	3.71086			
Role Expectation Conflict	1	89	7.3596	3.70579	48.126	0.000	-0.552**
	2	95	5.0947	3.36463			
	3	90	4.2556	2.53763			
	4	92	2.0217	2.26768			
	Total	366	4.6667	3.56364			
Role Erosion	1	89	9.4270	3.63658	1.600	.189	-0.093
	2	95	8.5263	4.28466			
	3	90	8.6778	3.61591			
	4	92	8.2283	3.71544			
	Total	366	8.7077	3.83913			
Role Overload	1	89	6.3034	3.77312	17.233	0.000	-0.373**
	2	95	5.0211	3.63780			
	3	90	4.7333	3.60960			
	4	92	2.5978	3.06723			
	Total	366	4.6530	3.75880			
Role Isolation	1	89	8.1348	3.58086	38.684	0.000	-0.496**
	2	95	6.0316	3.18725			
	3	90	5.1889	2.74330			
	4	92	3.2609	2.77694			
	Total	366	5.6393	3.53549			
Personal Inadequacy	1	89	7.9663	3.55620	21.942	0.000	-0.385**
	2	95	6.2632	4.00587			
	3	90	5.8889	3.51704			
	4	92	3.7065	3.08680			
	Total	366	5.9426	3.85483			
Self Role Distance	1	89	7.3596	3.60948	19.801	0.000	-0.386**
	2	95	5.9053	4.05041			
	3	90	5.2000	3.23673			
	4	92	3.3696	3.20959			
	Total	366	5.4481	3.81292			
Role Ambiguity	1	89	6.2921	4.38023	35.158	0.000	-0.472**
	2	95	4.0211	3.71592			
	3	90	2.6556	2.43182			
	4	92	1.4348	2.37803			
	Total	366	3.5874	3.77472			
Resource Inadequacy	1	89	7.4382	3.91081	25.258	0.000	-0.475**
	2	95	5.3368	3.84157			
	3	90	4.8667	3.50665			
	4	92	2.7717	3.19376			
	Total	366	5.0874	3.96947			

** Correlation is significant at the 0.01level (2-tailed).

Table 6.1.5

Resultant values of post hoc test

Dependent Variable	(I) NTILES of Emotional intelligence	(J) NTILES of Emotional intelligence	Mean Difference (I-J)	Std. Error	Sig.
Inter-Role Distance	1	2	1.2219	.54755	.026
		3	1.4687	.55486	.008
		4	3.5602	.55185	.000
	2	3	.2468	.54598	.652
		4	2.3383	.54292	.000
	3	4	2.0915	.55029	.000
Role Stagnation	1	2	1.7277	.48719	.000
		3	2.6114	.49369	.000
		4	4.7833	.49102	.000
	2	3	.8836	.48579	.070
		4	3.0556	.48307	.000
	3	4	2.1720	.48963	.000
Role Expectation Conflict	1	2	2.2648	.44633	.000
		3	3.1040	.45229	.000
		4	5.3378	.44984	.000
	2	3	.8392	.44505	.060
		4	3.0730	.44256	.000
	3	4	2.2338	.44856	.000
Role Erosion	1	2	.9007	.56496	.112
		3	.7492	.57250	.191
		4	1.1987	.56940	.036
	2	3	-.1515	.56334	.788
		4	.2981	.56018	.595
	3	4	.4495	.56779	.429
Role Overload	1	2	1.2823	.52084	.014
		3	1.5700	.52779	.003
		4	3.7055	.52493	.000
	2	3	.2877	.51935	.580
		4	2.4232	.51644	.000
	3	4	2.1355	.52345	.000
Role Isolation	1	2	2.1033	.45573	.000
		3	2.9459	.46182	.000
		4	4.8740	.45931	.000
	2	3	.8427	.45442	.064
		4	2.7707	.45188	.000
	3	4	1.9280	.45801	.000

Table 6.1.5 : Contd

Dependent Variable	(I) NTILES of Emotional intelligence	(J) NTILES of Emotional intelligence	Mean Difference (I-J)	Std. Error	Sig.
Personal Inadequacy	1	2	1.7031	.52526	.001
		3	2.0774	.53227	.000
		4	4.2598	.52938	.000
	2	3	.3743	.52375	.475
		4	2.5566	.52081	.000
	3	4	2.1824	.52788	.000
Self Role Distance	1	2	1.4543	.52349	.006
		3	2.1596	.53048	.000
		4	3.9900	.52760	.000
	2	3	.7053	.52199	.178
		4	2.5357	.51906	.000
	3	4	1.8304	.52611	.001
Role Ambiguity	1	2	2.2711	.49204	.000
		3	3.6366	.49861	.000
		4	4.8574	.49591	.000
	2	3	1.3655	.49063	.006
		4	2.5863	.48788	.000
	3	4	1.2208	.49451	.014
Resource Inadequacy	1	2	2.1014	.53470	.000
		3	2.5715	.54183	.000
		4	4.6665	.53890	.000
	2	3	.4702	.53316	.378
		4	2.5651	.53018	.000
	3	4	2.0949	.53737	.000

* The mean difference is significant at the .05 level.

6.1.2 Emotional intelligence and Role Stagnation

The mean values of role stagnation stress of the four groups shown in Table 6.1.4 are 8.0225, 6.2947, 5.4111 and 3.2391 respectively and the mean value of role stagnation of the total sample is 5.7295. The F –Ratio obtained is significant (F=32.946 at $p< 0.01$). The correlation value obtained is -0.475 at p 0.01. The resultant values of post hoc test shown in Table 6.1.5 values indicate that the mean difference between all groups except between 2nd and 3rd are significant. The resultant values of the tests attest that there is significant negative relationship between emotional intelligence and role

stagnation and hence it can be said that managers with high score on EI will experience less role stagnation. Role stagnation stress arises out of the feeling of being stuck with the same role. Role stagnation results from the perception that there is no opportunity for progress in one's career.

The results of this study, therefore show that managers with high score on emotional intelligence can effectively control their feeling of their career being stuck up with no chance for progress by taking effective steps either by acquiring additional knowledge/skills appropriate for the career or by taking timely decisions to avoid the feeling of role stagnation.

6.1.3 Emotional Intelligence and Role Expectation Conflict

The mean values of role expectation conflict (REC) stress of the four groups are 7.3596, 5.0947, 4.2556 and 2.0217 respectively and the mean value of role expectation conflict of the total sample is 4.6667. The F –Ratio value obtained is 48.126 at $p < 0.01$. The coefficient of correlation value obtained is -0.552 at p 0.01 (refer Table 6.1.4). The resultant values of post hoc test done for between groups comparison, shown in Table 6.1.5, indicate that the mean difference between all groups except between 2nd and 3rd are significant. These values clearly indicate that there is significant negative relationship between emotional intelligence and role expectation conflict and hence it can be said that managers with high score on EI will experience less role expectation conflict. REC stress is generated by different expectations by different significant persons, i.e., superiors, subordinates and peers about the same role, and the role occupant's ambivalence as to whom to please. The results of this study show that industrial managers with high score on EI are able to handle the REC stress.

6.1.4 Emotional Intelligence and Role Erosion

The mean values of role erosion stress of the four groups are 9.4270, 8.5263, 8.6778 and 8.2283 respectively and the mean value of the total sample is 8.7077. These values are very high compared with the values of other role stressors. The value of F – Ratio obtained has not turned out to be significant (F=1.600 at p 0.189). These show that there is no significant relationship between emotional intelligence and role erosion. Role erosion stress arises out of the feeling of role occupant that some functions, which are normally to be performed by him/her, are transferred to/ or performed by some other role. It can also happen when the functions are performed by the role occupant but the credit goes to someone else. From the results of this study it is seen that role erosion stress is very high among managers, but they have no control on this dimension. What we can presume from this is that role erosion stress arises out of the defects in the existing policies and procedures prevailing in the organisations. Hence organisations have to take necessary actions to reduce the role erosion stress level by describing each role appropriately and allocating each individual their duties and responsibilities specifically, and implementing reward systems or issuing appreciation letters for better performance.

6.1.5 Emotional Intelligence and Role Overload

The mean values of role overload stress of the four groups of managers are 6.3034, 5.0211, 4.7333 and 2.5978 respectively and the mean value of role overload of the total sample is 4.6530. The F –Ratio value obtained is 17.233 at p <0.01. The coefficient of correlation value obtained is -0.373 at p 0.01. The resultant values of post hoc test shown in Table 6.1.5 indicate that the mean difference between all groups except between 2nd and 3rd are significant. These values clearly indicate that there is significant

negative relationship between emotional intelligence and role overload and hence it can be said that managers with high score on EI will experience less role overload. Role overload stress is experienced when the role occupant feels that there are too many expectations from significant roles. It can be quantitative or qualitative. From the results of this study we can conclude that managers with high score on emotional intelligence can handle role overload stress effectively either by putting more effort or by handing over some work to other role occupants.

6.1.6 Emotional Intelligence and Role Isolation

The mean values of role isolation stress of the four groups of managers are 8.1348, 6.0316, 5.1889 and 3.2609 respectively and the mean value of role isolation of the total sample is 5.6393. The F –Ratio value obtained is 38.684 at $p < 0.01$. The coefficient of correlation value obtained is -0.496 at 0.01 significance level. The resultant values of post hoc test shown in Table 6.1.5 indicate that the mean difference between all groups except between 2nd and 3rd are significant. The resultant values of the tests clearly indicate that there is significant negative relationship between emotional intelligence and role isolation and hence it can be said that managers with high score on EI will experience less role isolation. Role isolation stress refers to the psychological distance between the role occupant's role and other roles in the same role set. It really comes out of the perception of the individual about his/her role, that their role is not having strong linkage with other roles. From the results of this study we can therefore say that managers with high score on emotional intelligence can have effective control on their perception of role isolation and thereby the felt role isolation will be less.

6.1.7 Emotional Intelligence and Personal Inadequacy

Table 6.1.4 summarises the values of mean, standard deviation and F- Ratio. The mean values of personal inadequacy stress of the four groups of managers are 7.9663, 6.2632, 5.8889 and 3.7065 respectively and the mean value of the total sample is 5.9426. The F –Ratio value obtained is 21.942 at p <0.01. The coefficient of correlation value obtained is -0.385 at p 0.01. The resultant values of post hoc test shown in Table 6.1.5 indicate that the mean difference between all groups except between 2nd and 3rd are significant. The resultant values of the tests clearly indicate that there is significant negative relationship between emotional intelligence and personal inadequacy and hence managers with high score on EI will experience less personal inadequacy. Personal inadequacy stress arises when the role occupant feels that he/ she does not have the necessary skills and training for effectively performing the functions expected from his/her role. The results of this study clearly show that managers with high score on emotional intelligence can effectively handle the personal inadequacy stress. It may be either by adopting ways to develop their knowledge or skills required for performing their role on their own or by asking the management to provide necessary training to increase or develop their knowledge/skill.

6.1.8 Emotional Intelligence and Self-Role Distance

The mean values of self-role distance stress of the four groups of managers are 7.3596, 5.9053, 5.2000 and 3.3696 respectively and the mean value of the total sample is 5.4481. The F –Ratio value obtained is 19.801 at p <0.01. The coefficient of correlation value obtained is -0.386 at p 0.01. The resultant values of post hoc test shown in Table 6.1.5 indicate that the mean difference between all groups except between 2nd and 3rd are significant at p 0.05. The resultant values of the ANOVA (shown in Table 6.1.4) and post hoc

tests show that there is significant negative relationship between emotional intelligence and self-role distance and hence we can say that when emotional intelligence of managers' increase the self-role distance experienced by them will decrease. An individual experiences self-role distance stress when he/she feels that the role he/she occupies goes against his/her self-concept. It arises out of a mismatch between the person and his/her job. Individuals who can accurately perform self-assessments can effectively control this type of stress because, as they are aware of their own abilities they will choose only such roles which go hand in glove with their self-concept. In other words, individuals who have accurate self-awareness, which is an important aspect of emotional intelligence, can effectively manage the self-role distance stress.

6.1.9 Emotional Intelligence and Role Ambiguity

The mean values of role ambiguity stress of the four groups of managers are 6.2921, 4.0211, 2.6556 and 1.4348 respectively and the mean value of the total sample is 3.5874. The F – Ratio value obtained is 35.158 at p <0.01. The coefficient of correlation value obtained is -0.472 at p 0.01. The resultant values of post hoc test shown in Table 6.1.5 demonstrate that the mean difference between all groups except between 2^{nd} and 3^{rd} are significant at p 0.05. The resultant values of the above tests clearly indicate that there is significant negative relationship between emotional intelligence and role ambiguity and hence when emotional intelligence of managers increases, the role ambiguity experienced by them will decrease. Role ambiguity stress arises from 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. The results of this study show that mangers with high score on emotional intelligence are able to control stress arising out of role ambiguity. Role ambiguity can be avoided by seeking information from significant role occupants to get clarity about role

expectations or by getting information from the HR department about how their job is defined. Every job in an organisation therefore has to be well described and it should be readily available to all managers.

6.1.10 Emotional Intelligence and Resource Inadequacy

The mean values of resource inadequacy stress of the four groups of managers are 7.4382, 5.3368, 4.8667 and 2.7717 respectively and the mean value of the total sample is 5.0874. The F – Ratio value obtained is 25.258 at p <0.01 and coefficient of correlation value obtained is -0.475 at p 0.01. The resultant values of post hoc test shown in Table 6.1.5 indicate that the mean difference between all groups except between 2nd and 3rd are significant at p 0.05. The resultant values of the above tests demonstrate that there is significant negative relationship between emotional intelligence and resource inadequacy and hence when the emotional intelligence score of managers are high, the resource inadequacy experienced by them will be less. Resource inadequacy stress arises when the role occupant feels that he/she is not provided with adequate resources for performing the functions expected from his/her role. The results of this study show that managers with high score on emotional intelligence are able to control resource inadequacy stress.

To sum up, results of the analysis of data have shown that there is significant negative relationship between emotional intelligence score of managers and their experienced total organisational role stress (ORS) and all its criterion variables except role erosion.

Criterion variables of EI and ORS

EQ-i consists of five composite scales and fifteen sub-scales. It is already seen that EI is negatively related with total ORS of managers. To get an idea about which variables are important in the stress controlling aspect, the

study also examined whether all the composite scales and sub-scales are related to total ORS.

To examine the relationships the same procedure, which was followed in the earlier section, is applied here too. First the respondents were categorised into four groups based on their respective scores on composite scales or sub-scales and one-way ANOVA test was applied to know the variations in the total ORS experienced by managers. Then Pearson's coefficient of correlation test was applied to know the nature of relationship. The results of the analysis of data are given below:

6.2 Intrapersonal EQ and Organisational Role Stress

The intrapersonal EQ (RAeq) assesses one's inner self and the five subscales of RAeq are Self-Regard, Emotional Self-Awareness, Assertiveness, Independence, and Self-Actualisation. Individuals with high score on RAeq indicate that they are in touch with their feelings, feel good about themselves, and feel positive about what they do in their lives (Bar-On, 2002). It means that they are well aware of their emotions and hence they can regulate it effectively. Those who are able to regulate their emotions can cope with stressful situations effectively. Based on this it is hypothesised that:

Hypothesis 3a: **Higher the Intrapersonal EQ, lower is the organisational role stress experienced by industrial managers.**

Results and Discussion

The mean values of total organisational role stress of the four groups of managers are 71.6552, 60.0100, 52.6047 and 36.5161 respectively and the mean value of the total sample is 55.0683 (Table 6.2.1). The F – Ratio value obtained is 27.305 at $p < 0.01$. It shows that there is significant difference in total organisational role stress among the four groups of managers. Post Hoc

Tests were conducted to examine the difference in the mean value of Organisational Role Stress among all the four groups. The values of mean difference, standard error and significance are shown in Table 6.2.2. These values indicate that the mean difference between all groups except between 2nd and 3rd are significant at p 0.05.

Table 6.2.1

Mean, SD, F-Ratio and coefficient of correlation between Intrapersonal EQ and ORS

Independent Variable		N	Mean	SD	F-Ratio	Sig.	Pearson's coefficient of correlation
Intrapersonal EQ	1	87	71.6552	30.49202	27.305	0.000	-0.479**
	2	100	60.0100	30.01195			
	3	86	52.6047	23.57380			
	4	93	36.5161	21.86103			
	Total	366	55.0683	29.57430			

** Correlation is significant at the 0.01 level (2-tailed).

Table 6.2.2

Resultant values of post hoc test

Dependent Variable: Total Role Stress

(I) NTILES of intrapersonal EQ	(J) NTILES of Intrapersonal EQ	Mean Difference (I-J)	Std. Error	Sig.
1	2	11.6452	3.93163	.003
	3	19.0505	4.07780	.000
	4	35.1390	3.99988	.000
2	3	7.4053	3.94384	.061
	4	23.4939	3.86321	.000
3	4	16.0885	4.01187	.000

* The mean difference is significant at the .05 level.

Using Pearson's coefficient of correlation the relationship between RAeq and total role stress was tested. The mean values of RAeq and ORS of

the total sample are 75.0943 and 55.0683 respectively (Table 6.2.3). The correlation value obtained is -0.479 at p 0.01.

Table 6.2.3
Mean values of RAeq and ORS of total sample

	Mean	Std. Deviation	N
Intrapersonal EQ	75.0943	8.53967	366
Total Role Stress	55.0683	29.57430	366

The resultant values of the tests show that there is significant negative relationship between intrapersonal EQ and total organisational role stress and hence it can be said that when the intrapersonal EQ score of mangers are high the total organisational role stress experienced by them will be less and hence hypothesis 3a viz., **Higher the Intrapersonal EQ, lower is the organisational role stress experienced by industrial managers,** stands established. The inference from this result is that intrapersonal EQ, an important aspect of EI, has significant influence in regulating the stress level of managers. So organisations can take steps to develop this criterion variable of EI of managers by giving appropriate training and thereby reduce the ORS experienced by them.

6.2.1 Self-Regard and Organisational Role Stress

The mean values of total organisational role stress of the four groups of managers are 71.8842, 54.8242, 52.3766 and 41.7864 respectively (Table 6.2.4) and the mean value of the total sample is 55.0683. The F – Ratio value obtained is 20.106 at p <0.01. The resultant values of post hoc tests shown in Table 6.2.5 indicate that the mean difference between all groups except between 2nd and 3rd are significant at p 0.05. The resultant values of ANOVA and post hoc tests clearly demonstrate that there is significant difference in ORS among the four groups of managers.

Table 6.2.4

Mean, SD, F-Ratio and coefficient of correlation between the criterion variables of Intrapersonal EQ and ORS

Independent Variable		N	Mean	SD	F-Ratio	Sig.	Pearson's coefficient of correlation
Self-Regard	1	95	71.8842	29.67227	20.106	0.000	-0.344**
	2	91	54.8242	27.76632			
	3	77	52.3766	29.04218			
	4	103	41.7864	23.72128			
	Total	366	55.0683	29.57430			
Emotional Self-Awareness	1	82	75.8415	31.56082	28.453	0.000	-0.413**
	2	91	58.3956	28.90362			
	3	106	48.6226	23.04714			
	4	87	39.8621	23.29945			
	Total	366	55.0683	29.57430			
Assertiveness	1	90	69.8444	29.77742	21.007	0.000	-0.378**
	2	99	57.5556	32.35114			
	3	88	54.7955	22.55474			
	4	89	37.6292	22.90464			
	Total	366	55.0683	29.57430			
Independence	1	89	67.7865	34.15389	12.862	0.000	-0.373**
	2	110	57.6727	24.93555			
	3	66	52.2879	26.18324			
	4	101	42.8416	27.11189			
	Total	366	55.0683	29.57430			
Self-Actualisation	1	90	71.0111	31.72299	20.968	0.000	-0.408**
	2	110	58.9727	28.23475			
	3	72	47.5694	23.47058			
	4	94	40.9787	24.62841			
	Total	366	55.0683	29.57430			

** Correlation is significant at the 0.01 level (2-tailed).

Table 6.2.5
Resultant values of post hoc test

(I) NTILES of Self Regard	(J) NTILES of Self Regard	Mean Difference (I-J)	Std. Error	Sig.
1	2	17.0600	4.03287	.000
	3	19.5076	4.21597	.000
	4	30.0978	3.91104	.000
2	3	2.4476	4.25725	.566
	4	13.0378	3.95551	.001
3	4	10.5902	4.14203	.011
(I) NTILES of Emotional Self-Awareness	(J) NTILES of Emotional Self-Awareness			
1	2	17.4459	4.06751	.000
	3	27.2188	3.92873	.000
	4	35.9794	4.11159	.000
2	3	9.7730	3.81762	.011
	4	18.5335	4.00556	.000
3	4	8.7606	3.86455	.024
(I) NTILES of Assertiveness	(J) NTILES of Assertiveness			
1	2	12.2889	3.99161	.002
	3	15.0490	4.10869	.000
	4	32.2152	4.09700	.000
2	3	2.7601	4.01530	.492
	4	19.9263	4.00334	.000
3	4	17.1662	4.12009	.000
(I) NTILES of Independence	(J) NTILES of Independence			
1	2	10.1138	4.02483	.012
	3	15.4986	4.58576	.001
	4	24.9449	4.10425	.000
2	3	5.3848	4.39542	.221
	4	14.8311	3.89042	.000
3	4	9.4463	4.46826	.035
(I) NTILES of Self-Actualisation	(J) NTILES of Self-Actualisation			
1	2	12.0384	3.89594	.002
	3	23.4417	4.33397	.000
	4	30.0324	4.04240	.000
2	3	11.4033	4.15517	.006
	4	17.9940	3.85008	.000
3	4	6.5907	4.29279	.126

* The mean difference is significant at the .05 level.

The mean values of self-regard and total ORS of the total sample are 80.4311 and 55.0683 respectively (Table 6.2.6). Pearson's coefficient of correlation value obtained is -0.344 at p 0.01. The resultant values of the above tests indicate that there is significant negative relationship between self-regard and organisational role stress and hence it can be said that when the score on self-regard of managers increases the organisational role stress experienced by them will decrease. The inference from these results is that self-regard, a criterion variable of intrapersonal EQ, is an important aspect in controlling the ORS level of managers.

Table 6.2.6
Mean values of self-regard and ORS of total sample

	Mean	Std. Deviation	N
Self Regard	80.4311	10.82507	366
Total Role Stress	55.0683	29.57430	366

6.2.2 Emotional Self-Awareness and Organisational Role Stress

Table 6.2.4 summarises the mean values of total organisational role stress of the four groups of managers, which are 75.8415, 58.3956, 48.6226 and 39.8621 respectively and the mean value of the total sample is 55.0683. The F – Ratio value obtained has turned out to be highly significant (F=28.453 at p <0.01). Resultant values of post hoc tests shown in Table 6.2.5 demonstrate that the mean differences between all groups are significant at p 0.05. It shows that there is significant difference in total organisational role stress between all the four groups of managers. The mean value of emotional self-awareness of the total sample is 74.0096 (Table 6.2.7). The coefficient of correlation value between emotional self-awareness and ORS is -0.413 at p 0.01.

Table 6.2.7
Mean values of emotional self-awareness and ORS of the total sample

Variables	Mean	Std. Deviation	N
Emotional Self Awareness	74.0096	11.03664	366
Total Role Stress	55.0683	29.57430	366

The results of the analysis of data clearly indicate that there is significant negative relationship between emotional self-awareness and organisational role stress and hence we can say that when the emotional self-awareness score of managers' is high the organisational role stress experienced by them will be less. Emotional self-awareness is the ability to recognise one's feelings and emotions. Results of the study showed that emotional self-awareness and ORS are inversely related and hence managers who are able to recognise their feelings and emotions can effectively regulate it and thereby handle stressful situations effectively.

6.2.3 Assertiveness and Organisational Role Stress

The mean values of total organisational role stress of the four groups of managers are 69.8444, 57.5556, 54.7955 and 37.6292 respectively (Table 6.2.4) and the mean value of the total sample is 55.0683. The F – Ratio value obtained is 21.007 at $p < 0.01$. Resultant values of post hoc test shown in Table 6.2.5 indicate that the mean difference between all groups except between 2nd and 3rd are significant at p 0.05. The mean value of assertiveness of the total sample is 71.9126 (Table 6.2.8). The coefficient of correlation value obtained is -0.378 at p 0.01.

Table 6.2.8
Mean values of Assertiveness and ORS of the total sample

Variables	Mean	Std. Deviation	N
Assertiveness	71.9126	11.50026	366
Total Role Stress	55.0683	29.57430	366

The resultant values ANOVA, Pearson's coefficient of correlation and post hoc tests clearly indicate that there is significant negative relationship between assertiveness and organisational role stress. Hence it can be said that when the assertiveness score of managers' is high, the total ORS experienced by them will be less. The inference from these results is that assertiveness, a dimension of intrapersonal EQ, has significant influence in reducing the ORS level of managers. Hence organisations can reduce the ORS of managers by developing their 'assertiveness' by providing appropriate training.

6.2.4 Independence and Organisational Role Stress

The mean values of total organisational role stress of the four groups of managers are 67.7865, 57.6727, 52.2879 and 42.8416 respectively (Table 6.2.4) and the mean value of the total sample is 55.0683. The F – Ratio value obtained is 12.862 at $p < 0.01$. Resultant values of post hoc tests shown in Table 6.2.5 indicate that the mean differences between all groups except between 2nd and 3rd are significant at p 0.05. These test results indicate that there is significant difference in ORS among the four groups of managers. The mean value of Independence of the total sample is 71.8033 (Table 6.2.9). The coefficient of correlation value obtained is -0.373 at p 0.01.

Table 6.2.9
Mean values of Independence and ORS
of the total sample

Variables	Mean	Std. Deviation	N
Independence	71.8033	11.16497	366
Total Role Stress	55.0683	29.57430	366

The results of the analysis of data clearly show that there is significant negative relationship between Independence and organisational role stress. The inference from this result is that Independence, a criterion variable of intrapersonal EQ, also is important in controlling the ORS level of managers, and hence managers with high score on Independence will experience less organisational role stress.

6.2.5 Self-Actualisation and Organisational Role Stress

Table 6.2.4 summarises the mean values of total organisational role stress of the four groups of managers, which are 71.0111, 58.9727, 47.5694 and 40.9787 respectively and the mean value of the total sample is 55.0683. The F – Ratio value obtained is 20.968 at $p < 0.01$. Resultant values of post hoc tests shown in Table 6.2.5 indicate that the mean difference between all groups except between 3rd and 4th are significant at p 0.05. The mean value of self-actualisation of the total sample is 75.7559 (Table 6.2.10). The coefficient of correlation value obtained is -0.408 at p 0.01.

Table 6.2.10
Mean values of self-actualisation and ORS
of the total sample

	Mean	Std. Deviation	N
Self-Actualisation	75.7559	9.22062	366
Total Role Stress	55.0683	29.57430	366

The resultant values of various tests showed that there is significant negative relationship between self-actualisation and ORS. The inference from these results is that self-actualisation, a dimension of intrapersonal EQ, also has significant influence in controlling the ORS level of managers.

To sum up, Intrapersonal EQ and its five criterion variables viz., Self-Regard, Emotional Self-Awareness, Assertiveness, Independence, and Self-Actualisation have significant negative relation with total ORS of managers. Hence ORS experienced by managers can be reduced significantly by developing their Intrapersonal EQ.

6.3 Interpersonal EQ and Organisational Role Stress

The interpersonal EQ (EReq) scale taps interpersonal skills and functioning. The sub-scales of EReq scale include empathy, social responsibility and interpersonal relationship. High score on this domain signify responsible and dependable individuals who have good social skills. They understand, interact, and relate well with others. Individuals with high score on this domain share their day-to-day problems with others and seek out effective solutions. Based on this observation the following hypothesis was proposed:

Hypothesis 3b: **Higher the Interpersonal EQ, lower is the organisational role stress experienced by industrial managers.**

Results and Discussion

The mean values of total organisational role stress of the four groups of managers are 68.2737, 57.6292, 54.3953 and 40.6277 (Table 6.3.1) respectively and the mean value of the total sample is 55.2527. The F – Ratio value obtained is 15.751 at $p < 0.01$. The resultant values of post hoc test shown in Table 6.3.2 indicate that the mean difference between all groups except between 2nd and 3rd are significant at p 0.05.

Table 6.3.1
Mean, Std.Deviation, F-Ratio and coefficient of correlation between Interpersonal EQ and its criterion variables, and ORS

Independent Variable	Groups	N	Mean	Std. Deviation	F-Ratio	Sig.	Pearson's coefficient of correlation Total ORS
Interpersonal EQ	1	95	68.2737	29.29942	15.751	0.000	-0.299**
	2	89	57.6292	31.05434			
	3	86	54.3953	25.60344			
	4	94	40.6277	25.16910			
	Total	364	55.2527	29.55001			
Empathy	1	86	68.5581	30.56819	12.026	0.000	-0.270**
	2	83	57.8795	28.65922			
	3	109	51.7064	25.29687			
	4	87	43.6322	29.21656			
	Total	365	55.1562	29.56703			
Social Responsibility	1	99	63.1111	30.57373	5.023	0.002	-0.179**
	2	96	52.7292	26.86123			
	3	77	57.3247	27.67596			
	4	93	47.4301	30.73427			
	Total	365	55.1644	29.55764			
Interpersonal Relationship	1	84	70.0833	28.54935	14.181	0.000	-0.295**
	2	107	56.4860	31.00255			
	3	83	51.3614	24.87460			
	4	92	43.0543	26.80838			
	Total	366	55.0683	29.57430			

** Correlation is significant at the 0.01 level (2-tailed)

Table 6.3.2
Resultant values of post hoc test

(I) NTILES of Interpersonal EQ	(J) NTILES of Interpersonal EQ	Mean Difference (I-J)	Std. Error	Sig.
1	2	10.6445	4.11557	.010
	3	13.8783	4.15247	.001
	4	27.6460	4.05867	.000
2	3	3.2339	4.21845	.444
	4	17.0016	4.12615	.000
3	4	13.7677	4.16295	.001
(I) NTILES of Empathy	(J) NTILES of Empathy			
1	2	10.6786	4.35587	.015
	3	16.8517	4.08295	.000
	4	24.9260	4.30461	.000
2	3	6.1731	4.12399	.135
	4	14.2473	4.34356	.001
3	4	8.0742	4.06982	.048
(I) NTILES of Social Responsibility	(J) NTILES of Social Responsibility			
1	2	10.3819	4.16534	.013
	3	5.7864	4.41855	.191
	4	15.6810	4.19931	.000
2	3	-4.5955	4.44865	.302
	4	5.2991	4.23097	.211
3	4	9.8946	4.48047	.028
(I) NTILES of Interpersonal Relationship	(J) NTILES of Interpersonal Relationship			
1	2	13.5974	4.09509	.001
	3	18.7219	4.34769	.000
	4	27.0290	4.23937	.000
2	3	5.1245	4.10889	.213
	4	13.4316	3.99411	.001
3	4	8.3071	4.25270	.052

*The mean difference is significant at the .05 level.

The resultant values of ANOVA and post hoc tests showed that there is significant difference in total organisational role stress among the four groups of managers. The mean values of EReq and ORS of the total sample are 74.9840 and 55.0683 respectively (Table 6.3.3). The correlation value obtained is -0.299 at p 0.01.

Table 6.3.3
Mean values of Interpersonal EQ and ORS of the total sample

Variables	Mean	Std. Deviation	N
Interpersonal EQ	74.9840	8.62183	364
Total Role Stress	55.0683	29.57430	366

The resultant values of the above tests clearly indicate that there is significant negative relationship between interpersonal EQ and total organisational role stress experienced by managers and hence the hypothesis 3b viz., **Higher the Interpersonal EQ, lower is the organisational role stress experienced by industrial managers,** stands established. The results thus signified that managers with high score on interpersonal EQ would experience less ORS. Hence organisations can reduce the ORS level of industrial managers by developing their interpersonal EQ.

6.3.1 Empathy and Organisational Role Stress

The mean values of total organisational role stress of the four groups of managers are 68.5581, 57.8795, 51.7064 and 43.6322 respectively (Table 6.3.1) and the mean value of the total sample is 55.1562. The F – Ratio value obtained is 12.026 at p <0.01. The resultant values of post hoc test shown in Table 6.3.2 indicate that the mean differences between all groups except between 2nd and 3rd are significant at p 0.05.

The mean values of empathy and total role stress of the total sample are 76.5753 and 55.0683 respectively (Table 6.3.4). The coefficient of correlation value obtained is -0.270 at p 0.01.

Table 6.3.4
Mean values of empathy and ORS of the total sample

Variables	Mean	Std. Deviation	N
Empathy	76.5753	10.23678	365
Total Role Stress	55.0683	29.57430	366

The resultant values of ANOVA, post hoc tests and Pearson's coefficient of correlation showed that there is significant negative relationship between Empathy and organisational role stress and hence it can be said that managers with high score on empathy will experience less organisational role stress. The inference from these results is that empathy, a criterion variable of interpersonal EQ, also has significant influence in controlling the role stress level of managers.

6.3.2 Social Responsibility and Organisational Role Stress

Table 6.3.1 summarises the mean values of total organisational role stress of the four groups of managers, which are 63.1111, 52.7292, 57.3247 and 47.4301 respectively. The F – Ratio value obtained is 5.023 at p 0.002. The resultant values of post hoc tests shown in Table 6.3.2 indicate that the mean differences between most of the groups are not significant. The mean value of social responsibility and total role stress of the total sample are 73.4685 and 55.0683 respectively (Table 6.3.5). The coefficient of correlation value obtained is -0.179 at p 0.01.

Table 6.3.5
Mean values of social responsibility and ORS of the total sample

Variables	Mean	Std. Deviation	N
Social Responsibility	73.4685	8.78136	365
Total Role Stress	55.0683	29.57430	366

The resultant values of the tests indicate that even though there is significant negative relationship between social responsibility and organisational role stress, the difference in organisational role stress between most groups is not significant. What it means is that the relationship between social responsibility and organisational role stress is not very strong and so we cannot expect a corresponding decrease in organisational role stress with increase in score on social responsibility among managers.

6.3.3 Interpersonal Relationship and Organisational Role Stress

The mean values of total organisational role stress of the four groups of managers are 70.0833, 56.4860, 51.3614 and 43.0543 respectively. The F – Ratio value obtained is 14.181 at $p < 0.01$. The resultant values of post hoc tests shown in Table 6.3.2 indicate that the mean differences between all groups except between 2nd and 3rd, and 3rd and 4th are significant at p 0.05.

The mean values of interpersonal relationship and total role stress of the total sample are 75.7526 and 55.0683 respectively (Table 6.3.6). The correlation value obtained is -0.295 at p 0.01.

Table 6.3.6
Mean values of interpersonal relationship and ORS of the total sample

Variables	Mean	Std. Deviation	N
Interpersonal Relationship	75.7526	11.03607	366
Total Role Stress	55.0683	29.57430	366

The resultant values of ANOVA, post hoc tests and Pearson's coefficient of correlation tests clearly indicate that there is significant negative relationship between Interpersonal Relationship and organisational role stress. Hence it follows that when the score on interpersonal relationship of managers' is high, the ORS experienced by them will be less.

To sum up, Interpersonal EQ and its three conceptual components viz., empathy, social responsibility and interpersonal relationship have significant influence in controlling the role stress level of industrial managers but the relation between social responsibility and ORS is not very strong.

6.4 Adaptability EQ and Organisational Role Stress

The Adaptability EQ (ADeq) shows how successfully individuals cope with environmental demands and it consists of three sub-scales: reality testing, flexibility and problem solving. Individuals with high score on this domain are generally flexible, realistic, effective in understanding problematic situations, and competent at arriving at adequate solutions (Bar-On, 2002). This observation leads to the following hypothesis:

Hypothesis 3c: **Higher the Adaptability EQ, lower is the organisational role stress experienced by industrial managers.**

Results and Discussion

The mean values of total organisational role stress of the four groups of managers are 78.7667, 56.3587, 51.3804 and 34.2826 respectively. The F – Ratio value obtained has turned out to be highly significant (F= 48.627 at p <0.01). The resultant values of post hoc test shown in Table 6.4.2 indicate that the mean difference between all groups except between 2nd and 3rd are significant at p 0.05.

Table 6.4.1
Mean, Std.Deviation, F-Ratio and coefficient of correlation between Adaptability EQ and its criterion variables, and ORS

Independent Variable	Groups	N	Mean	Std.Deviation	F-Ratio	Sig.	Pearson's coefficient of correlation Depen.variable -ORS
Adaptability EQ	1	90	78.7667	29.07528	48.627	0.000	-0.541**
	2	92	56.3587	25.85785			
	3	92	51.3804	24.41529			
	4	92	34.2826	20.22311			
	Total	366	55.0683	29.57430			
Reality Testing	1	81	80.0370	29.60762	55.808	0.000	-0.589**
	2	109	60.1009	25.81700			
	3	80	48.7750	23.43047			
	4	96	33.5313	18.58236			
	Total	366	55.0683	29.57430			
Flexibility	1	103	65.4854	29.44415	23.635	0.000	-0.375**
	2	74	67.7838	28.25824			
	3	93	50.8925	26.46510			
	4	96	38.1354	24.23465			
	Total	366	55.0683	29.57430			
Problem Solving	1	89	66.8202	28.17904	21.550	0.000	-0.370**
	2	104	64.9423	31.29032			
	3	79	45.8481	22.82435			
	4	94	40.7660	25.29628			
	Total	366	55.0683	29.57430			

** Correlation is significant at 0.01 level (2-tailed)

Table 6.4.2
Resultant values of post hoc test

(I) NTILES of Adaptability EQ	(J) NTILES of Adaptability EQ	Mean Difference (I-J)	Std. Error	Sig.
1	2	22.4080	3.71707	.000
	3	27.3862	3.71707	.000
	4	44.4841	3.71707	.000
2	3	4.9783	3.69659	.179
	4	22.0761	3.69659	.000
3	4	17.0978	3.69659	.000
(I) NTILES of Reality Testing	(J) NTILES of Reality Testing			
1	2	19.9361	3.60230	.000
	3	31.2620	3.87066	.000
	4	46.5058	3.70483	.000
2	3	11.3259	3.61520	.002
	4	26.5697	3.43706	.000
3	4	15.2438	3.71736	.000
(I) NTILES of Flexibility	(J) NTILES of Flexibility			
1	2	-2.2983	4.13825	.579
	3	14.5930	3.88447	.000
	4	27.3500	3.85245	.000
2	3	16.8913	4.23024	.000
	4	29.6484	4.20085	.000
3	4	12.7571	3.95110	.001
(I) NTILES of Problem Solving	(J) NTILES of Problem Solving			
1	2	1.8779	3.94995	.635
	3	20.9721	4.22835	.000
	4	26.0543	4.04568	.000
2	3	19.0942	4.08244	.000
	4	24.1764	3.89293	.000
3	4	5.0821	4.17513	.224

* The mean difference is significant at the .05 level.

The resultant values of ANOVA and post hoc tests showed that the difference in ORS among the four groups of managers is highly significant. The mean values of Adaptability EQ and total role stress of the total sample

are 74.9958 and 55.0683 respectively (Table 6.4.3). The correlation value obtained is -0.541 at p 0.01.

Table 6.4.3
Mean values of ADeq and ORS of the total sample

Variables	Mean	Std. Deviation	N
Adaptability EQ	74.9958	9.21121	366
Total Role Stress	55.0683	29.57430	366

The resultant values of various tests applied showed that there is significant negative relationship between Adaptability EQ and total organisational role stress experienced by managers and hence hypothesis 3c viz., **Higher the Adaptability EQ, lower is the organisational role stress experienced by industrial managers,** stands established. This implies that Adaptability EQ, an important aspect of EI, has significant influence in controlling the ORS of industrial mangers and hence organisations can reduce the ORS level of managers by developing their Adaptability EQ.

6.4.1 Reality Testing and Organisational Role Stress

The mean values of total organisational role stress of the four groups of managers are 80.0370, 60.1009, 48.7750 and 33.5313 respectively (Table 6.4.1). The F – Ratio value obtained is found to be highly significant (F= 55.808 at p <0.01). The resultant values of post hoc tests shown in Table 6.4.2 indicate that the mean differences between all groups are significant at p 0.05. Thus, the resultant values of ANOVA and post hoc tests showed that the difference in ORS experienced by the four groups of managers are highly significant.

The mean value of Reality Testing and total role stress of the total sample are 74.8907 and 55.0683 respectively (Table 6.4.4). The coefficient of correlation value obtained is -0.589 at p 0.01.

Table 6.4.4

Mean values of Reality Testing and ORS of the total sample

Variables	Mean	Std. Deviation	N
Reality Testing	74.8907	10.71801	366
Total Role Stress	55.0683	29.57430	366

The resultant values of the above tests clearly indicate that there is significant negative relationship between Reality Testing and organisational role stress experienced by managers. Reality Testing is the ability to assess the correspondence between what is experienced and what objectively exists. It involves a search for objective evidence to confirm, justify, and support feelings, perceptions and thoughts. An important aspect of this factor is the degree of perceptual clarity that is evident when trying to assess and cope with situations. The results of the present study thus show that Reality Testing, an important aspect of Adaptability EQ, has significant influence in controlling the ORS level of managers. Hence organisations can reduce the ORS level of managers by developing their 'Reality Testing' ability.

6.4.2 Flexibility and Organisational Role Stress

Table 6.4.1 summarises the mean values of total organisational role stress of the four groups of managers, which are 65.4854, 67.7838, 50.8925 and 38.1354 respectively. The F – Ratio value obtained is 23.635 at p <0.01. The resultant values of post hoc tests shown in Table 6.4.2 indicate that the mean differences in ORS between all groups of managers except between 1st and 2nd are significant at p 0.05.

The mean value of Flexibility and total role stress of the total sample are 72.2404 and 55.0683 respectively (Table 6.4.5). The coefficient of correlation value obtained is -0.375 at p 0.01.

Table 6.4.5
Mean values of Flexibility and ORS of the total sample

Variables	Mean	Std. Deviation	N
Flexibility	72.2404	11.62783	366
Total Role Stress	55.0683	29.57430	366

The resultant values of ANOVA, post hoc and Pearson's coefficient of correlation tests have shown that there is significant negative relationship between Flexibility and organisational role stress. The inference from these results is that Flexibility, a criterion variable of Adaptability EQ, also has significant influence in controlling the ORS level of managers and hence managers with high score on Flexibility experience less ORS.

6.4.3 Problem Solving and Organisational Role Stress

The mean values of total organisational role stress experienced by the four groups of managers are 66.8202, 64.9423, 45.8481 and 40.7660 respectively (Table 6.4.1). The F – Ratio value obtained is 21.550 at $p < 0.01$. The resultant values of post hoc tests shown in Table 6.4.2 indicate that the mean differences between all groups except between 1st and 2nd, and 2nd and 3rd are significant at p 0.05. The mean values of Problem Solving and ORS of the total sample are 77.8825 and 55.0683 respectively (Table 6.4.6). The Pearson's coefficient of correlation value obtained is -0.370 at p 0.01.

Table 6.4.6
Mean values of problem solving and ORS of the total sample

Variables	Mean	Std. Deviation	N
Problem Solving	77.8825	10.68656	366
Total Role Stress	55.0683	29.57430	366

The resultant values of ANOVA, post hoc and Pearson's coefficient of correlation tests have shown that there is significant negative relationship between problem solving and organisational role stress meaning that Problem Solving also has significant influence in controlling the ORS level of managers.

To sum up, Adaptability EQ and its three criterion variables viz., Reality Testing, Flexibility and Problem Solving have significant influence in controlling the total ORS level of industrial managers. Hence organisations can reduce the ORS level of managers by developing their Adaptability EQ by giving appropriate training.

6.5 Stress Management EQ and Organisational Role Stress

Stress management EQ (SMeq) domain of emotional intelligence is very important in this study, as the main objective of the study is to examine the relationship between emotional intelligence and organisational role stress. This component of EI consists of stress tolerance and impulse control. Individuals with high score on this dimension are generally calm, rarely impulsive, and work well under pressure (Bar-On, 2002). Considering the above the following hypothesis was proposed:

Hypothesis 3d: **Higher the Stress management EQ, lower is the organisational role stress experienced by industrial managers.**

Results and Discussion

The mean values of total organisational role stress of the four groups of managers are 72.4845, 60.1279, 50.7273 and 36.7263 respectively (Table 6.5.1). The F – Ratio value obtained is 30.995 at $p < 0.01$. The resultant values of post hoc tests shown in Table 6.5.2 indicate that the mean differences between all groups are significant at p 0.05. The resultant values of ANOVA

and post hoc test showed that the difference in ORS among the four groups of managers is highly significant.

Table 6.5.1
Mean, Std.Deviation, F-Ratio and coefficient of correlation between Stress Management EQ and its criterion variables, and ORS

Independent Variable	Groups	N	Mean	Std. Deviation	F-Ratio	Sig.	Pearson's coefficient of correlation. Dep.variable-ORS
Stress Management EQ	1	97	72.4845	28.06804	30.995	0.000	-0.458**
	2	86	60.1279	29.78108			
	3	88	50.7273	25.02492			
	4	95	36.7263	22.71444			
	Total	366	55.0683	29.57430			
Stress Tolerance	1	95	67.8947	29.06650	18.608	0.000	-0.369**
	2	89	60.8652	28.30603			
	3	102	51.2255	27.37127			
	4	80	38.2875	25.40716			
	Total	366	55.0683	29.57430			
Impulse Control	1	83	72.3133	30.22676	26.871	0.000	-0.437**
	2	113	58.7257	27.31962			
	3	81	53.0000	28.38221			
	4	89	36.2247	20.81944			
	Total	366	55.0683	29.57430			

** Correlation is significant at 0.01 level (2-tailed)

Table 6.5.2
Resultant values of post hoc test

(I) NTILES of Stress Management EQ	(J) NTILES of Stress Management EQ	Mean Difference (I-J)	Std. Error	Sig.
1	2	12.3566	3.92331	.002
	3	21.7573	3.89961	.000
	4	35.7582	3.82354	.000
2	3	9.4006	4.01649	.020
	4	23.4016	3.94267	.000
3	4	14.0010	3.91909	.000
(I) NTILES of Stress Tolerance	(J) NTILES of Stress Tolerance			
1	2	7.0296	4.07770	.086
	3	16.6692	3.94126	.000
	4	29.6072	4.19446	.000
2	3	9.6397	4.00945	.017
	4	22.5777	4.25860	.000
3	4	12.9380	4.12814	.002
(I) NTILES of Impulse Control	(J) NTILES of Impulse Control			
1	2	13.5876	3.88239	.001
	3	19.3133	4.19459	.000
	4	36.0885	4.09807	.000
2	3	5.7257	3.90992	.144
	4	22.5009	3.80619	.000
3	4	16.7753	4.12416	.000

*The mean difference is significant at the .05 level.

The mean values of SMeq and ORS of the total sample are 72.9781 and 55.0683 respectively (Table 6.5.3). The coefficient of correlation value obtained is -0.458 at p 0.01.

Table 6.5.3

Mean values of SMeq and ORS of the total sample

Variables	Mean	Std. Deviation	N
Stress Management EQ	72.9781	10.76188	366
Total Role Stress	55.0683	29.57430	366

The resultant values of the ANOVA, post hoc and Pearson's coefficient of correlation tests showed that there is significant negative relationship between Stress Management EQ score of managers and the total organisational role stress experienced by them and hence hypothesis 3d viz., **Higher the Adaptability EQ, lower is the organisational role stress experienced by industrial managers,** stands established. The inference from these results is that Stress Management EQ, an important aspect of EI, has significant influence on the level of total ORS experienced by managers. Hence organisations can reduce the ORS level of industrial managers by developing their Stress Management EQ.

6.5.1 Stress Tolerance and Organisational Role Stress

The mean values of total organisational role stress of the four groups of managers are 67.8947, 60.8652, 51.2255 and 38.2875 respectively (Table 6.5.1). The F – Ratio value obtained is 18.608 at $p < 0.01$. The resultant values of post hoc test presented in Table 6.5.2 indicate that the mean differences between all groups except between 1st and 2nd are significant at p 0.05. These values indicate that there is significant difference in ORS experienced by the four groups of managers.

The mean values of Stress Tolerance and total ORS of the total sample are 70.2064 and 55.0683 respectively (Table 6.5.4). The coefficient of correlation value obtained is -0.369 at p 0.01.

Table 6.5.4

Mean values of stress tolerance and ORS of the total sample

Variables	Mean	Std. Deviation	N
Stress Tolerance	70.2064	11.28590	366
Total Role Stress	55.0683	29.57430	366

The resultant values of the above tests showed that there is significant negative relationship between Stress Tolerance and organisational role stress among industrial managers and hence it can be said that when the score on stress tolerance dimension among managers are high, the organisational role stress experienced by them will be less. This implies that Stress Tolerance, a criterion variable of Stress Management EQ, also has significant influence in controlling the role stress level of industrial managers.

6.5.2 Impulse Control and Organisational Role Stress

Table 6.5.1 summarises the mean values of total organisational role stress of the four groups of managers, which are 72.3133, 58.7257, 53.0000 and 36.2247 respectively. The F – Ratio value obtained is 26.871 at $p < 0.01$. The resultant values of post hoc test presented in Table 6.5.2 showed that the mean differences between all groups except between 2nd and 3rd are significant at p 0.05.

The mean value of Impulse Control and total role stress of the total sample are 72.2404 and 55.0683 (Table 6.5.5.) respectively. The coefficient of correlation value obtained is -0.437 at p 0.01.

Table 6.5.5

Mean values of impulse control and ORS of the total sample

	Mean	Std. Deviation	N
Impulse Control	75.7498	13.00416	366
Total Role Stress	55.0683	29.57430	366

The resultant values of the ANOVA, post hoc and Pearson's coefficient of correlation tests have shown that there is significant negative relationship between Impulse Control and organisational role stress among managers and hence it can be said that managers who have effective impulse control will experience less organisational role stress.

6.6 General Mood EQ and Organisational Role Stress

General Mood EQ (GMeq) component of EI measures one's ability to enjoy life as well as one's outlook on life and overall feeling of contentment. This consists of two subscales: Happiness and Optimism. An individual with high score on this dimension is generally cheerful, positive, hopeful, and optimistic and knows how to enjoy life. It is an essential element in interacting with others and a motivational component in problem solving and stress tolerance (Bar-On, 2002). Based on this it is hypothesised that:

Hypothesis 3e: **Higher the General Mood EQ, lower is the organisational role stress experienced by industrial managers.**

Results and Discussion

The mean values of total ORS of the four groups of managers are 72.0426, 57.1220, 49.6337 and 41.4157 respectively (Table 6.6.1). The F – Ratio value obtained is 20.833 at p <0.01. The resultant values of post hoc test shown in Table (6.6.2) indicate that the mean difference between all groups except between 2nd and 3rd are significant at p 0.05.

Table 6.6.1
Mean, Std.Deviation, F-Ratio and coefficient of correlation between General Mood EQ and its criterion variables, and ORS

Independent Variable	Groups	N	Mean	Std. Deviation	F-Ratio	Sig.	Pearson's coefficient of correlation Dep.variable-ORS
General Mood EQ	1	94	72.0426	30.05941	20.833	0.000	-0.365**
	2	82	57.1220	27.88574			
	3	101	49.6337	26.35099			
	4	89	41.4157	25.17792			
	Total	366	55.0683	29.57430			
Optimism	1	94	65.5957	29.68846	10.714	0.000	-0.272**
	2	94	60.2234	29.22150			
	3	80	49.2875	27.93718			
	4	98	44.7449	26.89587			
	Total	366	55.0683	29.57430			
Happiness	1	82	71.3415	29.35951	16.444	0.000	-0.367**
	2	107	57.3645	27.58499			
	3	82	49.6707	26.85859			
	4	95	43.0947	27.68442			
	Total	366	55.0683	29.57430			

** Correlation is significant at the 0.01 level (2-tailed).

Table 6.6.2

Resultant values of post hoc test

(I) NTILES of General Mood EQ	(J) NTILES of General Mood EQ	Mean Difference (I-J)	Std. Error	Sig.
1	2	14.9206	4.14389	.000
	3	22.4089	3.93021	.000
	4	30.6268	4.05592	.000
2	3	7.4883	4.07644	.067
	4	15.7062	4.19777	.000
3	4	8.2179	3.98698	.040
(I) NTILES of Optimism	(J) NTILES of Optimism			
1	2	5.3723	4.15132	.196
	3	16.3082	4.32913	.000
	4	20.8508	4.10874	.000
2	3	10.9359	4.32913	.012
	4	15.4785	4.10874	.000
3	4	4.5426	4.28832	.290
(I) NTILES of Happiness	(J) NTILES of Happiness			
1	2	13.9770	4.08881	.001
	3	21.6707	4.35083	.000
	4	28.2467	4.19935	.000
2	3	7.6938	4.08881	.061
	4	14.2697	3.92723	.000
3	4	6.5760	4.19935	.118

* The mean difference is significant at the .05 level.

The mean values of GMeq and total ORS of the total sample are 77.7756 and 55.0683 respectively (Table 6.6.3). The coefficient of correlation value obtained is -0.365 at p 0.01.

Table 6.6.3
Mean values of GMeq and ORS

Variables	Mean	Std. Deviation	N
General Mood EQ	77.7756	9.82525	366
Total Role Stress	55.0683	29.57430	366

The resultant values of the above tests clearly show that there is significant negative relationship between General Management EQ and total organisational role stress experienced by managers. Hence managers with high score on this dimension will experience less organisational role stress and hence hypothesis 3e viz., **Higher the General Mood EQ, lower is the organisational role stress experienced by industrial managers,** stands established. The main observation from this finding is that General Mood EQ, an important aspect of EI, has a very significant influence in controlling the role stress level of industrial managers. Hence organisations can reduce the role stress level of mangers by developing their General Mood EQ.

6.6.1 Optimism and Organisational Role Stress

The mean values of total organisational role stress of the four groups of managers are 65.5957, 60.2234, 49.2875 and 44.7449 respectively (Table 6.6.1). The F – Ratio value obtained is 10.714 at $p < 0.01$. The resultant values of post hoc test shown in Table 6.6.2 indicate that the mean differences between all groups except between 1st and 2nd, and 3rd and 4th are significant at p 0.05.

The mean value of Optimism and total role stress of the total sample are 77.5683 and 55.0683 (Table 6.6.4) respectively. The coefficient of correlation value obtained is -0.272 at p 0.01.

Table 6.6.4
Mean values of optimism and ORS of the total sample

	Mean	Std. Deviation	N
Optimism	77.5683	10.92763	366
Total Role Stress	55.0683	29.57430	366

The resultant values of the tests clearly indicate that there is significant negative relationship between Optimism and organisational role stress and hence managers with high score on optimism will experience less organisational role stress. The results thus signify that Optimism, a criterion variable of General Mood EQ, has significant influence in controlling the ORS level of managers.

6.6.2 Happiness and Organisational Role Stress

Table 6.6.1 summarises the mean values of total organisational role stress of the four groups of managers, which are 71.3415, 57.3645, 49.6707 and 43.0947 respectively. The F – Ratio value obtained is 16.444 at $p < 0.01$. It shows that there is significant difference in total organisational role stress among the four groups of managers. The resultant values of multiple comparison test (post hoc) shown in Table 6.6.2 indicate that the mean difference between all groups except between 2nd and 3rd, and 3rd and 4th are significant at p 0.05.

The mean value of Happiness and total role stress of the total sample are 77.5683 and 55.0683 respectively. The coefficient of correlation value obtained is -0.367 at p 0.01.

Table 6.6.5
Mean values of Happiness and ORS of the total sample

	Mean	Std. Deviation	N
Happiness	77.9599	11.29860	366
Total Role Stress	55.0683	29.57430	366

The resultant values of various tests applied showed that there is significant negative relationship between Happiness and organisational role stress. This indicates that Happiness, a criterion variable of General Mood EQ, has significant influence in controlling the role stress level of managers and establishes that managers with high score on Happiness will experience less ORS.

To sum up, the results of the analysis of data showed that emotional intelligence of managers is negatively related to total organisational role stress. Total organisational role stress was measured by considering ten role stressors viz., Inter role distance, Role stagnation, Role expectation conflict, Role erosion, Role overload, Role isolation, Personal inadequacy, Self-role distance, Role ambiguity and Resource Inadequacy. The resultant values of various statistical tests applied showed that emotional intelligence is negatively related to all the role stressors except role erosion.

Emotional intelligence was measured by using EQ-i, which consists of five composite scales and fifteen sub-scales. This study examined the relationship of all the composite scales and sub-scales with total ORS and the results of the analysis of data showed that all the composite scales and sub-scales of EQ-i are negatively related to total ORS. The strongest relationship is between Adaptability EQ and ORS (F-Ratio=48.627 at $p<0.01$ and Pearson's correlation value –0.541) among composite scales, and Reality Testing and ORS (F-Ratio= 55.808 at $p<0.01$ and Pearson's correlation value –0.589)

among sub-scales. These results are not surprising because individuals with high score on Adaptability EQ domain are generally flexible, realistic, effective in understanding problematic situations and competent at arriving at adequate solutions, and therefore they can handle stressful situations effectively. The results of step-wise multiple regression analysis showed that only three dimensions of emotional intelligence viz., Reality Testing, Impulse Control and Self-Actualisation have negative functional relationship with organisational role stress and the relationship between Reality Testing and ORS is stronger. What the results imply is that instead of just developing and offering conventional stress management programmes, the focus of training should be to make the individuals equipped to deal with stressful situations. The reason for the strongest relationship between Reality Testing and ORS is that individuals with high score on Reality Testing are able to evaluate the correspondence between what they experience (the subjective) and what in reality exists (the objective). These people are often described as realistic, well grounded and tuned in to their environments. Their general approach in life involves actively examining rather than passively or naively assuming. Hence they understand the stressful situations as it exists, examining each and every aspect of it carefully and therefore are able to handle them effectively.

CHAPTER 7
FINDINGS, CONCLUSION AND IMPLICATIONS OF THE STUDY

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This study is an attempt to examine the relationship between emotional intelligence (EI) and organisational role stress (ORS) experienced by managers working in industries in Kerala. Perhaps never before the relationship between EI and ORS was examined in such detail. Each and every dimension of EI was examined in detail to check how it relates with total ORS. Similarly each and every dimension of ORS was checked to see whether EI levels of managers influenced these dimensions. The results of the analysis of data have established necessary support to the theoretical framework of the study. The study also explored the difference in the level of organisational role stress experienced by junior, middle and senior level managers. Important personal and organisational variables of managers were also surveyed and their influence on emotional intelligence level of managers examined. The following paragraphs give the major findings from the analysis of data:

Personal variables and EI

Four personal variables viz., age, gender difference, marital status and educational qualification were surveyed and the results of the analysis of data did not show any significant difference in the mean value of EI of managers belonging to different age groups (F-Ratio =1.214 at p = 0.304). This finding is in contrast to some of the earlier studies, such as, Philippot & Feldman (1990) and Salovey & Mayor (1990), which showed that EI increased with increase in age. But this could be due to the fact that in this study the minimum age of managers is 21and maximum 60. This study has shown that there is no significant difference in EI **among managers of different age groups**.

Analysis of variance in the mean value of EI levels of male and female managers also did not show any significant difference (F-Ratio=2.236 at p 0.136), thereby showing that there is no significant difference in EI **among male and female managers.**

Results of the analysis of data proved that there is no significant difference in EI between **married and unmarried managers** (F= 2.411 at p=0.121). **Educational qualifications** also did not have any influence on EI of mangers. The one-way ANOVA results did not show any significant difference in EI of managers with different educational qualification (F=1.383, p=0.239). Thus, personal variables viz., age, gender difference, marital status and educational qualification of managers had no influence on their emotional intelligence. The implication is that emotional intelligence will not be increased automatically but concerted, continuous and long lasting effort is required to be put in to develop these competencies.

Organisational variables and EI

Organisational variables surveyed in this study were experience, managerial level, department, type of organisation and size of organisation. Results of the analysis of data showed that there is no significant change in EI among managers according to the increase in experience in their organisation. The mean values of emotional intelligence of various groups of managers based on experience were 78.4778, 75.4843, 74.9310, and 74.6397 and mean value of the total sample was 75.2333. The F-Ratio obtained was 1.376 at p 0.250. These values showed that there is no significant difference in EI **among managers corresponding to the increase in experience.**

Increase in EI was observed as **managers go up in the managerial level in organisation**. The mean values of EI of junior, middle and senior level managers were 74.1591, 75.9995 and 80.6481 respectively and the F -

Ratio value obtained had turned out be significant. ($F= 8.095$, $p< 0.01$). The resultant values of post hoc test also showed significant difference in EI between all categories of managers (see Table 4.3.2). These results are in support to the first hypothesis of the study. As age, educational qualification, marital status and experience did not show any influence on EI, it could be inferred that one of the main reasons for managers to go up in the managerial level in organisations is their level of emotional intelligence. In other words, career success of managers depends highly on their emotional intelligence. But there is no conclusive evidence that career success is totally dependent on EI, as other personality variables or abilities were not considered in this study. However, one thing is clear from this study that EI is an important factor in predicting career success of managers.

Results of the analysis of data showed that junior, middle and senior level managers differed significantly on all the composite scales of EQ-i except interpersonal EQ. Resultant values of post hoc test showed that there is significant difference in Adaptability EQ and Stress Management EQ between junior and middle, junior and senior, and middle and senior level managers whereas on Intrapersonal EQ and General Mood EQ the difference is not significant among junior and middle level managers. In other words, junior, middle and senior level managers differed significantly on emotional intelligence. Among the composite scales of EQ-i the difference was not significant on interpersonal EQ among junior, middle and senior level managers. Among the four significant composite scales, there was significant difference on Adaptability EQ and Stress Management EQ between junior and middle, junior and senior, and middle and senior level managers whereas on Intrapersonal EQ and General Mood EQ the difference was not significant between junior and middle level managers but these were significant between junior and senior, and middle and senior level managers.

Managers working in production, maintenance and administration departments did not differ significantly on their emotional intelligence. The mean values of EI of managers working in production, maintenance and administration departments were 74.2203, 75.9039 and 75.6083 respectively (F – Ratio = 1.561 at p 0.211). This shows that nature of work does not make any influence in the emotional intelligence level of managers.

Type of organisation, i.e. public or private sector, also had not made any influence on emotional intelligence level of managers. The mean values of EI of managers working in public sector and private sector organisation were 74.4336 and 76.0157 respectively. The F- Ratio obtained was 3.505 at p 0.062.

Significant difference in emotional intelligence was observed between managers from medium scale and large-scale organisations. The mean values of emotional intelligence of managers working large scale and medium scale are 74.1118 and 76.6456 respectively. The F –Ratio value obtained is 9.005 at p 0.003. Managers working in medium scale organisations are having more emotional intelligence score than managers working in large scale organisations. These results show that **size of the organisations** do have influence in the emotional intelligence score of managers.

Thus, among organisational variables, experience, department and type of organisation had no influence in the level of emotional intelligence of industrial managers. But there was significant difference in EI among junior, middle and senior level managers, i.e., the hierarchical level occupied by managers and their EI have a strong relationship. Significant difference in EI was also observed among managers from medium scale and large-scale organisations.

Organisational role stress among managers

Results of the analysis of data showed that there is a progressive decrease in organisational role stress (ORS) among industrial mangers as they go up in the organisational hierarchy. In other words, higher the managerial level of managers in organisations, lower is the ORS experienced by them. The mean values of ORS of junior, middle and senior level managers were 58.8498, 52.4419 and 35.6250 respectively and the mean value of role stress of the total sample was 55.0683. The F – Ratio value obtained was 7.710 at p.001.

Post hoc test results demonstrated that difference in ORS was significant between junior and middle, junior and senior, and middle and senior level managers (see Table 5.1.2). This shows that junior level managers experience more ORS than middle level managers and the ORS level of middle level managers is higher than that of senior level managers. These findings provided support to the second hypothesis of the study.

The results of the canonical discriminant analysis has brought out the relative importance of each of the stressors viz., Inter role distance, Role stagnation, Role expectation conflict, Role erosion, Role overload, Role isolation, Personal inadequacy, Self-role distance, Role ambiguity and Resource Inadequacy, in contributing to total organisational role stress. Role erosion emerged as the most dominant contributor and role ambiguity as the least contributor to total ORS among junior, middle and senior level managers. The mean discriminant values of role erosion among junior, middle and senior level managers were 9.0610, 8.4961 and 6.7083 respectively and the mean values of role ambiguity were 3.9859, 3.2326 and 1.9583 respectively. The second most important contributor of total ORS among junior, middle and senior level managers was Personal Inadequacy.

This study also examined the difference in the level of organisational role stress experienced by managers across different sectors and from medium scale and large-scale organisations. The results of the study did not show any significant difference in organisational role stress experienced by managers from public sector and private sector as well as from medium scale and large-scale organisations.

The study therefore show that junior level managers experienced more ORS than middle level managers and middle level managers experienced more ORS than senior level managers. The two most important contributors to total ORS among junior, middle and senior level managers are role erosion and personal inadequacy, and the least important contributor is role ambiguity. As role erosion is a factor which is beyond the control of individuals working in organisations, the management of respective organisations should take steps to reduce the role erosion stress. Role erosion arises out of the feeling that the tasks, which are supposed to be done by the role occupants, are performed by other people or the credit for the performance goes to other role occupants. So it can be reduced through appropriate measures such as by properly assigning Roles to each individual with role clarity, implementing proper reward systems and issuing appreciation letters etc., for better performance. The second most important factor contributing to total ORS is personal inadequacy, which can be reduced by the individuals themselves by learning new skills and the management of respective organisations can support them in this endeavour by giving appropriate training to develop the required skills for the performance of the job.

Emotional intelligence and organisational role stress

The main objective of the study was to examine the relationship between emotional intelligence and organisational role stress. The study results

showed strong negative relationship between EI and ORS among industrial mangers. The managers were categorised into four groups on the basis of their EI to examine the relationship. The mean values of total ORS experienced by these four groups were 75.4831, 58.4526, 52.5889 and 34.2500 respectively and the mean value of ORS of the total sample was 55.0683. The F-Ratio value obtained had turned out to be highly significant ($F= 39.417$ at $p < 0.01$). Results of post hoc test showed that the difference in ORS was significant between all groups except second and third. Pearson's coefficient of correlation value obtained was -0.504 at $p=0.01$. Scatter plot test also showed negative relationship between EI and ORS (see graph 6.0.1). From these results it can be inferred that there is significant negative relationship between emotional intelligence level of industrial mangers and the organisational role stress experienced by them. In other words, the study showed that higher the emotional intelligence level of managers lower is the organisational role stress experienced by them.

The present study also examined whether EI is related to all the ten dimensions of ORS viz., Inter role distance, Role stagnation, Role expectation conflict, Role erosion, Role overload, Role isolation, Personal inadequacy, Self-role distance, Role ambiguity and Resource Inadequacy. The results of the study revealed that EI is negatively related to all the dimensions of ORS except role erosion (see Table 6.1.1 and 6.1.3). In the canonical discriminant analysis role erosion emerged as the most significant contributor to total ORS, but in examining the relationship between EI and all the dimensions of role stress, the relationship between EI and role erosion was not significant while in all others it was significant. However, from this result alone we cannot say that EI is unrelated to ORS as role erosion is only one factor among the ten role stressors considered for measuring total ORS. The study results have provided a very high significance (F-Ratio= 39.417 at $p<0.01$) and interdependence

between EI and total ORS in the correlation analysis (Pearson's coefficient of correlation value obtained was -0.504 at p=0.01). Hence the total organisational role stress of industrial managers can be reduced significantly by developing their emotional competencies.

Intrapersonal EQ and ORS

The study also examined whether the five composite scales of EQ-i viz., Intrapersonal EQ, Interpersonal EQ, Adaptability EQ, Stress Management EQ and General Mood EQ and each of its sub-scales are related to total ORS. Analysis of data revealed that Intrapersonal EQ and its five sub-scales namely self-regard, emotional self-awareness, assertiveness, independence and self-actualisation were inversely related to total ORS. The mean values of ORS of the four groups of managers based on their Intrapersonal EQ were 71.6552, 60.0100, 52.6047 and 36.5161 respectively and the mean value of the total sample was 55.0683. The F – Ratio value obtained was 27.305 at p <0.01. A very high interdependence was observed from the correlation analysis (Pearson's coefficient of correlation was -0.479 at p 0.01). These values show that there is significant negative relationship between Intrapersonal EQ and ORS among managers and hence it can be inferred that managers with high score on Intrapersonal EQ will experience less ORS. These findings provide support to hypothesis 3a of the study.

Results of the study also showed that Self-regard was inversely related (Coefficient of correlation value was -0.344 at p<0.01) to total ORS among managers. The mean values of ORS of the four groups of managers were 71.8842, 54.8242, 52.3766 and 41.7864 respectively. The F – Ratio value obtained was 20.106 at p <0.01. This shows that managers with high score on self-regard will experience less ORS.

Significant negative relationship was observed between emotional self-awareness and total ORS. The mean values of ORS of the four groups of managers were 75.8415, 58.3956, 48.6226 and 39.8621 respectively. The F – Ratio value obtained was 28.453 at p <0.01 and the coefficient of correlation value between emotional self-awareness and ORS was -0.413 at p 0.01. From these values we can say that managers with high score on emotional self-awareness will experience less ORS.

Assertiveness also showed significant negative relationship with total ORS. The mean values of total organisational role stress of the four groups of managers were 69.8444, 57.5556, 54.7955 and 37.6292 respectively. The F – Ratio value obtained was 21.007 at p <0.01 and the coefficient of correlation value was -0.378 at p 0.01. These values are indicative of the fact that managers with high score on Assertiveness will experience less ORS.

Significant negative relationship was observed between Independence and total ORS also. The mean values of total ORS of the four groups of managers were 67.7865, 57.6727, 52.2879 and 42.8416 respectively. The F – Ratio value obtained was 12.862 at p <0.01 and the coefficient of correlation value obtained was -0.373 at p 0.01. From these values it can be said that managers with high score on Independence will experience less ORS.

Results of the study also showed significant negative relationship between self-actualisation and total ORS. The mean values of total ORS of the four groups of managers were 71.0111, 58.9727, 47.5694 and 40.9787 respectively. The F – Ratio value obtained was 20.968 at p <0.01 and the coefficient of correlation value obtained was -0.408 at p 0.01. Hence it can be inferred that managers with high score on self-actualisation will experience less ORS.

To sum up, results of the study had shown that Intrapersonal EQ and its five sub-scales viz., self-regard, emotional self-awareness, Assertiveness, Independence and self-actualisation are inversely related to total ORS. Hence industrial managers with high score on these scales will experience less ORS. This implies that organisational role stress of managers can be reduced by developing these abilities.

Interpersonal EQ and ORS

Analysis of data showed that Interpersonal EQ and its three sub-scales viz., empathy, social responsibility and interpersonal relationship were inversely related to total ORS. The mean values of total ORS of managers categorised on Interpersonal EQ score were 68.2737, 57.6292, 54.3953 and 40.6277 respectively. The F – Ratio value obtained was 15.751 at $p < 0.01$and coefficient of correlation value was -0.299 at p 0.01. These values indicate significant negative relationship between Interpersonal EQ and ORS and hence it can be inferred that managers with high score on Interpersonal EQ will experience less ORS. These findings provide support to hypothesis 3b of the study.

Significant negative relationship was observed between Empathy and total ORS also. The mean values of total ORS of the four groups of managers were 68.5581, 57.8795, 51.7064 and 43.6322 respectively. The F – Ratio value obtained was 12.026 at $p < 0.01$ and the coefficient of correlation value was -0.270 at p 0.01. From these results it can be inferred that managers with high score on empathy will experience less ORS.

Results of the study also showed significant negative relationship between social responsibility and total ORS. The mean values of total ORS of the four groups of managers were 63.1111, 52.7292, 57.3247 and 47.4301 respectively. The F – Ratio value obtained was 5.023 at p 0.002 and the

coefficient of correlation value was -0.179 at p 0.01. This shows that managers with high score on social responsibility will experience less ORS.

Interpersonal relationship also showed significant negative relationship with total ORS. The mean values of total ORS of the four groups of managers were 70.0833, 56.4860, 51.3614 and 43.0543 respectively. The F – Ratio value obtained was 14.181 at p <0.01and the correlation value obtained was -0.295 at p 0.01. These results are indicative of the fact that managers with high score on interpersonal relationship will experience less ORS.

In short, the results of the study show that Interpersonal EQ and its three sub-scales viz., empathy, social responsibility and interpersonal relationship are inversely related with total organisational role stress of industrial mangers. Hence managers with high score on these measures will experience less ORS, which implies that organisational role stress of managers can be reduced by developing Intrapersonal EQ and its related abilities.

Adaptability EQ and ORS

Results of the study showed that Adaptability EQ and its three sub-scales viz., Reality Testing, Flexibility and Problem Solving were negatively related with total ORS of industrial managers. The mean values of total ORS of the four groups of managers categorised on Adaptability EQ score were 78.7667, 56.3587, 51.3804 and 34.2826 respectively. The F – Ratio value obtained had turned out to be highly significant (F= 48.627 at p <0.01) and the coefficient of correlation value was -0.541 at p 0.01. From these values it can be inferred that managers with high score on Adaptability EQ will experience less organisational role stress and these findings support hypothesis 3c of the study.

Significant negative relationship was observed between Reality testing and total ORS. The mean values of total ORS of the four groups of managers were 78.7667, 56.3587, 51.3804 and 34.2826 respectively. The F – Ratio value obtained had turned out to be highly significant (F= 55.808 at p <0.01) and the coefficient of correlation value was -0.589 at p 0.01. This shows that higher the Reality Testing score of managers the lesser will be the ORS experienced by them.

Flexibility also showed significant negative relationship total ORS. The mean values of total ORS of the four groups of managers were 65.4854, 67.7838, 50.8925 and 38.1354 respectively. The F – Ratio value obtained was 23.635 at p <0.01 and the coefficient of correlation value was -0.375 at p 0.01. From these results it can be inferred that managers with high score on Flexibility will experience less ORS.

Significant negative relationship was also observed between Problem Solving and total ORS. The mean values of total ORS experienced by the four groups of managers were 66.8202, 64.9423, 45.8481 and 40.7660 respectively. The F – Ratio value obtained was 21.550 at p <0.01and Pearson's coefficient of correlation value was -0.370 at p 0.01. Hence it can be generalised that managers with high score on problem solving will experience less ORS.

The results of the study have clearly shown that industrial managers with high score on Adaptability EQ and its three criterion variables viz., Reality Testing, Flexibility and Problem Solving would experience less ORS. It implies that ORS of managers can be reduced by developing the Adaptability EQ and its related abilities.

Stress Management EQ and ORS

Analysis of data revealed that Stress Management EQ and its two criterion variables namely Stress Tolerance and Impulse Control were inversely related to total ORS. The mean values of total ORS of the four groups of managers categorised on Stress Management EQ were 72.4845, 60.1279, 50.7273 and 36.7263 respectively. The F – Ratio value obtained was 30.995 at p <0.01 and the coefficient of correlation value was-0.458 at p 0.01. From these results it can be generalised that managers with high score on Stress Management EQ will experience less ORS. These findings provide support to hypothesis 3d of the study.

Results of the study also showed significant negative relationship between Stress Tolerance and total ORS. The mean values of total ORS of the four groups of managers were 67.8947, 60.8652, 51.2255 and 38.2875 respectively. The F – Ratio value obtained was 18.608 at p <0.01 and Pearson's coefficient of correlation value was -0.369 at p 0.01. These values are indicative of the fact that managers with high score on Stress Tolerance will experience less ORS.

Significant negative relationship was observed between Impulse Control and total ORS also. The mean values of total ORS of the four groups of managers were 72.3133, 58.7257, 53.0000 and 36.2247 respectively. The F – Ratio value obtained was 26.871 at p <0.01and coefficient of correlation value was -0.437 at p 0.01. The inference from these results is that managers with high score on Impulse Control will experience less ORS.

Thus, the results of the study showed that Stress Management EQ and its criterion variables viz., Stress Tolerance and Impulse Control are inversely related to total ORS of managers. Hence ORS experienced by

managers can be reduced by developing their Stress Management EQ and its related abilities.

General Mood EQ and ORS

Results of the study showed that General Mood EQ and its two criterion variables viz., Happiness and Optimism were negatively related to total ORS. The mean values of total ORS of the four groups of managers categorised on General Mood EQ were 72.0426, 57.1220, 49.6337 and 41.4157 respectively. The F – Ratio value obtained was 20.833 at p <0.01 and the coefficient of correlation value was -0.365 at p 0.01. From these results it can be said that managers with high score on General Mood EQ will experience less ORS and these findings provide support to hypothesis 3e of the study.

Happiness also showed significant negative relationship with total ORS. The mean values of the total ORS of the four groups of managers were 71.3415, 57.3645, 49.6707 and 43.0947 respectively. The F – Ratio value obtained was 16.444 at p <0.01and the coefficient of correlation value was -0.367 at p 0.01. This shows that managers with high score on Happiness will experience less ORS.

Significant negative relationship was observed between Optimism and total ORS also. The mean values of the four groups of managers were 65.5957, 60.2234, 49.2875 and 44.7449 respectively. The F – Ratio value obtained was 10.714 at p <0.01 and the coefficient of correlation value was -0.272 at p 0.01. These results indicate that managers with high score on Optimism will experience less ORS.

Thus, results of the study show that General Mood EQ and its criterion variables viz., Happiness and Optimism are inversely related to total ORS of industrial managers. Hence ORS experienced by managers working in

industries can be reduced by developing their General Mood EQ and its related abilities.

The functional relationship of all the emotional intelligence dimensions with role stress was examined by step-wise multiple regression and the results showed that only three dimensions of EI viz., Reality Testing, Impulse Control and Self-Actualisation had negative functional relationship with ORS. It means that among the fifteen dimensions of EI, Reality Testing, Impulse Control and Self-Actualisation are more important in reducing ORS.

Conclusion

The main objective of the study was to examine the relationship between EI and ORS of managers. Results of the study have conclusively proved significant negative relationship between EI and ORS. Emotional intelligence of managers was measured by using a self-report inventory, EQ-i, developed by Reuven Bar-On. It consists of five composite scales and fifteen sub-scales. The study also examined whether these composite scales and its criterion variables were related to ORS and found that all the composite scales and its criterion variables of EQ-i were inversely related to ORS. Thus, this study conclusively proved that emotional intelligence and all its conceptual components are negatively related to total ORS of managers. But the results of multiple regression analysis showed that only three dimensions of EI viz., Reality Testing, Impulse Control and Self-Actualisation had negative functional relationship with ORS.

The results of this study are in conformity with the transactional and attributional models of stress, which say that emotions are important in the stress process and emotional regulation is very important in the stress coping process. Emotional regulation is an important aspect of emotional intelligence and hence individuals with high score on EI would be better able to handle

stressful situations. Therefore, the ORS experienced by industrial mangers can be significantly reduced by developing their emotional competencies by providing appropriate training to them by the management. But training programmes to develop emotional competencies must be framed with utmost care as it involves change in habits and behaviour. Emotional incompetence is often due to deeply ingrained habits learned early on in life. These automatic habits are set in place as a normal part of living, as experience shapes the brain. Hence learning emotional competencies include unlearning the already developed habits and relearning new habits. Certain guidelines to be considered while developing training programmes to develop emotional competencies as suggested by Singh, D (2003) are provided below:

1. Training programmes should be framed taking into account the need of the organisation, and the strengths and weaknesses of the individuals. Organisations should recognise the important emotional competencies required for effective performance of each job and training programmes should be framed for developing such competencies.
2. Readiness on the part of individuals: As learning new behaviour is a continuous and long lasting process the learners' willingness to learn is very important. Hence organisations should first try to get their willingness by educating them about the importance of developing emotional competencies for their own and organisation's performance.
3. Feedback to the learners: After assessment the individuals should be given feedback about their strengths and limitations. But it must be done very carefully as most of the emotional competencies are closely linked to their identity and self-esteem. Hence a responsible person should give feedback in an atmosphere of confidence and trust.
4. Relationship between the trainer and learners: Relationship between trainer and learners is very important in emotional training programmes.

Empathetic and warm trainers can maintain positive relationship with the learners and can be successful in behaviour change programmes.

5. Sustained practice: As emotional learning process is a continuous and long lasting process, it should not be restricted to a single seminar or workshop. Frequent sessions are required to be conducted.
6. Organisations should encourage the learners to use the learned skills in their workplace.
7. Develop an organisational culture to develop the emotional competencies of the individuals working in organisations.
8. Evaluation: Evaluation is very essential to appraise the effectiveness of training. Hence organisations should evaluate the effectiveness of training and make appropriate modifications, if needed.

Finally, four personal variables viz., age, gender difference, marital status and educational qualification were surveyed in this study and their influence on emotional intelligence explored. The results of the study showed that the personal variables had no significant influence on emotional intelligence level of industrial managers. Similarly five organisational variables viz., experience, managerial level, department, type of organisation and size of organisation were also surveyed and their influence on EI of managers explored. Results of the study showed that experience, department and type of organisation had no significant relation with emotional intelligence level of managers. But a corresponding increase in EI was observed among managers as they go up in the managerial level. Similarly it was observed that size of organisation did have significant influence on emotional intelligence level of managers. EI level of managers working in medium scale organisations were higher than those working in large-scale organisations. As age, educational qualification and experience had no influence on EI level of managers it can be said that it is because of their higher level of emotional

intelligence that managers got promoted to higher ups in the managerial level. From the findings of this study it can be presumed that EI of managers cannot be increased merely by acquiring educational qualification, work experience or by physiological maturity but concerted, continuous and long lasting effort is needed to improve emotional competencies. Happily for us, it is now clearly proved that unlike IQ, emotional intelligence can be increased or developed by providing appropriate training programmes (Pesuric & Byham, 1996; Brown, Richmond & Rollin 2004).

Implications of the study

The study has conclusively proved that ORS experienced by managers would be less if their emotional intelligence level were high. It is now well documented that lower stress level will result in higher productivity, performance, lower accident rate and better physical and psychological well being. So the organisational implication of the study is that the managements should go for selecting emotionally more intelligent people as managers at the time of selection to improve the overall effectiveness of organisations. Previous studies have proved that emotional intelligence is positively related to most of the organisationally important variables like performance, job satisfaction, leadership effectiveness etc. Hence organisations have to give more emphasis to emotional intelligence of managers for the overall improvement of organisational efficiency. In the case of existing managers, the organisations have to provide appropriate training for the development of their emotional competencies so that they are better equipped to cope with ORS. At the time of recruiting new candidates as managers, organisations can go for selecting candidates with high level of emotional intelligence. As role erosion emerged as the most significant contributor to total ORS, organisations also need to reduce the role erosion stress of managers by clearly defining each role

and appreciating the managers for better performance by issuing appreciation letters or implementing reward system for outstanding performance.

The implication of the study for managers working in industries is that they should give importance for developing their emotional competencies, which are very important for career success as well as contented personal life.

Scope for future studies

The study is limited to managers working in industrial organisations only, service sector is not considered in this study. As the nature of work in the service sector is significantly different from manufacturing industries, further studies may be conducted in the service sector also to generalise the result. As managers were only considered in this study, further studies may be conducted among workmen to examine how emotional intelligence affects their occupational stress level.

The results of this study have shown that there is significant difference in emotional intelligence among managers from medium scale and large-scale organisations. The emotional intelligence score of managers from medium scale organisations was more than that of managers from large-scale organisations. Further studies may be conducted to identify the exact reasons for this difference in emotional intelligence score.

This study has considered only the emotional intelligence variable in determining how managers cope with stressful situations. Attempts to understand and explain the diagnostic effects of other personality dimensions in the stress coping process would offer insights into the relative importance of emotional intelligence and other personality dimensions in the stress coping process.

Further studies can also be conducted to examine the relationship between emotional intelligence and stress coping process to get an idea of the coping strategies used by individuals with various levels of emotional intelligence.

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ANNEXURE

Annexure I

EMOTIONAL QUOTIENT INVENTORY - EQ-i

EQ-i consists of statements that provide you an opportunity to describe you by indicating the degree to which each statement is true of the way you feel, think, or act most of the time and in most situations. If a statement does not apply to you, respond in such a way that will give the best indication of how you would possibly feel, think or act.

Read each statement and decide which one of the following five possible responses best describes you. Make your choices by encircling the number that corresponds your answer.

Possible responses :

1 = Very Seldom or Not true of me
2 = Seldom true of me
3 = Sometimes true of me
4 = Often true of me
5 = Often true of me or true of me

1.	My approach in overcoming difficulties is to move step by step.	1	2	3	4	5
2.	It's hard for me to enjoy life.	1	2	3	4	5
3.	I prefer a job in which I am told pretty much what to do.	1	2	3	4	5
4.	I know how to deal with upsetting problems.	1	2	3	4	5
5.	I like everyone I meet.	1	2	3	4	5
6.	I try to make my life as meaningful as I can.	1	2	3	4	5
7.	It's fairly easy for me to express feelings.	1	2	3	4	5
8.	I try to see things as they really are, without fantasizing or daydreaming about them.	1	2	3	4	5
9.	I am in touch with my emotions.	1	2	3	4	5
10.	I am unable to show affection.	1	2	3	4	5
11.	I feel sure of myself in most situations.	1	2	3	4	5
12.	I have a feeling that something is wrong with my mind.	1	2	3	4	5
13.	It is a problem controlling my anger.	1	2	3	4	5
14.	It's difficult for me to begin new things.	1	2	3	4	5
15.	When faced with a difficult situation, I like to collect all the information about it that I can.	1	2	3	4	5

16.	I like helping people.	1	2	3	4	5
17.	It's hard for me to smile.	1	2	3	4	5
18.	I am unable to understand the way other people feel.	1	2	3	4	5
19.	When working with others, I tend to rely more on their ideas than my own.	1	2	3	4	5
20.	I believe that I can stay on top of tough situations.	1	2	3	4	5
21.	I really don't know what I am good at.	1	2	3	4	5
22.	I am unable to express my ideas to others.	1	2	3	4	5
23.	It's hard for me to share my deep feeling with others.	1	2	3	4	5
24.	I lack self-confidence.	1	2	3	4	5
25.	I think I have lost my mind.	1	2	3	4	5
26.	I am optimistic about most things I do.	1	2	3	4	5
27.	When I start talking , it is hard to stop.	1	2	3	4	5
28.	It's hard for me to make adjustments in general.	1	2	3	4	5
29.	I like to get an overview of a problem before trying to solve it.	1	2	3	4	5
30.	It doesn't bother me to take advantage of people, especially if they deserve it.	1	2	3	4	5
31.	I am a fairly cheerful person.	1	2	3	4	5
32.	I prefer others to make decisions for me.	1	2	3	4	5
33.	I can handle stress without getting too nervous.	1	2	3	4	5
34.	I have good thoughts about everyone.	1	2	3	4	5
35.	It's hard for me to understand the way I feel.	1	2	3	4	5
36.	In the past few years, I have accomplished little.	1	2	3	4	5
37.	When I am angry with others, I can tell them about it.	1	2	3	4	5
38.	I have had strange experiences that can't be explained.	1	2	3	4	5
39.	It's easy for me to make friends.	1	2	3	4	5
40.	I have good self- respect.	1	2	3	4	5
41.	I do very weird (bizarre or unnatural) things.	1	2	3	4	5
42.	My impulsiveness creates problems.	1	2	3	4	5
43.	It's difficult for me to change my opinion about things.	1	2	3	4	5
44.	I am good at understanding the way other people feel.	1	2	3	4	5
45.	When facing a problem, the first thing I do is to stop and think.	1	2	3	4	5
46.	Others find it hard to depend on me.	1	2	3	4	5
47.	I am satisfied with my life.	1	2	3	4	5
48.	It's hard for me to make decisions on my own.	1	2	3	4	5

49.	I don't hold up well under stress.	1	2	3	4	5
50.	I don't do anything bad in my life.	1	2	3	4	5
51.	I don't get enjoyment from what I do.	1	2	3	4	5
52.	It is hard to express my intimate feelings.	1	2	3	4	5
53.	People don't understand the way I think.	1	2	3	4	5
54.	I generally hope for the best.	1	2	3	4	5
55.	My friends can tell me intimate things about themselves.	1	2	3	4	5
56.	I don't feel good about myself.	1	2	3	4	5
57.	I see these strange things that others don't see.	1	2	3	4	5
58.	People tell me to lower my voice in discussions.	1	2	3	4	5
59.	It's easy for me to adjust to new conditions.	1	2	3	4	5
60.	When trying to solve a problem, I look at each possibility and then decide on the best way.	1	2	3	4	5
61.	I would stop and help a crying child find his or her parents, even if I had to be somewhere else at the same time.	1	2	3	4	5
62.	I am fun to be with others.	1	2	3	4	5
63.	I am aware of the way I feel.	1	2	3	4	5
64.	I feel that it's hard for me to control my anxiety.	1	2	3	4	5
65.	Nothing disturbs me.	1	2	3	4	5
66.	I don't get that excited about my interests.	1	2	3	4	5
67.	When I disagree with someone, I am able to say so.	1	2	3	4	5
68.	I tend to fade out and lose contact with what happens around me.	1	2	3	4	5
69.	I don't get along well with others.	1	2	3	4	5
70.	It's hard for me to accept myself just the way I am.	1	2	3	4	5
71.	I feel cut off from my body.	1	2	3	4	5
72.	I care what happens to other people.	1	2	3	4	5
73.	I am impatient.	1	2	3	4	5
74.	I am able to change old habits.	1	2	3	4	5
75.	It's hard for me to decide on the best solution when solving problems.	1	2	3	4	5
76.	If I could get away with breaking the law in certain situations, I would.	1	2	3	4	5
77.	I get depressed.	1	2	3	4	5
78.	I know how to keep calm in difficult situations.	1	2	3	4	5
79.	I have not told a lie in my life.	1	2	3	4	5

80.	I am generally motivated to continue, even when things get difficult.	1	2	3	4	5
81.	I try to continue and develop those things that I enjoy.	1	2	3	4	5
82.	It's hard for me to say "no" when I want to.	1	2	3	4	5
83.	I get carried away with my imagination and fantasies.	1	2	3	4	5
84.	My close relationships mean a lot to me and to my friends.	1	2	3	4	5
85.	I am happy with the type of person I am.	1	2	3	4	5
86.	I have strong impulses that are hard to control.	1	2	3	4	5
87.	It's generally hard for me to make changes in my daily life.	1	2	3	4	5
88.	Even when upset, I am aware of what is happening to me.	1	2	3	4	5
89.	In handling situations that arise, I try to think of as many approaches as I can.	1	2	3	4	5
90.	I am able to respect others.	1	2	3	4	5
91.	I am not that happy with my life.	1	2	3	4	5
92.	I am more of a follower than a leader.	1	2	3	4	5
93.	It's hard for me to face unpleasant things.	1	2	3	4	5
94.	I have not broken a law of any kind.	1	2	3	4	5
95.	I enjoy those things that interest me.	1	2	3	4	5
96.	It's fairly easy for me to tell people what I think.	1	2	3	4	5
97.	I tend to exaggerate.	1	2	3	4	5
98.	I am sensitive to the feelings of others.	1	2	3	4	5
99.	I have good relations with others.	1	2	3	4	5
100.	I feel comfortable with my body.	1	2	3	4	5
101.	I am a very strange person.	1	2	3	4	5
102.	I am impulsive.	1	2	3	4	5
103.	It's hard for me to change my ways.	1	2	3	4	5
104.	I think it is important to be a law-abiding citizen.	1	2	3	4	5
105.	I enjoy weekends and holidays.	1	2	3	4	5
106.	I generally expect things will turn out all right, despite setbacks from time to time.	1	2	3	4	5
107.	I tend to cling (stick) to others.	1	2	3	4	5
108.	I believe in my ability to handle most upsetting problems.	1	2	3	4	5
109.	I have not been embarrassed for anything that I have done.	1	2	3	4	5
110.	I try to get as much I can out of those things that I enjoy.	1	2	3	4	5
111.	Others think that I lack assertiveness.	1	2	3	4	5

112.	I can easily pull out of daydreams and tune into the reality of the immediate situation.	1	2	3	4	5
113.	People think that I am sociable.	1	2	3	4	5
114.	I am happy with the way I look.	1	2	3	4	5
115.	I have strange thoughts that no one can understand.	1	2	3	4	5
116.	It' hard for me to describe my feelings.	1	2	3	4	5
117.	I have got a bad temper.	1	2	3	4	5
118.	I generally get stuck when thinking about different ways of solving problems.	1	2	3	4	5
119.	It's hard for me to see people suffer.	1	2	3	4	5
120.	I like to have fun.	1	2	3	4	5
121.	I seem to need other people more than they need me.	1	2	3	4	5
122.	I get anxious.	1	2	3	4	5
123.	I don't have bad days.	1	2	3	4	5
124.	I avoid hurting other people's feelings.	1	2	3	4	5
125.	I don't have a good idea of what I want to do in life.	1	2	3	4	5
126.	It's difficult for me to stand up for my rights.	1	2	3	4	5
127.	It's hard for me to keep things in the right perspective.	1	2	3	4	5
128.	I don't keep in touch with friends.	1	2	3	4	5
129.	Looking at both my good points and bad points, I feel good about myself.	1	2	3	4	5
130.	I tend to explode with anger easily.	1	2	3	4	5
131.	It would be hard for me to adjust if I were forced to leave my home.	1	2	3	4	5
132.	Before beginning something new, I usually feel that I will fail.	1	2	3	4	5
133.	I responded openly and honestly to the above sentences.	1	2	3	4	5

Annexure II

ORS SCALE

People have different feelings about their roles. Statements describing some such feelings are given below. Read each statement and indicate how often you have the feeling expressed in the statement in relation to your role in your organisation. **Encircle** the corresponding number given below to indicate your own feelings.

If you find that the category to be used in answering does not adequately indicate your own feelings, use the one, which is closest to the way you feel. **Do not leave any item unanswered.** Answer the items in the order given below.

Encircle 0 if you never or rarely feel this way
" 1 if you occasionally feel this way
" 2 if you sometimes feel this way
" 3 if you frequently feel this way
" 4 if you very frequently or always feel this way

1.	My role tends to interfere with my family life.	0	1	2	3	4
2.	I am afraid I am not learning enough in my present role for taking up higher responsibility.	0	1	2	3	4
3.	I am not able to satisfy the conflicting demands of various people over me.	0	1	2	3	4
4.	My role has recently been reduced in importance.	0	1	2	3	4
5.	My workload is too heavy.	0	1	2	3	4
6.	Other role occupants do not give enough attention and time to my role.	0	1	2	3	4
7.	I do not have adequate knowledge to handle the responsibilities in my role.	0	1	2	3	4
8.	I have to do things in my role that are against my better judgment.	0	1	2	3	4
9.	I am not clear on the scope and responsibilities of my role (job).	0	1	2	3	4
10.	I do not get information needed to carry out responsibilities assigned to me.	0	1	2	3	4
11.	I have various other interests (social, religious etc), which remain neglected because I do not get time to attend to these.	0	1	2	3	4

12.	I am too preoccupied with my present role responsibility to be able to prepare for taking higher responsibility.	0	1	2	3	4
13.	I am not able to satisfy the conflicting demands of the various peer level people and my juniors.	0	1	2	3	4
14.	Many functions of what should be a part of my role have been assigned to some other role.	0	1	2	3	4
15.	The amount of work I have to do interferes with the quality I want to maintain.	0	1	2	3	4
16.	There is not enough interaction between my role and other roles.	0	1	2	3	4
17.	I wish I had more skills to handle the responsibilities of my role.	0	1	2	3	4
18.	I am not able to use my training and expertise in my role.	0	1	2	3	4
19.	I do not know what the people I work with expect of me.	0	1	2	3	4
20.	I do not get enough resources to be effective in my role.	0	1	2	3	4
21.	My role does not allow me to have enough time with my family.	0	1	2	3	4
22.	I do not have time and opportunities to prepare myself for future challenges of my role.	0	1	2	3	4
23.	I am not able to satisfy the demands of clients and others, since these are conflicting with one another.	0	1	2	3	4
24.	I would like to take more responsibility than I am handling at present.	0	1	2	3	4
25.	I have been given too much responsibility.	0	1	2	3	4
26.	I wish there was more consultation between my role and other roles.	0	1	2	3	4
27.	I have not had pertinent training for my role.	0	1	2	3	4
28.	The work I do in the organisation is not related to my interests.	0	I	2	3	4
29.	Several aspects of my role are vague and unclear.	0	1	2	3	4
30.	I do not have enough people to work with me in my role.	0	1	2	3	4
31.	My organisational responsibilities interfere with my extra-organisational roles.	0	1	2	3	4
32.	There is very little scope for personal growth in my role.	0	1	2	3	4
33.	The expectations of my seniors conflict with those of my juniors.	0	1	2	3	4

34.	I can do much more than what I have been assigned.	0	1	2	3	4
35.	There is a need to reduce some parts of my role.	0	1	2	3	4
36.	There is no evidence of involvement of several roles (including my role) in joint problem solving or collaboration in planning action.	0	1	2	3	4
37.	I wish I had prepared myself well for my role.	0	1	2	3	4
38.	If had full freedom to define my role I would be doing some things different from what I do now.	0	1	2	3	4
39.	My role has not been defined clearly and in details.	0	1	2	3	4
40.	I am rather worried that I lack the necessary facilities needed in my role.	0	1	2	3	4
41.	My family and friends complain that I do not spend time with them due to heavy demands of my work role.	0	1	2	3	4
42.	I feel stagnant in my role.	0	1	2	3	4
43.	I am bothered with the contradictory expectations different people have from my role.	0	1	2	3	4
44.	I wish I had been given more challenging tasks to do.	0	1	2	3	4
45.	I feel overburdened in my role.	0	1	2	3	4
46.	Even when I take initiative for discussions or help, there is not much response from other roles.	0	1	2	3	4
47.	I need more training and preparation to be effective in my work role.	0	1	2	3	4
48.	I experience conflict between my values and what I have to do in my role.	0	1	2	3	4
49.	I am not clear as to what are priorities in my role.	0	1	2	3	4
50.	I wish I had more financial resources for the work assigned to me.	0	1	2	3	4