

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

Emotional intelligence (EI) and self-efficacy: how beneficial are they within a transactional model of occupational stress?

A thesis presented in partial fulfillment for the degree of Master of Arts in Psychology at Massey University, Albany, New Zealand.

Indunil Senarath-Dassenayake

2008

Abstract

The purpose of this research was to assess the relationships between emotional intelligence (EI), self-efficacy, cognitive stress appraisals, coping strategies and affect responses based on Lazarus and Folkman's (1984), transactional model of stress.

The study consisted of 89 employees from three organisations of the private sector in New Zealand. The participants completed a web-based survey which included self-report questionnaires of Cognitive Appraisal Scale (CAS), the Brief COPE, the workplace Swinburne University Emotional Intelligence Test (workplace SUEIT), the General Self-efficacy Scale and the Job Related Affective Wellbeing Scale (JAWS).

The research findings indicated that there were associations between threat appraisal, maladaptive coping (i.e., avoidance) and negative affect. Associations were not found in the positive pathway of the model (i.e., challenge appraisal, adaptive coping, e.g., task focused and emotion approach coping, and positive affect). Associations were also found between emotional intelligence, task focused coping and positive affect. Similarly self-efficacy was found to be an effective resource factor in task focused coping and positive affect. Self-efficacy significantly related positively with challenge appraisal and negatively with threat appraisal. Both EI and self-efficacy associated negatively with emotion approach coping which included seeking instrumental and emotional support. There was a strong association found between EI and self-efficacy which supported previous empirical findings that cognition and emotion play an inter-connected role in the stress process. Surprisingly, EI and self-efficacy did not mediate between challenge appraisal - adaptive coping and adaptive coping - positive affect responses respectively.

Future implications of the study are that both emotional intelligence and self-efficacy should be considered as efficient positive personal resources in organisations. Since both these strengths can be learnt and developed, it was recommended that close consideration should be given to enhance these skills among employees of varied job roles.

Effective use of emotional intelligence and self-efficacy are likely to create happy, optimistic, engaged workers who will be equipped with healthy leadership styles, manage relationships better, will be cooperative and work well in teams.

This study extends prior research that has identified relationships between cognitive appraisal, coping and affect in a transaction model of stress. It also explored the relationship of emotional intelligence and self-efficacy within this stress model. It addresses the effective use of two human strengths which will enhance adaptive coping strategies to experience positive psychological states in demanding situations. Consistent with the recent escalating investigations and approaches in the field of positive psychology, this study gives rise to focus on developing positive strengths in employees in the workplace – which may prove more rewarding than attempting to repair or minimize their weaknesses.

Acknowledgements

I would like to express my sincere thanks to Dr Dianne Gardner, my supervisor for sharing her invaluable knowledge and technical expertise with me. Your continuous support, zest, concern and time spent are deeply appreciated.

Heartfelt thanks to my friend Iyanthi. If not for your unconditional support, motivation and consistent confidence in me, I would not have been able to complete this study, particularly during a difficult period in the previous year. My warm appreciation goes to my father and sister, with tender gratitude to my mother for her constant encouraging words and unconditional love.

Thank you to all the employees, the organisations and especially to the representative coordinators for their enthusiasm and assistance extended towards this project. Your participation made it possible for me to move forward.

Table of Contents

Abstract	I
Acknowledgement	III
Table of Contents	IV
List of Figures	VIII
List of Tables	IX

CHAPTER ONE

INTRODUCTION	1
1.1 Scope and Importance of Occupational Stress	1
1.2 Organisational Stress, Health & Wellbeing	2
1.3 Financial Implications of Occupational Stress	3
1.4 Legal Implications of Occupational Stress	4
1.5 A Paradigm Shift to Occupational Stress Reduction	5

CHAPTER TWO

TRANSACTIONAL MODEL OF OCCUPATIONAL STRESS & COPING	7
2.1 Models of Occupational Stress and Demands	7
2.2 A Transactional Approach to Stress	8
2.3 Cognitive Stress Appraisals	12
2.4 Coping Strategies	14
2.5 Affective States	19

2.6 Appraisal and Coping	20
2.7 Appraisal and Affect	22
2.8 Coping and Affect	23

CHAPTER THREE

EMOTIONAL INTELLIGENCE (EI)	26
3.1 Origins of Emotional Intelligence (EI)	26
3.2 Models of EI	28
3.3 Measures of EI	30
3.4 Role of EI in Organisations	31
3.5 EI and Occupational Stress	33
3.6 EI and Appraisal	35
3.7 EI and Coping	36
3.8 EI and Self-efficacy	38
3.9 EI and Affect	39
3.10 EI and Mediating associations	42

CHAPTER FOUR

SELF-EFFICACY	46
4.1 The Role of Self-efficacy	46
4.2 The Adaptive nature of Self-efficacy	47
4.3 Self-efficacy and Occupational Stress	49
4.4. Self-efficacy and Appraisal	50
4.5. Self-efficacy and Coping	52
4.6. Self-efficacy and Emotional Intelligence (EI)	54

4.7. Self-efficacy and Affect	56
4.8. Self-efficacy and Mediating Associations	58

CHAPTER FIVE

METHOD	61
5.1 Overview	61
5.2 Participants	61
5.3 The Survey	61
5.4 Measures	64
5.4.1 Primary Appraisal	64
5.4.2 Coping	64
5.4.3 Emotional Intelligence (EI)	65
5.4.4 General Self-efficacy	66
5.4.5 Positive and Negative Affect	66
5.5 Data Analysis	67

CHAPTER SIX

RESULTS	69
6.1 Correlation Matrix	69
6.2 Hypotheses Testing	69
6.2.1 Direct Correlations of Appraisal, Coping and Affect	69
6.2.2 Direct Correlations of EI with appraisal, coping, self-efficacy and affect	71
6.2.3 Direct Correlations of Self-efficacy with appraisal, coping and affect	72
6.3 Mediating Hypotheses and Analysis	74

CHAPTER SEVEN

DISCUSSION	79
7.1 Cognitive appraisal, coping and affect pathways	79
7.2 EI with appraisal-coping-affect	80
7.3 Self-efficacy with appraisal-coping-affect	82
7.4 EI with Self-efficacy	82
7.5 EI as a mediator	83
7.6 Self-efficacy as a mediator	84
7.7 Limitations of the study	85
7.8 Implications for research	86
7.9 Implications for practice	88
7.10 Conclusion	91
 References	 92
 Appendices	
Appendix 1: Participant Information Sheet	107
Appendix 2 Research Survey	108

List of Figures

Figure 1	11
A Model of Occupational Stress[adapted from Lazarus & Folkman's (1984), a transactional perspective]	
Figure 2	41
Hypothesized positive and negative associations of emotional intelligence with variables within an appraisal-coping-affect model of occupational stress	
Figure 3	45
Hypothesized mediating associations of emotional intelligence between : pathway 1- challenge appraisal and adaptive coping; pathway 2- coping and positive affect	
Figure 4	58
Hypothesized positive and negative associations between self-efficacy and variables within an appraisal-coping-affect model of occupational stress	
Figure 5	60
Hypothesized mediating associations of self-efficacy between: pathway 1- cognitive appraisal and coping; pathway 2- adaptive coping and positive affect	
Figure 6	68
Mediation model (Baron & Kenny, 1986)	
Figure 7a	73
Significant bivariate correlations: appraisal-coping-affect; self-efficacy with appraisal, coping, emotional intelligence and affect	
Figure 7b	74
Significant bivariate correlations of emotional intelligence with appraisal, coping and affect	

List of Tables

Table 1	63
Demographic information (N=89)	
Table 2	70
Correlations, means and standard deviations of the variables	
Table 3	74
Mediating relations of EI (self-awareness, emotions in decision making and emotional management) between challenge appraisal and task focused coping	
Table 4	75
Mediating relations of EI (understanding others' emotions and emotional management) between challenge appraisal and emotion approach coping	
Table 5	75
Mediating relations of EI (emotions in decision making & emotional management) between task focused coping and positive affect	
Table 6	76
Mediating relations of EI (self-awareness & emotional management) between emotion approach coping and positive affect	
Table 7a	77
Intervening relations of self-efficacy between cognitive appraisal & coping	
Table 7b	77
Results of self-efficacy as a mediator between threat appraisal and avoidance	
Table 8	78
Mediating relation of self-efficacy between task focused coping and emotion approach coping with positive affect	

CHAPTER ONE

INTRODUCTION

1.1 Scope and Importance of Occupational Stress

Despite key words such as occupational stress, work stress and job stress used in numerous articles of stress research there is considerable debate whether occupational stress should be defined in terms of the person, the environment or both. As a consequence, the stressor and strain approach became a dominant theme, in which “stressors” refer to work related characteristics, events or situations that give rise to stress and “strain” refers to an employee’s physiological and psychological response to stress. The main interest has been directed towards the causal relationship between stressors and strain (Hart & Cooper, 2002).

Occupational stress has been a growing problem since the Industrial Revolution and has been an area under research by researchers, health professionals and managements. The changing nature of work with rapid expansion in the service sector, organisational re-structures and downsizing, outsourcing and subcontracting which will cause job insecurity and unemployment, globalization of the economy, 24 hour based night shift work and the increased use of technology at workplace have raised concerns about the effect of these changes on the health and wellbeing of employees and their work performance (Hart & Cooper, 2002; Zeidner, 2005; Sparks, Faragher & Cooper, 2001). Increased workload, role ambiguity, lack of control over job responsibilities and workplace bullying will influence individual stress levels and organisational performance; therefore it is important to understand the process of stress so that appropriate interventions can be applied (Zeidner, 2005; Sparks, Faragher & Cooper, 2001). Occupational stress represents a threat to quality of life for employees (Le Fevre et al., 2003).

A study by the European Foundation for the Improvement of Living and Working Conditions provides a recent picture of the prevalence of work-related stress and some of the risk factors.

This recent study among 21500 European employees showed that the most common work-related health problems are backache 33%, stress 28% and fatigue 23%. Another study amongst 3000 American employees has shown that 26% felt emotionally drained from their work and 26% felt burned out and stressed by their work (Kompier & Taris, 2005). The researchers further state that “over recent decades the world of work has undergone remarkable changes, and these changes have certainly influenced the psychosocial work environment and thereby, affected stress at work” (p 60). Today, for many employees, work poses primarily mental and emotional demands because the work seems to be largely changing from manual to mental in nature.

An individual's work experiences at work, whether physical, emotional, mental or social in nature, will affect the person while she/he is in the workplace. In addition these experiences also “spillover” to outside workplace domains. Workers spend about one-third of their waking hours at work and don't necessarily leave their job related work behind when they leave the worksite (Danna & Griffin, 1999).

1.2 Occupational Stress, Health and Wellbeing

The outcomes of job stress and unhealthy work are likely to fall into four inter-related categories; psychological, physical, behavioral and organisational. Disturbances in affect and cognition result in psychological strain, depression, anxiety and burnout, while physical outcomes may be associated with sleep disturbances, respiratory and digestive problems, coronary heart disease and musculoskeletal complaints. Increased smoking, consumption of drugs and alcohol, lack of physical exercise and eating disorders are some behavioral outcomes and organisationally, job stress will have an impact on work place safety, absenteeism, neglect of job responsibilities, workplace aggression, abuse and poor internal/external customer relationships. (Kelloway, Teed & Kelly, 2008).

Sonnentag and Frese, (2003) have noted the effect of stress in individuals and organisations, emphasizing that individuals may be affected at the physiological, affective and behavioral levels, as well as in their leisure time and family life.

Stress reactions can occur immediately or may take a long time to develop. Whether long term or short term, stress can be detrimental on an individual's mental and physical health and wellbeing. This could lead to a decrease in performance, disturbed mood, physical illness, mental health problems and unhealthy cognitive reactions.

Cranwell-Ward and Abbey (2005), agree with other stress researchers explaining that some behaviors displayed by people experiencing stress include tardiness, increased errors as a result of impaired judgment, poor decision making or poor concentration; people with stress are more prone to accidents at work and travel related accidents, are less innovative and creative, engage in interpersonal conflicts with colleagues at work, take sickness absence often and communicate and contribute little. These behaviors show obvious ill-health effects on the individual. So it is imperative to consider constructive ways of handling occupational stress.

1.3 Financial Implications of Occupational Stress

A fundamental requirement for most organisations wishing to improve their "bottom line" is the need to develop appropriate structures and processes that will reduce occupational stress and, at the same time, enhance employee satisfaction and performance. Experiencing organisational stress is related to health related costs. Further negative work experiences and levels of distress are linked to withdrawal behavior which also adds to organisational costs. (Cotton & Hart, 2003). Estimates from US and England suggest that about half of all the lost days in organisations are related to stress (Sonnentag & Frese, 2003). The impact of stress on organisational performance can be clearly seen in labor turnover rates where stress levels become unacceptably high resulting in people leaving the organisation.

When stress levels are not managed at the beginning and employees continue to experience occupational stress, hyper-stress or distress will be experienced; this may manifest itself as long-term sick leave or resignation. There is also the growing phenomenon known as "presenteeism" where people go to work even though they feel too unwell to work.

It is been reported that “fit and healthy staff are as much as 20% more productive than their ill or unhealthy colleagues” (Cranwell-Ward & Abbey, 2005, p.43). The authors found a productivity gap of seven hours between poor and good health, which is equivalent to losing one working day a week. The hidden costs of labor turnover will not only be associated with recruitment and training of replacements, but also with intellectual capital, particularly if it is a senior job or a person has a lot of experience in that job role (Cranwell-Ward & Abbey, 2005).

1.4 Legal Implications of Occupational Stress

Given that we now know that particular work characteristics may have an adverse impact on worker stress and health, the need for clear legislation and guidelines are imminent. Without doubt job-related stress may cause an increase in stress-related worker compensation claims. A mental strain claim can be forwarded when a physical disability or illness occurs as a result of a sudden or gradual emotional stressor in the workplace; a physical-mental claim is when a mental disability occurs as result of a physical injury or trauma (Jex, 1998).

Several countries internationally, have introduced legislation on the health and safety of employees at work and the quality of working life. In this respect, the employer has a duty to ensure the safety and health of workers in every aspect related to work which would include following practices to identify, evaluate, prevent, eliminate, isolate or minimize work stressors and promote a healthy workplace.

The threat of litigation and emphasis on the Health and Safety Act have encouraged some organisations to take stress management issues seriously. There is an increased number of organisations who have enacted steps, practices and procedures in their organisational policy to highlight the importance of health and safety; stress and strain and to take reasonable measures to avoid injury, accidents and reduce financial costs through personal and union claims (Clarke & Cooper, 2000).

After a series of workplace incidents during the 1990's, the Department of Labour directed its focus on workplace health and safety issues in New Zealand; its advice in this area was first issued in the book "Stress & Fatigue: their implications for health and safety in the workplace" published in 1998. The Health and Safety Act, 2002, of New Zealand regarding stress and fatigue emphasizes that both the employer and employee must take responsibility in monitoring stressors and adopting a systematic approach to identify, assess and eliminate or minimize work stressors. The Act requires employee involvement and ongoing monitoring and control (OSH, 2003). The main theme in support of the Health and Safety Act in organisations stated that harm includes "physical or mental harm caused by work-related stress", that a "person's behavior may be an actual or potential cause or source of harm" and that "might result from physical or mental fatigue" (Walls & Darby, 2004, p 142).

1.5 A Paradigm Shift to Occupational Stress Reduction

Kelloway et al. (2008) argue that much of the empirical research up to the past decade has focused on interventions in organisations to reduce the negative affect of stress outcomes; primary interventions are generally aimed at changing or eliminating the cause of stress or stressors (i.e., job design, organisational structure, flextime, work schedules, perceptions of social support); secondary interventions are focused on helping employees to manage their stress (e.g., wellness program, training, stress management, time management); tertiary interventions are aimed at helping employees who have been traumatized and address the reduction of existing symptoms (e.g., employee assistance program, counseling, rehabilitation).

Secondary and tertiary methods affect individual outcomes; primary interventions are said to affect both organisational and individual outcomes and are regarded as proactive. While all these levels of interventions are effective, the authors have suggested that a different approach can be adopted in dealing with stress outcomes and as such, the current research aims to investigate the interventions regarding increasing the positive experiences at work rather than decreasing the negative aspects; enhancing positive work experiences are said to increase mental health; focus on personal capital like self-efficacy, resilience, optimism, emotional intelligence – and are believed to be essential

qualities in dealing with workplace demands, building trust in management, positive leadership styles (e.g., transformational type), positive effects of social support, positive emotions and productivity.

Nelson and Simmons (2005) highlight the need for a positive approach in organisational behavior to enhance strengths rather than trying to fix weaknesses. According to the authors, positive organisational behavior is “the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed and effectively managed for performance improvement in today’s workplace” (p 103). The authors further state that the measurement of “eustress” or the “good stress” entails the assessment of positive psychological states. Eustress, in contrast to distress, displays positive affective states like hope, pleasurable task engagement, energy, enthusiasm, team-spirit and pride (McGowan et al., 2006). Although the current study does not explore the use of “eustress” per se, the researchers would like to point out that the positive approach in experiencing positive affect responses is in line with the idea of experiencing “eustress”. In this vein and following the lineage of positive health, positive psychology and positive organisational behavior, this study aims to develop a positive view towards handling stress with the use of some positive strengths that are predicted to be effective in cognitive stress appraisal and coping.

Chapter 2

Transactional Model of Occupational Stress and Coping

2.1 Models of Occupational Stress and Demands

Ever since investigations to stress research began, there have been numerous models and theories forwarded by proponents in the field to explore the relations of stress-strain that may be detrimental to health and wellbeing in individual life events and organisational settings. For the purpose of comparison, this study examines two models of occupational stress widely used to study worker behavior – i.e., Karasek's (1979) job-demands-control model and person-environment fit approach (Edwards, 1996). The third model, Lazarus and Folkman's (1984), a transactional approach to stress, which the current research is based on, is explained in depth in the following section.

The job-demands-control model (Karasek, 1979), postulates that psychological strain results not from a single aspect of the work environment, but from the joint effects of the demands of a work situation and the range of decision making freedom available to the employee to face these demands. As such, job strain occurs when the job demands are high and the job decision latitude is low. Job decision latitude is the working individual's potential control over the tasks (Karasek, 1979). The model is further divided into four distinct sections; high demand-low control, low demand-low control, high demand-high control and low demand-high control. High strain is likely to occur in a high demand-low control situation (e.g., when there is high level of responsibility without accompanying authority). An individual in this level is likely to feel depressed, dissatisfied with the job and take increased number of sick days and absence. The model suggests that the best fit is when the "active job" level is experienced where high demands are balanced with high decision latitude or control (Nelson & Simmons, 2003).

The person-environment (P-E) fit approach observes the interaction between a person and how she/he fits or misfits within the environment. Two versions of P-E fit are assumed in this model of stress; one describes the fit or misfit between the demands of the environment and the abilities of the person. Known as the demands-abilities fit, the focus is how abilities that include skills, knowledge, time, energy can be drawn up to meet environmental demands. The other version, known as the supplies-values fit, observes the match between a person's values with the environmental supplies available to fulfill these values. (e.g., values encompass a person's desires, needs, interests and preferences with the supplies such as quantity, frequency and quality of environmental attributes). A comparison between the psychological needs and the environmental supplies that reward the needs is addressed in this version (Edwards, 1996). According to these types of the P-E fit approach to stress, perceiving lack of abilities to meet demands and the insufficient supplies to fulfill one's needs both result in strain. Edwards (1996), argues that this theory presents complexity in definition. For instance, since there are distinct versions of fit embedded in the person-environment fit approach, confusion of which version should guide theory development arises. Nevertheless the P-E fit model is widely used in organisational behavior research depending on the context of the study (Edwards, 1996; Jex, 1998; Sutherland & Cooper; 2002). Recent studies have examined another version of the P-E fit – the subjective and objective representations between the person and her/his environment. According to Le Fevre et al. (2003), subjective representation includes the person's perceptions of oneself with the environment and objective representation reflects the person and the environment as they actually exist. The authors argue that objective P-E fit will have little relationship with stress, unless the individual had a clearly accurate self-assessment and good contact with reality, suggesting that subjective and objective representations are causally related.

2.2 A Transactional Approach to Stress

Transactional theory highlights the role of individual differences in understanding why some people thrive and cope better than others when exposed to similar circumstances. Lazarus & Folkman's (1984) transactional model of stress is a person-environment transaction where the individual's appraisal of the situation is an important factor in the

process of stress. A stressor is any potential threat in the environment. The emphasis is made on the word “potential” because in the transactional model no matter how noxious or pleasant, if the potential stressor is appraised as desirable, interesting and non-threatening, then a stressful experience will not take place (Singer & Davidson, 1991).

As such psychological stress “is a relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her wellbeing” (Lazarus & Folkman, 1984, p 19). Within the context of the transactional approach and their cognitive relational theory, stress is considered to occur when person/environment transactions lead an individual to perceive a mismatch between the demands of the situation and her/his resources or capacity to respond or cope with these demands. (Lazarus & Folkman, 1984; Lazarus, 1999). Further the authors emphasize the word “demands” instead of “stressors” as the latter underlies a negative connotation, and the former implies potential requirements of a particular situation. Stress perception in the transactional model relies on the person’s cognitive appraisals of the demanding factors in a specific situation.

In relation to this view, stress is a “highly individualistic process whereby personally significant events evoke a distressing psychological and/or physiological response” (Cartwright & Cooper, 2005, p 607). Due to the subjective nature of stress, individual differences in cognitive thinking and regulating emotions play a significant part in the appraisal of stress and are likely to influence the way in which individuals will cope to alleviate or reduce potentially harmful effects (Cartwright & Cooper, 2005).

Hansen (2006), states that there is no absolute measure of stress. The feeling of being stressed is a complex state of physical, mental and emotional imbalance. Each person feels stress in different ways. Stress is not new and has always been an integral part of human evolution. When our coping systems fail under stress we are exposed to serious harm. Yet stress is a wonderful, creative force in our lives and organisations. We need to be able to find the coping resources to challenge the stress demands we are faced with.

Interestingly Folkman (2008), posits a revised model to the original model of Lazarus and Folkman (1984), which was introduced in 1997. According to the author, since the original transactional model of stress explained little about what happened when an unfavorable outcome was experienced, the modified version, which includes a new category known as the meaning focused coping, gives light on positive emotions even after distress has been experienced. As such, in the event of a failed resolution, Folkman (2008) states that the need to try again occurs where meaning focused coping is likely to help to produce positive emotions and appraisals to restore coping resources; thereby provide motivation needed in order to support problem and emotion focused coping over the long term. Meaning focused coping is appraisal-based, in which an individual uses their beliefs (spiritual, justice), values and existential goals (principles in life) to motivate and sustain coping and wellbeing during a difficult time. While meaning focused coping tends to be less situation specific than both problem and emotion focused coping, constructs such as benefit finding, benefit reminding, adaptive goal processes, re-ordering priorities and infusing ordinary events with positive meaning are assessed.

Individual differences examined in the experiences and handling stress in the transactional model are noteworthy. For instance individuals may be exposed to different amounts of stress. The difference may occur in terms of the number and the frequency of stress exposures; people are viewed as differing in the extent to which they are stress seeking, as they may feel that stress would provide a relief from monotony (i.e., high risk takers who are likely to surpass a stressful experience for enjoyment); interpretation of stress differs amongst individuals (i.e., the way they appraise the situation and find the resources available which would include experience, knowledge, skills, thinking, beliefs); people differ in their choice of coping styles, their sense of controllability and regulation of emotions (Lazarus & Folkman, 1984; Singer & Davidson, 1991). According to the cognitive relational theory the meaning that an individual gives to any encounter captures the unique relationship that person has with her/his environment (Troup & Dewe, 2002).

The current research is based on Lazarus and Folkman's (1984) original transactional model of stress .This study examines the individual strengths of coping which may vary from one to another; it highlights emotional intelligence and self-efficacy as positive personal resources in handling stress reactions in an organisational environment. Therefore stress coping is shown through two effective perspectives of human functioning, i.e., the use of cognition (reasoning, perception) and feeling (emotion, moods). Figure 1 demonstrates the model of stress used in this study. The next sections in the chapter examine the specific pathways of the transactional model of stress namely; appraisal, coping and affective states.



Figure 1. A model of occupational stress [adapted from Lazarus and Folkman's (1984), a transactional perspective]

2.3 Cognitive Stress Appraisals

Lazarus and Folkman's (1984) model uses beliefs and commitments as the criteria for deciding what events are threatening. This determines how the cognitive differences between individuals in emotional responses and stress reactions play in a specific situation. In their stress appraisal process, individuals classify events as familiar or unfamiliar and threatening or non threatening (Lovallo, 2005). What links the person and the environment is the process of cognitive stress appraisal through which the person evaluates whether a particular encounter with the environment is relevant to her/his wellbeing and if so, in what ways (Lazarus, 1999).

Cognitive appraisal includes two component processes; 1) primary and 2) secondary appraisals. The first, **Primary appraisal**, refers to the stakes a person has in a certain encounter. At this stage of appraisal an individual attaches personal meanings to an event and the significance it may have for her/his wellbeing. Without a stake in one's wellbeing in any given transaction, stress and its emotions will not occur. In primary appraisals a situation is perceived as being either irrelevant, benign-positive or stressful. The primary appraisal is intended to ensure that one does not blindly encounter danger but instead recognize it and begin to evolve a plan to deal with it. When a person appraises a situation as *irrelevant*, stress does not occur because there no direct interest in that transaction; likewise in *benign-positive*, appraisal is not considered stressful as the person associates the situation with pleasant feelings. In benign-positive appraisal the event is perceived to preserve, maintain or enhance a person's situation (Ashkanasy et al., 2003). When a situation is perceived as stressful by an individual then *cognitive stress appraisal* occurs which is further subdivided into three categories, i.e. harm/loss, threat and challenge appraisals (Lazarus & Folkman, 1984; 1987; Lazarus, 1999).

In the experience of **harm/loss**, some damage to the person has already occurred. The damage can occur in injury, self-worth or social standing. Instead of attempting to master the situation the person surrenders by feelings of helplessness. Threat and challenge appraisals are identified as anticipatory appraisals. **Threat appraisal** occurs when the individual perceives danger and anticipates future harm or loss. Harm or loss can refer to physical injuries and pain or to attacks on one's self –esteem.

In *challenge appraisal*, a person may see an opportunity to prove herself/himself anticipating gain, mastery or personal growth from the venture. The situation is experienced as pleasurable, exciting and interesting and the person is hopeful, eager and confident to meet the demands. Challenge is somewhat like Selye's "eustress" in that people who feel challenged enthusiastically pit themselves against obstacles (Lazarus, 1999). According to the author threat and challenge can both occur in the same situation or in a continuing relationship, though one or the other usually dominates.

2 .Secondary Appraisal (what can I do about it?) comes into place when we refer to one's available coping options for dealing with stress. i.e., one's perceived resources to cope with the demands at hand. The individual evaluates her/his competence, support, and material or other resources in order to readapt to the circumstances and to re-establish the balance between person and environment (Lazarus & Folkman, 1984). Secondary appraisal focuses on the kind of responses one would adopt to manage the event in question, and people are likely to differ in coping responses; one must note that this is actually not coping but often triggers the cognitive underpinning for coping (Lazarus, 1999). During this stage of appraisal an individual determines how much control one has over a situation and the nature of control in dealing with the situation (Troup & Dewe, 2002). Events that are potential or known threats require some adaptive behavioral intervention to ensure that harm is avoided or its negative effects are limited. The interventions one uses are known as coping strategies and coping behaviors (Lovallo, 2005).

Appraisal process can repeat itself after a coping strategy has been used. An individual will try to re-evaluate the event and its threat value. Beliefs, commitments, emotions are re-assessed and continuously modified as one deals with the emerging challenges. For example, one appraises the stressor, appraises own capacities, decides on coping strategy, meets the stressor, re-evaluates stressor, re-evaluates own capacities, decides on coping strategy again and so forth. In this sense, circumstances once thought of as benign or challenging may become stressful as appraisals and coping are modified (Singer & Davidson, 1991).

Similarly, threatening stressors can become challenges, or may even be sought after, as the individual has experience with them. Sonnentag & Frese (2003) emphasize, that cognitive appraisals play a vital role in the stress process. Appraisal processes refer to an individual's categorization and evaluation of an encounter with respect to the individual's wellbeing (Sonnentag & Frese, 2003).

2.4 Coping strategies

When environmental conditions are appraised as being potentially harmful, beneficial, threatening or challenging, people will interpret the conditions as having consequences for their wellbeing, which will result in the use of coping processes (Folkman & Lazarus, 1988).

Stress and coping research explains different types of adaptive and maladaptive ways of coping. However, what constitutes effective and ineffective coping is debatable. Wong, Reker and Peacock (2006), acknowledge that a particular mode of coping that is effective for a particular person in a particular setting may be ineffective when used by the same person in another situation or by a different person in the same situation. People may use different coping strategies when faced with a stressful situation. Some research suggests that different types of coping strategies might be effective as different stages of the stressful situation unfold (Hart & Cooper, 2002). Some coping types mentioned in literature are: *reactive coping* which is used to deal with a stressful encounter that is ongoing or has already happened (i.e., job loss, accident occurred); *anticipatory coping* is used when an individual faces a critical event that is certain to occur in the near future and perceived as an imminent threat; *preventive coping* is an effort used to face an event that may or may not occur in the distant future. A person builds up resistance resources to minimize the severity of the impact of the impending critical event; *proactive coping* is used when one builds up resources that facilitate opportunities to grow and perceives a difficult situation as challenging. Coping here becomes goal management instead of risk management (Folkman & Moskowitz, 2004; Schwarzer, R (2004). The present study elaborates on the coping types mentioned by Lazarus and Folkman (1984) and Stanton and colleagues (2002).

According to Lazarus and Folkman (1984), coping refers to the “constantly changing cognitive and behavioral efforts to manage specific external and internal demands that are appraised as taxing or exceeding the resources of the person” (p 141). The interventions one employs are known as coping strategies and coping behaviors. These can include overt and covert activities. As Folkman and Moskowitz (2007) emphasize, coping determines the thought and behaviors people use to regulate their emotions and address underlying problems.

Lazarus and Folkman (1984) classified coping strategies as 1) problem focused and 2) emotion focused; *1) problem focused coping* includes various actions used to manage the existing problem or the future threat by investing one’s efforts in order to change the stressful interaction in the environment (Ben-Zur, 2002); it may encompass behaviors designed to gain information, alter an event, and alter beliefs and commitments. Problem focused strategies are likely to increase a person’s awareness, level of knowledge and range of behavioral and cognitive coping options (Lovallo, 2005). For example, when people are confronted with a situation that is potentially harmful or threatening to their wellbeing they would logically analyze the problem, plan what to do and focus on things that actually address or remove the problem.

People will also engage in coping strategies such as denying the seriousness of the situation, trying to convince themselves that the problem will go away, using relaxation techniques to reduce anxiety. Problem focused coping, also referred to as task focused and action focused coping by researchers, focuses on the problem and tries to change the characteristics that caused it. For example, addressing the issues and making a plan of action, generating alternative solutions and concentrating on the next step (Stanton, Parsa & Austenfeld, 2002). Task focused strategies would also include planned problem solving, positive reappraisal, seeking social support and self-control (McGowan, Gardner & Fletcher, 2006). This type of coping is represented as effective and adaptive.

Folkman and Moskowitz (2000), further state that while efforts in problem focused coping are directed at solving or managing the problem that causes distress, it includes strategies such as acquiring resources (e.g., skills, tools and knowledge) to help deal with the underlying problem and uses instrumental, situation-specific, task-oriented actions. Problem focused coping is said to be meaningful because it involves identifying situation-specific goals that engage a person, draws attention to focus and directs the person towards mastery and control over the situation.

2). *Emotion focused coping* is aimed at reducing, preventing or tolerating the emotional and bodily reactions which are stressful. Early research identified emotion focused coping as maladaptive and was considered a negative coping style during stressful situations. Lovallo (2005) states that emotion focused strategies are employed primarily to limit the degree of emotional disruption caused by an event, with minimal effort to alter the event itself; they involve activities that focus more on modifying one's internal reactions resulting from the stressful situation. Emotion focused coping is reducing the presumably distressed emotions (e.g., relaxation exercises, going to the movies to take the mind off the problem). According to Carver (2007), emotion focused coping is most likely used if the stressor is seen as uncontrollable.

Over the last decade however with the development of research in positive psychology, Stanton and her colleagues have re-defined the meaning of emotion focused coping. Snyder and Lopez (2007), agree with the argument of Stanton et al. that emotion focused coping can be considered as an emotional approach strategy which may "carry adaptive potential, the realization of which may depend on the situational context, the interpersonal milieu and the attributes of the individual" (p 150). As Carver (2007) examines, emotion approach coping "actively processes and expresses one's emotions, in a fashion that represents an engagement with, rather than a venting of the feelings, can result in less distress later on, as long as it does not turn into rumination" (p 123). The author further states that another kind of emotion focused coping is accommodation to the stressor's existence, or acceptance of its reality, or a reframing of the situation to emphasize its positive aspects.

In line with this view, emotion focused coping strategies are considered helpful and functional (e.g., seeking emotional support, instrumental support, positive reappraisal, emotional expression, active acceptance); thus emotion focused coping includes two approaches; the emotional approach and emotional avoidance. The emotional approach involves active movement towards, rather than away from, a stressful encounter; approach-oriented emotion focus coping includes emotional processing which attempts to understand emotions. Another emotional approach style is emotional expression, which means free and intentional displays of feeling (Snyder & Lopez, 2007; Stanton, Parsa & Austenfeld, 2002). Statements such as “I realize that my feelings are valid and important”, “I take time to figure out what I am really feeling”, “I feel free to express my emotions”, “I allow myself to express my emotions” are a few examples for coping through the emotional approach.

Support is identified as an interpersonal exchange between providers and receivers. In this light three main types of supportive social interactions have been described: emotional, instrumental and informational. Emotional support involves verbal and non-verbal communication of caring and concern and is believed to reduce distress by restoring self-esteem by encouraging the expression of feelings. Informational support is to provide information as a means of guidance or advice which enhances perceptions of control, reduce confusion and helps to cope during difficulties. In instrumental support the receiver is provided with material goods such as transportation, money or physical assistance and also helps in decreasing feelings of loss of control. People may seek support through natural support systems like family, friends, work colleagues and through formal support systems like mental health professionals, counselors, community and religious groups (Taylor & Sherman, 2004).

Emotion focused coping is described as ineffective and dysfunctional in the emotion avoidance type of coping (e.g., denial, distraction, disengagement), (Ben-Zur, 1999; Stanton et al., 2002). Avoidance coping is found to be detrimental to one's health, lead to maladaptive responses and flawed decision outcomes (Ben-Zur, 1999). Avoidance coping is often emotion focused, because the effort being made is an attempt to evade or escape from feelings of distress.

Denial can create a boundary between the stressor's reality and the person's experience. Likewise avoidance can include giving up on goals when the demand is appraised as threatening. A core problem with avoidance coping is that it does nothing about the stressor's existence and its eventual impact. Its potential maladaptive nature worsens when an individual begins to turn to alcohol, drugs and smoking in order to escape the problem (Carver, 2007).

People are said to use all the above coping approaches in almost all difficult situations. Stanton and colleagues (2002) emphasize that coping by way of actively processing, expressing and reappraising emotions involves approaching a problem and will lead to adaptive consequences. The authors argue that, for example, when expressing emotions have been punished, then processing and expressing emotions will not elicit a positive effect in the coping process. Further emotion approach coping is considered to be more useful for interpersonal than achievement related stressors; hence emotional approach coping will be situation specific and individualistic.

The current research examines support seeking as a positive display of coping strategy; therefore further to expressing, processing and reappraising emotions and feelings, emotion approach coping involves seeking appropriate emotional and instrumental support as resources for coping options. Task focused includes action oriented tasks, problem solving, planning and cognitive restructuring like acceptance and reframing. Although some experts argue that it is not feasible to group coping strategies as "right" or "wrong" ways to deal with a stressful situation, action orientation, planning, cognitive restructuring, problem solving and support seeking are frequently associated with adaptive ways of coping while avoidance is linked to poorer adjustment and negative outcomes (Welbourne et al., 2007; McGowan et al., 2006; Baker & Berenbaum, 2007).

Building on these findings we have referred to *task focused* and *emotion approach* (a subset of emotion focused coping) as effective and adaptive ways of coping while *avoidance* is identified as a maladaptive coping style in this study (i.e., disengagement, distraction, blame and substance use).

2.5 Affective states

Affect is described as an umbrella term encompassing a broad range of feelings that individuals experience, including feeling states such as moods and emotions and feeling traits like positive and negative affectivity. Traits are more stable tendencies to feel and act in certain ways (e.g., energetic, anxious, calm); emotions (e.g., love, anger, fear, happiness) are relatively short-lived, intense and sometimes transform into moods. Moods take either a positive or negative feeling like cheerful, pleasant, irritable or down and last for a longer duration, i.e., a week or more (Barsade & Gibson, 2007).

A person's emotional experience can be explained by the two dimensions of psychological wellbeing which are positive affect and negative affect. Positive affect is a pleasurable emotional state which will include characteristics such as enthusiasm, active, excitement, mental alertness and determination, whereas negative affect refers to the experience of distress and would include anger, anxiety, fear, guilt and nervousness (Hart & Cooper, 2002; Watson, 1988). Strong affective feelings are present at any time we confront work issues that matter to us and our organisational performance. Positive affect, according to Fredrickson (2001), facilitates approach behavior where individuals engage with their environments and partake in activities, many of which are adaptive.

In empirical studies on affect and work-related performance, Barsade and Gibson, (2007) have found that positive affect was a significant predictor of decision making, creativity, pro-social behavior (i.e., perform beyond one's expected role, engage in altruism and being helpful), negotiation and conflict resolution, group dynamics, leadership and interpersonal performance. From an individualistic perspective Watson (1988) found that positive affect and negative affect are associated with different classes of variables. While positive affect correlates with social engagement and physical activity, negative affect is said to strongly associate with somatic complaints even to the extent of minor physical symptoms, perceived stress, apprehension and uncertainty.

In a managerial simulation conducted with MBA students the researchers found that students with high trait positive affect used greater decision making accuracy, requested a range of information before deciding and had better recognition of situational contingencies and involved deeper analytic processing. Positive affect is said to be fundamentally linked with effective individual, group and organisational performance; increased desire to engage in goal pursuits as a result of positive emotions and moods and is likely to be strongly connected to optimism, activity, confidence and coping with challenges and stress. Conversely, negative affective responses have been found to poison organisational cultures, potentially lead to violence and aggression and be detrimental to individual psychological wellbeing (Barsade & Gibson, 2007).

Emotions whether positive or negative arise with an individual's assessment of the personal meaning of an antecedent event in a person-environment relationship (Fredrickson, 2002). Positive affect (PA) reflects the positive emotional states that one experiences (e.g., joy, excitement). Negative affect (NA) describes subjective distress and dissatisfaction and comprises negative emotional states like anger, fear, sadness, guilt, contempt and disgust (Ben-Zur, 2002) NA represents the extent to which an individual experiences these negative emotional states. Conversely, positive affect reflects the positive emotional states that one experiences like interest, confidence, engagement and alertness (Watson, 2002). Individuals high in positive affectivity tend to be physically, socially and mentally active.

2.6 Appraisal and Coping

Perceived support is believed to protect against stress by minimizing the extent to which situations are perceived as a threat to wellbeing and increasing the perception that necessary resources are available for coping. In challenge appraisal an individual tends to appraise a stressful situation as reaping a beneficial outcome through the use of helpful coping strategies; for example, perceived support can be considered as a rewarding factor in the appraisal- coping process. Calvete and Connor-Smith (2007) say that from a supportive action perspective, emotional and instrumental support are likely to buffer the impact of stress by increasing the effectiveness of coping efforts, which in

turn would decrease distress. (e.g., receiving information, financial assistance, help with a task may promote effective coping in response to controllable events and receiving emotional support and companionship are likely to encourage effective adaptation in response to uncontrollable events).

Lazarus and Folkman (1987) determine causal associations between cognitive stress appraisals and coping. For instance coping in their model depends on the primary and secondary appraisals of the individual (i.e., the stake involved in the situation and what options one has to manage this encounter). Their research findings have revealed that support sought, coping thoughts and actions are related to the perception of the individual. They have further suggested in their transactional approach that, cognitive appraisal and coping act as mediators between demands and affect in the stress process.

The findings in a study conducted during the previous year by Folkman and colleagues (1986), revealed that appraisal and coping are likely to form bidirectional relations between the variables; for instance in addition to appraisal influencing coping, coping may influence the person's reappraisal of what is at stake and what the coping options are. The authors found that when a threat appraisal to one's self-esteem occurred, people sought less support; there was significantly low problem solving and distancing; when a threat appraisal to a loved one's wellbeing was encountered, instead there was more confrontive coping and escape- avoidance used by the participants in their study. In an encounter involving "goal at work", there was more self-control and problem solving used; and a threat to one's own physical health was associated with seeking more support and escape-avoidance.

Ben-Zur and colleagues (2005), in their study with Kibbutz members' change to adjustment, examined their appraisal to change, coping and leadership perceptions. The findings indicated that challenge/controllability appraisals positively related to problem focused coping and positive affect, and negatively to emotion focused coping; threat appraisal related positively with emotion focused coping and negative affect.

The authors have however identified emotion focused with some avoidance styles of coping (i.e., behavioral and mental disengagement, denial, restraint, alcohol use); instrumental and emotional support seeking were grouped under problem focused coping in their study; transformational leadership style associated positively with challenge appraisals, problem focused coping and positive affect as well. In view of the strong relations investigated by previous empirical studies between appraisal and coping, the following hypotheses are proposed:

Hypothesis 1a: Challenge appraisal will be positively related to task focused coping

Hypothesis 1b: Challenge appraisal will be positively related to emotion approach coping

Hypothesis 2: Threat appraisal will be positively related to avoidance

2.7 Appraisal and Affect

Lazarus and Folkman (1984) postulated that challenge and threat appraisal would be associated with positive and negative affect differently. Folkman (2008) posits that, in line with the cognitive theory of appraisal and coping, harm appraisals were accompanied by negative emotions such as sadness or anger, threat appraisals have been accompanied by negative emotions like anxiety and fear. Positive emotions such as excitement, eagerness and confidence have been linked with challenge appraisals. Positive emotions such as happiness, relief or pride also appeared when a situation was resolved favorably.

Schneider (2004) found, in his study on mental arithmetic tasks, that there was an association between stress appraisals and affect; appraisals and affect were assessed immediately after the task instructions had been given. During the stressor half of the participants had been randomly given a startle stimulus to assess the ongoing affective responses. As expected, challenged participants were reported to experience positive affect more than negative affect while participants with threat appraisals reported more negativity. Similarly neuroticism was related to self-reported negative affect; also a

psycho-physiological index that the researchers used, captured how participants with threat appraisals tend to enhance negativity.

Both appraisal and coping, according to Folkman and Moskowitz (2007), are tightly linked to emotions; emotions go hand-in hand with appraisal and, coping efforts are directed at managing these emotions – especially those stress related. All three qualities appraisal, coping and emotion are likely to be dynamic and change as a specific encounter unfolds. According to the authors, challenge appraisal signals the possibility of mastery or gain and is characterized by positively toned emotions such as eagerness, excitement and confidence.

Skinner and Brewer (2004), found in their study with athletes, that event-specific challenge appraisal associated with high levels of positive- activated emotion such as excitement and positive-deactivated emotion like calmness; this has been beneficial during preparation of a sports game; their findings have supported the fact that challenge perceptions, rather than threat had a strong positive impact on performance. The authors state that optimal levels of challenge have been identified with intrinsic motivation, achievement orientation and effortful optimism. The following hypotheses are suggested considering these empirical studies.

Hypothesis 3: Challenge appraisal will be positively related to positive affect

Hypothesis 4: Threat appraisal will be positively related to negative affect

2.8 Coping and Affect

Previous research findings have revealed that positive affectivity was associated more effectively with mature coping efforts. A strong correlation was found between positive emotionality and coping by active engagement (for example, optimistic individuals would remember potentially threatening health relevant information more than pessimistic ones, use humor and positive reframing instead of denial when coping with stressful events).

Similarly hope and optimism were found to be related to active and problem focused coping among breast cancer patients (Lyubomirsky, King & Diener, 2005). The same authors said that positive affect responses on coping examined by Fredrickson and Joiner (2002), found that experiences of positive emotion at one time period were associated with more effective coping and even greater positive experiences later.

In view of previous research studies suggesting that positive affect has significant adaptation functions in the coping process, Folkman and Moskowitz (2000) examined the relations of positive affect with coping strategies like positive reappraisal, problem focused coping and positive meaning. Positive reappraisal, a cognitive strategy to reframe a situation enabling an individual to reappraise a difficult situation in a positive light, has been associated with positive affect. In a study on participants' care giving and bereavement after the death of their ill partner, the participants were assessed twice before and after the death of their partner; on each of the occasions, positive reappraisal had significantly related with positive affect since the care giving has been demonstrated with love and dignity for the ill partner and the potentially painful, stressful experience had been reappraised as worthwhile by the participants. The same authors have suggested that problem focused coping is significantly related to positive affect; a study on caregivers' coping efforts with their dying AIDS partners revealed that the participants' need, affection and the ability to take control over a situation that appeared uncontrollable, made them focus on specific, attainable, realistic goals during care giving; problem focused coping increased significantly from three months to one month prior to the death of their partner (Folkman & Moskowitz, 2000).

Ben-Zur (1999), in his study on examining the impact of coping strategies and its efficiency on stress encounters, predicted that problem focused coping would be the most effective coping style rather than emotion/support and avoidance/disengagement. This research is in the view, however, that both task focused and emotion approach (which includes support) will be effective coping methods of stress depending on the situation. His findings revealed that coping by avoidance (including disengagement), was detrimental to one's wellbeing and performance; the results of the other two modes of coping were debatable.

Problem focused (which included accommodating oneself to the situation) was associated with low negative affect and a high level of cognitive performance and was found to be beneficial to overall wellbeing; in contrast emotion focused (including support) positively related to anger and had no major effect on performance; the researcher concluded that avoidance, however, is definitely not a recommended coping strategy in managing stress and will not be beneficial even as a short term relief. Welbourne and colleagues (2007) found that the use of problem solving, cognitive restructuring and support seeking strategies were associated with job satisfaction

Folkman and Moskowitz (2004) have portrayed that “emotions continue to be integral to the coping process throughout a stressful encounter as an outcome of coping, as a response to new information, and as a result of reappraisals of the status of the encounter” (p 747). Positive emotions, according to the authors, will have an impact on successful resolutions and negative emotions are likely to dominate if the resolutions are unclear or unfavorable. They argue that during the coping process, positive and negative emotions are likely to co-occur; but if positive and negative emotions function as bipolar opposites then coping methods that reduce distress would increase positive emotions and vice versa; there is also the possibility that different kinds of coping will be linked to the regulation of positive and negative affective states separately. Below are the hypotheses proposed with regards to the associations between coping and affect.

Hypothesis 5a: Task focused coping will positively associate with positive affect

Hypothesis 5b: Emotion approach coping will positively associate with positive affect

Hypothesis 6: Avoidance will positively relate to negative affect

Chapter 3

Emotional intelligence (EI)

3.1 Origins of Emotional Intelligence (EI)

During the 1980s psychologists expressed openness towards the idea of multiple intelligences. Gardner posits seven independent types of intelligence: linguistic, spatial, logical-mathematical, musical, bodily-kinesthetic, intrapersonal and interpersonal. Interpersonal and intrapersonal are involved in the attempts to understand both self and others' behavior, motives, emotions and feelings (Schulze et al., 2005).

The study of emotions and their positive role can be traced to ancient Greece when philosophers viewed emotions as individualistic and self-absorbed – and which could be used as a reliable guide for insight and wisdom. Early 19th century Europe emphasized how intuition and empathy could contribute towards insights that were not available through logic. Thorndike spoke of social intelligence which concerned the ability to understand and manage people and to act wisely in human relations (Goleman, 1998). Interest in studying EI grew rapidly during the 1990's which was known to be the “decade of the heart” (Salovey, Mayer & Caruso, 2002).

Emotions can become dysfunctional when they are the wrong type, when they come at the wrong time and when they occur at the wrong intensity level (Mikolajczak, Nelis, Hansenne, & Quoidbach, 2008). In such instances an individual needs to be able to recognize, understand, express, regulate and control these emotions appropriately for healthier outcomes. EI comprises the relevant characteristics to balance emotions, feelings and thought. Researchers have explored the concept of emotional intelligence, what it represents and how emotion and cognition interact. Hence the relevance of emotional intelligence in the current study to examine how effectively this human strength will fit in the framework of stress-coping-affect responses.

Mayer and Salovey, who identified EI as a cognitive ability, were the pioneers in defining this concept in detail with specific dimensions in their four branch model proposed in 1990 and revised in 1997. According to the authors, emotional intelligence includes “abilities to identify emotions accurately in ourselves and in other people, understand emotions and emotional language, manage emotions in ourselves and in other people and use emotions to facilitate cognitive activities and motivate adaptive behavior” (Salovey, Caruso & Mayer, 2004, p 448). Based on these authors’ ideas, the significance of EI and its success in workplace, school and home was popularized by Daniel Goleman in his bestseller “Emotional intelligence : why it can matter more than IQ”, published in 1995 (Mayer, Roberts & Barsade, 2008; Neubauer & Freudenthaler, 2005) . Since then, the effects of EI on individuals have been widely explored. Today research efforts towards trait EI have acquired prominence including cognitive and non cognitive abilities (i.e., personality dispositions). Interestingly, trait theorists observe EI as an “emotional self-efficacy” that encompasses dispositions as well as self-perceptions related to emotional functioning (Petrides & Furnham, 2003; Kirk, Schutte & Hine, 2008).

The concept of emotion to intelligence is investigated critically by researchers who argue whether EI is observed as a cognitive ability alone or should incorporate personality traits. Intelligence is known to be a mental ability concerned with handling and reasoning information. General intelligence is the capacity of mental abilities to recognize, perceive, understand and reason out verbal, numerical, spatial, visual and abstract information; thereby the level of intelligence is known to be individualistic within a hierarchy of mental abilities. EI researchers define the use of emotions in a similar conceptual network; accordingly emotional intelligence concerns “the ability to carry out accurate reasoning about emotions and the ability to use emotions and emotional knowledge to enhance thought” (Mayer, Roberts & Barsade, 2008, p 511). Since IQ scores are supposed to explain about 20% of success in life, Goleman has argued that a significant proportion of the rest should be determined by EI (Neubauer & Freudenthaler, 2005).

3.2 Models of EI

The construct of emotional intelligence has been depicted in diverse ways by authors since the investigations into EI began and has raised problems for scientific study (Mayer, Roberts & Barsade, 2008). It is possible though, to classify emotional intelligence theories into the basic types: EI as a mental ability and EI that consists of both cognitive abilities and aspects of personality and motivation that facilitates the application of abilities (Zeidner, Matthews, Roberts & MacCann, 2003).

Three approaches have attempted to conceptualize emotional intelligence: the *specific ability approach* focuses on a specific individual mental capacity that is considered to be fundamental to EI (e.g., separate models that address emotions facilitating thinking and emotional reasoning, perception, understanding and, emotional management); the second approach *integrative-models*, regards EI as an interrelated global ability. EI is understood as a joining of specific abilities. Mayer and Salovey formulated the original 'ability model' in 1990. Their revised four-branch model (1997), can be considered the most scientifically rigorous model and includes an integration of abilities from four areas; 1).perception; 2) appraisal and expression of emotion; 3) emotional facilitation of thought, understanding and analyzing emotions; and 4) emotional management and regulation (Neubauer & Freudenthaler, 2005). Each of these areas is viewed as developing from early childhood onwards. It is also argued that as skills grow in one area, so will skills in other areas. For instance, when emotional perception (i.e., a person's ability to identify and recognize emotions through facial expressions) develops, so will the ability to distinguish whether these emotions are faked expressions or not, understand these emotions, regulate and use appropriately to thinking and judgment (Salovey, Mayer & Caruso, 2002; Mayer, Roberts & Barsade, 2008).

The third approach, *mixed-model*, is viewed as a collection of abilities and non-ability traits. EI in mixed-models extend to non-cognitive capabilities, competencies or skills, emotionally and socially intelligent behavior and dispositions from the personality domain.

Originally forwarded by Bar-On in 1997 and modified in 2000, mixed-model of EI is portrayed as a “multi-factorial array of interrelated emotional, personal and social abilities that influence one’s overall ability to actively and effectively cope with demands and pressures” (Slaski and Cartwright, 2003, p 2). Bar-On has argued that EI is not limited to only emotion-cognitive related mental abilities, but also extends to social skills and personality traits (Neubauer & Freudenthaler, 2005); accordingly the components in his emotional and social intelligence model includes: self-regard, emotional self-awareness, assertiveness, empathy, the ability to form and maintain intimate relationships, stress tolerance, impulse control, the ability to validate one’s thinking and feelings and the ability to handle change and effectively solve problems. These abilities are conceptualized more as an emotional competence than an innate intelligence. Since then, there have been several mixed-models of EI proposed. Another competency-based mixed-model developed by Goleman (2001), has been designed specifically for the workplace. It includes 20 competencies under four general abilities that distinguish individual differences in workplace performance. These are: self awareness, self-management, social awareness and relationship management (Gardner & Stough, 2002; Goleman, 2001).

The current study is based on the mixed-model of emotional intelligence proposed by Palmer and Stough in 2001. The Swinburne University of Emotional Intelligence Test (workplace SUEIT), developed by the authors to represent a set of abilities concerning how effectively emotions are dealt with in the workplace, was used in this study. The workplace SUEIT assesses the way people think, feel and act with emotions at work and includes five dimensions

- 1. Emotional recognition and expression (in oneself)** – the ability to identify one’s own feelings and emotional states and the ability to express those inner feelings to others;
- 2. Emotions Direct Cognition** – the extent to which emotions and emotional knowledge are incorporated in decision making and/or problem solving;
- 3. Understanding of emotions external** – the ability to identify and understand the emotions of others and those that manifest in external stimuli;

4. *Emotional management* - the ability to manage positive and negative emotions within both oneself and others;

5. *Emotional control* – how effectively emotional states experienced at work, such as anger, stress, anxiety and frustration, are controlled (Gardner & Stough, 2002; Rajendran, Downey & Stough, 2007).

3.3 Measures of EI

Similar to the different models of EI, the measures used for assessing EI also vary. The ability model centers on performance-based measures of emotional-cognitive abilities such as asking respondents to describe their feelings about various stimuli, giving a task such as reading a scenario and rating the most effective reaction from a given list. Self-report measures pertaining to ability assess an individual's beliefs about emotional abilities rather than their actual capacity (Palmer et al., 2003).

Mixed-models rely on self-report measures (Neubauer & Freudenthaler, 2005). These are based within a personality framework to assess cross-situational consistencies in behavior (Palmer et al., 2003). This type of measure includes statements that best describe oneself in a particular situation. Generally the answers are formed on the respondent's own evaluative subjective judgment of the way one would think, feel or act.

Although there have been an increased number of measures developed during the past years, the construct validity of some of the EI instruments and test batteries developed, are under criticism. To date, the measurement of EI as a set of mental ability or self-report personality trait is being debated (Salovey, Mayer & Caruso, 2002). A concern raised with task-based ability measures is what constitutes the correct answer. A note worthy distinction made between trait EI (emotional self-efficacy) and ability EI (cognitive-emotional ability) is on the method used to measure the construct and not on the facets or elements that the various models encompass; thus it is unrelated to the distinction between mixed and ability models of EI which are based on whether or not

the theory mixes cognitive abilities and personality traits (Perez, Petrides & Furnham, 2005). Although there are fundamental differences observed between ability and trait EI, Neubauer and Freudenthaler, (2005) argue that both types tend to be complementary with respect to emotion-related components (i.e., they both cover awareness, recognition and management or regulation of emotions in oneself and in others). Today, EI instruments whether ability or trait based are widely used for psychometric assessments; the self-report measures are frequently used to assess individuals in organisational environments.

3.4 Role of EI in Organisations

Emotional Intelligence plays an important role in organisational effectiveness. According to Cherniss (2001), the most effective managers are supposed to be those who have the ability to sense how their employees feel about their work situation and to intervene when they feel distressed, discouraged or dissatisfied. In general EI will influence the effectiveness of an organisation in areas such as employee recruitment and retention, development of talent, teamwork, employee health and wellbeing, commitment, productivity, quality of service, efficiency, innovation, revenues relationship management and leadership.

People of high levels of EI experience more career success, build stronger personal relationships, lead more effectively and enjoy better health than those with low EI (Zeidner, 2005). This is because emotionally intelligent individuals are able to communicate their ideas, goals and intentions in an assertive way, are able to use social skills in team-based projects because they are effective in knowing and understanding each other's strengths and weaknesses. Organisational leaders high in EI can build a supportive organisational climate.

An interesting aspect of EI is that it has shown to increase with age and seems to be linked to maturity and experience. EI can be learned, developed and improved through practice and commitment (Slaski and Carwtright, 2002).

Individuals however may not be equally skilled in perceiving, understanding and utilizing emotional information since the level of EI will vary from one to another. Organisations apply an array of EI based instruments for predicting on-the-job performance. For example the American Society for Training and Development has published a volume describing “best practice” guidelines for helping people in organisations cultivate EI competencies that distinguish outstanding performers from average ones (Goleman, 2001).

A study conducted in mental health institutions by Nikolaou and Tsaousis (2002), revealed that there was a strong link between EI, occupational stress and organisational commitment. Considering the findings of the robust relationship of EI with organisational commitment, they confirm the importance of EI in organisations. An increase in commitment amongst employees who score high in EI may suggest that emotionally intelligent people feel more valued, happy and therefore extend loyalty and commitment to their organisation.

A new area on the increase is communication via e-mail in organisations. Employees are more likely to, and prefer to use e-mail communication with co-workers, customers, suppliers and colleagues. With the rapid advancement in technology, telecommuting and global travel, people tend to communicate more frequently via intranet and internet. Byron (2008) has investigated the potential problem that may underlie communicating emotion via e-mail. Recent theorists, according to the author, have suggested e-mail senders communicate emotions to recipients intentionally or not. Email communications can convey discrete positive, negative or neutral emotions such as happiness, anger, fear, excitement and frustration. Although the emotional intensity would be far less in emails than person-to-person communication because of the lack of facial expressions and vocal tone, this study shows that there is a considerable amount of emotional perception, expression, understanding and regulation required to avoid miscommunication and impulsive replies to maintain good relations; therefore there is the implication that EI would have an effect on written communication in organisations as well.

An emotionally intelligent organisation understands that competition is based on how well the organisation uses its people. In order to succeed, the organisation needs to hire and develop people for EI, cultivate and encourage the use of EI, evaluate efforts and make adjustments continuously and focus on all levels of the organisation. EI is found to be a vital success factor for superior performance from entry level jobs to top executive positions (Watkin, 2000). The author further comments that having the right intellectual ability and technical know-how are important; but top performers can be distinguished through the level of their EI. Barsade and Gibson (2007) argue that it is important to take note of the components of EI at an equally high level for EI to succeed in a situation, rather than considering the level of the skills separately. For example, if there are two managers who are both high in the ability to read others' emotions, but one is better than the other in regulating the emotions intelligently, that manager will be more successful at the job.

As noted in the examples above, emotional intelligence is considered a vital factor in organisations; as such, this study aims to focus on the effect of emotional intelligence on subjective wellbeing specific to occupational stress.

3.5 EI and Occupational Stress

The role of emotions in affecting the way individuals appraise and respond to a potentially threatening event and situation has drawn considerable interest on the effect of emotional intelligence in the stress process (Slaski & Cartwright, 2003). In a study conducted with over 200 UK retail managers, Slaski and Cartwright (2002) found that individuals with high EI scores experienced less stress, had significantly better levels of health and wellbeing and were rated by their line managers as high performers over those with moderate to low EI scores. EI is claimed to influence one's ability to succeed in coping with environmental demands and pressures and Zeidner (2005), suggests that EI is clearly an important strength to employ under stressful work conditions.

Another potentially stressful area of work is in human services where a person's primary task is to deal with clients and customers directly in person or via telephone; e.g., counselors, nurses, call centre employees, flight attendants, social workers and teachers. Human service workers are supposed to deliver high quality and satisfactory service and are likely to experience job related emotional dissonance. Emotional dissonance occurs when an employee is expected to display desired emotions, usually positive, even though she/he may feel the opposite emotion during an interpersonal transaction. It is believed to cause strain because of the necessity to down-regulate negative emotions and up-regulate positive emotions, which in turn requires a considerable amount of emotional regulation and control at the time in order to hide genuinely felt negative emotions – for example, having to smile and continue to serve well with a difficult or aggressive customer when one feels angry, frustrated. Emotional dissonance has been associated as a potential stressor (Dollard et al., 2003).

When emotional work demands of the job are not matched with appropriate personal resources, a person is likely to experience stress. An emotionally intelligent person as Dollard and colleagues (2003) argue, will be able to apply emotional management and decision making skills to use an appropriate strategy when faced with negative or conflicting emotional states at work. Emphasis is made on seeking emotional support from peers and seniors, applying emotional distance and role separation as constructive ways of handling emotional dissonance; thereby an individual with a significant degree of emotional intelligence will be able to function well during a difficult encounter.

Nikolaou and Tsaousis (2002), conducted a study on a sample of professionals in mental health institutions and found that emotionally intelligent individuals appeared to experience less stress at work than their colleagues with low EI. Their findings confirmed the assumption that EI could be used as an effective framework, within which an individual could learn how to cope with stress and to be able to control strong emotions. The authors concluded through the findings, that EI can be considered as having significant potential in stress management.

3.6 EI and Appraisal

In Lazarus and Folkman's (1984) transactional model of stress, challenge and threat appraisals are observed as primary appraisals. While challenge appraisals result when adequate resources are believed to outweigh situational demands, threat appraisals occur when situational demands are believed to exceed available coping resources. Challenge and threat appraisals are associated with different behavioral, physiological and affective responses (Lyons & Schneider, 2005).

The authors predicted the following; that emotional perception should help in discriminating environmental threats and benefits; facilitating cognition would use and generate emotions to assist cognitive processes inclusive of the ability to process stress appraisals; emotional understanding should identify the source of stress and facilitate the direction; emotional management will aid in altering affective responses and maintain emotions as needed to regulate adaptive stress responses. The appraisals were assessed immediately before the tasks commenced. Their study on how EI affected stress appraisal in performing certain tasks such as speech and mathematics, revealed that emotional management related significantly to challenge appraisal amongst male undergraduate students in the performance of mathematics (Lyons & Schneider, 2005).

Nezlek et al. (2008) examined the individual differences in the appraisal-emotion relationship based on Smith and Lazarus' theory that emotions are activated by people's appraisals of situations; their findings revealed that cognitive appraisal and emotional experiences varied across individuals. Using six appraisal-emotion relationships such as other-blame: anger, self-blame: guilt, threat: fear, loss: sadness, success: joy and positive encounter: love, the authors found that the paired dominant relationships were significant but were less strong than expected. For instance, joy related significantly with both success and positive-encounter; there were significant relationships between appraisal-emotion across the one-to-one associations predicted (e.g., while self-blame: guilt correlated positively, self-blame also showed positive relationships with anger, fear, and sadness and negative relationships with joy and love). Cognitive appraisals therefore had an impact on emotions determining that emotional intelligence may have an impact as well.

High EI individuals tend to interpret stressful conditions at work, if unavoidable, in a benign and less stressful way, viewing them as more challenges than threats (Zeidner, 2005). Low EI individuals are likely to ruminate unproductively about the antecedents and consequences of their problems (Zeidner, Matthews & Roberts, 2006). We have proposed the following hypotheses considering the link between appraisals and EI.

Hypothesis 7: Emotional intelligence (self-awareness, understanding others' emotions, emotions in decision making and emotional management) will be positively related to challenge appraisal.

Hypothesis 8: Emotional intelligence (self-awareness, understanding others' emotions, emotions in decision making and emotional management) will be negatively related to threat appraisal.

3.7 EI and Coping

Since EI influences an individual's ability to cope effectively with environmental demands and pressures, EI is recognized as an effective factor in life successes and psychological wellbeing (Slaski and Cartwright, 2002).

Emotionally intelligent individuals according to Zeidner (2005), will possess more fruitful emotional and social personal coping resources than their less EI counterparts; they tend to assess stressful encounters better and may be capable of even avoiding potentially dangerous social contexts, owing to more careful and effective monitoring ability. EI researchers ascertain that successful coping depends on the integrated functions of rationale as well as emotional competencies; henceforth a person who has difficulty in identifying and expressing emotions will also have difficulty in seeking emotional support and ventilating feelings. The author further states that EI individuals also engage in more active coping responses to stressful occupational situations, where they try to alter the problem in an adaptive coping style.

Austenfeld and Stanton (2004) suggest that most people benefit from expressing emotions in a meaningful way. Further they say that emotional processing becomes adaptive when people learn more about what they feel and why they feel. Emotional approach coping is said to be useful for facilitating regulation of the social environment and interpersonal relations as well as defining goals and motivating action. For example when a person acknowledges and attempts to understand an emotion like anger, then she/he is likely to conclude that a goal can be blocked and would try to look at ways of restoring progress towards that goal (Stanton et al., 2002).

Ciarrochi and colleagues (2003) found that the level of emotional awareness is related to the amount of social support one uses. As such, the authors suggest that emotional awareness would help people to be supportive of others and be better able to identify that they need support and take time to build support networks. Further, people with stronger social support networks are more likely to talk about their emotions, thus increasing their awareness. The relation between self-awareness and social support, as suggested, is likely to link strongly with emotion approach coping in the current study, since it constitutes gaining and seeking support as a coping style. Zeidner (2005) argues that individuals high in EI are more likely to develop supportive social networks and be better connected socially.

While humor has been recognized as an individual coping strategy which may affect emotional strain, joking and laughter are said to release tension. Encouraging workers to share emotional responses and express emotions has been linked to effective coping strategies to help minimize effects of emotional labor amongst human service workers. Emotional labor can lead to emotional exhaustion because of the inherent conflict of emotions one needs to perform as a result of organisational expectations for better service, (i.e., display rules to show positive emotions instead of negative feelings) – and this requires a good amount of emotional regulation and control (Mann, 2007). The following hypotheses have been suggested in this study.

Hypothesis 9a: Emotional intelligence (self-awareness, understanding others' emotions, emotions in decision making and emotional management) will be positively related to task focused coping.

Hypothesis 9b: Emotional intelligence (self-awareness, understanding others' emotions, emotions in decision making and emotional management) will be positively related to emotion approach coping.

Hypothesis 10: Emotional intelligence (self-awareness, understanding others' emotions, emotions in decision making and emotional management) will be negatively related to avoidance.

3.8 EI and Self-efficacy

EI is considered to account for individual differences in the capacity to process emotional information and be able to relate these to the wider cognitions. As such emotional intelligence is the way in which emotions are effectively integrated with thought and behavior and how one can act to reduce aversive emotional experiences. Thereby studies and theories reveal the inter-connection between emotion and thinking capacities (Slaski & Cartwright, 2003).

A study conducted by Chan (2004) with secondary school teachers in Hongkong examined the relations between emotional intelligence and perceived self-efficacy. Components of perceived emotional intelligence, i.e., empathic sensitivity, positive regulation, positive utilization of emotions and emotional appraisal, significantly predicted teachers' self-efficacy beliefs. Self-efficacy was best predicted by positive regulation which included using good moods to keep trying, knowing how to make a positive emotion last and expecting good things to happen, reflecting teachers' high efficacy expectancies using mood regulation. Another significant predictor for perceived self-efficacy towards helping others was empathic sensitivity indicating teachers' abilities to empathize with others' emotions and understand their non-verbal, facial expressions.

The findings concluded with definite links between specific components of EI and self-efficacy suggesting further exploration of the bi-directional influence between these two strengths (Chan, 2004).

Another study conducted with teachers in an Italian high school demonstrated that higher emotional intelligence, especially in the intrapersonal and interpersonal dimensions linked to higher teacher self-efficacy in managing students. The authors found that efficacy in classroom management and instructional strategies related to the intrapersonal dimension of EI, meaning that their self-awareness and the capacity to be in touch with their inner world helped the teachers to effectively use efficacious strengths. Efficacy beliefs in student engagement related to interpersonal EI, emphasizing the capability to maintain effective relationships based on cooperation and understanding the feelings and emotions of students (Fabio & Pallazzeschi, 2008). Given that these research findings reveal a consistent relation between self-efficacy and certain facets of EI, the following hypothesis is introduced:

Hypothesis II: Emotional intelligence (self-awareness, understanding others' emotions, emotions in decision making and emotional management) will be positively related to self-efficacy

3.9 EI and Affect

Watson (2002), suggested that monitoring moods and becoming more sensitive towards internal systems would help to maximize feelings of efficacy, enjoyment and positive affect, while minimizing stress and frustration. EI in the workplace is noted as a skill that is able to treat emotions as valuable enough to navigate a particular situation (Barsade & Gibson, 2007). For example with EI, a worker will be able to recognize the emotional state that her manager is in, and despite being aware of her excitement, will be able to regulate her own emotions and approach her superior later in the day at a more appropriate time.

In the instance where EI is used to facilitate thinking, one could organize a brain storm team work program in a pleasant environment in order to motivate and create positive feelings amongst the team members who may feel disheartened that some of the members had left their team to another firm.

In a study conducted by Palmer et al. (2002) on the relation between EI and life satisfaction where affective states were predicted to have an impact on life satisfaction, the authors found that clarity of feelings, a component of EI, significantly related positively with positive affect and negatively with negative affect. The authors agree with Salovey et al. (1995), who determined that emotional clarity in EI should be considered as a necessary prerequisite for the adaptive monitoring and managing of moods and emotions; therefore individuals who experience affect clearly are bound to cease aversive ruminative processes quickly because their feelings are clear.

Inter-personally, emotional awareness and regulatory processes associated with EI are expected to benefit peoples' social relationships, hence affecting the experience of emotion and stress at work. Intra-personal use of emotion and being aware of one's own emotions can lead to regulating stress and negative emotions so that one can perform better at work (Kafetsios & Zampetakis, 2008). The same researchers conducted a study with primary and secondary education teachers to determine if EI associated with positive affect and job satisfaction at work. They found significant relationships among the facets, use of emotion (i.e., self-perceived tendency to motivate oneself to enhance performance) and regulation of emotion with positive and negative affect at work. Similarly, use and regulation of emotion and perceiving others' emotions were significant predictors of job satisfaction. While the findings revealed gender differences such as positive affect uniquely associating with job satisfaction amongst women, EI was found to link with positive affect stronger than with negative affect in zero order correlations; positive affect had a robust relationship with job satisfaction; they also suggested that positive affect can be considered a source that may promote building personal and social resources.

Findings of Sy, Tram and O'Hara (2006) revealed employees with high EI experienced greater job satisfaction. They agree with previous researchers that employees with EI are adept in identifying and regulating their emotions; their ability to understand emotions is likely to imply that they are more aware of the factors that contribute to positive and negative affect; accordingly awareness of what elicits emotions, enables them to take appropriate actions to influence job satisfaction. The following hypotheses are proposed with regards to the predicted link between EI and affective states.

Hypothesis 12: Emotional intelligence (self-awareness, understanding others' emotions, emotions in decision making and emotional management) will be positively related to positive affect

Hypothesis 13: Emotional intelligence (self-awareness, understanding others' emotions, emotions in decision making and emotional management) will be negatively related to negative affect

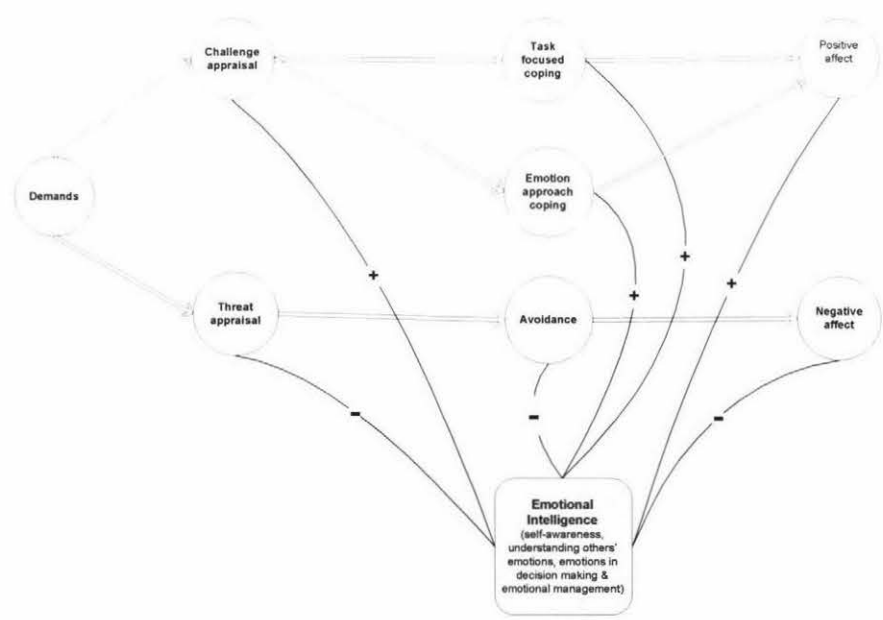


Figure 2. Hypothesized positive and negative associations of emotional intelligence with variables within an appraisal-coping-affect model of occupational stress

3.10 EI and Mediating Associations

The literature on mediating associations of EI between appraisal-coping and coping-affect is sparse. However we could argue that emotional intelligence accounts for the relationships between cognitive appraisal, coping and affect through studies that have revealed how EI is likely to play an effective role in appraising emotions and using an appropriate coping strategy to regulate these emotions.

A study by Saklofske et al. (2007) reported that EI positively related to task focused coping, including rationality. The authors suggest that EI can be regarded as a source that facilitates life satisfaction, social network factors and efficient self-regulation towards desired outcomes. Furthermore Zeidner (2005) reveals that emotionally intelligent individuals cope more successfully since they “accurately perceive and appraise their emotional states, know how and when to express their feelings, and can regulate their mood states” (p 230).

According to Lazarus (1999), stress emotions are experienced and expressed physiologically, cognitively and behaviorally; stress emotions, whether they be anger, guilt or frustration are an expression of the way one appraises her/his relationship with environmental demands and how that person copes with this transaction; thus emotional reactions to stress determine a person’s efforts to adapt to or cope with the demands. Ashkanasy and colleagues (2003) emphasize that employees with high EI are likely to be able to recognize and cope proactively with the emotional consequences of workplace stressors. The authors use an example to convey how emotions in decision making are likely to influence the same person to act in different ways when managing stress (i.e., an employee would leave a task till the last minute and will complete it with time pressure and in another situation she/he may complete a task by working out a time schedule).

Jordan et al. (2002), in their study on employees’ emotional intelligence and coping over job insecurity in organisations, revealed that individuals with a high ability to manage emotions would be better able to control their initial emotional reaction to the perception of job insecurity; similarly their ability to assimilate emotions will allow

them to distinguish these emotions, reason out accordingly, manage the reactions and take an appropriate decision; effective coping strategies, rather than avoiding the problem will be used by high EI employees to enhance their employment security. Although this study looked at the interaction association of EI, we could argue that EI is likely to affect the relationship between cognitive stress appraisal and coping. As such, the following hypotheses are proposed.

Hypothesis 20a: Emotional intelligence (self-awareness) will mediate the relationship between challenge appraisal and task focused coping

Hypothesis 20b: Emotional intelligence (emotions in decision making) will mediate the relationship between challenge appraisal and task focused coping

Hypothesis 20c: Emotional intelligence (emotional management) will mediate the relationship between challenge appraisal and task focused coping

Hypothesis 21a: Emotional intelligence (understanding others' emotions) will mediate the relationship between challenge appraisal and emotion approach coping

Hypothesis 21b: Emotional intelligence (emotional management) will mediate the relationship between challenge appraisal and emotion approach coping

Kafetsios and Zampetakis (2008) tested, in their study, if positive and negative affect at work mediated EI effects with job satisfaction. Based on affective events theory the researchers expected that work affect would at least partially mediate EI effects on job satisfaction. They found that male workers' positive and negative affect at work fully mediated EI effects on job satisfaction. Their findings indicated that when controlling for positive and negative affect at work occurred, perceiving others' emotions uniquely associated with job satisfaction. EI clearly was observed as an effective antecedent to affect at work.

Mikolajczak et al. (2008) investigated the associations of trait emotional intelligence with coping strategies. Their findings revealed that trait EI related significantly with adaptive rather than maladaptive coping styles. For instance high trait EI individuals, when faced with a negative situation, were found to look at a problem in a positive light and take appropriate steps to resolve it; they also made efforts to elevate pleasant thoughts and were less likely to blame themselves. Their study ascertained that trait EI was effective in promoting the use of adaptive strategies to down-regulate negative emotions and maintain positive emotional states like joy and plenitude; in addition high EI individuals were likely to maintain superior capacity to implement these adaptive strategies (i.e., acceptance, positive reappraisal, planning in contrast to self-blame and rumination). Although this study was not directly linked to EI as a mediator, we can observe how EI has played an efficient role in using adaptive strategies towards alleviating negative emotional states.

Zeidner (2005) states that the adaptive coping nature of EI would support mastering emotions, emotional growth and experiencing less stress which may indicate that negative affect responses will be minimized. Emotionally intelligent individuals are more likely to have developed adequate social skills to use support networks appropriately, which would in turn provide them with an emotional buffer against negative life events. In line with the ideas of these empirical studies, the following mediating associations of EI are suggested.

Hypothesis 22a: Emotional intelligence (emotions in decision making) will mediate the relationship between task focused coping and positive affect

Hypothesis 22b: Emotional intelligence (emotional management) will mediate the relationship between task focused coping and positive affect

Hypothesis 23a: Emotional intelligence (self-awareness) will mediate the relationship between emotion approach coping and positive affect

Hypothesis 23b: Emotional intelligence (emotional management) will mediate the relationship between emotion approach coping and positive affect

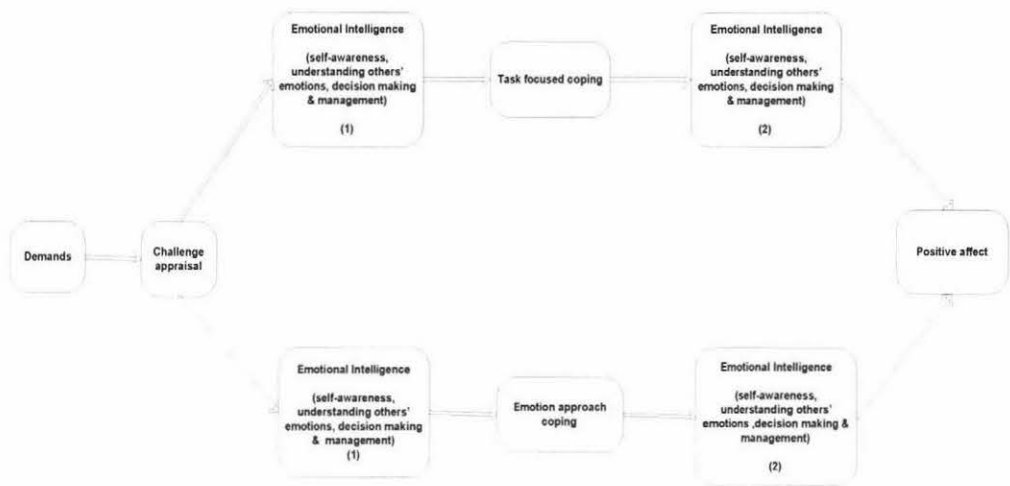


Figure 3. Hypothesized mediating associations of emotional intelligence between : pathway 1- challenge appraisal and adaptive coping
pathway 2- adaptive coping and positive affect

Chapter 4

Self-efficacy

4.1 Role of Self-efficacy

For many years, occupational stress research has examined the relations between stressful job conditions and their adverse effects on the employee's physical, behavioral and psychological well-being (Jex, Bliese, Buzzell & Primeau, 2001). Recent findings reveal that researchers have been interested in finding the associations between individual differences, personality traits, cognition and emotion on the stress-coping-outcome process (Ben-Zur, 2002).

Self-efficacy is a core concept in Albert Bandura's social cognitive theory (Bandura, 2001). According to the social cognitive theory (Bandura, 1997), human motivation and actions are regulated extensively by forethought. The author further states that people can be considered to be self-organising, self-reflective and self-regulative in that they make judgments about themselves on the basis of their own capabilities. Maddux (1995) agrees that social cognitive theory is an approach "to understanding human cognition, action, motivation and emotion that assumes that people are capable of self-reflection and self-regulation" (p 4). Accordingly, individuals are observed as active shapers of their environment by internalizing thoughts and experiences cognitively (Siela & Wieseke, 2000). In this domain, self-efficacy focuses on how psychological and behavioral changes operate through the alteration of an individual's sense of personal mastery. Moreover, self-efficacy beliefs influence cognition, affect and behavior and would also help to deal with stressful circumstances (Bandura, 2001, 1997; Maddux, 1995).

Would motivational utterance "I think I can, I know I can" help a person to succeed in a challenging task one is faced with? The belief that a person can accomplish required goals and thinks she/he can exercise control over a situation is the basis of self-efficacy.

Bandura defines self-efficacy as “people’s beliefs about their capabilities to exercise control over events that affect their lives” (Bandura, 1989, p 1175). Self-efficacy expectations are “judgments about how well an individual can organise and carry out courses of behavior necessary to cope with prospective situations involving ambiguous, unpredictable and stressful elements” (Karademas & Kalantzi-Azizi, 2004, p 1035). While Bandura (1997), believes that self-efficacy expectations are one of the most important factors to regulate behavior, he emphasizes that it is not a measure of the skills one has but a belief about what one can do under different sets of conditions with whatever skills one possesses.

Self-efficacy beliefs influence personal motivation, affect, behavior, personality characteristics, stress perception, life satisfaction and achievements (Luszczynska, Gutierrez-Dona & Schwarzer, 2005). Many researchers have examined the effective influence of self-efficacy. Self efficacious individuals are said to hold stronger beliefs in their ability to successfully perform task situations including emotion work, set more challenging goals for themselves, stick to them and are better in dealing with failing experiences than persons low in self-efficacy (Heuven, Bakker, Schaufeli & Huisman, 2006). Schwarzer et al. (2005) found that people with high self-efficacy, use persevering efforts, have actions driven through thought, recover quickly when setbacks occur and remain committed to their goals; therefore believing in their competence in dealing with all kinds of demands.

4.2 The Adaptive nature of Self-efficacy

Bandura (2001) observes that efficacy beliefs affect adaptation and change. He further states that the efficacy belief that one is capable of exercising control over one’s own functioning and environmental events determines self-regulation, optimistic thinking, meeting challenges, goals and perseverance in the face of obstacles and failures. Self-efficacy beliefs are learned over time and develop through self and others’ experiences. The development of such beliefs is assumed to have begun in childhood and continue throughout one’s life span (Bandura, 1977; 1997; Maddux, 2002; Schwarzer, 1992).

The primary sources that help to develop self-efficacy are noteworthy:

1. *Performance experiences*; one's own previous attempts at control and the subsequent successes over situations strengthens self-efficacy, while past perceptions of failure diminish self-efficacy judgments of capability. As an individual continues to experience both success and failure, the strength of perceived efficacy is likely to fluctuate. When strong efficacy expectations are developed through continuous success, the negative impact of occasional failures is likely to be reduced. Also known as enactive mastery, this is identified as the strongest cue in the development of self-efficacy (Bandura, 1977; Speier & Frese, 1977).

2. *Vicarious experience*; self-efficacy beliefs are influenced by observing and modelling the consequences of others' behaviors. Information gathered by watching other people succeeding and imitating their actions are used to form one's own self-efficacy beliefs. Self-efficacy can be strengthened through reliable mentors and role-models.

3. *Imaginal experiences*; developing self-efficacy by imagining or visualising oneself behaving effectively in hypothetical situations.

4. *Verbal persuasion*; influenced by what others say, especially by powerful, trustworthy, attractive experts or sources. People can be led, through suggestion into believing that they have efficacy to cope successfully. An individual can be encouraged and convinced into thinking that she/he is capable of performing a task.

5. *Physiological and emotional states*; learning to associate perceived failure with aversive negative emotions and arousal. One's self-efficacy increases when emotions and arousal are linked with pleasant states. (Maddux, 2002; Snyder & Lopez, 2007).

People process, weigh and integrate diverse sources of information concerning their capability and use their judgments and efforts to behave accordingly (Bandura, 1977). Similarly, efficacy beliefs will act as a self-motivating mechanism; people perceive their own level of competences to be high and consequently set themselves goals and spend considerable effort in overcoming obstacles (Llorens et al., 2007).

Since self-efficacy can be learnt and may depend on the sources of information a person has been exposed to, the formation of efficacy beliefs in an individual will vary from one to another. Bandura (2004), believes that accumulation of successes as well as persistent positive experiences augments self efficacy. Experiences become constructive through cognitive processing of efficacy information and reflective thought. As such, the approach in this study is to explore how the level of self-efficacy in a person will better equip her/him to cope with stressful demands in a work environment. We could determine through previous studies how self-efficacy in a person is likely to facilitate healthy ways of coping with stressful events; thus implications in the current research are directed towards exploring the relationships of self-efficacy with stress appraisal and coping; emotional intelligence and affect.

Figure 5 illustrates the hypothesized direct associations of self-efficacy in a transactional model of occupational stress framework and Figure 6 at the end of the chapter demonstrates the predicted mediating role of self-efficacy. Accordingly, this research would like to portray self-efficacy as a human cognitive strength in work stress experiences within an organisational environment. Further it aims to examine that as much as self-efficacy would vary according to the individual and the situation, efficacy beliefs would affect the way a person appraises and copes with stress. The study predicts that self-efficacy will help an individual to experience more positive affective states (i.e., excited, calm, inspired, happy) than negative affective states (i.e. anxious, angry, frustrated, discouraged).

4.3 Self-efficacy and Occupational stress

Noteworthy emphasis has been directed towards the role of self-efficacy as a human strength in stress management. Strength of self-efficacy expectancy has been related repeatedly to persistence in the face of frustration, pain and other barriers to performance, including stress (Maddux, 1995; Bandura 1989).

Human stress has been viewed in terms of task demands that tax or exceed an individual's perceived capability to manage them.

Bandura (1997), suggests what is experienced as an occupational stress depends partly on the level of perceived self-efficacy. Interestingly, he argues that employees who have a low sense of self-efficacy will be stressed due to the heavy work demands and a feeling of not being in control of the situation, while those with a high sense of self-efficacy will be frustrated and stressed by limited opportunities to use their talents in full (Bandura, 1997). However a personal resource such as self-efficacy is shown as a prerequisite for coping with occupational stress (Schwarzer, 2004).

People with high self-efficacy focus on the opportunities worth pursuing and view obstacles as surmountable. They are able to find out ways of exercising control even in environments of limited opportunities and organisational constraints (Bandura, 2004). With respect to stress, it is perceived inefficacy that would make a person judge a situation stressful and invariably associate it with pessimistic thoughts about oneself, abilities and accomplishments – and thereby avoid taking helpful action (Karademas & Kalanztz-Aziz, 2004). Highly self-efficacious individuals are found to be less anxious and frustrated and suffer less from stressful situations (Bandura, 1977; Heuven, Bakker, Schaufeli & Huisman, 2006).

Sivanathan et al. (2004) have revealed that self-efficacy buffers the negative impact of work stressors on employee psychological wellbeing because individuals high in self-efficacy are more likely to confront their stressors, while those low in self-efficacy are more likely to consume their time worrying about them.

4.4 Self-efficacy and Appraisal

Stress appraisals result from perceived situational demands in relation to perceived personal coping resources. With respect to the relevance of perceived personal resources, Lazarus and Folkman mention commitment and beliefs. Self-efficacy is considered as a positive resource factor that would buffer distress experiences (Jerusalem & Schwarzer, 1992).

People with strong self-efficacy recognize that they are able to overcome obstacles and focus on opportunities; therefore perceive stressful situations as more challenging than those who worry with self-doubts and abilities to overcome difficulties (Luszczynska, Gutierrez-Dona & Schwarzer, 2005).

Individuals may differ in the way they appraise their capabilities. People fear and tend to avoid threatening situations that they think exceed their coping skills whereas they get involved in activities and behave with confidence when they judge themselves capable of handling situations. Self-efficacy determines how far a person will view her/his efforts in the face of obstacles and aversive experiences. The stronger the perceived self-efficacy the longer one will persist in subjectively threatening situations (Bandura, 1977).

People who trust their own capabilities to master environmental demands also tend to interpret difficult achievement tasks as more challenging than threatening. People with low self-efficacy expectations are prone to self-doubts, threat appraisals and perceptions of coping deficiencies. Research findings have examined that highly self-efficacious people feel more challenged than low efficacious counterparts who appraise demands as threatening and cope with problems in a maladaptive way (Jerusalem & Schwarzer, 1992). Skinner and Brewer (2004), posit that challenge appraisals are focused on opportunities for success, potential for mastery such as increasing skills and confidence and, obtaining rewards (i.e., recognition, praise).

Karademas et al. (2007), examined whether self-efficacy expectations and optimism affected the information processing of wellbeing (e.g., longevity, happiness, potency and control) and threat-related (e.g., disaster, danger, pain and disease) stimuli. Their findings revealed that high self-efficacious individuals were more sensitive and bias towards wellbeing or control –related information, whereas individuals with low self-efficacy were more sensitive to threat-related stimuli. The researchers suggested that persons with low self-efficacy would allocate more information resources to threatening stimuli because they appraised themselves as potentially less able to confront threat (Karademas, Kafetsios & Sideridis, 2007).

Karademas & Kakatzi (2004) note that a person with high self-efficacy expectations approaches any tasks as challenges that need to be mastered, sets high goals and is able to recover quickly from difficulties. The following hypotheses are proposed with the assumptions that self-efficacy affects the way an individual appraises a stressful demand.

Hypothesis 14: Self-efficacy will be positively related to challenge appraisal

Hypothesis 15: Self-efficacy will be negatively related to threat appraisal

4.5 Self-efficacy and Coping

Individuals with high levels of self-efficacy are found to use different and more effective coping strategies than individuals low in self-efficacy (Heuven, Bakker, Schaufeli & Huisman, 2006).

Coping plays an important role in the adjustment to illness. Self-efficacy represents a personal resource factor that would facilitate coping (Schwarzer, Boehmer, Luszczynska, Mohamed & Knoll, 2005). Jex, Bliese & Primeau (2001) have suggested that those who are confident in their ability to carry out their job tasks are likely to use effective ways of coping with workplace stressors. They argue that high self-efficacious people would use coping methods that even prevent stressors from occurring such as planning ahead. Their findings revealed that coping methods are congruent with individual differences such as efficacy beliefs and the nature of the stressor in order to reduce strain. While avoidance coping strongly related to psychological strain, self-efficacy was significantly negatively related to psychological strain in this study. They also found that self-efficacy moderated the stress-strain relationship only when active coping was high. Although the current research does not particularly look at the moderating effect of self-efficacy, we can predict through previous empirical studies that self-efficacy is related to the use of healthy coping strategies.

In relation to coping with stress, a low sense of self-efficacy would associate with low self-esteem about one's abilities to succeed and pessimistic thoughts, suggesting people with low self-efficacy expectations avoid any action that, according to their opinion, exceeds their abilities. In contrast a strong sense of efficacy enhances accomplishments and personal wellbeing. People with high efficacy would approach difficult tasks as challenging and perform, setting higher goals to achieve (Karademas & Kalantzi-Azizi, 2004).

High self-efficacy is linked to improved goal setting, persistence in pursuing the goals and stronger intentions of achieving these. Self-efficacious individuals are said to focus on their future and develop possible action plans; they are more committed and resort to implementing plans (Luszczynska, Scholz & Schwarzer, 2005). Their study on cross cultural samples revealed that general self-efficacy related to adaptive, problem focused coping with stress. More frequent employment of planning and the spirit of fighting for successful adaptation during stressful experiences were discovered in this study. By relying on problem focused coping, employees higher in self-efficacy are likely to be equipped with more adaptive responses to setbacks and stressors in their work environment and thus are more likely to maintain healthy levels of psychological wellbeing (Sivanathan, Kara, Turner & Barling, 2004).

Highly efficacious persons are not only better equipped to coping with threats or demands of their working environment, but are also believed to better able to generate available resources, such as gaining support, which will lead to positive effects on health and wellbeing (Heuven, Bakker, Schaufeli & Huisman, 2006). In the current research emotion approach coping includes instrumental and emotional support as means of seeking support during a stressful situation.

Ben-Zur (2002), reveals how mastery and self-esteem are associated with coping and affect. Although the author measures mastery in this research instead of self-efficacy per se, past literature views mastery as a perceived ability to significantly alter events – the perception that one has personal control of life occurrences. While the study showed

that mastery and self-esteem have direct positive relations with positive affect and direct negative relations with negative affect, mastery is also positively associated with problem focused coping and negatively related to avoidance coping. The author concluded through the findings, that mastery may strengthen the use of problem type of strategies through the belief that things can be changed and managed, leading to plans and possible actions that can help in managing a stressful situation.

Thompson et al. (2002) investigated how self-efficacy affects responses to suicide attempts through social support. This study indicated that abused African American women with low levels of perceived self-efficacy were at an increased risk of attempting suicide because they perceived themselves as having low levels of success seeking support and did not perceive themselves having effective coping strength; the effect of self-efficacy on suicide attempts was affected by perceived support and one's effectiveness in obtaining resources. (Thompson, Kaslow, Short & Wyckoff, 2002). In the current study, emotional and instrumental support seeking and receiving are noted as an emotion approach coping strategy. In view of these findings the hypotheses below are suggested.

Hypothesis 16a: Self-efficacy will be positively related to task focused coping

Hypothesis 16b: Self-efficacy will be positively related to emotion approach coping

Hypothesis 17: Self-efficacy will be negatively related to avoidance

4.6 Self-efficacy and Emotional Intelligence (EI)

Self-efficacy is believed to play a vital role in the self-regulation of affective states and the intensity of emotional experiences. Bandura (1997) posits that “efficacy beliefs regulate emotional states by supporting effective courses of action to transform the environment in ways that alter its emotive potential” (p 137). He further emphasizes that perceived efficacy ameliorates aversive emotional states once they are aroused. For example, the affect regulation in this context uses exercise of control over anxiety arousal, depressive mood and stress reactions.

Persons high in emotional intelligence are claimed to have a greater sense of self-efficacy with respect to regulation of emotions (Zeidner, 2005). It is believed that people high in self-efficacy employ strategies that repair negative moods affecting stressful encounters and maintain positive moods when appropriate. High emotionally intelligent people are said “to be aware of their mental responses and the strong influence their cognitions have on their feelings” (Zeidner, 2005, p 232).

Heuven et al.’s (2006), study with flight attendants on the effect of self-efficacy with emotional dissonance revealed highly efficacious cabin attendants being better able to cope with emotionally charged interactions with passengers, compared to staff who scored low in self-efficacy. The same researchers maintain that expressing positive feelings in client interactions is used as an emotional management strategy to actually feel more positive inside (Heuven, Bakker, Schaufeli & Huisman, 2006). Emotional management requires the belief that one has the ability to modify emotions and feelings; therefore the vital contribution of self-efficacy in recovering from negative emotions has been highlighted in previous studies (Salovey, Caruso & Mayer, 2004).

According to Schwarzer et al. (2005), self-efficacy leads to effective problem solving and increase of positive emotions. The authors highlight that strongly efficacious people are successful in solving conceptual problems and making decisions, motivated, expand satisfying social relations, possess high personal aspirations and achievements.

A new aspect of research has been the assessment of beliefs that one can manage emotion and interpersonal encounters. Self-reported confidence in regulating one’s own emotional states and in dealing with emotive emotions is included in the EI trait questionnaire developed by Petrides and Furnham (2003).

Llorens et al. (2007) suggested that, in keeping with empirical evidence, efficacy beliefs will regulate emotional states by supporting effective courses of action to change the environment and alter emotional potential.

The current research expects to find out strong relations between self-efficacy and emotional intelligence because of the significant inter-related functions of the two constructs in shaping human thinking, feeling and behavior. Hypothesis 11 proposed in the previous Chapter 3 regarding EI has been included here in view of the association between self-efficacy and emotional intelligence.

Hypothesis 11: Emotional intelligence (self-awareness, understanding others' emotions, emotions in decision making and emotional management) will be positively related to self-efficacy

4.7 Self-efficacy and Affect

Thinking and feeling in human behavior can have a mutual effect on each other. Research on affect and cognition raises the question whether emotional states influence people's thoughts about their capabilities for performance (Cervone, 2000). An experiment manipulating failure and success feedback on tasks revealed participants with low levels of self-efficacy for the experimental task became sad and discouraged after it was said that they did not perform well unlike the high self-efficacious participants; thereby people with the low self-efficacy interpret feedback as confirming lack of ability, helplessness and expressing negative emotions. This implies how self-efficacy shapes affective states (Ewart, 1995).

Schwarzer et al. (2005) believe that persons who are burdened with a belief of self-inefficacy suffer with distress and negative emotions such as anxiety, depression and helplessness. Stronger self-efficacy is related to perceiving more positive outcomes of future actions and fewer negative outcomes (Luszczynska, Scholz & Schwarzer, 2005). As expected, high self-efficacy related to low negative affect, lower pain and more life satisfaction. Their associations were found significant but low in this study; they were, however, consistent with previous findings that self efficacy has a stronger positive association with positive affect and associate reversely with negative affect.

A study conducted on staff in electrical and electronics companies revealed that the employees who hold a personal resource such as self-efficacy are confident about their capabilities and optimistic of their future; their efficacy beliefs in capabilities are said to lead to goal attainment and work engagement (Xanthopoulou et al., 2007). The authors have suggested that the negative relationship of efficacious or optimistic employees with exhaustion in the study would indicate the reason for the lower levels of fatigue, meaning that they are more resistant to adverse conditions.

The current study examines the effect of self-efficacy on affective states; emotional states such as exhaustion and fatigue may be considered as negative affect while work engagement will be linked to an outcome of a positive affect. Although this study does not examine direct relations with work engagement, individuals are said to feel engaged with work in their jobs when they experience positive affect. Llorens et al. (2007) considers work engagement as a persistent, pervasive and positive affective-motivational state of fulfillment in employees. According to the authors people rely at least partly on their emotional states to judge their capabilities.

Cotton and Hart (2007) have examined, from an occupational health approach, that job satisfaction reflects an individual's evaluative judgments based on weighing up their positive and negative employment experiences. Taking into consideration these empirical findings we could predict that self-efficacy will have a strong impact on affective states and the following hypotheses are proposed.

Hypothesis 18: Self efficacy will be positively related to positive affect

Hypothesis 19: Self-efficacy will be negatively related to negative affect

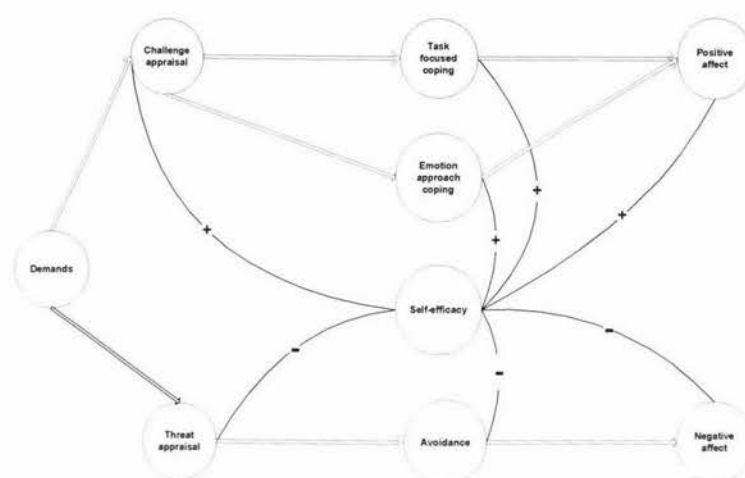


Figure 4. Hypothesized positive & negative associations between self-efficacy and variables within an appraisal-coping-affect model of occupational stress

4.8 Self-efficacy and Mediating Associations

Although there have not been many empirical studies conducted on the mediating role of self-efficacy with stress appraisals and coping; coping and positive affect, previous research has examined the mediating effect of self-efficacy in other stress related areas and outcomes in an organisational environment.

In Lazarus and Folkman's transactional model of stress (1984), two processes, i.e., cognitive appraisal and coping, can be identified as mediators of stressful person - environment relations and their immediate stress outcomes. While cognitive appraisals direct the strategies that are used to cope with the situation, coping efforts may mediate emotional responses to stress demands. Similarly, self-efficacy can be considered as a cognitive appraisal of how well one can execute the course of action to deal with the situation.

Self-efficacy judgments are said to affect choice of activity, amount of effort used in the face of obstacles and would have an impact on the adjustment to emotional reactions (Major et al., 1998). Their study on women's cognitive appraisal, self-efficacy and coping during pre and post stages of abortion revealed that the relationship between personal resources and adaptation were mediated significantly by pre-abortion cognitive appraisals of the event and post-abortion coping efforts.

In view of this, the current study aims to examine the mediating role of self-efficacy on the pathway of cognitive appraisal-coping; thus the following hypotheses are proposed.

Hypothesis 24a: Self-efficacy will mediate the relationship between challenge appraisal and task focused coping

Hypothesis 24b: Self-efficacy will mediate the relationship between challenge appraisal and emotion approach coping

Hypothesis 24c: Self-efficacy will mediate (a negative) relationship between threat appraisal and avoidance

Of particular interest is a recent study conducted on employees in two companies in Netherlands; the findings reveal how selected personal resources affected work engagement and exhaustion. The researchers Xanthopoulou et al. (2007) found that three personal factors including self-efficacy, organisational -based self-esteem and optimism mediated the relationship between job demands and work engagement, confirming a partial mediation. Similarly, self-efficacy, being one of the three factors of the personal resources, mediated the association between job demands and exhaustion significantly – meaning that personal resources like self-efficacy, self-esteem and optimism play an effective role on positive and negative outcomes such as work engagement and exhaustion respectively.

The authors further state that job resources would play an active role in the prevention of a negative affect such as exhaustion through the activation of individual efficacy beliefs which can lead to more positive appraisals of stressful situations. Since this study has included self-efficacy as one of the personal resources, we cannot determine that only self-efficacy played the effective mediating function. Nevertheless we can predict that self-efficacy has contributed significantly on the mediating relationship and it is of value to examine the strength further.

Llorens et al. (2007) carried out a longitudinal study on psychology students in a laboratory setting to examine the mediating role of specific work-related efficacy beliefs in the relationship between task resources (i.e., time and method control) and work engagement (i.e., vigor and dedication). The results supported their predictions that efficacy beliefs mediated task resources and engagement. They found that the more task resources the students perceived necessary for completing the task, the higher their levels of efficacy beliefs and the higher their levels of vigor and dedication three weeks later. Similarly the authors claimed that efficacy beliefs play a mediating role between engagement and task focus; students with high levels of engagement felt more efficacious in performing the task, which in turn led to the perception of greater future task resources. They concluded that task resources, efficacy beliefs and engagement had a reciprocal causal effect while the mediating effects of efficacy beliefs were confirmed as a potential significant finding for future studies. In view of these empirical studies the hypotheses below are suggested.

Hypothesis 25a: Self efficacy will mediate the relationship between task focused coping and positive affect

Hypothesis 25b: Self efficacy will mediate the relationship between emotion approach coping and positive affect

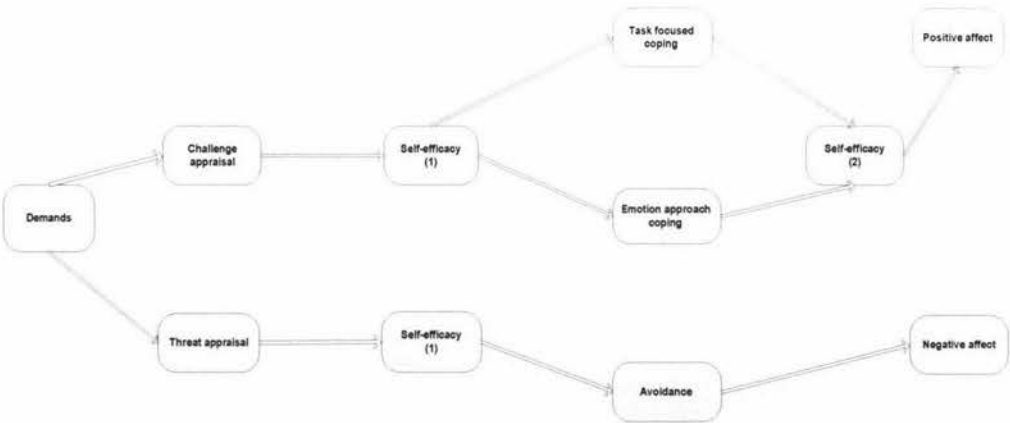


Figure 5. Hypothesized mediating associations of self-efficacy between : pathway 1- cognitive appraisal and coping
 pathway 2 – adaptive coping and positive affect

Chapter 5

Method

5.1 Overview

The research aim is to test a model of stress and find out the effect of emotional intelligence and self-efficacy on occupational stress. The data collection of the research was conducted through an online survey which was created with the features made available in www.surveymonkey.com. The study was conducted after the approval from Massey University Human Ethics Committee had been granted; approval number MUHECN 07/052.

5.2 Participants

The research was conducted by selecting a sample of 275 professional employees from three participating organisations in New Zealand. All three organisations were from the private sector. With the assistance of a representative coordinator from each Company, the web-based link was distributed to the potential participants via e-mail. Participants were informed that taking part was voluntary and anonymous. Participants were informed that the survey would take approximately 30 minutes and they had the choice of skipping any question they did not wish to answer and could choose not to participate by deleting the e-mail or exiting the survey link. Completion of the survey and submitting was considered as consenting to participate in the research survey. A total of 89 responses were obtained. The response rate was 32%. The demographic information is shown in Table 1.

5.3 The Survey

The survey comprised five self-report questionnaires covering primary appraisal, coping, emotional intelligence, self-efficacy and affective states. The survey included four sections. In section A, the participants were asked to think about a work related stressful situation that they had experienced and briefly describe this situation.

This was followed with the assessment of primary appraisal and coping, keeping in mind the stressful situation experienced. Section B included questions related to emotional intelligence and self-efficacy where the participants were asked to think of the present time and not about the stressful situation experienced. Section C included questions on the positive and negative affective states. The final section gathered demographic information.

In order to assess the demands, the respondents were asked to think about the most stressful situation they had experienced recently where they had to use a lot of effort to deal with something or someone at work. The responses were coded into four categories of demands which were job-role, person-relationship, organisational -management and work-family interface.

Demographic data collected were on gender, date of birth, ethnic identification, educational level, employment level, employment title and employment status (i.e., full-time or part-time).

Table 1: Demographic information (N=89)

	No .of respondents	%		No of respondents	%
<u>Gender</u>			<u>Education</u>		
Female	47	52.8	University Degree	35	39.3
Male	27	30.3	Professional	8	9
Missing data	15	16.9	Technical	8	9
<u>Age</u>			Diploma	16	18
20-30 years	10	11.2	Bursary	2	2.2
31-40 years	26	29.2	Other	5	5.6
41-50 years	22	24.7	Missing data	15	16.9
51-60 years	12	13.5	<u>Job Level</u>		
61 years and over	4	4.5	Senior Management	15	16.9
Missing data	15	16.9	Supervisory	11	12.4
<u>Ethnicity</u>			Non-supervisory	21	23.6
Maori	3	3.4	Academic	15	16.9
European/Pakeha	53	59.6	Other	12	13.5
Asian	5	5.6	Missing data	15	16.9
Indian	1	1.1	<u>Employment Status</u>		
Pacific Islander	1	1.1	Full-time	70	78.7
Other	11	12.4	Part-time	5	5.6
Missing data	15	16.9	Missing data	14	15.7

5.4. Measures

5.4.1 Primary Appraisal

The respondents answered the primary appraisal and coping questionnaires keeping in mind a work situation identified as stressful or demanding. Primary appraisal was assessed using the eight item Cognitive Appraisal Scale (Skinner & Brewer, 2002). Four items assessed threat appraisal like “I was worried that I might not be able to achieve the outcome I was aiming for”. The other four items assessed challenge appraisal like “I was focused on the positive benefits I would obtain from the situation”. The responses were on a 5 point scale ranging from 1=strongly disagree to 5=strongly agree. The Cronbach alpha for threat appraisal was .79 and the alpha reliability for challenge appraisal was .71. Item four “I was thinking about the consequences of performing well” was removed to increase reliability in the challenge appraisal subscale.

5.4.2 Coping

Coping was assessed using the Brief COPE, which includes 28 items (Carver, 1997). The Brief COPE measures 14 coping reactions: active coping, planning, positive reframing, acceptance, humor, religion, using emotional support, using instrumental support and negative coping reactions like self-distraction, denial, venting, behavioral disengagement, self-blame and use of substance. Responses were on a 5-point scale where 1=not at all and 5=very much (Carver, 1997).

The data were subjected to a factor analysis. Further, principal components analysis was used to draw a scree plot. This indicated a sharp change in the steepness of the curve at three factors. This scree test method for the selection of an appropriate number of factors for extraction is generally considered to be the most suitable technique (Kline, 1994). The analysis then proceeded using principal component analysis with extraction of three factors and rotation using the varimax procedure. Items with loadings of 0.30 and above on the three factors were retained as long as they did not cross load with another factor.

The three factors were: task-focused coping which had high loadings on 6 items of active coping, planning and acceptance (e.g., “I concentrated my efforts on doing something about the situation I was in”, $\alpha=.71$). Emotion approach coping included 6 items from emotional support, instrumental support and venting (e.g., “I got emotional support from others”, $\alpha=.79$). Avoidance consisted of 11 items from humor, self-distraction, behavioral disengagement, denial, substance use and blame (e.g., “I gave up the attempt to cope”, $\alpha=.76$).

5.4.3 Emotional Intelligence (EI)

Before responding to the emotional intelligence and self-efficacy questionnaires, the participants were reminded to think of the present time and not of the stressful situation. EI data were collected using the self-report measure Workplace Swinburne University Emotional Intelligence Test (SUEIT) developed by Palmer and Stough in 2001. The Workplace SUEIT assesses how effectively individuals deal with emotions at work and SUEIT comprises 64 items of the five dimensions: emotional recognition and expression, understanding others emotions, emotions direct cognition, emotional management and emotional control. Respondents were asked to indicate the extent to which each statement is true of the way they typically think, feel and act at work and respond on a 5 point scale where 1=very seldom and 5=very often.

The SUEIT measure has a known factor structure; however was not made available by the suppliers to the researchers; accordingly a principal components analysis was carried out. A scree plot revealed that an extraction of five factors would be suitable. The varimax rotation method was applied to the selected factors and factor loadings over 0.30 were considered to develop the reliability scales. This is taken as large enough to consider the significance (Kline, 1994). Since the items loaded in two factors were very similar, the researchers selected the factor which had the highest alpha reliability, i.e., Emotions in decision making.

A total of 23 items which were considered negative, have been reverse scored, e.g., “Difficult situations at work elicit emotions in me that I find hard to overcome”.

The four factors were: *Self-awareness* with 6 items and an $\alpha = .72$, e.g., “When I am anxious at work, I find it difficult to express this to my colleagues” (reverse scored). *Understanding others’ emotions* included 16 items with an $\alpha = .88$, e.g., “I can tell how a colleague is feeling by the tone in their voice”. *Emotions in decision making* comprised 4 items, $\alpha = .80$, e.g., “I come up with new ideas at work using rational thoughts rather than my moods and emotions”. *Emotional management* with 13 items, $\alpha = .86$ was the final factor selected; e.g., “I find it difficult to maintain positive moods and emotions when I am under stress” (reverse scored); this factor included items of both emotional management and emotional control of Palmer and Stough’s original model. All the above factors, although re-worded in this research, carry the same meaning in context.

5.4.4 General Self-efficacy

Self-efficacy data were collected using Sherer et al.’s (1982) General Self-efficacy scale consisting of a 23 item self-efficacy instrument. The instrument is made up of two subscales, General Self-efficacy and Social Self-efficacy. As the Social Self-efficacy subscale was considered irrelevant to an organisational setting, the General Self-efficacy subscale was used in this study. The General Self-efficacy subscale comprises 17 items and the participants responded to a 5-point scale where 1=very strongly disagree and 5=very strongly agree. Six items were considered positive like “When I decide to do something, I go right to work on it”. The other eleven items which were considered negative have been reverse scored like in “When I set important goals for myself I rarely achieve them”. “The Cronbach’s reliability of the scale was .87.

5.4.5 Positive and Negative Affect

Affective states were measured using the Job Related Affective Wellbeing Scale (JAWS). JAWS assessed the participants’ emotional reactions to their work (Van Katwyk, Fox, Spector & Kelloway, 2000). Pleasure affect was measured by 15 items like “My job made me feel enthusiastic” and 15 items measured the displeasure or arousal affect such as “My job made me feel anxious” on a 5-point scale where 1=never and 5=always.

The respondents answered the 30 emotion based statements experienced over the past 30 days at their job. Cronbach reliability for JAWS positive affect scale was .91 and the Cronbach alpha for JAWS negative affect was .91.

5.5 Data Analysis

The data were entered into the Statistical Package for the Social Sciences (SPSS), version 13.0 for analysis. The incomplete responses were treated as missing data. The correlation matrix (Table 2), included the standard deviations, means and the bivariate associations of the variables. The direct correlation hypotheses proposed were tested with Pearson's correlation coefficient analysis. Multiple regression analysis was used to test the mediating hypotheses.

Mediation analysis was tested according to the three step regression model recommended by Baron and Kenny (1986). Prior to testing, the authors state that the variables for mediation must meet the following criteria: Firstly, the independent variable needs to significantly affect the dependent variable; Secondly, the independent variable must affect the proposed mediator and finally, the mediator must affect the dependent variable. Mediation implies a causal sequence among three variables, independent variable (X) to mediator (M) to dependent variable (Y). The mediator becomes the intervening variable of the relation between an initial dependent and independent variables.

To test mediation, regression equations were computed in the order of:

- 1)** Regressing the dependent variable (Y) on the independent variable (X).
- 2)** Regressing the mediator (M) on the independent variable (X). This step essentially involves treating the mediator as if it were an outcome variable.
- 3)** Regressing the dependent variable (Y), on both the independent variable(X) and on the mediator (M). This step will test the effect of the mediator on the dependent variable.

For mediation to be established, the previously significant relation between the independent and dependent variable (e.g., estimated and tested path c of step 1), should either reduce or become non-significant while the effect of the mediator variable becomes dominant and remains strong in the final equation (path b). When the relation is reduced to zero, full mediation is established; there will be no effect of the previously significant independent variable (X), on the dependent variable (Y). If it is not reduced to zero there will be a possible partial mediation observed.

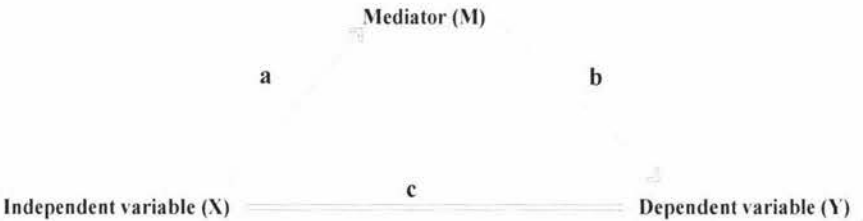


Figure 6. Mediation model (Baron & Kenny, 1986).

Chapter 6

Results

6.1 Correlation Matrix

Table 2 presents the bivariate correlation coefficients, means and standard deviations among key variables. The hypothesis testing is reported below.

6.2 Hypotheses testing

6.2.1 Direct correlations of appraisal, coping and affect

Hypotheses 1a and 1b were not supported. Challenge appraisal did not associate positively with task focused coping and emotion approach coping.

There was a significant association between threat appraisal and avoidance; therefore hypothesis 2, that threat appraisal is positively related to avoidance, was supported.

Hypothesis 3 proposed that there will be a positive association between challenge appraisal and positive affect; but this was not supported.

Threat appraisal associated positively with negative affect; hence hypothesis 4 was found significant.

Table 2: Correlations, Means and Standard Deviations

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Challenge	1.00	.09	.12	.02	.17	-.21	.13	-.11	.15	.24*	.08	.03
2. Threat		1.00	-.11	.12	.26*	-.36**	.06	-.34**	-.22	-.31**	-.18	.24*
3. Task focused coping			1.00	-.06	-.11	.13	.09	.44**	.35**	.51**	.19	-.25*
4. Emotion approach coping				1.00	.19	.11	-.09	-.25*	-.25*	-.19	-.17	.20
5. Avoidance					1.00	-.16	-.07	-.08	-.14	-.15	-.19	.47**
6. Self-awareness						1.00	-.14	-.05	.15	.27*	.11	.05
7. Understanding others' emotions							1.00	.14	.20	.10	.05	-.31**
8. Emotions in decision making								1.00	.31**	.45**	.23	-.36**
9. Emotional management									1.00	.59**	.33**	-.44**
10. Self-efficacy										1.00	.34**	-.36**
11. Positive Affect											1.00	-.59**
12. Negative Affect												1.00
Mean	2.96	3.42	4.15	3.27	2.13	3.87	3.39	3.68	3.39	3.99	3.37	2.32
S.D.	.87	1.07	.63	.88	.61	.53	.61	.75	.62	.54	.60	.63

*p<.05, **p<.01, ***p<.001.

Hypotheses 5a and 5b, proposed that task focused coping and emotion approach coping will positively relate to positive affect; unexpectedly neither were supported.

Avoidance had a significant relationship with negative affect and thus hypothesis 6 was supported.

6.2.2 Direct correlations of EI with appraisal, coping, self-efficacy and affect

Hypothesis 7, that emotional intelligence (self-awareness, understanding others' emotions, emotions in decision making and emotional management) will positively relate to challenge appraisal, was not supported as none of the facets of EI correlated with challenge appraisal

Two facets of emotional intelligence, i.e., self-awareness and emotions in decision making correlated with threat appraisal; therefore hypothesis 8 that emotional intelligence will have a negative association with threat appraisal was partially supported.

It was proposed, in hypotheses 9a and 9b, that task focused coping and emotion approach coping will positively associate with emotional intelligence (self-awareness, understanding others' emotions, emotions in decision making and emotional management). Interestingly the following associations were observed; hypothesis 9a was partially supported because emotions in decision making and emotional management in EI significantly related with task focused coping. Hypothesis 9b was not supported since there was an unexpected negative relationship observed in two facets of emotional intelligence, i.e., emotions in decision making and emotional management with emotion approach coping, while the other two facets did not correlate at all.

Hypothesis 10 was not supported. Emotional intelligence (self-awareness, understanding others' emotions, emotions in decision making and emotional management) did not associate negatively with avoidance.

As hypothesized, three components of emotional intelligence, i.e., understanding others' emotions, emotions in decision making and emotional management, significantly related to self-efficacy; thus hypothesis 11 was partially supported.

Although there was a significant correlation between emotional management and positive affect, the other three facets of EI (self-awareness, understanding others' emotions and emotions in decision making) did not relate with positive affect; hence hypothesis 12 that emotional intelligence will relate positively with positive affect was partially supported.

Hypothesis 13 was supported. Self-awareness, emotions in decision making and emotional management in EI had negative relationships with negative affect; therefore the proposed hypothesis emotional intelligence will negatively relate to negative affect was found significant.

6.2.3 Direct correlations of self-efficacy with appraisal, coping and affect

As hypothesized, self-efficacy positively related with challenge appraisal; thus hypothesis 14 was supported.

Self-efficacy had a significant negative association with threat appraisal supporting hypothesis 15.

Hypothesis 16a was supported; that self-efficacy will positively relate to task focused coping. However hypothesis 16b was not supported since self efficacy did not relate positively with emotion approach coping.

It was suggested in hypothesis 17 that self-efficacy will negatively associate with avoidance; but this relationship was not supported.

Hypotheses 18 and 19 were supported. The results found a significant positive relationship between self-efficacy and positive affect as well as a significant negative relationship between self-efficacy and negative affect respectively.

We have presented a snapshot of the significant zero-order correlations of the variables in Figures 7a and 7b below.

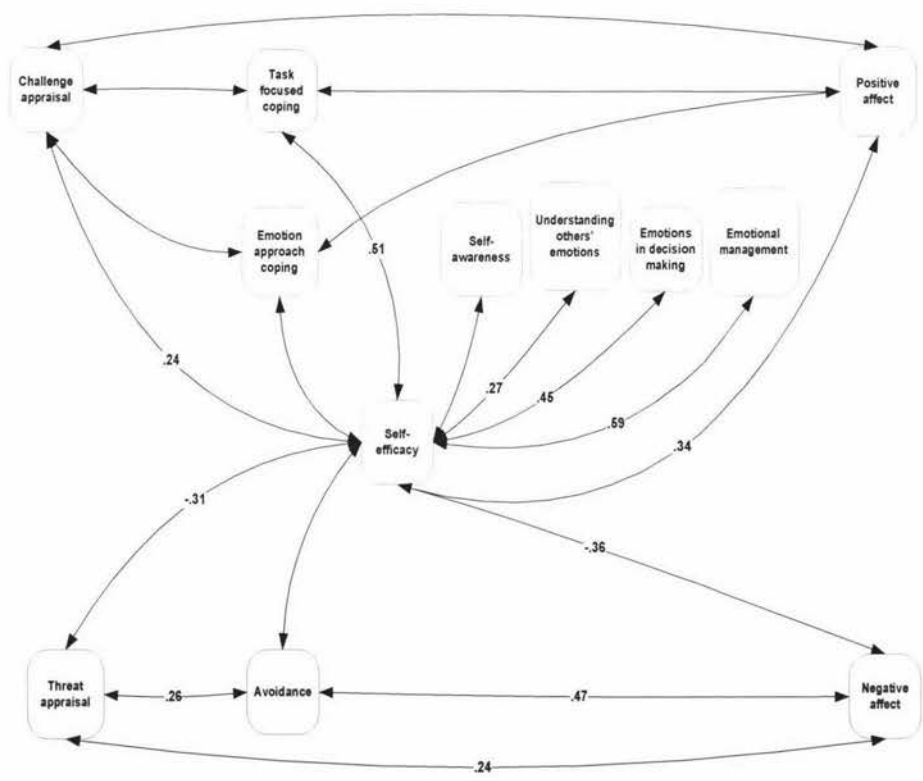


Figure 7a. Significant bivariate correlations: appraisal-coping-affect
self-efficacy with appraisal, coping, emotional intelligence and affect

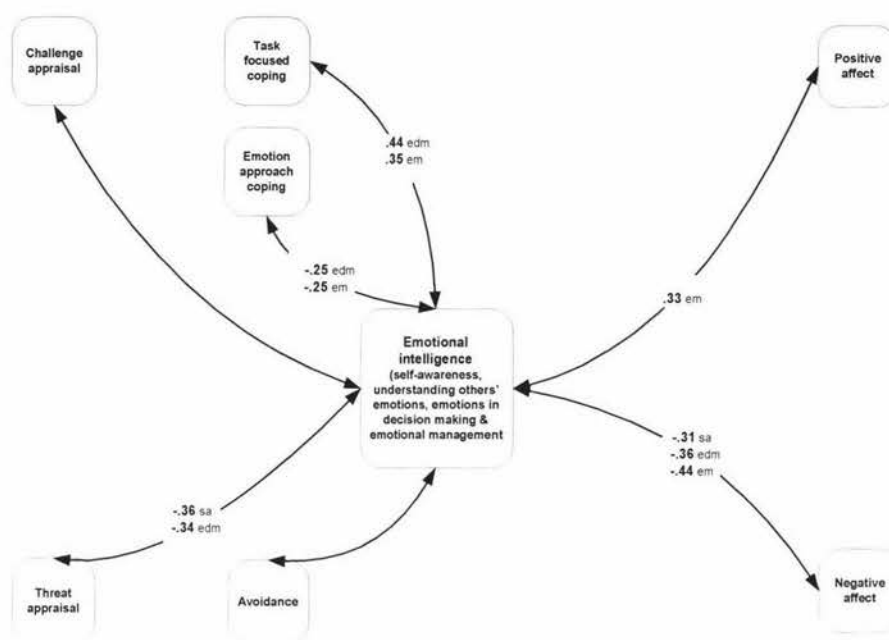


Figure 7b. Significant bivariate correlations of emotional intelligence with appraisal, coping & affect

SA – self-awareness
 UOE- understanding others' emotions
 EDM- emotions in decision making
 EM- emotional management

6.3 Mediating hypotheses and analysis

The mediating relations of emotional intelligence (self-awareness, emotions in decision making and emotional management) between challenge appraisal and task focused coping were examined. Hypotheses proposed are presented in Table 3 below.

Table 3.

	Independent variable	Mediator	Dependent variable
Hypothesis 20a	Challenge appraisal	Self-awareness	Task focused coping
Hypothesis 20b	Challenge appraisal	Emotions in decision making	Task focused coping
Hypothesis 20c	Challenge appraisal	Emotional management	Task focused coping

Hypotheses 20a, 20b and 20c were not supported. At step one the independent variable, challenge appraisal, did not significantly correlate with the dependent variable task focused coping ($\beta=.12$); as such the 1st criteria for testing mediation was not met so there was no relationship to proceed with mediation testing.

Table 4. Mediating relations of emotional intelligence (understanding others' emotions and emotional management) between challenge appraisal and emotion approach coping are presented here.

	Independent variable	Mediator	Dependent variable
Hypothesis 21a	Challenge appraisal	Understanding others' emotions	Emotion approach coping
Hypothesis 21b	Challenge appraisal	Emotional management	Emotion approach coping

Hypotheses 21a, and 21b were not supported. The relationship between challenge appraisal and emotion approach coping was not significant ($\beta=.02$); therefore emotional intelligence as the mediator between challenge appraisal and emotion approach coping could not be tested as it failed to meet the first criteria of the conditions suggested by Baron and Kenny (1986).

Table 5. Mediating relations of emotional intelligence (emotions in decision making and emotional management) between task focused coping and positive affect were examined.

	Independent variable	Mediator	Dependent variable
Hypothesis 22a	Task focused coping	Emotions in decision making	Positive affect
Hypothesis 22b	Task focused coping	Emotional management	Positive affect

The first step of the mediation testing according to the standard requirement was not met since there was no significant association found between task focused coping and positive effect ($\beta=.19$); therefore the researcher could not proceed with the mediation analysis. Hypotheses 22a and 22b were not supported.

Mediation effect of emotional intelligence (self-awareness & emotional management) between emotion approach coping and positive affect were examined in Table 6

Table 6.

	Independent variable	Mediator	Dependent variable
Hypothesis 23a	Emotion approach coping	Self-awareness	Positive affect
Hypothesis 23b	Emotion approach coping	Emotional management	Positive affect

There was no significant correlation between emotion approach coping and positive affect ($\beta=-.17$); thereby the hypotheses 23a and 23b that emotional intelligence (self - awareness) and (emotional management) respectively will mediate the relationship between emotion approach coping and positive affect were not supported; the first step of mediation regression could not be tested with the non-significant result of the independent and dependent variables (path c).

The intervening relations of self-efficacy between cognitive appraisal and coping were examined. Hypotheses proposed are presented in the Table 7a below.

Table 7a

	Independent variable	Mediator	Dependent variable
Hypothesis 24a	Challenge appraisal	Self-efficacy	Task focused coping
Hypothesis 24b	Challenge appraisal	Self-efficacy	Emotion approach coping
Hypothesis 24c	Threat appraisal	Self-efficacy	Avoidance

Table 7b. Results of self-efficacy as a Mediator between threat appraisal and avoidance

	DV	IV	B	β	Model R ²	Adj. R ²	Sobel test
Hypothesis 24c							
Step 1	Avoidance	Threat appraisal	.16	.26	.07	.06	*
Step 2	Self-efficacy	Threat appraisal	-.15	-.31	.10	.09	**
Step 3	Avoidance	Threat appraisal	.14	.22	.07	.04	
		<i>Self-efficacy</i>	-.09	-.08			0.59 ns

*p<.05, **p<.01, ***p<.001

The proposed mediator is italicized

In hypotheses 24a and 24b there was no association between the independent variable with both dependent variables task focused coping and emotion approach coping respectively ($\beta=.12$, $\beta=.02$). Therefore both hypotheses were not supported.

In Hypothesis 24c, although there were significant relationships found between threat appraisal and avoidance at step 1 ($\beta=.26$), and self-efficacy and threat appraisal at step 2 ($\beta = -.31$), hypothesis 24c was not supported; at step three when both the independent variable and the mediator were entered into the regression, the effect of the mediator was found not significant (Sobel test significance = 0.59); thus hypothesis 24c was not supported.

Table 8. Mediating relations of self-efficacy between task focused coping and emotion approach coping respectively with positive affect.

	Independent variable	Mediator	Dependent variable
Hypothesis 25a	Task focused coping	Self-efficacy	Positive affect
Hypothesis 25b	Emotion approach coping	Self-efficacy	Positive affect

Hypotheses 25a and 25b were not supported; positive affect did not significantly correlate with task focused coping and emotion approach coping respectively ($\beta=.19$, $\beta=-.17$); hence the first step of the mediation analysis failed as it did not meet the criteria of Baron and Kenny (1986), so the researcher could not proceed with the testing.

In summary, neither emotional intelligence nor self-efficacy acted as mediators in this analysis.

Chapter 7

Discussion

The purpose of this study was to investigate the stress process based on Lazarus and Folkman's (1984) transactional model of stress in an organisational setting. The authors have identified the importance of cognitive appraisals and regulation of emotion when perceiving and coping with demands in a particular situation. This research examined the relationships of primary appraisals, coping strategies and affect responses as determined in the transactional model. The impact of emotional intelligence and self-efficacy as personal resource factors within this framework was explored from both direct and mediating perspectives. The researchers predicted that emotional intelligence and self-efficacy will contribute as efficient positive human strengths in the stress process especially in using adaptive coping strategies and experiencing positive affective states.

7.1 Cognitive appraisal, coping and affect pathways

Although the current study expected to observe robust relationships in the positive pathway of the transactional model, the researchers could not establish this due to the unexpected outcome of the results. Previous empirical studies have suggested that challenge appraisals link with adaptive coping methods (i.e., particularly with task focused and support seeking) and positive affect responses. However this study did not support effective ties between challenge appraisal with task focused coping and emotion approach coping respectively; there were no significant ties found between adaptive coping strategies (i.e., task focused and emotion approach coping) with positive affect either.

The study findings supported the negative pathway of the transactional model. Threat appraisal was expected to produce maladaptive coping methods and negative affectivity. As such, threat appraisal played an important antecedent role with avoidance and negative affect.

It implies that when demands are perceived as a threat, an individual is more likely to avoid the situation which may lead to experiencing negative emotions. This study found that components such as denial, distraction, disengagement, self-blame display ways of avoiding a problem and in turn will be associated with moods and emotions unhealthy for personal and organisational performance (e.g., anxiety, sad, frustration, apprehension).

7.2 EI with appraisal-coping-affect

In general, components of emotional intelligence did not associate with challenge appraisal significantly. However self-awareness and emotions in decision making associated negatively with threat appraisal. As expected task focused coping was found to be an effective coping strategy amongst individuals who were able to manage emotions well during stressful situations and use EI for problem-solving and decision making. This may imply that planned problem solving, an effective task focused coping strategy, is likely to be used frequently by individuals displaying high emotional intelligence in decision making. For example, if a person receives a notice of layoff which may be anticipated as stressful, she/he could avoid stress by applying emotions in decision making to make a plan for finding work.

Although three facets of EI did not show robust associations with positive affect, emotional management correlated significantly with positive affect. This is a valuable finding because emotional management is how an individual is able to regulate and control their own emotions and those of others. Hence regulation of emotions becomes a prime factor in handling negative emotions enabling a person to experience healthy affective responses; as such this cross-sectional study reveals that managing emotions appropriately no doubt helps in the controlling of harmful emotions during demanding encounters.

None of the facets in EI (i.e., self-awareness, understanding others' emotions, emotions in decision making and emotional management) are associated with emotion approach coping which included venting, emotional and instrumental support.

Theoretically, previous studies have suggested actively identifying, processing and expressing one's emotions and seeking support facilitates potential decision making and problem solving. Ciarrochi and Deane, (2001) in their study findings, depicted significant links between emotional competence (i.e., ability to perceive emotions, manage self-relevant emotions and manage others' emotions) and willingness to seek support from non professional (i.e., family, friends) and professional sources (e.g., counselors, mental health professionals). The authors found robust positive results amongst emotional management (involving both self and others) with willingness to seek support from non professional sources for both emotional problems and suicidal ideation; willingness to seek support from professionals occurred only when suicidal ideation was present. Emotional competence therefore, to a great extent, increased the desire to seek emotional support.

Emotion approach coping which is considered a subset of emotion focused strategies is found to be an active, dynamic way of approaching a problem rather than avoiding it in a passive, static way (Stanton and colleagues, 2002; Baker & Berebaum, 2007). However, our study did not support the predictions. Instead emotions in decision making and emotional management associated negatively with emotion approach coping. Future studies may need to examine these variables possibly with a larger sample. Further, the constructs of emotion approach coping as an adaptive strategy is a recently researched area and the constructs of emotion approach coping may need to be explored more. It would be beneficial to use a measure that would assess constructs specific to emotion approach coping as well.

Although we cannot make definitive causal attribution amongst these variables, we could establish that emotional intelligence is a strong personal resource factor that would be effective in handling stress with the use of appropriate coping strategies. There is potential strength in EI contributing to regulation of emotions and decision making. In addition to research conducted by Gardner and Stough, (2002), we could also determine that EI in individuals will provide significant assessment on transformational leadership qualities.

7.3 Self-efficacy with appraisal-coping-affect

Self-efficacy strongly associated with challenge appraisal, task focused coping and positive affect. The transactional model of stress places high regard on cognitive appraisals and reappraisals. Individual beliefs and commitment in one's abilities are found to be effective antecedents of stress appraisals and reappraisals. Self-efficacy determines how an individual believes in one's capabilities to exercise control over demanding situations. Since self-efficacy is cognitive in nature and requires reasoning and perception of abilities, we can predict close associations with cognitive challenged appraisals. As such, consistent with the views of previous researchers, the findings of this study revealed the significant role of self-efficacy in appraising a situation as a challenge and using increased task focused coping strategies in positive affect responses. These findings may be useful for future research in the positive psychology domain. For instance, self-efficacy can be determined as a valuable human strength that may be developed in individuals which, in turn, would develop promising human morals such as altruism, justice, courage and hope as suggested. This is currently under investigation in the field of positive psychology.

There was no significant correlation found between self-efficacy and emotion approach coping. However self-efficacy had a strong negative connection with threat appraisal and negative affect. We could therefore determine from these findings that self-efficacy can be regarded as a positive human strength in appraising stress as a challenge, using one's dominant belief about control over situation to plan out, take action and keep to goal attainment and persevere to sustain this strength to experience positive emotional states like engagement, happiness, enthusiasm and satisfaction in the workplace.

7.4 EI with self-efficacy

Interestingly the research findings discovered significantly high relationships between emotional intelligence and self-efficacy. Three facets of EI, i.e. understanding others' emotions, emotions in decision making and emotional management correlated with self-efficacy. This implies that cognition and emotion are inter-connected and are likely

to support each other to enhance each skill. For example, self-efficacy will affect self-appraisal, regulating, controlling and managing emotions, understanding others' emotions and making appropriate decisions during work demands. Conversely emotional intelligence will be effective in enhancing self-efficacy. Both these human strengths can be learned by an individual for personal, organisational and societal development.

Hart and Cooper (2003) stated that occupational wellbeing includes both emotional and cognitive components. The emotional component comprises positive and negative affect. These emotional components can operate at the individual employee or workgroup levels. The cognitive component reflects an individual's evaluative judgments, based on weighing up the positive and negative employment experiences. In addition Heuven, Bakker, Schaufeli and Huisman (2006), in their study with flight attendants, showed that self-efficacy played a crucial role in maintaining and enhancing the positive effects of emotions at work. Low efficacious individuals were clearly found to lose their vigor, absorption, and dedication when they were not able to express their feelings.

Self-efficacy proved to be promising in decreasing the negative consequences of emotion work, and in enhancing its positive effects on employee's work engagement. Similar to the previous research findings, the current study has revealed a significant linkage between cognitive processes (e.g., perception of one's capabilities, thinking, belief in control) and healthy ways of managing emotions and feelings.

7.5 EI as a mediator

The present research did not support the mediation role of EI between challenge appraisal and adaptive coping strategies (e.g., task focused and emotion approach coping). All three facets of EI (i.e., self-awareness, emotion in decision making and emotional management) did not mediate challenge appraisal and task focused coping; there was no significant mediating relationship found in understanding others' emotions and emotional management with challenge appraisal and emotion approach coping.

The proposed dimensions of EI (i.e., emotions in decision making and emotional management) did not mediate the relationship between task focused coping and positive affect; self-awareness and emotional management did not mediate between emotion approach coping and positive affect. Although substantial empirical research has emphasized the mediating role of coping between EI and affect, the mediating role of EI, with adaptive coping strategies and positive affect, has been largely overlooked; thus the researchers were determined to explore this area in anticipation of finding a solid base for future research in positive psychology. It has been suggested that emotions play a vital part in the stress process (Lazarus, 1999).

7.6 Self-efficacy as a mediator

Self efficacy did not mediate the relationship between challenge appraisal and task focused coping and emotion approach coping respectively. There was no mediation of self-efficacy found between adaptive coping strategies and positive affect.

Lazarus and Folkman (1987) suggested that generalized beliefs about one's competence to handle situations, is an antecedent of secondary appraisal. The authors further declared that people who have a positive sense of their ability (i.e., self-confidence, sense of control and mastery) to meet problems and overcome them are less likely than others to appraise encounters as threatening and more likely to experience challenge rather than threat, as well as being more likely to use effective coping strategies.

There are implications in this study that self-efficacy associated effectively with challenge appraisal, task focused coping and positive affect separately. Accordingly, researchers interested in examining the role of self-efficacy as a positive psychological strength should further explore the mediating relationship of self-efficacy in the positive pathway (i.e., challenge appraisal – adaptive coping – positive affect) of the transactional model of stress.

7.7 Limitations of the study

One of the limitations of the current study was the response rate which limited the size of the sample. A larger sample would have represented the population in effect better with the likelihood of getting significant results with precision. .

The current study used self-report measures to collect data which could have raised the possibility of affecting the results by common method variance, even though these measures were well validated scales that have been used widely in previous research. (Spector, 1987). From the observation of the fact that both the predictor and outcome are typically collected with a common method from a single source, this creates concerns regarding response biases or individual difference (Kelloway, Teed & Kelly, 2008). The participants are required to make judgments of their own skills and the respondents' answers are subjective in nature; hence there is a tendency to either over or under evaluate their capabilities depending on the particular self-report statements in question.

The construct validity of the EI mixed model needs to be addressed. The Swinburne University of Emotional Intelligence Test (SUIET) has been used in the workplace with high alpha reliabilities in all subscales. This instrument has been developed from a large factor analytical study involving factors from six other emotional intelligence scales – and five factors had accounted for 58% of the variance to provide the structure of SUEIT (Gardner & Stough, 2002; Bailie & Ekermans, 2006). The results of the current study however, should be viewed with caution; to be taken into consideration was the complex factor loadings (which reflect that the same items appear on different subscales) and some items did not load on any factors in the subscales used.

Since the current research used a general self-efficacy scale, it would have been more advantageous if self-efficacy was measured by a scale targeted to an organisation pertaining to job tasks, beliefs and capabilities. General self- efficacy is considered to become stable over time and across situations (Luthans, 2002).

As such a specific self-efficacy scale measuring the magnitude (i.e., level of task difficulty that one believes they are capable of executing) and strength (i.e., persistence of attainment) of an individual is more likely to give effective, reliable results. Llorens et al. (2007), agree that the use of a specific self-efficacy scale measuring efficacy beliefs in a specific domain such as in an organisational setting, may produce more robust results.

This research is also limited as it did not explore the relations of individual differences with the variables concerned. For instance Lazarus and Folkman (1984), in their model of stress, state that individual differences in appraising, regulating and applying coping strategies are likely to make a difference in the final outcome of handling stress demands; as such, it would be interesting to examine whether gender, age and employment status make a significant impact, depending on high or low human strengths applied.

Further the current research did not investigate the long term positive and negative outcomes of affect responses/states and omitted exploring the moderating relationships of emotional intelligence and self-efficacy in the positive pathway of the transactional model of stress. It would be worthwhile to focus on these aspects in future studies.

7.8 Implications for research

The current cross-sectional study findings suggest future research could replicate these findings by examining the role of self-efficacy and emotional intelligence with adaptive coping strategies and positive affect responses, using a larger sample. Since emotional intelligence and self-efficacy were found to be related to positive affect responses, it would be appealing for researchers who have a passion in the domain of positive psychology to explore the relationship towards long term outcomes of positive affect which the current research did not examine.

Appraisals are continuously updated as the situation and one's own actions, thinking or feelings change over time. In this study we considered one appraisal process which was placed as an antecedent to coping and affect responses in the transactional model of stress. Future studies should expand their research ideas to the effects of reappraisal and meaning focused coping which have been suggested in the modified transactional model of stress (Folkman, 2008; Folkman & Moskowitz, 2007). It is worth elucidating the nature and effect of emotion approach coping (a subset of emotion focused coping which the current study used) as an adaptive coping strategy in the transactional model of stress, as this is a newly researched area.

It would be interesting to examine the interaction relationships of emotional intelligence and self-efficacy with adaptive coping strategies and positive affect outcomes. This would further explore these two personal resources in the recently popular sphere, positive psychology. Subjective wellbeing encompasses a person's cognitive and affective evaluations of her or his life. According to Diener, Lucas and Oishi (2002), these evaluations include emotional reactions to events as well as cognitive judgments of satisfaction and fulfillment. In addition, subjective wellbeing includes experiencing pleasant emotions, low levels of negative moods and high life satisfaction. These positive experiences embodied in high subjective wellbeing are recognized as a core concept of positive psychology because they make life rewarding.

Bandura (1997) emphasizes that a strong sense of self-efficacy facilitates optimism and optimism is found to be positively related to subjective wellbeing (Karademas, Kafetsios & Sideridis, 2007); as such the findings of the current research should pave the way for an interesting breakthrough into subjective wellbeing from a positive perspective.

As Seligman and Csikszentmihalyi (2000) posit, the approach in positive psychology is to make a shift away from preventive interventions like correcting weaknesses. Instead they address the need to foster human strengths and virtues in people so that they can live a meaningful and fulfilling personal and work life. It is centered on understanding

positive emotions (i.e., contentment with the past, happiness in the present and hope for the future) *positive individual traits* (i.e., capacities for courage, optimism, interpersonal skills, integrity, altruism, wisdom, insight, self-control, compassion) and understanding *positive institutions* (i.e., strengths that foster better communities like justice, tolerance, civility, responsibility, work ethics, leadership and purpose). (New Zealand Association of Positive Psychology, 2008).

7.9 Implications for practice

Since there were robust direct relationships found in this study amongst emotional management and self-efficacy with positive affect responses, it is strongly recommended that organisations should train, reinforce and develop programs to strengthen these skills and judgments in workers. This would lead to a significant impact on organisational performance when employees experience positive affect outcomes.

Emotions are considered to be adaptive, as they protect the individual from physical harm, facilitate maintenance of self-identity in social settings and guide the individual towards tasks and goals (Slaski and Cartwright, 2003).

EI has been a well researched area, and organisations have focused on enhancing EI skills in management levels; but organisations need to promote EI skills in employees across all levels of varied job roles. Self-awareness, empathy, managing emotions in oneself and others, impulse control, use of appropriate emotions in decision making, social skills are worthy competencies that can be developed in all employees.

The findings of a study conducted on a sample of managers who participated in a developmental EI training program showed that there was a significant increase in EI amongst those who went through the training compared to those of the control group.

The focus of the training was to develop self-awareness and detachment, regulate emotions, recognize emotions in others and understand the impact of one's own behaviour on the emotions of others. The training techniques included short lectures, group discussions, role play, paired exercises relating and sharing emotional experiences, one-on-one coaching feedback on EQ-I and maintaining an emotion diary during the training. The researchers Slaski and Cartwright (2003), therefore encourage EI training in individuals with the emphasis on the fact that EI can be learnt and is useful in reducing stress and improving health, wellbeing and performance.

Another workplace program that addressed enhancing emotional intelligence was the Emotional Competency Training Program. This training focused on the role of emotion in the workplace and gaining an awareness of how one's own emotional reactions and the emotions of others affected management practices. The goal of the program was to assist managers in becoming "emotional coaches" for their employees (Salovey, Mayer & Caruso, 2002)

EI and self-efficacy skills therefore develop over time, change over the course of life and can be increased by means of training programs.

Furthermore, Luthans (2002), recognizes state-like self-efficacy and emotional intelligence as human resource strengths and psychological capacities that can be measured, developed and effectively managed for organisational improvement. In his research on positive organisational behavior he suggests that both self-efficacy and emotional intelligence are valuable strengths to increase motivation, transformational leadership style (Gardner & Stough, 2002), resistance to stress, perseverance and positive thought and emotional patterns.

We pointed out earlier that sources such as mastery experiences/performance attainments, vicarious experiences/modeling, verbal persuasion and physiological and psychological arousal have been useful in building self efficacy in an individual.

Self-efficacy in leaders, managers and human resources in varied types of job roles, can be enhanced through training and development targeted at these sources. Training can be set up around each source of efficacy and the sources in combination.

Ben-Zur, Yagil and Oz (2005), portray how transformational leaders will be able to engage their followers in collective action, help them cope with crisis, communicate confidence of a positive future and generate a sense of self-efficacy among followers; the influence of transformational leadership is expected to enhance positive appraisal of a situation among trainees; we could argue therefore that while existing transformational leaders can be recognized as effective role models in developing self-efficacy among followers, these followers in turn will become future transformational leaders as a result of enhanced self-efficacy skills.

As Bandura (1997) suggested, guided mastery (e.g., helping employees to become successful in their tasks), cognitive mastery modeling (e.g., helping to enhance decision making, problem solving and thinking skills by observing and working with successful models internal or external to the organisation) and self regulation (e.g., through self-monitoring and self-appraisal) will be useful training methods to develop self-efficacy in employees.

Further individual self-efficacy can be developed to reach collective self-efficacy for enhancing team effectiveness. The stronger the perceived collective efficacy, the higher the group's aspirations and motivation, resilience to stressors and performance accomplishments (Bandura, 2001).

Interventions on enhancing emotion approach coping from a therapeutic perspective is said to include emotional expression and processing to understand, recognize and communicate emotions appropriately; regulate arousal, acceptance, exploration and discharge of emotions related to the loss or problem. It would be beneficial to introduce effective coping training in an organisational setting, which may represent enhancing

task and emotion approach focused skills and efforts to select and maintain social support resources and prepare for planned goal attainment (Stanton et al., 2002; Baker & Berenbaum, 2007).

Furthermore workplace training interventions can be guided by cognitive behavioral therapy (CBT) concepts to emphasize the use of problem solving and cognitive restructuring strategies to deal with job related stress. As Welbourne and colleagues (2007) state, CBT helps to identify the underlying beliefs that influence the interpretation of events, challenge the beliefs that are inaccurate which lead to negative outcomes and replace the beliefs which will lead to more positive outcomes. Satterfield (2008), has developed a program on CBT with guidelines to facilitators; this program includes an approach of CBT on stress, appraisal, thinking and coping strategies focused on clients diagnosed with serious illnesses that are likely to be terminal.

7. 10 Conclusion

Since emotion and cognition determine how individuals may act and react to certain situations, they become important parts of our lives; accordingly, emotional intelligence and self-efficacy can be treated as competent resources in work and personal life success affecting both organisational performance and psychological wellbeing. Self-efficacy helps to take control of one's cognitive appraisals and thinking and EI helps to effectively integrate emotions with thought and behavior and manage them efficiently. The transactional approach, centered on cognitive stress appraisals and emotions, proved to be a beneficial model to base the predictions of the current research. While the transactional model of stress provided a good foundation to explore the linkage of appraisal, coping and affect with self-efficacy and emotional intelligence, this study also opens options to examine self-efficacy and EI as positive human strengths that will be associated with affective outcomes. Researchers interested in the domain of positive psychology may discover these findings fruitful in further investigations.

REFERENCES

- Ashkanasy, N. M., Ashton-James, C. E., & Jordan, P. J. (2003). Performance impacts of appraisal and coping with stress in workplace settings: The role of affect and emotional intelligence. In P. L. Perrewe & D. C. Ganster (Eds.), *Research in Occupational Stress and Wellbeing: Emotional and Physiological Processes and Positive Intervention Strategies* (vol.3, pp. 1-43).Amsterdam; London: JAI.
- Austenfeld, J. A., & Stanton, A. L. (2004). Coping through emotional approach: A new look at emotion, coping, and health-related outcomes. *Journal of Personality*, 72, 1335-1363.
- Bailie, K., & Ekermans, G. (2006). An Exploration of the Utility of a Self-Report Emotional Intelligence Measure. *E-Journal of Applied Psychology: Emotional Intelligence*, 2(2), 3-11.
- Baker, J. P., & Berenbaum, H. (2007). Emotional approach and problem-focused coping: A comparison of potentially adaptive strategies. *Cognition and Emotion*, 21(1), 95-118.
- Bandura, A. (1997). *Self-Efficacy: The Exercise of Control*. New York: Freeman & Company.
- Bandura, A. (1977). Self-efficacy: Towards a unifying theory of behavioral change. *Psychological Review*, 84(2), 191-215.
- Bandura, A. (2001). Social Cognitive Theory: An Agentic Perspective. *Annual Reviews Psychology*, 52, 1-26.
- Bandura, A. (1989). Human Agency in Social Cognitive Theory. *American Psychologist*, 44(9), 1175-1184.

Bandura, A. (2004). Cultivate Self-Efficacy for Personal and Organizational Effectiveness. In E.A. Locke (Ed.), *Handbook of Principles of Organizational Behavior* (pp. 120-136). U.K: Blackwell Publishing Ltd.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.

Barsade, S. G., & Gibson, D. E. (2007). Why does Affect Matter in Organisations? *Academy of Management Perspectives*, February issue, 36-59.

Ben-Zur, H. (2002). Coping, affect and aging: the roles of mastery and self-esteem. *Personality and Individual Differences*, 32(2), 357-372.

Ben-Zur, H. (1999). The effectiveness of coping meta-strategies: perceived efficiency, emotional correlates and cognitive performance. *Personality and Individual Differences*, 26, 923-939.

Ben-Zur, H., Yagil, D., & Oz, D. (2005). Coping strategies and leadership in the adaptation to social change: The Israeli Kibbutz. *Anxiety, Stress and Coping: An International Journal*, 18(2), 87-103.

Byron, K. (2008). Carrying too heavy a load? The communication and miscommunication of emotion by email. *Academy of Management Review*, 33, 2, 309-327.

Calvete, E., & Connor-Smith, J. K. (2007). Perceived social support, coping and symptoms of distress in American and Spanish students. *Anxiety, Stress and Coping*, 19(1), 47-65.

Cartwright, S., & Cooper, C. (2005). Individually Targeted Interventions. In J. Barling, E. K. Kelloway & M. R. Frone (Eds.), *Handbook of work stress* (pp. 607-622). Thousand Oaks: Sage Publication Inc.

Carver, C. S. (2007). Stress, Coping and Health. In H. S. Friedman & R. C. Silver (Eds.), *Foundations of Health Psychology* (pp. 117-144). New York: Oxford University Press, Inc.

Carver, C. S. (1997). You Want to Measure Coping. But Your Protocol's Too Long: Consider the Brief Cope. *International Journal of Behavioral Medicine*, 4(1), 92-100. Lawrence Erlbaum Associates, Inc.

Cervone, D. (2000). Thinking about Self-efficacy. *Behavior Modification*, 24(1), 30-56.

Chan, D. W. (2004). Perceived emotional intelligence and self-efficacy among Chinese secondary school teachers in Hong Kong. *Personality and Individual Differences*, 36, 1781-1795.

Cherniss, C. (2001). Emotional Intelligence and Organisational effectiveness. In C. Cherniss & D. Goleman (Eds.), *The Emotionally Intelligent Workplace: How to select for, measure and improve emotional intelligence in individuals, groups and organisations* (pp. 3-12). San Francisco: Jossey-Bass Publishers.

Ciarrochi, J., Scott, G., Deane, F. P., & Heaven, P. C. L. (2003). Relations between social and emotional competence and mental health: a construct validation study. *Personality and Individual Differences*, 35, 1947-1963.

Ciarrochi, J. V., & Deane, F. P. (2001). Emotional competence and willingness to seek help from professional and nonprofessional sources. *British Journal of Guidance and Counseling*, 29(2), 233-246.

Clark, S. G., & Cooper, C. L. (2000). The risk management of occupational stress. *Health, Risk and Society*, 2(2), 173-187.

Cotton, P., & Hart, P. M. (2003). Occupational wellbeing and performance: A review of organisational health research. *Australian Psychologist*, 38(2), 118-127.

- Cranwell-Ward, J., & Abbey, A. (2005). *Organisational Stress*. New York: Palgrave, Macmillan.
- Danna, K., & Griffin, R. W. (1999). Health and well-being in the workplace: A review and synthesis of the literature. *Journal of Management*, 25(3), 357-384.
- Diener, E., Lucas, R. E., & Oishi, S (2002). Subjective Well-Being: The Science of Happiness and Life Satisfaction. In C. R. Snyder & S .J. Lopez (Eds.), *Handbook of Positive Psychology* (pp. 63-73).New York: Oxford University Press.
- Dollard, M. F., Dormann, C., Boyd, C. M., Winefield, H. R., & Winefield, A. H. (2003). Unique Aspects of Stress in Human Service Work. *Australian Psychologist*, 38(2), 84-91.
- Edwards, J. R. (1996). An examination of competing versions of the Person-Environment Fit Approach to Stress. *The Academy of Management Journal*, 39(2), 292-393.
- Ewart, C. K. (1995). Self-efficacy and recovery from heart attack: Implications for a social cognitive analysis of exercise and emotion. In J. E. Maddux (Ed.), *Self-efficacy, Adaptation, and Adjustment: Theory, Research and Application* (pp. 203-226). New York: Plenum Publishing Corporation.
- Fabio, D. A., & Palazzeschi, L. (2008). Emotional Intelligence and Self-efficacy in sample of Italian high school teachers. *Social Behavior and Personality*, 36(3), 315-326.
- Folkman, S., & Moskowitz, J. T. (2000). Positive Affect and the Other Side of Coping. *American Psychologist*, 55(6), 647-654.
- Folkman, S., Lazarus, R. S., Dunkel-Schetter, C., DeLongis, A., & Gruen, R. J. (1986). Dynamics of a Stressful Encounter: Cognitive Appraisal, Coping and Encounter Outcomes. *Journal of Personality and Social Psychology*, 50(5), 992-1003.

- Folkman, S., & Moskowitz, J. T. (2004). Coping: Pitfalls and Promise. *Annual Reviews Psychology*, 55, 745-774.
- Folkman, S., & Lazarus, R. (1988). Coping as a Mediator of Emotion. *Journal of Personality and Social Psychology*, 54(3), 466-475.
- Folkman, S. (2008). The case for positive emotions in the stress process. *Anxiety, Stress and Coping*, 21(1), 3-14.
- Folkman, S., & Moskowitz, J.T. (2007). Positive affect and meaning-focused coping during significant psychological stress. In M. Hewstone, H. A. W. Schut, J. B. F. de Wit, K. van den Bos & M. S. Stroebe (Eds.), *The Scope of Social Psychology: Theory and applications* (pp. 193-208). New York: Psychology Press.
- Fredrickson, B. L. (2001). The role of Positive Emotions in Positive Psychology: The Broaden-and-Build theory of Positive Emotions. *American Psychologist*, 56(3), 218-226.
- Fredrickson, B.L. (2002). Positive Emotions. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of Positive Psychology* (pp. 120-133). New York: Oxford University Press, Inc.
- Fredrickson, B. L., & Joiner, T. (2002). Positive emotions trigger upward spirals towards emotional wellbeing. *Psychological Science*, 13, 172-175.
- Gardner, L., & Stough, C (2002). Examining the relationship between leadership and emotional intelligence in senior level managers. *Leadership and Organization Development Journal*, 23(2), 68-78.
- Goleman, D. (1998). *Emotional Intelligence: Working with emotional intelligence*. New York: Bantum Books Publishers.

Goleman, D. (2001). Emotional Intelligence: Issues in paradigm building. In C. Cherniss & D. Goleman (Eds.), *The Emotionally Intelligent Workplace: How to select for, measure and improve emotional intelligence in individuals, groups and organisations* (pp. 13-26). San Francisco: Jossey-Bass Publishers.

Goleman, D. (2001). An EI-based theory of performance. In C. Cherniss & D. Goleman (Eds.), *The Emotionally Intelligent Workplace: How to select for, measure and improve emotional intelligence in individuals, groups and organisations* (pp. 27-44). San Francisco: Jossey-Bass Publishers.

Hansen, S. (2006). *Mastering Stress: Being calm, alert and engaged*. Auckland: David Bateman Ltd.

Hart, P. M., & Cooper, C. L. (2002). Occupational stress: Towards a more integrated framework. In N. Anderson, D. S. Ones, H. K. Sinangil & C. Viswesvaran (Eds.), *Handbook of Industrial, Work and Organisational Psychology* (vol.2, pp. 93-114). London: Sage Publications Ltd.

Heuven, E., Bakker, A. B., Schaufeli, W. B., & Huisman, N. (2006). The role self-efficacy in performing emotion work. *Journal of Vocational behavior* (vol. 69, pp. 222-235).

Jerusalem, M., & Schwarzer, R. (1992). Self-efficacy as a Resource Factor in Stress Appraisal Processes. In R. Schwarzer (Ed.), *Self-efficacy: Thought control of action* (pp. 195-213). USA: Hemisphere Publishing Corporation.

Jex, S. M., Bliese, P. D., Buzzell, S., & Primeau, J. (2001). The Impact of Self-Efficacy on Stressor-Strain Relations: Coping Style as an Explanatory Mechanism. *Journal of Applied Psychology*, 86(3), 401-409.

Jex, S.M. (1998). *Stress and Job Performance: Theory, Research and Implications for Managerial Practice* (pp. 91-105). California: Sage Publications Ltd.

Jordon, P. J., Ashkanasy, N. M., & Hartel, C. E. (2002). Emotional intelligence as a moderator of emotional and behavioral reactions to job insecurity. *Academy of Management Review*, 27(3), 361-372.

Kafetsios, K., & Zampetakis, L. A. (2008). Emotional intelligence and job satisfaction: Testing the mediatory role of positive and negative affect at work. *Personality and Individual Differences*, 44, 712-722.

Karademas, E. C., & Kalantzi-Aziz, A. (2004). The stress process, self-efficacy expectations, and psychological health. *Personality and Individual Differences*, 37, 1033-1043.

Karademas, E. C., Kafetsios, K., & Sideridis, G. D. (2007). Optimism, self-efficacy and information processing of threat and wellbeing related stimuli. *Stress and Health*, 23, 285-294.

Karasek, R. A. (1979). Job Demands, Job Decision Latitude, and Mental Strain: Implications for Job Redesign. *Administrative Science Quarterly*, 24, 285-308.

Kelloway, E. K., Teed, M., & Kelly, E. (2008). The psychosocial environment: towards and agenda for research. *International Journal of Workplace Health Management*, 1(1), 50-64.

Kirk, B. A., Schutte, N. C., & Hine, D. W. (2008). Development and preliminary validation of an emotional self-efficacy scale. *Personality and Individual Differences*, 45, 432-436.

Kline, P. (1994). *An easy guide to Factor Analysis*. London: Routledge.

Kompier, M. A. J., & Taris, T. W. (2005). Psychosocial risk factors and work-related stress: state of the art and issues for future research. In A-S. G. Antoniou & C. L. Cooper (Eds.), *Research Companion to Organizational Health Psychology* (pp. 59-69). UK: Edward Elgar Publishing Ltd.

Lazarus, R. S., & Folkman, S. (1984). *Stress Appraisal and Coping*. New York: Springer Publishing Company, Inc.

Lazarus, R. S. (1999). *Stress and Emotion: A New Synthesis*. New York: Springer Publishing Company, Inc.

Lazarus, R. S., & Folkman, S. (1987). Transactional theory and research on emotions and coping. *European Journal of Personality*, 1, 141-169.

Le Feuvre, M., Matheny, J., & Kolt, G. S. (2003). Eustress, Distress and Interpretation in Occupational Stress. *Journal of Managerial Psychology*, 18(7), 726-744.

Llorens, S., Schaufeli, W., Bakker, A., & Salanova. (2007). Does a positive gain spiral of resources, efficacy beliefs and engagement exist? *Computer in Human Behavior*, 23, 825-841.

Lovullo, W. R. (2005). *Stress & Health: Biological and Psychological Interactions*, California: Sage Publications, Inc.

Luszczynska, A., Scholz, U., & Schwarzer, R. (2005). The General Self-efficacy Scale: Multicultural Validation Studies. *The Journal of Psychology*, 139(5), 439-457.

Luszczynska, A., Gutierrez-Dona, B., & Schwarzer, R. (2005). General self-efficacy in various domains of human functioning: Evidence from five countries. *International Journal of Psychology*, 40(2), 80-89.

Luthans, F. (2002). Positive organisational behavior: Developing and managing psychological strengths. *Academy of Management Executive*, 16(1), 57-72.

Lyons, J. B., & Schneider, T. R. (2005). The influence of emotional intelligence on performance. *Personality and Individual Differences*, 39, 693-703.

Lyubomirsky, S., King, L., & Diener, E. (2005). *Psychological Bulletin*, 131(6), 803-855.

Maddux, J. E. (1995). Self-Efficacy Theory: An Introduction. In J. E. Maddux (Ed.), *Self- Efficacy, Adaptation and Adjustment: Theory, Research, and Application* (pp. 3-33). New York: Plenum Publishing Corporation.

Maddux, J. E. (2002). Self Efficacy: The Power of Believing You Can. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of Positive Psychology* (pp. 277-287). New York: Oxford University Press, Inc.

Major, B., Richards, C., Cooper, M. L., Cozzarelli, C., & Zubek, J. (1998). *Journal of Personality and Social Psychology*, 74(3), 735-752.

Mann, S. (2007). "People work": emotional management, stress and coping. (2007). *British Journal of Guidance and Counseling*, 32(2), 205- 221.

Mayer, J. D., Roberts, R. D., & Barsade, S. G. (2008). Human Abilities: Emotional Intelligence. *Annual Review of Psychology*, 59, 507-536.

McGowan, J., Gardner, D., & Fletcher, R. (2006). Positive and Negative Affective Outcomes of Occupational Stress. *New Zealand Journal of Psychology*, 35(2), 92-97.

Mikolajczak, M., Nelis,D., Hansenne,M., & Quoidbach, J. (2008). If you can regulate sadness, you can probably regulate shame: Associations between trait emotional intelligence, emotion regulation and coping efficiency across discrete emotions. *Personality and Individual Differences*, 44, 1356-1368.

Nelson, D. L., & Simmons, B. L. (2003). Health Psychology and Work Stress: A More Positive Approach. In J. C. Quick and L. E. Tetrick (Eds.), *Handbook of Occupational Health Psychology* (pp. 97-119). Washington, DC: American Psychological Association.

Nelson, D. L., & Simmons, B. L. (2005). Eustress and attitudes at work: a positive approach. In A-S. G. Antoniou & C. L. Cooper (Eds.), *Research Companion to Organizational Health Psychology* (pp. 102-110). UK: Edward Elgar Publishing Ltd.

Neubauer, A. C., & Freudenthaler, H. H. (2005). Models of Emotional Intelligence. In R. Schulze & R. D. Roberts (Eds.), *Emotional Intelligence: An International Handbook* (pp. 31-50). Gottingen, Germany: Hogrefe and Huber Publishers.

New Zealand Association of Positive Psychology. (2008). *Positive Psychology*. Retrieved June, 4th, 2008, from: <http://www.nzapp.co.nz/page2.aspx>

Nezlek, J. B., Vansteelandt, K., Mechelen, I.V., & Kuppens, P. (2008). *Emotion*, 8(1), 145-150.

Nikolaou, I., & Tsaousis, I. (2002). Emotional Intelligence in the Workplace: Exploring its effects on Occupational Stress and Organisational Commitment. *The International Journal of Organisational Analysis*, 10(4), 327-342.

Occupational Safety and Health (OSH). (2003). *Healthy Work: Managing stress in the Workplace*. New Zealand: Department of Labour.

Palmer, B. R., Manocha, R., Gignac, G., & Stough, C. (2003). Examining the factor structure of Bar-On Emotional Quotient Inventory with an Australian general population sample. *Personality and Individual Differences*, 35, 1191-1210.

Palmer, B., Donaldson, C. & Stough, C. (2002). Emotional Intelligence and Life Satisfaction. *Personality and Individual Differences*, 33, 1091-1101.

Perez, J. C., Petrides, K. V., & Furnham, A. (2005). Measuring Trait Emotional Intelligence. In R. Schulze & R. D. Roberts (Eds.), *Emotional Intelligence: An International Handbook*. (pp. 181 -201). Gottingen, Germany: Hogrefe and Huber Publishers.

Petrides, K. V., & Furnham, A. (2003). Trait Emotional Intelligence: Behavioral Validation in Two Studies of Emotion Recognition and Reactivity to Mood Reduction (2003). *European Journal of Personality*, 17, 39-57.

Rajendran, D., Downey, L. A., & Stough, C. (2007). Assessing Emotional Intelligence in the Indian workplace: a preliminary reliability study. *Electronic Journal of Applied Psychology*, 3(2), 55-59.

Saklofske, D.H., Austin, E. J., Galloway, J., & Davidson, K. (2007). Individual difference correlates of health-related behaviors: Preliminary evidence for links between emotional intelligence and coping. *Personality and Individual Differences*, 42, 491-502.

Salovey, P., Caruso, D., & Mayer, J. D. (2004). Emotional Intelligence in Practice. In P. A. Linley & S. Joseph (Eds.), *Positive Psychology in Practice* (pp. 447-463). Hoboken, New Jersey: John Wiley & Sons, Inc.

Salovey, P., Mayer, J. D., & Caruso, D. (2002). The Positive Psychology of Emotional Intelligence. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of Positive Psychology* (pp.159-171). New York: Oxford University Press, Inc.

Satterfield, J. M. (2008). *A Cognitive-Behavioral Approach to the Beginning of the End of life; minding the body: Facilitator Guide*. New York: Oxford University Press, Inc.

Schneider, T. R. (2004). The role of neuroticism on psychological and physiological stress responses. *Journal of Experimental Social Psychology*, 40, 795-804.

Schulze, R., Roberts, R. D., Zeidner, M., & Matthews, G. (2005). Theory, measurement and applications of Emotional Intelligence: Frames of Reference. In R. Schulze & R. D. Roberts (Eds.), *Emotional Intelligence: An International Handbook*. (pp. 3-29). Gottingen, Germany: Hogrefe and Huber Publishers.

Schwarzer, R. (Ed.). (1992). *Self Efficacy: Thought control of action*. USA: Hemisphere Publishing Corporation.

Schwarzer, R. (2004). Manage Stress at work through Preventive and Proactive Coping. In E.A. Locke (Ed.), *Handbook of Principles of Organisational Behavior* (pp.342-355). U.K: Blackwell Publishing Ltd.

Schwarzer, R., Boehmer, S., Luszczynska, A., Mohamed, N.E., & Knoll, N. (2005). Dispositional self-efficacy as a personal resource factor in coping after surgery. *Personality and Individual Differences*, 39, 807-818.

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive Psychology: An Introduction. *American Psychologist*, 55(1), 5-14.

Sherer, M., Maddux, J. E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. (1982). The self-efficacy scale: Construction and validation. *Psychological Reports*, 51, 663-671.

Siela, D., & Wieseke, A. (2000). Stress, Self-Efficacy and Health. In V. Rice (Ed.), *Handbook of Stress, Coping and Health: Implications for Nursing Research, Theory, and Practice* (pp. 495-515). Thousands Oaks: Sage Publications, Inc.

Simmons, B. & Nelson, D. (2001). Eustress at work: The relationship between hope and health in hospital nurses. *Health Care Management Review*, 26(4), 7-18.

Singer, J. E., & Davidson, L. M. (1991). Specificity and Stress Research. In A. Monat & R. S. Lazarus (Eds.), *Stress and Coping: An Anthology* (pp.36-47).New York: Columbia University Press.

Sivanathan, N. Kara, A. A., Turner, N., & Barling, J. (2004). Leading Well: Transformational Leadership and Well-Being. In P. A. Linley & S. Joseph (Eds.), *Positive Psychology in Practice* (pp.241-255). Hoboken, New Jersey: John Wiley & Sons, Inc.

Skinner, N., & Brewer, N. (2002). The Dynamics of Threat and Challenge Appraisals Prior to Stressful Achievement Events. *Journal of Personality and Social Psychology*, 83(3), 678-692.

Skinner, N., & Brewer, N. (2004). Adaptive Approaches to Competition: Challenge Appraisals and Positive Emotion. *Journal of Sport and Exercise Psychology*, 26, 283-305.

Slaski, M., & Cartwright, S. (2003). Emotional Intelligence Training and its Implications for Stress, Health and Performance. *Stress and Health*, 19(4), 233-239.

Slaski, M., & Cartwright, S. (2002). Health, performances and emotional intelligence: an exploratory study of retail managers. *Stress and Health*, 18(2), 63-68.

Snyder, C. R., & Lopez, S. L. (Eds.), (2007). Making the Most of Emotional Experiences. In *Positive Psychology: The Scientific & Practical Explorations of Human Strengths* (pp.149-167). Thousand Oaks, USA: Sage Publications, Inc.

Sonnentag, S., & Frese, M. (2003). Stress in Organizations. In I. B. Weiner, D. Ilgen & R. Klimoski (Eds.), *Handbook of psychology: industrial and organizational psychology* (vol.12, pp.453-491). Hoboken, NJ: Wiley.

Sparks, K., Faragher, B., & Cooper, C. L. (2001). Well-being and occupational health in the 21st century workplace. *Journal of Occupational and Organisational Psychology*, 74, 489-509.

Spector, P. E. (1987). Method Variance as an Artifact in Self-Reported Affect and Perceptions at Work: Myth or Significant Problem? *Journal of Applied Psychology*, 72(3), 438-443.

Speier, C., & Frese, M. (1997). Generalized self-efficacy as a mediator and moderator between control and complexity at work and personal initiative: A longitudinal field study in East Germany. *Human Performance*, 10(2), 171-192.

Stanton, A. L., Parsa, A., & Austenfeld, J. L. (2002). The Adaptive Potential of Coping through Emotional Approach. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of Positive Psychology* (pp.148-158). New York: Oxford University Press, Inc.

Sutherland, V. J., & Cooper, C. L. (2002). Models of Job Stress. In J. C. Thomas & M. Hersen (Eds.), *Handbook of Mental Health in the Workplace* (pp. 33-59). California: Sage Publications, Inc.

Sy, T., Tram, S., O'Hara, L., A., & (2006). Relation of employee and manager emotional intelligence to job satisfaction and performance. *Journal of Vocational Behavior*, 68, 461-473.

Taylor, S. E., & Sherman, D. K. (2004). Positive Psychology and Health Psychology: A Fruitful Liaison. In P. A. Linley & S. Joseph (Eds.), *Positive Psychology in Practice* (pp. 305-319). Hoboken, New Jersey: John Wiley & Sons, Inc.

Thompson, M. P., Kaslow, N. J., Short, L. M., & Wyckoff, S. (2002). The Mediating roles of Perceived Social Support and Resources in the Self-Efficacy – Suicide attempts relation among African American abused women. *Journal of Consulting and Clinical Psychology*, 70(4), 942-949

Troup, C., & Dewe, P. (2002). Exploring the nature of control and its role in the appraisal of workplace stress. *Work and Stress*, 16(4), 335-355.

Van Katwyk, P. T., Fox, S., Spector, P., & Kelloway, E. K. (2000). Using the Job-Related Affective Well-Being Scale (JAWS) to Investigate Affective Responses to Work Stressors. *Journal of Occupational Health Psychology*, 5(2), 219-230.

Walls, C., & Darby, F. (2004). The New Zealand Government approach to stress and fatigue – a commentary. *Work and Stress*, 18(2), 142-145.

Watkin, C. (2000). Developing Emotional Intelligence. *International Journal of Selection and Assessment*, 8(2), 89-92.

Watson, D. (2002). Positive Affectivity: The Disposition to Experience Pleasurable States. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of Positive Psychology* (pp. 106-119). New York: Oxford University Press, Inc.

Watson, D. (1988). Intra-individual and inter-individual analyses of Positive and Negative Affect: Their relation to health complaints, perceived stress and daily activities. *Journal of Personality and Social Psychology*, 54(6), 1020-1030.

Welbourne, J., L., Eggerth, D., Hartley, T. A., Andrew, M. E., & Sanchez, F. (2007). Coping strategies in the workplace: Relationships with attributional style and job satisfaction. *Journal of Vocational behavior*, 70, 312-325.

Wong, P. T. P., Reker, G. T., & Peacock, E. J. (2006). A resource-congruence model of coping and the development of the coping schema inventory. In P. T. P. Wong & L. C. J. Wong (Eds.), *Handbook of Multicultural Perspectives on Stress and Coping* (pp. 223-283).USA: Springer Science & Business Media, Inc.

Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The Role of Personal Resources in the Job Demands-Resources Model. *International Journal of Stress Management*, 14(2), 121-141.

Zeidner, M., Matthews, G., Roberts, R. D., & MacCann, C. (2003). Development of Emotional Intelligence: Towards a Multi-Level Investment Model. *Human Development*, 46, 69-96.

Zeidner, M., Matthews, G., & Roberts, R. D. (2006). Emotional Intelligence, Coping with stress and Adaptation. In J. Ciarrochi, J. P. Forgas & J. D. Mayer (Eds.), *Emotional Intelligence In Everyday Life* (pp. 100-125).U.K: Psychology Press.

Zeidner, M. (2005). Emotional intelligence and coping with occupational stress. In A-S. G. Antoniuo & C. L. Cooper (Eds.), *Research Companion to Organisational Health Psychology* (pp. 218-239).U.K: Edward Elgar Publishing Ltd.

Appendix 1. Participant information sheet.



Massey University

EMOTIONAL INTELLIGENCE, SELF-EFFICACY & OCCUPATIONAL STRESS

PARTICIPANT INFORMATION SHEET

My name is Indu Senarath. I am a Masters student in Industrial/Organisational psychology at Massey University, Albany. I am looking at the role of emotional intelligence and perceived self-efficacy in occupational stress and coping in the work environment. I would like to find out how individual differences in emotional intelligence and perceived self-efficacy affect the way a person recognizes stress at work and manages to cope .

I would appreciate it, if you could complete this survey which takes approximately 25 minutes. At the end, please press "done" to submit. Participation in this research is voluntary and all responses are anonymous. You have the right to decline to take part in this research and to decline to answer any particular question. If there are any questions you do not wish to answer please skip to the next question. Completing and submitting this questionnaire implies your consent.

If you have any questions or would like to know more about the research, please contact me on my number below. My supervisor Dr Dianne Gardner will be happy to answer questions as well. A summary of findings will be made available once the study is completed.

The project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application: MUHECN 07/052. If you have any concerns about the conduct of this research, please contact Associate Professor Ann Dupuis, Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800 x 9054, e-mail humanethicsnorth@massey.ac.nz.

Thank you very much for your time, support and the interest taken in this research. Your help is greatly appreciated.

Sincerely,

Indu Senarath,

[Redacted signature block]

Dr Dianne Gardner,
d.h.gardner@massey.ac.nz

Appendix 2. Research survey.

EMOTIONAL INTELLIGENCE, SELF-EFFICACY & OCCUPATIONAL STRESS

SECTION A

Thank you for taking part in this research. If at all possible, please try and answer all the questions in one sitting.

To answer the questions in the first part, you will need to have a specific stressful situation in mind. Take a few minutes and think about the most stressful situation you have experienced at or as a result of work. A stressful situation would be one where you had to use a lot of effort to deal with something or someone.

Please indicate briefly your stressful situation

YOUR THOUGHTS

As you respond to the following questions, please keep your stressful situation in mind. There are no right or wrong answers to any of these questions.

Please indicate how you thought about the stressful situation when you first encountered it.

	Strongly Disagree					Strongly Agree				
1. I was concerned that others would be disappointed in my performance	1	2	3	4	5					
2. I was focused on the positive benefits I would obtain from the situation	1	2	3	4	5					
3. I was concerned about my ability to perform under pressure	1	2	3	4	5					
4. I was thinking about the consequences of performing well	1	2	3	4	5					
5. I was looking forward to testing my knowledge, skills and abilities	1	2	3	4	5					
6. I worried that I may not be able to achieve the outcome I was aiming for	1	2	3	4	5					
7. I was looking forward to the rewards of success	1	2	3	4	5					
8. I was thinking about the consequences of performing badly	1	2	3	4	5					

EMOTIONAL INTELLIGENCE, SELF-EFFICACY & OCCUPATIONAL STRESS

WHAT YOU DID

Please answer to each of the statements with the stressful situation in mind. Please indicate how often you used each response in this particular situation.

Responsiveness

		Not at all				Very Much
1	I concentrated my efforts on doing something about the situation I was in	1	2	3	4	5
2	I took action to try to make the situation better	1	2	3	4	5
3	I tried to come up with a strategy about what to do	1	2	3	4	5
4	I thought hard about what steps to take	1	2	3	4	5
5	I looked for something good in what had happened	1	2	3	4	5
6	I accepted the reality of the fact that it had happened	1	2	3	4	5
7	I learned to live with it	1	2	3	4	5
8	I made jokes about it	1	2	3	4	5
9	I tried to find comfort in my religion or spiritual beliefs	1	2	3	4	5
10	I prayed or meditated	1	2	3	4	5
11	I got emotional support from others	1	2	3	4	5
12	I made fun of the situation	1	2	3	4	5
13	I tried to get advice or help from other people about what to do	1	2	3	4	5
14	I got help and advice from other people	1	2	3	4	5

15	I turned to work or other activities to take my mind off things	1	2	3	4	5
16	I did something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping	1	2	3	4	5
17	I gave up the attempt to cope	1	2	3	4	5
18	I got comfort and understanding from someone	1	2	3	4	5
19	I said to myself “ that wasn’t real”	1	2	3	4	5
20	I tried to see it in a different light, to make it seem more positive	1	2	3	4	5
21	I used alcohol or other drugs to help me get through it	1	2	3	4	5
22	I refused to believe that it had happened	1	2	3	4	5
23	I said things to let my unpleasant feelings escape	1	2	3	4	5
24	I expressed my negative feelings	1	2	3	4	5
25	I gave up trying to deal with it	1	2	3	4	5
26	I criticized myself	1	2	3	4	5
27	I blamed myself for things that had happened	1	2	3	4	5
28	I used alcohol or other drugs to make myself feel better	1	2	3	4	5

EMOTIONAL INTELLIGENCE, SELF-EFFICACY & OCCUPATIONAL STRESS

SECTION B

When you answer the following questions please think about the present time and **NOT** about your stressful situation. These questions are about your emotions and feelings.

Emotions and Feelings in oneself and others

The items of the Workplace Swinburne University of Emotional Intelligence Test (workplace SUEIT), were used for assessment. But the questionnaire is not included here for copyright reasons.

.....

EMOTIONAL INTELLIGENCE, SELF-EFFICACY & OCCUPATIONAL STRESS

SECTION B (CONTINUED)

The following statements are about your belief in your abilities to undertake a desired action

		Very Strongly Disagree				Very Strongly Agree
1.	When I make plans, I am certain I can make them work	1	2	3	4	5
2.	One of my problems is that I cannot get down to work when I should	1	2	3	4	5
3.	If I can't do a job the first time, I keep trying until I can	1	2	3	4	5
4.	When I set important goals for myself, I rarely achieve them	1	2	3	4	5
5.	I give up on things before completing them	1	2	3	4	5
6.	I avoid facing difficulties	1	2	3	4	5
7.	If something looks too complicated, I will not even bother to try it	1	2	3	4	5
8.	When I have something unpleasant to do, I stick to it until I finish it	1	2	3	4	5
9.	When I decide to do something ,I go right to work on it	1	2	3	4	5
10.	When trying to learn something new, I soon give up if I am not initially successful	1	2	3	4	5
11.	When unexpected problems occur, I don't handle them well	1	2	3	4	5
12.	I avoid trying to learn new things when they look too difficult for me	1	2	3	4	5

13.	Failure just make me try harder	1	2	3	4	5
14.	I feel insecure about my ability to do things	1	2	3	4	5
15.	I am a self-reliant person	1	2	3	4	5
16.	I give up easily	1	2	3	4	5
17.	I do not seem to be capable of dealing with most problems that come up in life	1	2	3	4	5

EMOTIONAL INTELLIGENCE, SELF-EFFICACY & OCCUPATIONAL STRESS

SECTION C

Below are a number of statements that describe different emotions that people can feel about their jobs. Please indicate how often you have experienced each emotion over the past 30 days.

Your feelings

		Never	Rarely	Sometimes	Quite often	Always
1.	My job made me feel at ease	1	2	3	4	5
2.	My job made me feel angry	1	2	3	4	5
3.	My job made me feel annoyed	1	2	3	4	5
4.	My job made me feel anxious	1	2	3	4	5
5.	My job made me feel bored	1	2	3	4	5
6.	My job made me feel cheerful	1	2	3	4	5
7.	My job made me feel calm	1	2	3	4	5
8.	My job made me feel confused	1	2	3	4	5

9.	My job made me feel content	1	2	3	4	5
10.	My job made me feel depressed	1	2	3	4	5
11.	My job made me feel disgusted	1	2	3	4	5
12.	My job made me feel discouraged	1	2	3	4	5
13.	My job made me feel excited	1	2	3	4	5
14.	My job made me feel frightened	1	2	3	4	5
15.	My job made me feel frustrated	1	2	3	4	5
16.	My job made me feel furious	1	2	3	4	5
17.	My job made me feel elated	1	2	3	4	5
18.	My job made me feel gloomy	1	2	3	4	5
19.	My job made me feel fatigued	1	2	3	4	5
20.	My job made me feel happy	1	2	3	4	5
21.	My job made me feel intimidated	1	2	3	4	5
22.	My job made me feel inspired	1	2	3	4	5
23.	My job made me feel ecstatic	1	2	3	4	5
24.	My job made me feel miserable	1	2	3	4	5
25.	My job made me feel pleased	1	2	3	4	5
26.	My job made me feel proud	1	2	3	4	5
27.	My job made me feel satisfied	1	2	3	4	5
28.	My job made me feel relaxed	1	2	3	4	5
29.	My job made me feel enthusiastic	1	2	3	4	5
30.	My job made me feel energetic	1	2	3	4	5

EMOTIONAL INTELLIGENCE, SELF-EFFICACY & OCCUPATIONAL STRESS

SECTION D

This is the final section. I would like to find out something about you.

Gender

- ☐ Female
- ☐ Male

Age

- ☐ 20-30 yrs
- ☐ 31-40 yrs
- ☐ 41-50 yrs
- ☐ 51-60 yrs
- ☐ 61 and over

The ethnic group you identify yourself with.

- ☐ Maori
- ☐ European/Pakeha
- ☐ Asian
- ☐ Indian
- ☐ Pacific Islander
- ☐ Other

Your highest education level.

- ☐ University Degree
- ☐ Professional
- ☐ Technical
- ☐ Diploma
- ☐ Bursary
- ☐ Other

Your job level in your organisation.

- ☐ Senior Management
- ☐ Supervisory
- ☐ Non-supervisory
- ☐ Academic
- ☐ Trainee
- ☐ Other

What is your job title?

What is your employment status?

- ☐ Full-time
- ☐ Part-time (30 hrs or less per week)

Thank you very much for taking time to complete this survey. Please press "done" to send your responses.