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“Feel-Good” Factors at Work: A Study of the Roles of Positive Affectivity and Individualism as Moderators of the Relationship between Emotional Intelligence and Work Well-Being

Jia Lin Zhao

A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

The Discipline of Work and Organisational Studies
University of Sydney Business School

2014
Statement of Originality

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Jia Lin Zhao

28 January 2014
“Feel-good” Factors at Work: A Study of the Roles of Positive Affectivity and Individualism as Moderators of the Relationship between Emotional Intelligence and Work Well-being

Abstract

Emotional intelligence (EI) is said to be a set of human abilities related to a person’s perceiving, utilising, understanding and managing emotions (Mayer & Salovey, 1997). The increasing interest amongst researchers and practitioners alike in the role of emotions in the workplace has given rise to a line of research on the effect of EI in predicting employee well-being in work organisations. Within this body of research it is generally assumed that employees with high EI may also experience high well-being at work (e.g., Lopes, Grewal, Kadis, Gall, & Salovey, 2006). However, empirical findings in this respect are somewhat mixed. While some studies have identified a significant relationship between EI and work well-being (e.g., Brackett, Palomera, Mojsa-Kaja, Reyes, & Salovey, 2010), others have not found any such relationship (e.g., Livingstone & Day, 2005). Considering these inconclusive findings, some researchers (e.g., Fiori, 2009) have suggested that emotional abilities may only reflect an individual’s effortful and controlled ways of dealing with emotions. Accordingly, the use of EI ability may need to be activated or motivated in order for it to have effect in real life. To date, however, few researchers have explored the factors that may elicit or inhibit the effect of EI on work-related affects and behaviours (e.g., Rode et al., 2007). The sparseness of theoretical and empirical insights in this regard, warrants further exploration. Accordingly, this study focusses on two specific personal factors - Positive Affectivity (PA) and Individualism - and examines how they may moderate the effect of EI on work
well-being.

PA is selected due to its activating and motivational effects on emotional abilities. Personal traits have traditionally been regarded as the facilitators of human behaviour (e.g., Tett & Burnett, 2003). As an emotional trait and a main dimension of trait affectivity, PA has been found to be a strong predictor of individual differences in positive feelings (e.g., happiness) (Watson & Pennebaker, 1989). As such, people with high PA are assumed to be motivated to attain high well-being at work so as to maintain congruence with their trait positivity (Diener, 1984; Judge & Larson, 2001). Such a motivational influence may also guide the application of EI. More specifically, it has been suggested that PA is linked to a person’s Behavioural Approach System (BAS) as a motivational system influencing how they deal with emotional stimuli (Elliot & Thrash, 2002). Accordingly, employees with high PA are likely to be hyper-responsive to positive emotions and emotional information at work (e.g., rewards or promotional opportunities) (Judge & Larson, 2001), which can further activate their use of emotional abilities.

Likewise, Individualism can also be a potential facilitator of EI. Values are traditionally considered to be an important component of motivations (Feather, 1988). Cross-cultural studies have suggested that the effects of personal attributes on general well-being can be moderated by values, particularly the dimension of Individualism-Collectivism (e.g., Kuppens, Realo, & Diener, 2008; Schimmack, Radhakrishnan, Oishi, Dzokoto, & Ahadi, 2002). As a core personal value, Individualism is associated with a person’s self-construal, agency belief and value orientation (Brewer & Chen, 2007). Self-construal indicates that individualists are sensitive to their own emotions and well-being (Brewer & Chen, 2007), and this, in turn, may activate the process of dealing with emotions
Agency belief and value orientation suggest that individualistic people accord a high value to their personal well-being and are motivated to use their personal abilities to attain this purpose (Brewer & Chen, 2007). Consequently, Individualism may also strengthen the effect of EI on employee well-being.

To explore the positive moderating effects of PA and Individualism on EI, the current study follows De Jonge and Schaufeli (1998) and operationalises work well-being via three indicators - job satisfaction, job stress and job burnout. The study also focuses on the ability to understand and manage emotions as the key predictor of work well-being. It is hypothesised that PA and Individualism may enhance the positive effect of EI on job satisfaction and the negative effect of EI on job stress and burnout. A test model is developed accordingly.

At the same time, the study also examines the possible influences of two other personal attributes in the form of Negative Affectivity (NA) and Collectivism, both as control factors and for exploratory purposes. NA is the main dimension of trait affectivity associated with negative emotions (Watson & Clark, 1984), which has been found to have substantial influence on work well-being (e.g., Spector, Zapf, Chen, & Frese, 2000) and may also affect a person’s ways of processing emotions (Elliot & Thrash, 2002). Similarly, Individualism and Collectivism are treated as distinct values at the individual level (Brewer & Chen, 2007). In other words, a person who is low on Individualism is not necessarily highly Collectivistic. Therefore, it is appropriate to control for the effect of Collectivism. However, given the ambiguity of prior research findings relating to the potential effects of NA and Collectivism, this study offers no specific hypothesis.
regarding their possible influences as moderators.

The study followed a quantitative approach informed by an objectivist-positivist research philosophy and deductive reasoning. The hypotheses were tested among a sample of 240 Chinese managers, following a cross-sectional design. Since the use of Chinese manager data (i.e. data from a population/culture said to be typified by Collectivism) stands to increase the degree of variation in Individualism within the research sample (Ralston, Egri, Stewart, Terpstra, & Kaicheng, 1999), this has the potential to be beneficial for testing the specified hypotheses. Regarding factor measurement, EI was captured by means of the Mayer-Salovey-Caruso Emotional Intelligence Test using both the US consensus scoring (MSCEIT; Mayer, Salovey, & Caruso, 2002) and the scoring based on local sample (e.g., Roberts, Schulze, O’Brien, MacCann, Reid, & Maul, 2006) in order to minimise the potential bias in the test. Trait affectivity was assessed by a short form of the Positive and Negative Affect Schedule (Mackinnon, Jorm, Christensen, Korten, Jacomb, & Rodgers, 1999). Individualism and Collectivism were measured by 16 items developed by Triandis and Gelfand (1998). Work well-being was further captured by three self-report scales: job satisfaction (Brayfield & Rothe, 1951), job stress (Parker & DeCotiis, 1983) and job burnout (Kristensen, Borritz, Villadsen, & Christensen, 2005).

The study also controlled for the demographic variables, emotional labour (Wong & Law, 2002) and participant organization-person fit (Cable & Judge, 1996). To ensure the reliability and validity of the measurement, internal reliability and factor structure of the measures were examined. Hierarchical regression was used to identify moderating effects.

The research findings based on both the US and the local scoring of MSCEIT generally
confirm the role of PA and Individualism in moderating the relationship between EI and work well-being. Among employees with high PA or high Individualism, EI can contribute to them becoming more satisfied and less burnt out at work. It was also found that PA significantly enhanced the negative effect of EI (based on the US scoring) on job stress. However, the interaction between Individualism and EI did not have a significant effect on job stress. The moderating effects of NA and Collectivism were also found to be non-significant on all the well-being indicators (which may possibly be due to their contradictory effects on EI). The results further show that the main effect of EI was not significant for all the three indicators of work well-being, which suggests that EI, in the absence of salient motivators, may have little effect on work well-being. In contrast, the findings confirm the main effect of trait affectivity (including PA and NA) on employee well-being.

These findings are discussed in detail, particularly with respect to their implications for methodology, theory and management practice. Regarding the methodological perspective, a main contribution of the study is its use of two scoring methods for the EI test. The similarity of the research findings may confirm the generalisability of MSCEIT among the Chinese participants, while the difference may signal further potential for improvement of its cultural adaptation. Regarding the theoretical perspective, by illuminating the different functions of abilities, traits and values in determining a person’s emotionally intelligent behaviours, the findings speak directly to the debate over the conceptualisation of EI. The findings also contribute to our understanding of employee well-being by clarifying the roles of EI in predicting well-being and its facilitators. Further, the results of Individualism and Collectivism provide potentially important insights for cross-cultural studies on EI. From the practical perspective, the
results suggest that it may be appropriate to use measures of trait affectivity for predictive purposes in personnel selection where work has high emotional labour demands and where the organisation is committed to maximising employee well-being. Further, the findings suggest that it is appropriate to include emotional ability and knowledge of their activation in learning and development programs to further improve employee well-being. Equally, it is also necessary to encourage individuals with low PA and Individualism to actively apply the learnt ability and knowledge to managing their feelings and well-being at work.
Acknowledgements

This thesis has taken nearly four years to complete, a period which is usually not considered to be long for a doctoral degree. However, these four years, with tears and smiles, have become the most precious memory in my life. Below are the persons to whom I would like to express my greatest appreciation. Without them, it would not be possible for this thesis to be finished.

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Further, I need to say “thank you” to my dear parents - Zhihong Zhao and Huili Yang. They are always there to support me and help me both emotionally and instrumentally. They paid my tuition fee for five years until I got the scholarship. Thanks for their extraordinary patience, love, and faith.

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<td>AET</td>
<td>Affective Events Theory</td>
</tr>
<tr>
<td>AUD</td>
<td>Australian Dollar</td>
</tr>
<tr>
<td>BAS</td>
<td>Behavioural Approach System</td>
</tr>
<tr>
<td>BIS</td>
<td>Behavioural Inhibition System</td>
</tr>
<tr>
<td>CBI</td>
<td>Copenhagen Burnout Inventory</td>
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<tr>
<td>CFA</td>
<td>Confirmatory Factor Analysis</td>
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<td>CFI</td>
<td>Comparative Fit Index</td>
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<tr>
<td>CHN</td>
<td>China</td>
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<td>CNY</td>
<td>Chinese Yuan</td>
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<tr>
<td>d.f.</td>
<td>Degree of Freedom</td>
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<tr>
<td>DANVA</td>
<td>Diagnostic Analysis of Nonverbal Accuracy</td>
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<td>ECI</td>
<td>Emotional Competency Inventory</td>
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<td>EI</td>
<td>Emotional Intelligence</td>
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<td>EKT</td>
<td>Emotional Knowledge Test</td>
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<td>EM</td>
<td>Expectation Maximisation</td>
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<td>EQ-i</td>
<td>Emotional Quotient Inventory</td>
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<td>FFS</td>
<td>Fight-Flight System</td>
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<td>GFI</td>
<td>Goodness of fit index</td>
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<td>GWSIT</td>
<td>George Washington Social Intelligence Test</td>
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<tr>
<td>IQ</td>
<td>Intelligence Quotient</td>
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<tr>
<td>MEIS</td>
<td>Multifactor Emotional Intelligence Scale</td>
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<tr>
<td>MSCEIT</td>
<td>Mayer-Salovey-Caruso Emotional Intelligence Test</td>
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<tr>
<td>n.s.</td>
<td>Non-significant</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
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<tr>
<td>NA</td>
<td>Negative Affectivity</td>
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<td>PA</td>
<td>Positive Affectivity</td>
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<td>PANAS</td>
<td>Positive and Negative Affect Schedule</td>
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<tr>
<td>RMSEA</td>
<td>Root Mean Square Error of Approximation</td>
</tr>
<tr>
<td>SD</td>
<td>Standard Deviation</td>
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<tr>
<td>SPSS</td>
<td>Statistical Product and Service Solutions</td>
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<tr>
<td>SRMR</td>
<td>Standardized Root Mean Square Residual</td>
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<tr>
<td>SSREIT</td>
<td>Schutte Self Report Emotional Intelligence Test</td>
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<td>STEM</td>
<td>Situational Test of Emotion Management</td>
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<td>STEU</td>
<td>Situational Test of Emotional Understanding</td>
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<td>TEI-Que</td>
<td>Trait Emotional Intelligence Questionnaire</td>
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<tr>
<td>TLI</td>
<td>Tucker Lewis Index</td>
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<td>TMMS</td>
<td>Trait Meta-Mood Scale</td>
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<td>US</td>
<td>United States</td>
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<td>WEIS</td>
<td>Wong’s Emotional Intelligence Scale</td>
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<td>WLEIS</td>
<td>Wong and Law Emotional Intelligence Scale</td>
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Chapter 1 Introduction

1.1 The Study of Emotions, Emotional Intelligence and Work Well-being

During the era of mass industrial production and ‘scientific management’ methods, large-scale employers typically sought to “deskill” work by breaking it down into simple repetitive tasks with employees seen essentially as objectified extensions of mechanical production (Boxall & Purcell, 2008; Shields & Grant, 2010). As a result, the employee-subject and employee-centred aspects of work, including emotion and work identity, were commonly neglected or regarded as something which should be controlled or suppressed (Zeidner, Matthews, & Roberts, 2009). However, despite the associated increases in labour productivity, industrial organisations managed along these traditional lines began to face a range of unanticipated challenges and by the mid-Twentieth Century, thinkers associated with the Human Relations school of management thought were calling for a greater focus on the ‘human factor’ in the production process (Shields & Grant, 2010). It was suggested that where employees had negative feelings and attitudes towards their organisations, such negativity could lead to low work motivation and impaired performance (Boxall & Purcell, 2008). From this point on, and particularly due to the rise of service work, there has been growing recognition amongst management practitioners and researchers alike that “human factors” such as emotions are inseparable from work activity and may be central to organisational effectiveness and sustainability.

For such reasons, since the early 1990s, researchers have begun to explore the specific role of emotions in organisations (e.g., Ashkanasy & Humphrey, 2011; Hartel, Zerbe, & Ashkanasy, 2005; Weiss & Cropanzano, 1996). Current research findings suggest that emotions are critical components of our rationality within and beyond the workplace.
Our judgment and decision-making is also dependent on the initial intuitions provided by emotional states (Damasio, 1994). Based on early studies of emotions, Salovey and Mayer (1990) further proposed the concept of emotional intelligence (EI), a notion informed by the idea that emotions can be managed and utilised for productive ends. Their work was in accord with earlier intelligence theories such as the theory of Multiple Intelligence by Gardner (2011) and the theory of successful intelligence by Sternberg (1985), which suggested that there existed a distinctive form of intelligence dealing with the emotional tasks in human life. Mayer and Salovey (1997) proposed that EI is a set of abilities related to a person’s perceiving, understanding, utilising and managing emotions, which can be learnt through training and practices. Subsequently, many commentators have suggested that EI can help us manage our feelings and become more successful in the workplace. Goleman (1998), for instance, claimed that EI was the defining quality of outstanding employees; it could even contribute to better performance of the whole organisation via making an “emotionally intelligent” workplace.

One emerging line of research on the role of EI in work organisations is that of exploring how EI can influence employee well-being. Work well-being is broadly defined as a set of affect-linked attitudes which reflect an employee’s various feelings at work (Cropanzano & Wright, 2001). According to De Jonge and Schaufeli (1998), these attitudes may include job satisfaction (associated with feelings of happiness), job stress (related to feelings of anxiety) and job burnout (reflecting feelings of depression). As a state of mind, work well-being is an important consideration for both employees and their managers (Danna & Griffin, 1999). It is closely related to work behaviours such as task performance (Judge, Thoresen, Bono, & Patton, 2001; Riketta, 2008), creativity
(Weiss, 2002), organisational citizenship behaviour (Motowidlo, 2003) and withdraw intention (Spector, Dwyer, & Jex, 1988). Thus, from an organisational effectiveness perspective, there is merit in exploring more fully the antecedents of well-being, including EI.

It is proposed that emotions are different from work attitudes, but may still have a substantial influence on them (Weiss & Cropanzano, 1996). Accordingly, some have argued that EI - the capability to deal with one’s own and others’ emotions - can help an employee become happier and less stressed and depressed (e.g., Mayer & Salovey, 1993; Zeidner, Matthews, & Roberts, 2004). For instance, it has been suggested that employees who are more effective at understanding and managing their own feelings and those of others, are more likely to achieve high levels of wellness through maintaining a positive mood at work (Brackett et al., 2010; Karim & Weisz, 2010). Nevertheless, empirical findings regarding the relationship between EI and work well-being are somewhat mixed. Some studies have shown that, EI, particularly the ability to understand and regulate emotions, can significantly predict job satisfaction (e.g., Bostjancic, 2010), stress (e.g., Lopes et al., 2006) and burnout (e.g., Brackett et al., 2010). Other studies, in contrast, have not found such relationships (e.g., Gohm, Corser, & Dalsky, 2005; Humpel, Caputi, & Martin, 2001; Livingstone & Day, 2005).

Considering the mixed results of EI, researchers such as Fiori (2009) suggest that emotional abilities (as measured by an ability test) may reflect the rational and controlled ways of dealing with emotions. Consequently, EI may consume a person’s energy and cognitive resources (Singh, Tesluk, & Seo, 2010) and, therefore, may need to be activated or motivated to maximise its effects. In this regard, some researchers (e.g.,
Boyatzis, 2009; Petrides, 2009) point out that the predictive effectiveness of emotional abilities may be limited since maximised performance in ability tests may not necessarily reflect the individual’s actual behaviours in real-life. Accordingly, it would seem to be appropriate to consider the motivators or facilitators that may enhance the effect of EI (Boyatzis, 2009). To date, however, few theories or empirical studies have explored systematically the range of factors that may elicit or inhibit the influence of EI on work-related affects and behaviour, including the relationship between EI and work well-being. Among the limited number of extant studies, some (e.g., Rode et al., 2007; Rubin, Munz, & Bommer, 2005) have found that the effect of EI on job performance can be enhanced by personal traits such as Conscientiousness or Extraversion. Others suggest that cultural values, particularly Individualism and Collectivism, could be the potential moderators of EI (e.g., Fernandez-Berrocal, Salovey, Vera, Extremera, & Ramos, 2005).

The scarcity of existing conceptual and empirical insights warrants further exploration of the possible moderators of EI in predicting work well-being. To assist in this regard, this study draws on two specific personal factors - Positive Affectivity (PA) and Individualism - to examine how the effect of EI on work well-being may be moderated by the individual level motivators. Personal traits have long been treated as the motivational forces of human behaviours (Tett & Burnett, 2003). Among these traits, the current study chooses to focus on PA for two main reasons. Firstly, it is argued that, as a core dimension of trait affectivity, PA is linked to an individual’s Behavioural Approach System (BAS) as a motivational system that influences how the individual deal with emotional stimuli (Elliot & Thrash, 2002). Accordingly, it is possible that high PA persons are hyper-responsive to positive emotions at work (e.g., those related to rewards and promotion), and therefore, may put more effort in dealing with those feelings (Judge
& Larson, 2001), which may include the use of EI. Secondly, empirical findings have suggested that employees with high PA typically have high job satisfaction (e.g., Judge, Heller, & Klinger, 2008; Lent, Nota, Salvatore, Ginevra, Ryan, & Brown, 2011), low job stress (e.g., Fogarty, Machin, Albion, Sutherland, Lalor, & Revitt, 1999) and reduced burnout (e.g., Iverson, Olekalns, & Erwin, 1998; Kahn, Schneider, Jenkins-Henkelman, & Moyle, 2006) in the workplace. Such findings are mainly due to the fact that people with high PA are motivated to attain high well-being at work in order to keep congruent with their trait positivity (Diener, 1984; Judge & Larson, 2001). As a result, such motivational force could also guide the application of EI towards higher well-being among employees.

In addition to PA, the study focusses on Individualism because Individualism, as a personal value, could also be a potential motivator of EI. Values are different from traits in that they are mainly influenced by “nurture” (e.g., social norms or individual experiences; Feather, 1988) whereas traits are commonly assumed to be influenced more by “nature” (e.g. genetics; Plomin, Owen, & McGuffin, 1994). Values are also important components of human motives (Feather, 1988, 1992). Individualism is frequently conceptualised as a key dimension of societal value systems at the national-level (e.g., Hofstede, 2001) and as a core personal value at the individual level (e.g., Triandis, Bontempo, Villareal, Asai, & Lucca, 1988). Researchers (e.g., Markus & Kitayama, 1991) have suggested that Individualism, as related to a person’s self-construal, may influence how a person typically deals with their emotions. Individualists, for instance, are quite sensitive to their own feelings (Suh, Diener, Oishi, & Triandis, 1998), which can further activate their reactions to understand and manage those feelings. More importantly, since individualists place a high value on personal achievement and well-
being and believe in individual agency (Brewer & Chen, 2007), they are more likely to invest personal effort (including the use of EI) in achieving those goals. Findings from cross-cultural studies also suggest that the effects of personal attributes (e.g., emotional traits) on general well-being can be moderated by Individualism (e.g., Kuppens et al., 2008; Schimmack et al., 2002). Consequently, it would appear to be appropriate to regard Individualism as a potential facilitator (i.e. positive moderator) of the EI effect in the workplace.

Overall, then, this study focusses on the individual’s ability to understand and manage emotions (as the key predictor of well-being), and explores how EI’s potential to have a positive influence on job satisfaction, stress and burnout (as the indicators of work well-being; De Jonge & Schaufeli, 1998) may be strengthened by PA and Individualism. The study also includes Negative Affectivity (NA) and Collectivism for controlling and exploratory purposes. NA is another main dimension of trait affectivity associated with negative emotions (Watson & Clark, 1984). It has been found to have substantial influences on work well-being (e.g., Brief, Butcher, & Roberson, 1995; Spector et al., 2000), which is also linked to the motivational system of avoiding negative stimuli (as Behavioural Inhibition System, BIS; Elliot & Thrash, 2002). Likewise, while Individualism and Collectivism are said to form a single dimension at the national level (e.g., Hofstede, 2001), at the individual level it is appropriate to regard them as distinct values (Brewer & Chen, 2007). In other words, a person who has low Individualism is not necessarily highly collectivistic. Accordingly, since the current study draws from theories and evidence at both the country and individual level (as will be discussed in Chapter 5), Collectivism is included in the analysis in order to rule out its impact when exploring the moderating role of Individualism.
1.2 Research Purpose and Questions

Based on the above discussion, there is merit in moving the focus of EI research beyond an interest in its direct effects on employee affects and behaviours in order to consider how EI may interact with other individual level characteristics. To date, there has been only a small number of studies in this vein and these have tended to focus mainly on outcomes shaped by the interaction between EI and the Big Five personality traits (see Chapters 2 and 4 for elaboration). What is less well understood, are the consequences of the interactions between EI, other personality constructs, such as trait affectivity, and personal value orientations, such as Individualism.

Accordingly, the chief purpose of this study is to contribute to our understanding of the individual level circumstances and processes that may be involved in facilitating or constraining the application of EI to achieving a specific employee-centred work outcome, which is being recognised increasingly as an important ingredient in organisational effectiveness and sustainability, namely well-being at work.

To this end, the study seeks to answer the following two related research questions:

(1) Does trait affectivity, particularly, Positive Affectivity, moderate (or strengthen) the positive relationship between EI and work well-being?

(2) Does personal value, particularly, Individualism, moderate (or strengthen) the positive relationship between EI and work well-being?
1.3 Justification for the Research

The research explores the relation between EI and work well-being, with particular focusses on the moderating effects of PA and Individualism. From a theoretical perspective, the study stands to extend the current literature regarding the predictive effect of EI, which may also deepen our understanding about the mixed findings concerning the link between EI and employee well-being (e.g., Livingstone & Day, 2005). Further, by assuming that the theoretical argument regarding the rational and controlled nature of EI is valid, the study may also assist in exploring the effect of EI from a more systematic and integrative perspective (i.e. involving consideration of the interactions between EI and traditional constructs such as personal traits and values).

As a developing field, research on EI still suffers from ambiguity in defining EI and explaining the mechanisms linking EI to work outcomes (Zeidner et al., 2009). While some researchers and proponents (e.g., Bar-On, 2006; Goleman, 1998; Petrides, 2009) have moved beyond the ability model proposed by Mayer and Salovey (1997), and included other personality constructs (e.g., traits and values) in their EI models (i.e. ‘mixed models’), our understanding of these mechanisms remains far from complete. While these mixed models may have more predictive power than the pure ability model, they may also have less discriminant validity from traditional personality measures due to the overlap of the constructs (Daus & Ashkanasy, 2005; Joseph & Newman, 2010). Consequently, the current study may help to clarify the function of EI in predicting real-life outcomes (as work well-being), while also taking the role of both emotional trait (as PA) and personal value (as Individualism) into consideration. By exploring their moderating effects on EI, the research may suggest a new perspective in studying a person’s emotionally intelligent behaviours.
The study may also be valuable for informing management practices aimed at improving employee well-being in the workplace. Since work well-being has become an increasingly important consideration in organisational life (Danna & Griffin, 1999), it is appropriate to identify the means by which it can be managed more effectively - in the interests of both the organisation and the employee. However, traditional approaches to well-being focus primarily on contextual factors, individual dispositions and their internal match/mismatch (Hulin & Judge, 2003; Maslach, Schaufeli, & Leiter, 2001; Sonnentag & Frese, 2003; Weiss & Brief, 2001), while generally ignoring how individuals themselves can actively manage their own feelings in the organisation. Also, since factors such as personal traits are relatively stable (McAdams & Olson, 2010), identifying their influences alone may have limited implications for employee training and development. In contrast, emotional abilities and knowledge can be learnt through training and practices (Zeidner, Matthews, Roberts, & MacCann, 2003). Hence, the current study may help to inform intervention programs aimed at facilitating employee well-being. Further, to make the associated personal development initiatives more effective, it may also be essential to identify the constructs which can maximise the individual’s application of the emotional abilities in actual behaviours. In this regard, the study’s findings concerning the potential moderating roles of PA and Individualism may have significant implications for management practices.

Finally, although it is not the main focus of the current study, examining the moderating effect of Individualism (as a personal value) may have implications for cross-cultural studies on EI and its effectiveness. Some researchers (e.g., Fernandez-Berrocal et al., 2005; Law, Wong, Huang, & Li, 2008) suggest that the western-developed notion of EI may have limited ecological validity among individuals in other cultures (particularly
cultures exhibiting low Individualism). Since the empirical evidence regarding cultural influences on EI remains scarce (e.g., Fernandez-Berrocal et al., 2005; Karim & Weisz, 2010), there is considerable scope for advancing knowledge in this regard. Studying the individual’s value orientations also has the advantage of directly capturing people’s values (Schilpzand, Martins, Kirkman, Lowe, & Chen, 2013). Accordingly, the current research stands to offer new insights on the interaction between EI and personal values, which in turn may also be meaningful for the application and management of EI in a multi-cultural context.

1.4 Research Philosophy and Method

There are two main methodological approaches to research in organisational studies: the quantitative and the qualitative (Bryman & Bell, 2007). The quantitative approach is usually associated with positivism and objectivism, as a set of philosophical positions adapted from the natural science (Guba & Lincoln, 2005). The qualitative approach may include interpretivism, constructivism and other paradigms, which share some common ground on their assumptions yet with their own distinctive characteristics (Creswell, 2007). In the choice of research approach, inquirers may make certain assumptions. These philosophical assumptions are associated with the nature of reality (ontology), the role of values in the research (axiology), the way to obtain knowledge (epistemology), and the methods involved in the research process (methodology) (Creswell, 2007; Hudson & Ozanne, 1988; Saunders, Lewis, & Thornhill, 2009).

The current research follows a quantitative approach, and therefore, is in accord with an objectivist ontology (i.e. assuming there is one overarching reality that is accessible to the researcher) and a positivist epistemology (i.e. assuming that generalisable knowledge
can be deduced from theory and/or induced from factual evidence and findings). The reasons are as follows. First, the research concepts and questions are built mainly upon previous literature and theories (e.g., the EI model by Mayer & Salovey, 1997; the concept and indicators of work well-being proposed by De Jonge & Schaufeli, 1998). As Hudson and Ozanne (1988: 509) argued, positivists “tend to take a realist position and assume that a single, objective reality exists independently of what individuals perceive”, whereas qualitative researchers - and certainly those embracing a social constructionist ontology and an interpretivist epistemology - tend to embrace the idea of multiple realities in which the researcher and their human subjects co-construct understanding and knowledge (Creswell, 2007). Hence, adopting an objectivist ontology and a positivist epistemological position makes it possible to capture the same variables (e.g., using the ability test to measure EI) from different individuals and further study their general associations (e.g., the link between EI and job satisfaction) with a view to obtaining findings amenable to generalisable conclusions.

Secondly, the main purpose of the study is to uncover the causal relation between EI and work well-being (including the moderating effect of PA and Individualism), and to further generalise the research findings for both theoretical and practical considerations. Accordingly, a key research aim is to identify the general laws of causality from the findings (in accord with the epistemological assumption of positivism; Hudson & Ozanne, 1988). In contrast, qualitative researchers are concerned more with interpreting and understanding the perspectives and meanings offered up by the research subjects, and may thus regard knowledge as being context-dependent (Hudson & Ozanne, 1988). Moreover, in order to achieve generalisation, it is important to rule out the influence of the researcher’s personal values. In this axiological concern, it is usually assumed that
the positivist researcher does not influence and is independent from the research subject, whereas qualitative researchers generally regard their research as value-laden in nature, in which both they and their subjects are joint-participants in knowledge generation (Hudson & Ozanne, 1988).

Thirdly, a quantitative research method supports the generalisability of the research findings. The choice of research method is associated with the research design, data collection and analysis (Bryman & Bell, 2007). As described by Hudson and Ozanne (1988), positivists often use techniques such as experimentation and large scale surveys to control for the various individual and contextual factors in order to uncover the causal relationships. Collecting data with a large sample size may also facilitate the generalisation of the research findings (Bryman & Bell, 2007). Statistical techniques are then used to analyse the data objectively, and further reveal the underlying (nomothetic) law, which can significantly explain the variance in the data (Bryman & Bell, 2007).

Conversely, a qualitative research method may mostly depend on materials such as documents, discourse and observations (Hudson & Ozanne, 1988). As rich or ‘thick’ description is the main purpose of this approach, the products of a qualitative analysis usually include stories, themes and categories (Hudson & Ozanne, 1988). In these respects, a quantitative research method is the most appropriate fit for the current study’s research purpose and focal research questions.

1.5 Thesis Structure

As is common in quantitative research, the study applies a deductive procedure to address the research questions (Saunders et al., 2009). Literature is first reviewed concerning the key research concepts and their associations, including EI, work well-
being (i.e. job satisfaction, stress and burnout), PA (and NA) and Individualism-Collectivism. Hypotheses related to the research questions are then drawn from the theories and the previous findings and incorporated into a test model. In line with the quantitative method, data needed to test the research hypotheses are gathered by means of large-sample surveys. Finally, the results are discussed with regard to their general implications for the current theories and practices. This approach informed the structure and sequence of chapters in the thesis. The thesis structure is outlined in Figure 1.1.

The first four chapters review the concepts and extant bodies of literature relating to each of the key research variables. **Chapter 2** reviews the literature on EI and its various models. Existing studies of emotion and social intelligence are first summarised, followed by an overview of the history of the concept of EI. The current models of EI are further discussed, along with their links to traditional approaches to studying individual differences, involving the theories of Multiple Intelligence (Gardner, 2011) and successful intelligence (Sternberg, 1985), social-cognitive theory (e.g., Bandura, 2001), and the competency (e.g., McClelland, 1973) and trait (e.g., Goldberg, 1990) approaches to personality. The chapter also provides a justification for the study’s use of the Mayer and Salovey’s (1997) ability model of EI.

**Chapter 3** considers the application of EI in the workplace, and its possible links with employee well-being. The chapter begins with a brief summary of notions of work well-being and how it can be operationalised via three proxies: job satisfaction; stress; and burnout. By way of introduction, the chapter also highlights the importance of managing employee well-being in organisations. The traditional approaches to studying the antecedents of work well-being are also reviewed, including approaches focussing on
### Figure 1.1 Overview of thesis structure

**Literature Review**

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<tr>
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<td>- Conceptualisation of work well-being</td>
<td>- Personality traits and trait affectivity</td>
<td>- Cultural values, Individualism and Collectivism</td>
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<td>- Current EI models and their theoretical bases</td>
<td>- Antecedents of job satisfaction, stress and burnout</td>
<td>- The potential moderating effects of PA and NA on the relation between EI and well-being</td>
<td>- The potential moderating effects of Individualism and Collectivism on the relation between EI and well-being</td>
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<tr>
<td>- The EI model in the current study</td>
<td>- Studies of emotions in organisations</td>
<td>- Relation between EI and work well-being</td>
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**Hypothesis Development**

**Chapter 6**
- Review of research variables
- Level of analysis among multi-dimensional variables
- Development of research hypotheses
- Research model

**Research Methodology**

**Chapter 7**
- Philosophical position revisit
- Research design and sampling method
- Research measurement and relevant issues
- Research procedure: data collection, analysis, etc.

**Results, Discussion and Conclusion**

**Chapter 8**
- Description of final research sample
- Treatment of missing data
- Scoring of MSCEIT
- Reliability and validity of the research measurement
- Descriptive statistics

**Chapter 9**
- Bivariate associations
- Results of hypothesis testing (via hierarchical regression)
- Discussion of the main findings

**Chapter 10**
- A summary of the research findings
- Methodological contributions
- Theoretical contributions
- Practical implications
- Research limitations
- Recommendations for future research
external factors (e.g., work environment or job characteristics), individual factors (e.g., self-esteem or trait affectivity), and the person-environment fit (e.g., the fit between personal values and organisational culture). Next, the chapter turns to the literature on the role of emotion and EI in the workplace by introducing Affective Events theory (Weiss & Cropanzano, 1996) and the notion of emotional labour (e.g., Hochschild, 1983). The mechanisms linking EI and employee well-being are then outlined, along with the associated empirical evidence. Finally, reasons are given for the mixed findings reported to date regarding the relationship between EI and well-being.

**Chapter 4** commences with an overview of the literature on the main conceptions of personality traits, including the widely-invoked Big Five model. Here, special attention is paid to the traits of Extraversion and Neuroticism which are considered to be the origins of trait affectivity. As the focus in this study is on PA, the chapter goes on to introduce the notion of trait affectivity (including both PA and NA), and their potential links with the individual’s motivational dispositions, as proposed in the Behavioural Approach and Inhibition Systems model (see Elliot & Thrash, 2002). The chapter further addresses the potential moderating effects of PA and NA, including their activating and motivational effects on EI. Extant studies on the moderating effect of trait affectivity are then summarised.

**Chapter 5** opens with an overview of the literature on the concept of values and the approaches taken to date to define culture via personal values. The relevant models of national/group cultural values (e.g., Hofstede, 2001) are also reviewed. The chapter then explores the issues regarding the constructs of Individualism and Collectivism (e.g., self-construal; Markus & Kitayama, 1991), and how they are conceptualised at both the
national and individual levels. The reasons for treating Individualism as a personal value in the current study are also detailed. Based on the relevant literature, the chapter further proposes how Individualism can enhance the effect of EI on work well-being, focussing on its functions of self-representation, belief in personal agency, and value orientation (influencing valence). Finally, the chapter reviews the empirical research regarding the association between Individualism/Collectivism and subjective well-being, and the moderating effect of Individualism/Collectivism on other predictors (e.g., personal emotions) of general or work well-being.

Building on these reviews of prior theory and evidence, **Chapter 6** presents the research hypotheses and the test model. The chapter first summarises the key variables in the study regarding how they are conceptualised and operationalised. The chapter proceeds to clarify the level of analysis among the multi-dimensional variables. The hypotheses with regard to the moderating effects of PA and Individualism are then related back to the theories and evidence reviewed in preceding chapters. The discussion further links the hypothesised moderating effects to the key work attitudes considered in the well-being literature, including job satisfaction, stress and burnout. A research model is proposed accordingly.

**Chapter 7** describes and seeks to justify the study’s positivist research methodology, which is based on a large-sample survey procedure with participants drawn from a population of professionals and managers from firms operating in large cities in mainland China. Consideration is given to research philosophy (i.e. objectivism-positivism), research design (i.e. experimental design versus cross-sectional design), the sampling method (i.e. probability versus non-probability sampling, and sample
characteristics) and sample size, the measurement issues (i.e., reliability and validity, research assessments, and possible measurement biases), and the research procedure (including data collection, treatment of the missing data and data analysis). The aim is to justify the quantitative method used in the research and ensure that current research method is reliable and valid. It is noteworthy that the study incorporates two scorings of EI to explore the research questions.

**Chapter 8** reports the sample characteristics and the measurement issues in the current study. The chapter firstly describes the main characteristics of the final research sample (e.g., sample size and demographic background). Secondly, the chapter considers the mode of treating missing data to ensure a complete and clear dataset for further analysis. The third section concerns the scoring of the EI test (as Mayer-Salovey-Caruso Emotional Intelligence Test; MSCEIT, Mayer et al., 2002) applied in the study. Fourthly, the results of the tests of internal reliability and factorial validity of the research measures are reported. Internal reliability testing includes Cronbach’s alphas for the self-report scales and the split-half coefficients for MSCEIT and the value measures. The factor structures of the main assessments are confirmed using the Confirmatory Factor Analysis (CFA). Finally, an overview of the research variables is provided, including their means, standard deviations (SDs) and distributions.

**Chapter 9** presents the results of hypothesis testing using hierarchical regression analysis and discusses the main findings of the research. A correlation matrix of the research variables is first provided. Results are then reported for hierarchical regressions on each of the well-being indicators (i.e. job satisfaction, stress and burnout). Although the focus is on the moderating effects of PA and Individualism, NA and Collectivism are
also included in the analysis for the purposes of exploration and control. The significant interactions are depicted in graphs to assist interpretation. The chapter further discusses the research findings and their potential implications/explanations, including the main effects of EI and trait affectivity on work well-being (i.e. job satisfaction, stress and burnout), and the moderating effects of PA and Individualism on the relationship between EI and well-being.

Chapter 10 serves as a general conclusion for the thesis. Following a summary of the key research findings, the chapter addresses the methodological, theoretical and practical implications of the research findings. The chief methodological contributions relate to the use of MSCEIT in the Chinese population and the exploration of the effects of Individualism and Collectivism at the individual level. The chapter also considers the study’s contributions to the EI and well-being literature (e.g., helping to address the absence of consensus on EI conceptualisation), and its implications for managing employee well-being in work organisations (e.g., through the training of emotional abilities and knowledge). Finally, the chapter provides an overview of the research limitations (e.g., the potential weakness of research design) as well as offering recommendations for future investigation.

1.6 Conclusion

This chapter has served as an introduction to the whole thesis and was composed of five sections. The first section provided an overview of the literature on emotion, EI, and their roles in modern organisations as well as the effect of EI on work well-being. The section further reviewed the mixed findings on the relationship between EI and work well-being and suggested that research is needed to uncover the potential moderators of EI. In this
regard, the current study focusses on PA and Individualism, both of which can facilitate the use of EI in the workplace to improve employee well-being. Accordingly, the second section presented the research aims and focal questions. In particular, the study explores how PA and Individualism can moderate the effect of EI on work well-being including job satisfaction, stress and burnout. Thirdly, justification for the research was offered on theoretical and practical grounds. It is believed that the research findings may help to address the debate over the conceptualisation of EI and inform organisations about ways to improve employee well-being though training of emotional abilities and knowledge. Further, the findings are expected to guide future studies on EI in a multi-cultural context. The fourth section discussed the philosophical orientation of the research. In accordance with the research questions, the research adopts a positivist position and uses quantitative methodology to explore the research questions. Finally, the chapter provided an overview of the thesis structure, which comprises ten chapters following a deductive sequence: literature review (Chapters 2, 3, 4, and 5); development of hypotheses (Chapter 6); description of research methodology (Chapter 7); hypothesis testing and discussion of results (Chapters 8, 9, and 10).
Chapter 2 Emotional Intelligence: Definitions, Theories and Models

2.1 Introduction

This chapter provides a review of the emergence of the concept of EI and the alternative models associated with it. The discussion is divided into two sections. In the first section, the focus is on the studies of emotions and social intelligence as the theoretical roots of EI theories. Regarding emotions, the discussion focuses on their subjective and multi-faceted nature and on the general theoretical frameworks for conceptualising emotions. In relation to social intelligence, a brief summary is provided regarding how it has been studied to date with different approaches involved. An historical overview of the study of EI is then provided, including the formulation of the ability model (Mayer & Salovey, 1997) and the further popularisation of the idea during the 1990s (e.g., Goleman, 1995).

The second section of the chapter focuses on current models and theories of EI. Consideration is given to the ability model (e.g., Izard, Fine, Schultz, Mostow, Ackerman, & Youngstrom, 2001; Mayer & Salovey, 1997), the trait and competency models (e.g., Bar-On, 1997; Goleman, 2001; Petrides, 2009), and the self-report approach of assessing the ability model (e.g., Schutte et al., 1998; Wong & Law, 2002). Further, the current models of EI are linked to the traditional approaches of studying individual differences (e.g., theories of intelligence, competency and trait approaches of personality) regarding both their theoretical assumptions and assessments. Finally, reasons are advanced for the use of the ability model in the current study.
2.2 The Roots of EI

2.2.1 What is emotion?

Before addressing the notion of EI, it is appropriate to provide an overview of the central concept - that of human emotion. Formal consideration of the nature of human emotion dates back millennia - to Ancient Greek philosophy and mythology and to early Chinese philosophy and literature. However, it was the rise of modern psychology that made emotion the subject of scientific inquiry and theorising. According to Mandler (2003), it remains difficult to draw up a single and parsimonious definition of emotion. Some researchers (e.g., Ekman & Friesen, 1971) see it as equating to a person’s facial expressions, while others (e.g., Frijda, 1986) prefer to associate it with a range of physiological, psychological and behavioural processes. Based on the various studies of emotions (e.g., Gross & Thompson, 2007; Mandler, 2003), it is nonetheless possible to identify several core features of emotions.

First, emotion is subjective in nature. Although some early researchers focus only on the physiological or organic bases of emotion, it is clear that emotion is not simply physiological (Mandler, 2003). As originally clarified by James (1894, as cited in Mandler, 2003), emotion is not primarily a response directly associated with physical objects; rather, it is a secondary feeling produced by thoughts which may subjectively induce physical reactions. Schachter and Singer (1962) further proved that both physiological arousal and cognitive evaluation were necessary for the production of emotional states.

A second feature of emotion is linked to its multiple dimensions. Lazarus, Kanner, and Folkman (1980), for example, defined emotions as organised reactions that consisted of
cognitive appraisals, action impulses and patterned somatic reactions. Likewise, Frijda (1986) described emotions as mechanisms associated with an individual’s appraisal of the environment with their need and desires, accompanying physiological responses, and further behavioural reactions. More recently, Gross and Thompson (2007) proposed a process model of emotion that followed a sequence of four stages: situation; attention; appraisal; and response. Although those models may have their different foci, a key assumption common to all is that all components are usually linked to each other to formulate the underlying processes of emotions.

Thirdly, and most importantly, there are general emotions or emotional processes (e.g., appraisal) among different individuals and across different cultures. Ekman and Friesen (1971), for instance, identified six basic emotions (or facial expressions) - anger, disgust, fear, happiness, sadness and surprise - which had a high level of agreement among the participants from different cultures. Roseman, Dhawan, Rettek, Naidu, and Thapa (1995) further identified five basic appraisal components - situational state, motivational state, probability, power and agency - which were common across cultures. Fear, for instance, may occur when a person felt inconsistent between the environment and their appetitive motivation, and when there is a lack of control of the environment (Roseman et al., 1995). Likewise, Plutchik (2001) proposed that there were eight basic bipolar emotions (i.e. joy, sorrow, anger, fear, acceptance, disgust, surprise, and expectancy), which could be defined based on a chain of processes that began from the stimulus event and ended with overt behaviour. Overall, based on those theories of basic emotions, it would seem to be legitimate to derive general propositions about the basic emotions (e.g., joy and sadness), which in turn may allow the possibility of developing models of EI (e.g., understanding and managing emotions) irrespective of individual and cultural context.
2.2.2 Social intelligence as the overarching concept

As proposed by Salovey and Mayer (1990), EI is a subset of social intelligence. Matthews, Zeidner, and Roberts (2002, as cited in Landy, 2005) also pointed out that EI research had its origins in a comment made by Thorndike in 1920 regarding the possible existence of social intelligence, which was different from the other forms of intelligences. Yet, subsequent theorising has fallen short of providing an agreed definition of social intelligence and how it can be measured.

Originally, Thorndike (1920, as cited in Thorndike & Stein, 1937) proposed a theory of three divisions of intelligence - abstract, mechanical and social intelligence. The former two dealt with abstract thoughts and concrete objects, while the latter, as defined by Thorndike (1920, as cited in Thorndike & Stein, 1937), was the ability to understand and manage people. Other researchers (e.g., Gardner, 2011) also regarded social intelligence as a distinctive intelligence having its own psychological and biological bases. Yet some researchers, such as Wechsler (1958, as cited in Kihlstrom & Cantor, 2000) treated social intelligence as a form of general intelligence applied to real life. Interestingly, when commenting on the concept of EI, Locke (2005) also suggested that EI was not another type of intelligence, but intelligence applied to emotions.

Thorndike (1920, as cited in Thorndike & Stein, 1937) proposed a means of evaluating social intelligence in the laboratory - a simple process of matching pictures of emotive faces with descriptions of emotions. Meantime, Moss and his colleagues (1927, as cited in Landy, 2005) developed the George Washington Social Intelligence Test (GWSIT) as one particular measure of social Intelligence. GWSIT had a wide range of tasks including judgement of social situations, recognition of the mental state of others, and memory for
names and faces (Landy, 2005). As such, the test is very similar to the psychometric tests of intelligence. However, as concluded by Thorndike and Stein (1937), the GWSIT seemed to have problematic reliability and validity in capturing what it intended to measure.

Another approach was taken by Guilford (1967, as cited in Kihlstrom & Cantor, 2000), who focussed on the operational domains of cognition (to social tasks) to develop tests of social intelligence. Similarly, Kihlstrom and Cantor (2000) proposed a theory of social intelligence that focussed on cognitive processes such as perception, memory, reasoning and problem-solving. They classified social intelligence into two broad categories: declarative knowledge, which consisted of abstract concepts and specific memories, and procedural knowledge, which consisted of the rules, skills, and strategies (Kihlstrom & Cantor, 2000). The former had a close relationship with the notion of tacit knowledge as proposed by Sternberg (1996), while the latter was proposed to be related to reasoning skills. Accordingly, following the traditional theories of intelligence, both categories of knowledge are supposed to be measured by ability tests (Kihlstrom & Cantor, 2000).

Finally, it is worth noting the lay person’s view of social intelligence. In one study, Sternberg, Conway, Ketron, and Bernstein (1981) asked subjects to list the behaviours which they considered to be the characteristics of intelligence, academic intelligence, everyday intelligence and unintelligence. Factor analysis of ratings provided by lay people yielded a factor of “social competence” (Sternberg et al., 1981). This factor included behaviours such as accepting others for what they are, being sensitive to others’ needs and desires, and being frank and honest to self and others (Sternberg et al., 1981). Likewise, Schneider, Ackerman, and Kanfer (1996) asked subjects to generate
descriptions of socially competent behaviour. They then used these descriptors to generate a Social Competence Questionnaire, in which subjects were asked to rate the extent to which each item described their typical social behaviour (Schneider et al., 1996).

Overall, while consideration of social intelligence has a long history in psychology, it seems that there is little consensus on the concept of social intelligence (perhaps due in part to the ambiguity of the term “social”). There are also different approaches to assessing social intelligence, ranging from self-report scales to knowledge and ability tests. As will be discussed shortly, some of those differences of approach are evident in the EI literature.

2.2.3 A short history of the concept of EI

The term “emotional intelligence” first appeared in the literature of psychology in the early 1990s. As Mayer, DiPaolo and Salovey (1990: 778) put it, “emotional intelligence is a general construct that describes the ability to appraise and express emotions and use them for motivational and decision making purposes”. In an article published in the same year, Salovey and Mayer (1990) defined EI as the sub-construct of social intelligence which involved a set of emotional abilities (e.g., the ability to monitor self and others’ emotions). They further proposed a model of EI which included three dimensions: appraisal and expression of emotion; regulation of emotion; and utilisation of emotion. At that time, their view reflected a growing understanding of the critical role of emotions in human memory, reasoning and attention (e.g., Dalgleish & Power, 1999; Damasio, 1994). Several years later, Mayer and Salovey (1997) adjusted their original model to a four-branch model (by adding the facet of understanding emotions). The model is now
generally referred to as the ability model of EI.

Meantime, the popularisation of EI was largely propelled by Goleman’s (1995) book, *Emotional Intelligence: Why It Can Matter More Than IQ*, in which he presented a supposedly comprehensive account of EI (e.g., from the perspective of neuroscience) and its relevance to society (e.g., social relationships). Further, he included personal qualities such as optimism, self-control, and moral character in his EI model, and therefore greatly extended the boundary of the EI concept. Goleman’s book quickly became a best seller in US and other countries. The success of Goleman’s book may be attributed partly to a debate underway at the time about another book - *The Bell Curve*, by Herrnstein and Murray (1994) - which critics claimed to have grossly exaggerated the determinant effect of IQ in human affairs. Goleman’s advocacy of EI as an alternative influence struck a positive chord with critics of Herrnstein and Murray’s proposition (see Sternberg, 1996).

Yet, unlike Mayer and Salovey’s (1997) model, Goleman’s model of EI has been criticised by academics because of its departure from the mainstream of intelligence research. For instance, Murphy (2006) regarded it as only a laundry list of positive characteristics. Goleman’s model is also referred to as a “mixed model” in that it combines both intelligence and personality (e.g., Mayer, Roberts, & Barsade, 2008). Nonetheless, researchers such as Bar-On (2006) have continued to include personal traits and beliefs as well as skills in their EI models. The later notion of emotional competency (e.g., Boyatzis, Goleman, & Rhee, 2000) is also informed by Goleman’s (1995) early work.

Trait EI was first mentioned in an article by Petrides and Furnham in 2000. According to
Petrides and Furnham (2000), trait EI concerned behavioural dispositions, which were measured through self-report scales and were to be examined in relation to temperament. More recently, Petrides (2010) refined his notion of trait EI to a set of emotional self-perceptions which were considered to be at the lower level of the personality hierarchy. Accordingly, those self-perceptions might include both personality traits and trait self-efficacy (Petrides, 2009), which were proposed to be sub-constructs of the broad personal traits (e.g., the Big Five). The concept of trait EI thus seems to be born from the continuing debates between the scholars who follow the ability models and those who use much broader definitions of EI (e.g., Cherniss, 2010; Conte, 2005; Daus & Ashkanasy, 2005; Harms & Crede, 2010). That is to say, in order to justify the mixed model of EI in the studies of psychology, it was necessary to re-invent the notion of EI and merge it with the theories of personality (Petrides, 2009).

Overall, then, EI has a relatively short history in scholarly research. As a result, there is little consensus on its definitions and constructs. Similar to its precursor - social intelligence - EI has been construed as a set of abilities and knowledge, a bundle of personal traits and self-concepts, or as including virtually everything except for IQ. Interestingly, despite the substantial support from the academics for the ability model, it is the mixed model that has been arguably more influential in the measurement of EI in business (Cartwright & Pappas, 2008). It is also significant that while Mayer and Salovey’s (1997) model strictly follows the traditional approach of intelligence, scholars such as Goleman (1995), Bar-On (2006) and Petrides (2009) have moved beyond this and have entered the realm of personality.
2.3 Current EI Models and Their Theoretical Bases

2.3.1 EI: the ability model

The four-branch model proposed by Mayer and Salovey (1997) is an important point of departure because it is one of the most widely used approaches to EI amongst researchers. The model views overall EI as integrating abilities from four areas: (a) perception and expression of emotion, (b) emotional facilitation of thinking, (c) understanding and analysing emotions, and (d) regulation of emotions in self and others (Mayer & Salovey, 1997). The first area includes the ability to perceive a person’s own and others’ feelings via various cues such as conversations, sounds, and facial expressions (Mayer & Salovey, 1997). It also includes the ability to express emotions (Mayer & Salovey, 1997). The second area is linked to the ability for integrating emotions (and emotional information) in thoughts to achieve better outcomes (Mayer & Salovey, 1997). The third branch is mainly about “labelling emotions, understanding the transitions and blends of emotions, and interpreting the meanings associated with the emotions” (Mayer & Salovey, 1997: 11). It is argued that emotions are not only related to overt behaviours and appearances, but may also indicate the concerns and motivations of the individual who expresses them (Mayer & Salovey, 1997). The fourth branch - regulation of emotions - includes the ability to monitor emotions in self and others, and manage them wisely through proper strategies (Mayer & Salovey, 1997). Accordingly, people who have high regulation abilities are able to engage with and detach from emotions easily, and facilitate positive feelings in self and others through better management of emotions in relationships (Mayer & Salovey, 1997). Furthermore, the four branches are seen as forming two areas (dimensions) of EI: firstly, experiential EI (including perception and facilitation) and, secondly, strategic EI (involving understanding and regulation) (Mayer et al., 2002). It is not necessary for people with
high experiential EI to understand emotions and express that knowledge in language, since they can perceive and respond to emotions wisely by following their instincts (Mayer et al., 2002). Strategic EI, on the other hand, may need more cognitive effort for the individual to clearly understand the meanings of emotions, and make regulatory strategies accordingly (Mayer et al., 2002).

The four-branch model is currently assessed by the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT, Mayer et al., 2002), which is directly based on its precursor - the Multifactor Emotional Intelligence Scale (MEIS, Mayer, Salovey & Caruso, 1997, as cited in Mayer, Caruso, & Salovey, 1999). MSCEIT is an ability test, in which participants are asked to apply their knowledge of emotions to solve problems; their responses are then scored according to certain objective criteria based on either consensus or expert scoring (Mayer et al., 2002).

Other researchers who also focus on emotional abilities have developed alternative models and tests. For instance, Izard (2001), who regarded EI as a form of knowledge about emotions, including perception, understanding and utilisation, has developed an instrument known as the Emotional Knowledge Test (EKT). Most of the evidence relating to the validity of emotional knowledge comes from developmental research on the perception and labelling of emotion signals in an experimental context (Izard, 2001). A study by Izard et al. (2001) measured the emotional knowledge of children aged between five and nine years old via an emotion recognition task and an emotion-labelling task, both of which used cross-cultural validated facial expressions. Recently, Izard, Stark, Trentacosta, and Schultz (2008) initiated several intervention programs to teach children about the knowledge of emotions, including strategies for utilising and
regulating emotions. Similarly, MacCann (2006) has developed two tests of EI, the Situational Test of Emotion Management (STEM) and Situational Test of Emotional Understanding (STEU), which target the components of emotion understanding and management. Other tests of specific EI abilities may include the Japanese and Caucasian Brief Affect Recognition Test (Matsumoto et al., 2000), the Emotional Accuracy Research Scale (Geher, Warner, & Brown, 2001), and the Diagnostic Analysis of Nonverbal Accuracy (DANVA, Nowicki & Carton, 1993).

Further, Joseph and Newman (2010) have recently conducted a meta-analysis of the ability model (Mayer & Salovey, 1997) and proposed a cascading model of EI. Their model incorporates three emotional abilities: perception, understanding, and management (Joseph & Newman, 2010). They suggest that the ability to perceive emotions enables individuals to receive emotional signals accurately. The initial results are then processed by the ability to understand emotions to produce in-depth meanings and knowledge (e.g., the concerns behind the emotions) (Joseph & Newman, 2010). Such understanding, when being combined with the ability to regulate emotions, further facilitates a person’s management of their emotions and those of others (Joseph & Newman, 2010). Thus, the three abilities collaborate with each other in a sequence, with understanding mediating the link between perception and management (Joseph & Newman, 2010).

The ability model appears to have a close relationship with traditional theories of intelligence. Regarding its contents, some researchers (e.g., Cartwright & Pappas, 2008) suggest that emotional abilities and knowledge can be treated as a form of crystallised intelligence. Crystallised intelligence is well-known for its role in the psychometric approach of intelligence, particularly, the “g theory”. Originally, Spearman (1904, as
cited in Sternberg, 2003a) found that the tasks related to intelligence often correlated positively with each other. Later, he invented the statistical technique of factor analysis to explore the commonalities among the correlations (Sternberg, 2003a). His effort yielded two factors - one as the common factor across all those tasks (or the “g factor”) and the other as being unique to a certain task (Sternberg, 2003a). Based on Spearman’s work, Cattell (1971, as cited in Sternberg, 2003a) further proposed a hierarchical theory of fluid and crystallised intelligence. Fluid ability was proposed to link to a person’s ability of grasping the abstracts; crystallised ability was usually related to the accumulated knowledge as a result of applying the fluid ability (Sternberg, 2003a). Accordingly, emotional knowledge can be treated as a form of crystallised intelligence linked to emotions.

Alternatively, other researchers regard emotional knowledge and abilities as a distinctive form of intelligence. Hedlund and Sternberg (2000), for instance, regarded EI as a form of practical intelligence. Their idea can be traced back to Thurston (1938, as cited in Sternberg, 2003b) who suggested that there were multiple abilities associated with intelligence. The concept of practical intelligence is mainly built upon the theory of successful intelligence, which distinguished three kinds of intelligence: analytical intelligence; creative intelligence; and practical intelligence (Sternberg, 1996). Although the former is closely linked to general intelligence, the latter two seem to be quite distinctive. Practical intelligence has to do with the individual’s abilities to solve real-life problems (Sternberg, 1996). According to Sternberg (2011), tacit knowledge is a core component of practical intelligence, which is more procedural in nature and is typically represented in a form of “if-then”. Consequently, real-life problems may include those which are emotional or social in nature. It is also accepted that emotional and social
knowledge cannot be easily articulated (Hedlund & Sternberg, 2000; Kihlstrom & Cantor, 2000). The notion of EI advanced by Salovey and Mayer (1990) also resembled the concept of personal intelligence (both intra- and inter-personal) in the theory of multiple intelligence proposed by Gardner (2011). Gardener (2011) argued that intra-personal intelligence was related to a person’s awareness and understanding of their own feelings, while interpersonal intelligence was associated with the ability to differentiate between different individuals in regard to their different moods, traits, and needs, and to further utilise the knowledge as the guidance of behaviours. He further suggested that intra-personal and interpersonal intelligence each had its own distinctive developmental process within the individual, and therefore, was different from other forms of intelligence (e.g., logical-mathematical intelligence). Overall, EI is considered to be a distinctive form of intelligence by these researchers.

Perhaps most importantly, the ability model of EI is assessed via tests, which are similar to traditional intelligence tests. According to Anastasi (1988, as cited in Domino & Domino, 2006), a test is an objective and standardised measure of a sample of behaviours. Objectivity indicates that the test is scored based on objective criteria rather than subjective judgement (Domino & Domino, 2006). Accordingly, intelligence tests are different from other psychological tests (e.g., personality inventories) as they typically have correct answers (Domino & Domino, 2006). Tests may also have different scoring procedures. When it comes to solving the complexities in real-life, one way is to use target-scoring, which usually happens when the targets of the stimuli know the right answer (MacCann, 2006). Alternatively, the test developers may employ expert-scoring, in which a group of experts in the field sit together to identify a correct response to a certain question (MacCann, 2006). An extension of expert-scoring is consensus scoring,
which indicates that the answer for each question can be determined by overall responses from the general population (Legree, Psotka, Tremble, & Bourne, 2005). As Legree et al. (2005) argued, the true expert scores could be approximated by consensus scores without errors (e.g., range limitation). As such, the consensus score is especially useful in the assessment of “soft” skills. Interestingly, both expert-scoring and consensus-scoring can be found in the EI tests (e.g., Izard, 2001; MacCann, 2006; Mayer et al., 2002). Hence, the ability model is considered to follow the traditional approach of measuring human intelligence.

In sum, the ability model of EI includes the ability to perceive, utilise, understand and manage emotions. Some of these abilities and their relevant knowledge have also been studied separately by emotion researchers. It is generally agreed that the ability model is closely associated with the traditional approaches of studying intelligence, including the psychometric theories (e.g., Cattell, 1971, as cited in Sternberg, 2003a), the theory of successful intelligence (Sternberg, 1996) and the theory of multiple intelligence (Gardner, 2011). Further, the ability model is assessed via tests with objective criteria based on expert- or consensus-scoring. Such a form of assessment has been widely applied in measuring intelligence, particularly, practical intelligence. This is the approach applied in this thesis.

2.3.2 EI: the mixed model

In characterising the controversy regarding the different conceptualisations and measures, Mayer et al. (2008) distinguish between two approaches of EI: the ability approach and the mixed approach. As suggested by Mayer et al. (2008), the latter equates diverse psychological traits, abilities, styles, and other characteristics to EI, which goes
beyond the ability conceptualisation advanced by Salovey and Mayer (1990). The mixed approach can be divided into three categories based on their different theoretical roots and while this approach is not adopted in this study, in the interests of balance, it is nonetheless important to consider its strengths and possible shortcomings.

**Emotional competency**

The first category includes the models of emotional and social competencies. Goleman’s (1995) model can be seen as one pioneer in the field, although it is actually only a list of qualities, abilities and competencies. Subsequently, Goleman (2001) sought to place the model on a more systematic basis by separating different aspects of EI in two key divisions - personal competencies versus social competencies and awareness versus management. A recent version of the model contains four clusters of competencies: self-awareness (e.g., emotional self-awareness); social awareness (e.g., empathy); self-management (e.g., emotional self-control); and relationship management (e.g., influence) (Boyatzis et al., 2000). The associated assessment instrument, the Emotional Competency Inventory (ECI) was developed by Boyatzis et al. (2000) and based upon early competency studies (e.g., Spencer & Spencer, 1993, as cited in Boyatzis et al., 2000). The inventory could be used for both self- and other-report.

The model by Bar-On (1997, 2006) also belongs to this category. According to Bar-On (2006: 14), “emotional-social intelligence is a cross-section of interrelated emotional and social competencies, skills and facilitators that determine how effectively we understand and express ourselves, understand others and relate with them, and cope with daily demands”. In this sense, he did not differentiate between emotional and social intelligence and noted that “it is more accurate to refer to EI as emotional-social
intelligence” (Bar-On, 2006: 14). Bar-On (1997) developed a conceptual model based primarily on his own research on emotional and social functioning. The model includes five broad categories and sub-categories: (a) Intrapersonal; (b) Interpersonal; (c) Stress Management; (d) Adaptability; and (e) General Mood. The Emotional Quotient Inventory (EQ-i) is designed to assess this model, which is originally a self-report measure of emotionally and socially intelligent behaviours (Bar-On, 1997).

Based on the above descriptions, it is possible to identify two main features of the competency models. First, they do not differentiate between emotional and social intelligence, which also include personal characteristics (e.g., general mood or adaptability) other than abilities or knowledge. This feature is actually quite common in competency studies of personality. As suggested by Boyatzis (2009), the competency approach generally regards a person as a whole and categorises them into “types” rather than as a single dimension such as a particular trait. Originally, McClelland (1956) described a theory of personality as comprised of the relationships among a person’s unconscious motives, self-schema and observed behavioural patterns. At the centre of his theory were underlying motives, which were said to be constructed earlier in life, and not easily modified (McClelland, 1956). In order to identify the “types” of competencies, McClelland (1973) further proposed a method of criterion sampling, which was based on recording the behaviours of the individuals who were supposed to possess the relevant competency. In this sense, the method tried to first identify the empirical relations (or intuitive judgement) and then linked them to relevant theories. Hence, for most competency studies, it is important to find a sample of best or superior performers (e.g., Boyatzis et al., 2000; Boyatzis, 2009). The performers are first recorded regarding their relevant experience, abilities, behaviours and other attributes (Boyatzis, 2009). Factor
analysis and cluster analysis are then applied to reveal the underlying categories of competencies, which can distinguish between good and bad performers (Boyatzis, 2009). Therefore, it is not necessary for such a bottom-up approach to distinguish between the notion of “emotion” and that of “social” when developing the models of EI. As the approach also takes a holistic view of human competency, it may include various personal characteristics beyond abilities.

A second core feature of the competency models is that they are usually assessed via self-reports. Self-report inventories seem to be the most popular assessments of personality. As described by Ben-Porath (2003), when responding to the inventories, participants are asked to apply subjective judgement to whether certain statements of characteristics or behaviours best describe themselves. The rating can be dichotomous in style, with “true” or “false” choices, or in a Likert style, with several anchors (e.g., “totally agree” to “total disagree”) (Ben-Porath, 2003). In other words, the measurement is not about observing how well a person is able to perform certain tasks (based on objective criteria) but about the habitual ways he or she does things (according to their own perception). In this regard, a respondent is asked to self-identify whether they behave in a certain way or not, or whether they possess certain abilities or have the relevant skills, motivations and values. A typical item in the competency scales, for instance, would be: “I show awareness of my own emotions”. Consequently, given the self-report nature, measures of emotional competencies usually have high correlations with traditional self-report scales of personality (e.g., Van Rooy, Viswesvaran, & Pluta, 2005). Yet, due to their multi-dimensional nature, they are nevertheless capable of explaining more variance than a single measure of traits (e.g., a scale of five-factor model; Joseph & Newman, 2010).
Emotional traits

The second category of mixed models of EI includes the trait models (e.g., Petrides, 2009). As noted above, trait models regard EI as a set of emotional traits. Petrides, Furnham, and Mavroveli (2007: 153) further argued that “the theory demonstrates how the various EI models (especially those using self-reports), where they are meaningful, mainly refer to established personality traits”. Consequently, the model by Petrides (2009) was derived from a content analysis of early mixed models of EI (e.g., Bar-On, 1997; Schutte et al., 1998). The rationale was to include core elements but exclude elements appearing in only one specific conceptualisation (Petrides, 2009). The sampling domain of trait EI included 15 facets organised under four factors (well-being, self-control, sociability, and emotionality) and two global facets (self-motivation and adaptability) (Petrides, 2009). Emotionality relates to a person’s emotional traits and skills including the facets of trait empathy, emotion perception, emotion expression and relationships; sociability is mainly focused on the social traits and skills including the facets of emotion management, assertiveness and social awareness; well-being reflects a person’s general sense of positive experience including the facets of self-esteem, trait optimism and trait happiness; finally, self-control is about a person’s capability of controlling over their urges, which includes the facets of emotion regulation, impulsiveness and stress management (Petrides, 2009). The Trait Emotional Intelligence Questionnaire (TEI-Que, Petrides, 2009), a self-report inventory, is designed to measure those constructs.

Likewise, Salovey, Mayer, Goldman, Turvey, and Palfai (1995) proposed a framework to capture the individual’s trait meta-mood experience about how they typically perceive, understand and regulate emotions. According to Salovey et al. (1995), meta-mood
experience reflected the ongoing process through which individuals continually monitored, evaluated, and regulated their moods. They further developed the Trait Meta-Mood Scale (TMMS) to assess individual differences in people’s tendency to “attend to their moods and emotions, discriminate clearly among them, and regulate them” (Salovey et al., 1995: 128). Accordingly, three sub-scales were created including attention (e.g., “I often think about my feelings”), clarity (e.g., “I usually know my feelings about a matter”), and repair (e.g., “No matter how badly I feel, I try to think about pleasant things”) (Salovey et al., 1995). Although Salovey et al. (1995) claimed that their measure was not the same as the EI test, they tended to believe that the three dimensions of an individual’s trait meta-mood experiences were important to the self-regulation of the emotional abilities (e.g., perception, understanding and regulation). It is noteworthy that this scale has been used as the measure of EI in several empirical studies (Kampfe & Mitte, 2010; Yanchus, Eby, Lance, & Drollinger, 2010).

In essence, Petrides and other trait EI researchers reconceptualised EI and brought it fully into the realm of personality. The trait approach is one of the most influential approaches in studying personality. Originally, Allport (1931, as cited in Deary, 2009) regarded a trait as a psychological component of personality different from other individual characteristics (e.g., values). According to Allport (1931, as cited in Deary, 2009), traits might reflect a person’s habitual ways of behaving, but still were not determinative and could be inconsistent due to environmental influences. Likewise, John, Angleitner, and Ostendorf (1988) suggested that traits represented the categories of human behaviours, which could be organised in hierarchical structures with broad traits at the top and narrower traits at the bottom. Further, according to John et al. (1988), the trait approach was generally based on lexical analysis, which regarded natural language as a source of
personality attributes. For instance, based on early lexical studies, Cattell (1945, as cited in John et al., 1988) was able to use factor analysis (as a statistical tool) to extract twelve primary personal factors, which later formed his famous 16 Personality Factor Questionnaire (16 PF). Accordingly, it is not surprising that both traits (e.g., trait happiness) and the technique of extracting traits via factor analysis can be found in the theories of trait EI. As the trait models are also assessed via self-reports (e.g., TEI-Que; Petrides, 2009), it is obvious that they are actually models of emotional traits.

*Emotional self-efficacy*

A further mixed models approach is the self-report approach to applying the ability model (Joseph & Newman, 2010). In this regard, some researchers seek to capture emotional abilities via self-report scales. Schutte et al. (1998), for instance, applied a self-rating inventory (Schutte Self Report Emotional Intelligence Test, SSREIT) to assess appraisal, expression, regulation and utilisation of emotions. Likewise, Wong and Law (2002) used the Wong and Law Emotional Intelligence Scale (WLEIS) to capture four dimensions of EI: self-emotion appraisal; others’ emotion appraisal; use of emotion; and regulation of emotion. To address the potential biases in self-reports (e.g., the effect of social desirability), Wong, Law, and Wong (2004) further developed the Wong’s Emotional Intelligence Scale (WEIS) using forced choice items (e.g., paired abilities or responses). This technique may help to minimise the influences of factors such as social desirability and faking on the accuracy of the individual’s self-report abilities (Wong et al., 2004).

Clearly, while self-report intelligence is not congruent with actual intelligence (Petrides & Furnham, 2000), self-reports might still be important components of EI if they can be
treated as equivalent to an individual’s emotional self-efficacy. The concept of efficacy has its roots in the social-cognitive approach to personality (which is different from the trait approach). The approach focuses on the cognitive processes of the individual that form the basis of personality and the facilitator of behaviours (Funder, 2001). As an illustration, according to Bandura’s (2001) theory, people control their behaviours and thoughts through the mechanisms of personal agency, which are largely cognitive in nature. In Bandura’s (2001) view, this agency is the result of the interaction between the person and the environment. These interactions eventually form the core construct of self-efficacy, which was defined by Bandura (2001) as a person’s beliefs about their capabilities in doing things. As Bandura (2001) further illustrated, self-efficacy might influence how a person is likely to engage in certain tasks. If a person has high self-efficacy, they are more likely to accept tasks and invest more effort in dealing with difficulties (Bandura, 2001). Similar to Bandura, Cantor (1990) proposed a theory of personality that involved the concept of schemas. Schemas refer to the “organized structures of knowledge about particular domains of life and of the self”, which may serve to “channel” a person’s anticipation and interpretation of life events (Cantor, 1990: 736). Consequently, self-report emotional abilities can be mapped into the social-cognitive theories of personality, since they are concerned with the individual’s general evaluation on their own emotional abilities. Accordingly, in a recent meta-analysis by Joseph and Newman (2010), self-report emotional abilities were found to be different constructs from emotional competencies or traits.

2.3.3 A Summary of current models

The models and measures of EI described above are summarised in Table 2.1.

Considering the different approaches to studying EI, the ability model (Mayer & Salovey,
1997) can be said to reflect its roots in traditional theories of intelligence. Cartwright and Pappas (2008), for instance, observed that the ability model advanced by Mayer and Salovey (1997) was associated with research on crystallised intelligence as a reflection of the individual’s knowledge and experiences of emotions. In line with the theory of Multiple Intelligence (Gardner, 2011), it has also been suggested that EI is a distinctive form of intelligence with its own neurological bases and developmental stages (Mayer & Salovey, 1997). Likewise, the study of emotional knowledge accords with the theory of successful intelligence (Hedlund & Sternberg, 2000; Sternberg, 1996) and also with social intelligence theory (e.g., Kihlstrom & Cantor, 2000), both of which emphasise the role of procedure and declarative knowledge in dealing with real-life tasks. Most importantly, as the ability model is assessed by means of ability testing using objective criteria, it is considered to follow the traditional approach of assessing intelligence (Domino & Domino, 2006). Its scoring (e.g., expert and consensus scoring) is also similar to the measures of practical intelligence (e.g., Sternberg, 1996).

In contrast, the trait and competency models are closely associated with the traditional approaches to personality. The research on trait EI (e.g., Petrides, 2009) has its roots in the trait approach to personality (e.g., Goldberg, 1990), while the studies of emotional and social competencies (Bar-On, 2006; Goleman, 2001) are based on the competency approaches, which focus on the “types” of individuals by integrating multiple constructs such as motives, traits and abilities (e.g., McClelland, 1973; Schneider et al., 1996). Accordingly, their measures also follow the cognate approaches to assessing personality. The trait approach is based on the factor analysis of the previous statements (Petrides, 2009), while the competency model is built upon the observations of the “emotionally intelligent” group and further cluster analysis (Boyatzis, 2009). Moreover, measures of
trait EI or emotional competency are usually found to be closely related to traditional personality constructs such as the Big-Five model (Joseph & Newman, 2010; Van Rooy et al., 2005). As some of the models include a substantial number of personal traits (Petrides, 2009), it is not surprising that they have close relationships with the traditional measures of personality.

Finally, while self-report measures of emotional abilities seem to be different from the trait or competency measures (Joseph & Newman, 2010), it is also argued that self-report intelligence is different from the actual intellectual capabilities (e.g., Furnham, 2001; Gignac, Stough, & Loukomitis, 2004; Petrides, 2009). Self-report EI might be regarded as emotional self-efficacy rather than the actual abilities or personal traits (Petrides, 2009). The notion of self-efficacy has its root in social-cognitive theories of personality such as that by Bandura (2001). Accordingly, emotional self-efficacy can be regarded as a person’s self-cognition triggering personal effort in dealing with emotions.

It can thus be concluded that the current approaches to studying EI reflect their roots in the various theories of individual differences. Some of the approaches follow the traditional theories of intelligence (e.g., Sternberg, 1996) and conceptualise EI as human skills and knowledge of perceiving, understanding, and managing emotions (e.g., Mayer & Salovey, 1997), and accordingly, measure EI via the ability tests with objective criteria. Others widen the boundary of EI by including personality constructs such as traits, competencies and self-efficacy (e.g., Goleman, 2001; Petrides, 2009; Wong & Law, 2002). These models are also assessed via self-report scales, which are common in assessing personality.
### Table 2.1 Review of current models and measures of emotional intelligence

<table>
<thead>
<tr>
<th>Models</th>
<th>Approaches</th>
<th>Researchers</th>
<th>Constructs</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability model</td>
<td>Intelligence</td>
<td>Mayer &amp; Salovey (1997)</td>
<td>Perception, understanding, facilitation, &amp; management</td>
<td>MSCEIT (Mayer et al., 2002)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Izard et al. (2001)</td>
<td>Emotion recognition, emotion labelling &amp; utilisation</td>
<td>EKT (Izard et al., 2001)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Salovey et al. (1995)</td>
<td>Attention, clarity, &amp; repair</td>
<td>TMMS (Salovey et al., 1995)</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td></td>
<td>Schutte et al. (1998)</td>
<td>Appraisal and expression, regulation of emotion, &amp; utilisation of emotion</td>
<td>SSREIT (Schutte et al., 1998)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wong et al. (2004)</td>
<td>Self emotional appraisal, other’s emotional appraisal, regulation of emotion, use of emotion</td>
<td>WEIS (Wong et al., 2004)</td>
</tr>
</tbody>
</table>
2.3.4 The EI model in the current study

Based on the above discussion, this thesis adopts the EI concept by Mayer and Salovey (1997), and defines EI as a set of human abilities in dealing with emotions. The reasons underlying this choice are as follows.

Firstly, the ability model is closely related to the traditional theories of intelligence regarding both its constructs and development of measures (e.g., Cartwright & Pappas, 2008; Daus & Ashkanasy, 2005; Gardner, 2011; Hedlund & Sternberg, 2000; Joseph & Newman, 2010; Kihlstrom & Cantor, 2000). In contrast, mixed approaches, including the competency and trait models and the self-report abilities, are related to personality constructs rather than intelligence (Daus & Ashkanasy, 2005; Joseph & Newman, 2010; Petrides, 2009).

Secondly, the ability model has well established convergent and divergent validity with traditional measures of intelligence and personality (e.g., Joseph & Newman, 2010; Van Rooy et al., 2005), while the mixed models, which may have many trait constructs (e.g., trait optimism or anxiety), usually show moderate to high correlations with the personality measures (Joseph & Newman, 2010; Van Rooy et al., 2005). Since this study explores the moderating effects of PA and Individualism on the relation between EI and work well-being, it is especially important to ensure that they are distinctive rather than similar constructs.

Regarding the particular constructs, the study focusses on the ability to understand and manage emotions as strategic EI (e.g., Mayer & Salovey, 1997). As will be discussed in the next chapter, this ability is widely considered to be a key factor in predicting an
employee’s well-being at work (e.g., Brackett et al., 2010). This is because strategic EI is said to influence how one can rationally interpret and analyse emotional information and further use it for effective emotional regulation and coping in the workplace.

2.4 Conclusion

This chapter has reviewed EI and related concepts and theories. Arising from these considerations, three key conclusions are warranted.

Firstly, despite the lack of consensus on the nature and significance of emotional states, some points of commonality are evident. Generally speaking, emotions can be regarded as a person’s subjective experiences resulting from processes such as facial expression, cognitive appraisal and behavioural tendency. Basic emotions such as happiness or sadness also exist and are universal across cultures. As such, it appears to be valid to seek to understand basic emotional states as universal dispositions.

Secondly, EI is usually considered to have its root in social intelligence. The latter is considered to be a form of intelligence dealing with social phenomena. Some researchers regard it as merely the reasoning skills applied to social life, whereas others advocate its independence from traditional intelligence. Social intelligence has been studied via different approaches. Some of them followed the intelligence approach and used ability tests, while others assessed social intelligence via self-reports. Interestingly, the various approaches have also been found in the history of studying EI.

Thirdly, there are various models and measures of EI currently in use. Based on a critical review of the literature, it is evident that some of the models (e.g., Izard et al., 2001;
Mayer & Salovey, 1997) follow more traditional approaches of intelligence, while others (e.g., Bar-On, 1997; Petrides, 2009) have moved beyond and tapped different domains of personality. Although there is ongoing debate regarding the validity of the ability models and the mixed models, this study chooses to follow the ability model. This is because the model is based on theories of intelligence, and is assessed by means of ability testing, which is more objective in nature. The ability model is also distinctive from existing constructs such as personal traits and general intelligence. Further, the ability model of understanding and managing emotions has been adopted in the current study because strategic EI is considered by many to be the key predictor of work well-being.
Chapter 3 Emotional Intelligence and Work Well-Being

3.1 Introduction

This chapter reviews the literature concerning the role of emotions and EI in the workplace, and considers more fully their relationships with work well-being. The discussion is divided into three sections. The first section deals with the concept of work well-being and how it can be operationalised through three dimensions: job satisfaction; stress; and burnout. The conceptual foundations of the three indictors are then clarified. The importance of work well-being is further addressed with regard to its influence on work behaviours and motivations. The second section reviews studies that explore the antecedents of job satisfaction, stress and burnout as the three indicators of work well-being. In line with traditional studies, the following three broad categories of antecedents are examined: (1) environmental factors (e.g., job characteristics); (2) personal factors (e.g., personal traits and coping); and (3) the person-environment fit. The third section addresses the possible relationship between EI and work well-being. The section begins by providing necessary background knowledge, which includes the changing role of emotions in organisations and organisational studies, the notion of emotional labour and the more recently developed Affective Events Theory (AET, Weiss & Cropanzano, 1996). The section goes on to review the theories and empirical evidence concerning the relation between EI and well-being, with a particular focus on the mixed results of the ability model. The possible reasons for the mixed findings are further clarified. Existing studies that examine the moderators of the EI effect are then briefly summarised.
3.2 Work Well-being

3.2.1 Conceptualisations and measures of work well-being

There are various approaches to studying well-being. Some focus on the objective criteria linked to well-being. For instance, at the individual level, this may include a person’s physical health or income; at the national level, it may include gross domestic product per person, life expectancy at birth, or divorce rates (Diener, Lucas, & Scollon, 2006). Other studies regard well-being as related to a person’s subjective feelings (e.g., the hedonic approach; see Ryan & Deci, 2001, for a review). In regard to the affective nature of well-being, Diener, Suh, Lucas, and Smith (1999) have suggested that this may include both positive affects (e.g., joy and contentment) and negative affects (e.g., stress and depression). Alternatively, other researchers have proposed that a person’s well-being is determined by meaning and self-realisation (e.g., Ryff, 1989). This approach usually refers to the eudaimonic approach (see Ryan & Deci, 2001, for a review).

In line with the research on subjective well-being, well-being at the workplace can also be considered to be multi-dimensional in nature, covering various experiences of work (Cropanzano & Wright, 2001). Warr (1987, 1994) proposed a model that focussed particularly on well-being at work and distinguished between four primary dimensions: affective well-being; aspiration; autonomy; and competence. Affective well-being captures the individual’s different feelings at work (e.g., depression versus pleasure); aspiration is mainly to do with a person’s work engagement; autonomy is related to a person’s control of their job; finally, competency is related to the notion of self-efficacy (e.g., Bandura, 2001) and personal accomplishment in the workplace (Warr, 1990). Based on Warr’s (1987, 1994) model, De Jonge and Schaufeli (1998) have further suggested that psychological research mainly focusses on affective well-being as an indicator of...
job-related mental health. Affective well-being accords with the affective approach to well-being (e.g., Diener et al., 1999) which in turn is related to several major classes of affective experiences (De Jonge & Schaufeli, 1998). In occupational settings, the first class (pressure or contented versus discontented) has mostly been operationalised through measures of job satisfaction; the second (anxious versus comfortable) is usually captured via measures of job-related anxiety, tension and strain; and the third class (depressed versus actively pleased) is assessed by measures such as occupational burnout, job-related depression, fatigue and engagement (De Jonge & Schaufeli, 1998). Accordingly, the current study focusses on the three classes of work well-being: job satisfaction; job stress; and job burnout.

Traditionally, job satisfaction is defined as a workplace affect or emotion. For instance, Cranny, Smith, and Stone (1992, as cited in Hulin & Judge, 2003) have suggested that there is a clear consensus regarding the definition of job satisfaction as an affective reaction to a person’s job. Similarly, Locke (1976: 1300, as cited in Hulin & Judge, 2003) defined job satisfaction as a “pleasurable or positive emotional state resulting from an appraisal of one’s job or job experiences”. Yet there is a growing understanding that affective attitude is not simply an affect; rather, it should been seen as being based on a person’s evaluation of the attitudinal object (Weiss, 2002). Thus, job satisfaction can be regarded as a job attitude associated with the individual’s feelings of happiness about their job, which is also based on their cognitive evaluation of the work.

Regarding stress, according to Sonnentag and Frese (2003), it is appropriate to differentiate between three broad concepts of stress: (1) the stimulus concept; (2) the response concept; and (3) the transactional concept. The stimulus concept equates with
the stressors which are usually associated with conditions and situations producing pressure and stress (Sonntag & Frese, 2003). The response concept, or job strain, is mainly about the individual’s reactions, particularly physiological reactions such as rising blood pressure or quickening heart rate (Sonntag & Frese, 2003). Finally, the transactional concept, according to Folkman, Lazarus, Dunkel-Schetter, DeLongis, and Gruen (1986), has to do with the individual’s appraisal of the difference between their coping resources and the level of work demands. If work demand exceeds a person’s capacity to cope, the negative appraisal usually creates a feeling of anxiety within the person and motivates them to seek more resources or support (De Jonge & Schaufeli, 1998; Folkman et al., 1986; Hobfoll, 1989). The transactional concept thus aligns most closely with the general concept of work well-being (as a person’s affective attitudes).

Accordingly, in the present study, job stress is defined as a job attitude relating to a person’s feelings of anxiety in their work (De Jonge & Schaufeli, 1998), which might be due to either temporary or long-term intensive work demands (Folkman et al., 1986; Parker & DeCotiis, 1983).

Finally, the concept of burnout, which had its roots in caring and service occupations, has become a metaphor for a number of important psychosocial problems among persons who do “people work” (Maslach et al., 2001). In the 1980s, the study of burnout shifted to systematic empirical research (Maslach et al., 2001). A particular milestone was the Maslach Burnout Inventory (MBI) developed by Maslach and Jackson (1981), which specified both the concept and the constructs of burnout. As originally defined by Maslach (1982: 3, as cited in Maslach et al., 2001), burnout was “a syndrome of emotional exhaustion, depersonalisation of others, and a feeling of reduced personal accomplishment”. Alternatively, some researchers (e.g. Cordes, Dougherty, & Blum,
1997) treat the three components as a sequential process with emotional exhaustion as the antecedent of the later depressive reactions and lower self-evaluation. Furthermore, Kristensen et al. (2005) suggested that the feelings of fatigue and exhaustion might be the key feature of burnout, which could be applied to a person’s evaluation of their job. Therefore, along with the model by De Jonge and Schaufeli (1998), in the current study, job burnout is defined as a job attitude associated with an employee’s feelings of exhaustion and depression at work.

Table 3.1 summarises the current approaches to studying general well-being and work well-being. Overall, there are different approaches to conceptualising well-being and work well-being. While some focus on objective criteria, others define well-being as happiness and lack of pain. Well-being may also be seen as being related to the individual’s cognitive evaluation, including the appraisal of meanings and personal strengths. Accordingly, a person’s work well-being may be multi-faceted, and informed by their various experiences in the workplace and their related cognitive evaluations. Following De Jonge and Schaufeli (1998), the current study focusses on affective well-being at work. Thus, an employee’s work well-being can be said to be composed of three indicators - i.e. job satisfaction, stress and burnout - which are linked, respectively, with pleasant, anxious and depressed feelings about their work and the organisation.
Table 3.1 An overview of the conceptualisations of general well-being and work well-being

<table>
<thead>
<tr>
<th>Approaches to studying general well-being</th>
<th>Warr’s (1994) model of work well-being</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>Individual level: physical health, income, etc.</td>
</tr>
<tr>
<td></td>
<td>National level: gross domestic product per person, life expectancy at birth, divorce rates, etc.</td>
</tr>
<tr>
<td></td>
<td>(e.g., Diener et al., 2006)</td>
</tr>
<tr>
<td>Subjective</td>
<td>Hedonic approach: Associated with positive emotions (e.g., joy and contentment) and the absence of negative emotions (e.g., stress and depression) (e.g., Diener et al., 1999)</td>
</tr>
<tr>
<td>Eudaimonic approach</td>
<td>Close relationships, personal growth, self-acceptance, self-realisation, mastery, etc. (e.g., Ryff, 1989)</td>
</tr>
</tbody>
</table>

Affective well-being relating to a person’s different feelings at work: (1) happiness (job satisfaction); (2) anxiety (job stress); (3) exhaustion and depression (job burnout) (e.g., De Jonge & Schaufeli, 1998).

Aspiration, autonomy and competence

Note. The conceptualisation in bold is the focus of the current research.
3.2.2 Why is work well-being important?

Employee well-being has continued to be a topic of major interest in organisational studies, mainly due to its wide application in occupational settings. First of all, it seems that there is a significant and strong relationship between work well-being and task performance. Task performance, as defined by Motowidlo (2003), concerns the effectiveness with which workers perform activities that contribute to the organisation’s technical core (and to the direct benefits of the organisation). This includes processes that directly transfer raw materials into products and services which sustain and maintain such processes (Motowidlo, 2003). Job satisfaction is likely to have a positive influence on the individual’s competency and work motivation, which may in turn facilitate task performance (Motowidlo, 2003). In contrast, negative attitudes (e.g., perceived stress and burnout) may have a negative linear effect on performance, as stress leads to cognitive reactions such as narrowed attention and reduced effort (e.g., Gable & Harmon-Jones, 2010). As reviewed by Judge et al. (2001), both quantitative and qualitative evidence over the past decades supports the statement that job satisfaction and performance are closely linked to each other. A recent meta-analysis by Riketta (2008) examined 16 longitudinal studies that repeatedly measured performance and job attitudes such as job satisfaction or organisational commitment. The results showed that job attitudes predicted performance over a six-month to one-year time lag (Riketta, 2008).

Further, work well-being may influence extra-role or contextual performance. As defined by Motowidlo (2003), contextual performance refers to individual effort that, while not directly related to core task functions is nonetheless important because it stands to influence the social and psychological contexts in organisations. A positive example of such performance is organisational citizenship behaviour (e.g., Organ, 1988, as cited in
Motowidlo, 2003), while a negative instance would be counterproductive behaviours such as antisocial behaviour, incivility and deviant behaviour (Motowidlo, 2003). Hence, it is plausible that contextual performance forms a critical part of individual performance in the workplace. According to Weiss and Cropanzano (1996), the affective component or the emotional experience linked to work well-being should be a strong predictor of affective behaviours such as organisational citizenship behaviour. Weiss (2002) suggested that positive affect and mood may lead to citizenship behaviour, including helping others; being in a positive mood may also facilitate creativity in the workplace. On the other hand, negative attitudes and feelings (e.g., job stress) towards the workplace may lead to increased interpersonal conflict, lower work effort and heightened intention to quit (Spector et al., 1988).

Finally, the attitude-performance links seem to be much stronger in certain working contexts than others. Judge et al. (2001) identified pay-performance contingency and job complexity as two important moderators. The former is strengthened by the performance-pay-satisfaction circle, while the latter is related to the individual’s intrinsic motivation (Judge et al., 2001). It is also possible that in certain jobs with a high emotional workload, including expressing and managing emotions, a negative work attitude may further result in a negative feeling at work which in turn could be detrimental to performance. As an illustration, Motowidlo, Packard, and Manning (1986) tested a conceptual model between two groups of nurses. Their findings uncovered significant causal paths from subjective stress towards depression which in turn affected both in-role and extra-role performance, such as the quality of patient care, interpersonal effectiveness, cognitive effectiveness and warmth towards other nurses. At the organisational level, it is clear that job attitudes play a central role in the modern work
systems (Cordery & Parker, 2008). It is important to ensure that employees are not overwhelmed while empowered, and that they have a positive image of the work before they get involved in the decision making progress (Macky & Boxall, 2008).

In summary, employee well-being is an important consideration in the workplace. Empirical studies have shown that well-being indicators such as job satisfaction and stress are closely related to both task and contextual performance at work. Such relationships are even stronger in certain jobs with a high level of job complexity or emotional workload. Further, with the evolution of contemporary work systems and the service economy, employees are being both empowered and challenged to become more involved in their jobs and work relationships. As such, there is an increasing demand for managing employees’ well-being in current organisational settings.

3.3 Antecedents of Job Satisfaction, Stress and Burnout

3.3.1 Job satisfaction

Generally speaking, there are three approaches towards modelling job satisfaction and the factors influencing it. The first focuses on factors external to the job-holder such as the characteristics of the job and the nature of the work environment. One influential model relating to job characteristics is that formulated by Hackman and Oldham (1976, as cited in Hulin & Judge, 2003). Their basic assumption was that improving certain job characteristics can make employees happier in their jobs (Hulin & Judge, 2003). These job characteristics included task identity, task significance, skills variety, autonomy and feedback (Hackman & Oldham, 1976, as cited in Hulin & Judge, 2003). For instance, if an employee has high control over their job, the employee is more likely to be satisfied with the job compared to those who has less control (Hulin & Judge, 2003). Further,
Gaertner (1999) suggested that environmental factors such as distributive justice, promotional chances and support from supervisor may also predict job satisfaction among the employees.

The second approach was labelled by Weiss and Brief (2001) as the fit model. The essence of this model is that individuals come to the work situation with various goals, needs, values and desires (Weiss & Brief, 2001). Accordingly, the work situation can be characterised in terms of whether it is or is not proper to meet these personal expectations (Weiss & Brief, 2001). As a result, the degree of fit between a person and their work may create satisfaction or dissatisfaction (Weiss & Brief, 2001). According to Weiss and Brief (2001), the fit model has had a longstanding influence on research on job satisfaction. The theory proposed by Locke (1976, as cited in Hulin & Judge, 2003) serves as a good illustration here. According to his value-percept model, job satisfaction/dissatisfaction is the result of the differences between what is valued or needed by the person and what is delivered by the job (Locke, 1976, as cited in Hulin & Judge, 2003). As demonstrated by Hulin and Judge (2003), if there is a major gap between the rewards received and a person’s reward expectations, the person may become even more dissatisfied about the job compared to someone who has lower expectations. As a result, within this framework, it is proposed that overall satisfaction should be estimated based on how closely the nature of the job accords with the job-holder’s objectives and preferences (Hulin & Judge, 2003).

Although the fit model has received some empirical support, there is little research directly examining the actual causal relationships between person-job fit and employee satisfaction levels (Weiss & Brief, 2001). It is obvious that people do not always examine
their environmental outcomes when making attitudinal judgements (Weiss & Brief, 2001). In contrast, people often construct their attitudinal response in retrospect, and these constructions are influenced by many other factors beyond the objective environment (Weiss & Brief, 2001).

Being aware of the limitations in the fit model, some scholars have turned their attention to the individual’s dispositional influences on satisfaction. The third approach, the dispositional approach, had its origins in work by Hoppock (1935, as cited in Hulin & Judge, 2003), who found that questions about emotional adjustment can effectively differentiate satisfied employees from those who are dissatisfied. While few early studies explored the role of individual differences such as personal traits in predicting job satisfaction, interest in the influence of traits on satisfaction levels grew strongly in the 1980s (Hulin & Judge, 2003). For instance, based on a national survey undertaken in the US, Staw and Ross (1985) found that measures of job satisfaction were relatively stable over time. They also found that the measurement remained stable even when individuals changed their jobs in a five-year interval. In a further study, Staw, Bell, and Clausen (1986) explored a longitudinal dataset on a range of children’s affective dispositions and correlated these data with measures of subsequent levels of job satisfaction. Interestingly, they found that affective dispositions assessed in early childhood were moderately related to job satisfaction assessed in late adulthood.

It is also likely that the heritability of job satisfaction could be indirect, operating through heritability in personality or other dispositions. For instance, some studies have related trait affectivity such as PA and NA to job satisfaction (e.g., Agho, Mueller, & Price, 1993; Brief et al., 1995). Others have found substantial correlations between the Big Five
personality factors and satisfaction. According to a recent meta-analysis by Bruk-Lee, Khoury, Nixon, Goh, and Spector (2009), Neuroticism has the strongest relation with job satisfaction, followed by Conscientiousness, Agreeableness and Extraversion. In addition, Judge, Locke, Durham, and Kluger (1998) focussed particularly on the effect of core self-evaluations (e.g., self-esteem), and found that core self-evaluations of the self, reality and others had both direct and indirect (through affective dispositions) influences on a person’s job and life satisfaction.

### 3.3.2 Job stress

As with the models of job satisfaction, a number of studies exploring the antecedents of job stress have focussed on external stressors. From a general perspective, these stressors may include physical stressors, task-related stressors and social stressors (Sonnentag & Frese, 2003). For instance, Katz and Kahn (1978, as cited in Sonnentag & Frese, 2003) developed a taxonomy of role stressors that included role overload, role conflict and role ambiguity. Role overload occurs when the work is too voluminous or too complex for the individual; role conflict arises from conflicting role expectations generated within the environment (e.g., from supervisors); finally, role ambiguity refers to the jobs without clear expectations (Katz & Kahn, 1978, as cited in Sonnentag & Frese, 2003). Likewise, social stressors may include interpersonal conflicts at the workplace, (sexual) harassment, and mobbing or bullying (Sonnentag & Frese, 2003), which are usually due to problematic relationships with others at work. For example, dealing with difficult customers may lead to high work stress (Sonnentag & Frese, 2003). Negative feedback from others can also induce stress (Heinisch & Jex, 1997).

Regarding the social factors that may induce job stress, it is also appropriate to consider
the conservation of resources theory advanced by Hobfoll (1989). According to this
theory, stress is typically a result of either loss or lack of certain resources. These
resources may include personal resources (e.g., self-esteem or capabilities), social
resources (e.g., social support or social status), and environmental resources (e.g., job
security or house) (Hobfoll, 1989). Hobfoll, Freedy, Lane, and Geller (1990) argued that
social support as a kind of social resource can be used to protect and regain other
resources, and therefore, might be critical in predicting a person’s perceived stress. Social
support is defined as the social interactions or relationships that can provide individuals
with instrumental and/or emotional support (Hobfoll et al., 1990). As such, social support
could be used to both preserve certain resources (for an instrumental purpose) and protect
a person’s own identity (for an emotional purpose) (Hobfoll et al., 1990). Accordingly,
when an employee perceives high pressure in the workplace, they may either use a social
resource to regain or to protect resources, or use it to appease their own feelings. A meta-
analysis by Viswesvaran, Sanchez, and Fisher (1999) has shown that social support is
negatively associated with various workplace stressors.

Rather than focussing on these environmental factors, some approaches emphasise the
influence of personal characteristics. Self-esteem and self-efficacy, again, have been
prominent among those characteristics. There is consistent empirical evidence for a
Other researchers have paid attention to locus of control, which was defined by Rotter
(1966, as cited in Sonnentag & Frese, 2003) as the person’s sense of control over their
life and experiences. People with an internal locus of control may see their life as
controlled by themselves, whereas those with an external locus of control may regard
other people or forces as the major determinants of what happens to them (Sonnentag &
Frese, 2003). Thus it is assumed that employees with high external locus of control are more likely to be stressed at work due to the complexity of external sources (Sonnentag & Frese, 2003). Furthermore, researchers have linked personal traits such as PA and NA to job related stress (e.g., Spector et al., 2002; Watson & Pennebaker, 1989). It has been found that high PA is associated with low stress among employees (e.g., Fogarty et al., 1999), while high NA is associated with high level of anxiety (e.g., Spector et al., 2002).

Finally, according to transactional theory (Lazarus & Folkman, 1984), a favourable coping style can be a core resource for attenuating an individual’s stress in the workplace. Lazarus and Folkman (1984: 141) defined coping as “constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person”. They further differentiate between two types of coping: problem-focussed approach and emotion-focussed approach. Problem-focussed coping includes problem-solving behaviours that aim directly to change the stressor, other aspects of the environment, or one’s own behaviour, whereas emotion-focussed coping refers to attempts to manage cognitions or emotions instead of dealing with the stressors directly (Lazarus & Folkman, 1984). Rudolph, Dennig, and Weisz (1995) and Weisz, McCabe, and Dennig (1994) offered an alternative taxonomy distinguishing between primary and secondary control. Primary control refers to coping attempts that are directed towards influencing objective events or conditions (such as problem-solving) (Rudolph et al., 1995; Weisz et al., 1994). Secondary control coping involves effort to fit with the environment (e.g., acceptance or cognitive restructuring) (Rudolph et al., 1995; Weisz et al., 1994). The distinction between engagement and disengagement coping (Ebata & Moos, 1991) has also received considerable attention. Engagement coping refers to the responses directing at either the
stressors or a person’s own emotions or thoughts; disengagement coping, on the other hand, refers to avoiding responses which are oriented away from the stressors or the person’s emotions or thoughts (Ebata & Moos, 1991).

Problem-focussed coping has been found to be positively related to mental health and well-being, whereas emotion-focussed coping has been found to be associated with poorer well-being (e.g., Sears, Urizar, & Evans, 2000). Likewise, according to Compas, Connor-Smith, Saltzman, Thomsen, and Wadsworth (2001), both engagement and problem-focussed coping are associated with better psychological adjustment, while disengagement coping and emotion-focussed coping are associated with poorer psychological adjustment. Nevertheless, it seems that coping behaviour should match the situation in order to be effective. For instance, a study by De Rijk, Le Blanc, Schaufeli, & De Jonge (1998) in a hospital setting, found that problem-focussed coping was only superior when nurses had control over their work situations (De Rijk et al., 1998). In low-control situations, attempts at problem-focussed coping were negatively associated with the individual’s well-being (De Rijk et al., 1998). Accordingly, before coping with job stressors, it is also necessary for the individual to have some knowledge of the nature of those stressors including the underlying causes and meanings.

3.3.3 Job burnout

According to a review by Maslach, Schaufeli, and Leiter (2001), there are three general sources of burnout in the work environment: job; occupation; and organisation. Studies of the first source (job characteristics) are largely based on Hobfoll’s (1989) conservation of resources theory. As noted above, this theory assumes that burnout occurs when valued resources are lost or inadequate to meet the job demands (Hobfoll, 1989). The
major demands of work may include role ambiguity, role conflict, stressful events, heavy workload and pressure (Cordes et al., 1997; Lee & Ashforth, 1996). The major resources may include social support, promotional opportunities and rewards (Cordes et al., 1997). Specifically, it has been found that social support from others in the workplace has a major influence on all the components of burnout (Halbesleben, 2006). Of particular interest here are the emotional challenges of working with other people (Maslach et al., 2001). Recent research on variation in emotional labour across occupations has found that this factor does account for additional variance in burnout over other job stressors (e.g., Zapf, Seifert, Schmutte, Mertini, & Holz, 2001). Finally, organisational factors such as hierarchies, operation rules, resources and space distribution may also have indirect but persistent influences on job burnout, particularly when they violate basic expectations of fairness and equity (Maslach et al., 2001).

Similar to the studies of job satisfaction and stress, research on burnout has begun to develop theoretical frameworks which integrate both individual and situational factors. As an illustration, Maslach and Leiter (1997, as cited in Maslach et al., 2001) have formulated a model that focusses on the degree of match, or mismatch, between the person and six domains of their job environment. For instance, a mismatch in workload may result in the exhaustion aspect of burnout; a mismatch in control may be related to reduced personal accomplishment; a lack of appropriate rewards may also lead to feelings of inefficacy (Maslach et al., 2001). Some empirical findings seem to partially support this model. For example, Cordes et al. (1997) found significant paths between role overload and emotional exhaustion, non-contingent punishment and depersonalisation, and contingent rewards and the feeling of personal accomplishment.
Furthermore, and of particular importance to the current study, it has been found that burnout is higher among people with certain personal traits such as having an external rather than an internal locus of control (Maslach et al., 2001). Likewise, it has been argued that low levels of hardiness and poor self-esteem might be related to increasing burnout among employees (Maslach et al., 2001). The symptom may also be linked to a person’s coping style. For instance, Sears et al. (2000) found that university staff who made frequent use of problem-focused coping strategies displayed lower levels of burnout and depression, while those who made frequent use of emotion-focused or avoidance-style coping reported higher levels of burnout and depression. Other researchers have also found significant relations between specific dimensions of personality (e.g., trait affectivity) and work burnout (e.g., Alarcon, Eschleman, & Bowling, 2009; Halbesleben, 2006; Zellars, Perrewe, & Hochwarter, 1999).

3.3.4 A summary of research on the predictors of job satisfaction, stress and burnout

Since it is well established that work well-being is an important predictor of various work behaviours, it is essential to find the factors which can predict well-being. Based on a review of the literature on job satisfaction, stress and burnout, there seems to three general approaches to understanding the antecedents of well-being. Table 3.2, below, provides a summary of these approaches. Firstly, there is the approach which focusses on external conditions. These may include job characteristics, work environments, social resources from others, and so on (Hobfoll, 1989; Maslach et al., 2001; Sonnentag & Frese, 2003).

A second approach focusses on individual characteristics. Among those characteristics, personality constructs such as self-esteem, self-efficacy, and trait affectivity, are usually
considered to be the common predictors, which have significant and stable influences on an employee’s job satisfaction (Judge et al., 1998; Judge et al., 2008), stress (Sonnentag & Frese, 2003), and burnout (Maslach et al., 2001). For job stress and burnout, in particular, the choice of coping strategies (e.g., problem-focussed versus emotion-focussed) may also have significant effects (Lazarus & Folkman, 1984; Maslach et al., 2001).

Thirdly, there is the fit approach, which is built on the proposition that a person comes to the workplace with various goals, needs and desires (Weiss & Brief, 2001). The work experience is then said to be evaluated in terms of whether or not it matches these goals, needs and desires (Weiss & Brief, 2001). This approach can also be extended to study the match and mismatch between the person and the job in creating job stress (e.g., Folkman et al., 1986) and burnout (e.g., Maslach et al., 2001).

However, the extant literature seems to generally ignore the role of emotions in predicting job satisfaction, stress and burnout. There are also few studies exploring how a person can actively manage their feelings in the workplace (except for that on stress-coping), and in turn, attain a high work well-being. The situation, however, has begun to change in the last 20 years, with a growing volume of research investigating the effects of emotions and EI in organisations.
Table 3.2 A summary of the antecedents of job satisfaction, stress and burnout

<table>
<thead>
<tr>
<th></th>
<th>Job satisfaction</th>
<th>Job stress</th>
<th>Job burnout</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External factors</strong></td>
<td>Task identity, task significance, autonomy, job control, feedback, distributive justice, support from supervisor, etc. (Hulin &amp; Judge, 2003)</td>
<td>Physical stressors, task stressors (e.g., role overload), social stressors (e.g., interpersonal conflict), social resource and support, etc. (Sonnentag &amp; Frese, 2003)</td>
<td>Work demand (e.g., heavy work load), long-term pressure, social support, emotional labour, organisational hierarchies, fairness and equity, etc. (Maslach et al., 2001)</td>
</tr>
<tr>
<td><strong>Personal factors</strong></td>
<td>Trait affectivity including PA and NA; Big Five traits; core self-evaluation (e.g., Judge et al., 1998).</td>
<td>Self-esteem, self-efficacy, internal vs external locus of control, PA and NA, etc. (e.g., Spector et al., 2002).</td>
<td>Internal vs external control, self-esteem, and trait affectivity (e.g., Alarcon et al., 2009).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coping: problem-focussed coping; emotion-focussed coping; engagement coping; disengagement coping; and etc. (e.g., Lazarus &amp; Folkman, 1984)</td>
<td>Coping style: problem-focussed coping; emotion-focussed or avoidance-style coping; and etc. (e.g., Sear et al., 2000)</td>
</tr>
<tr>
<td><strong>Fit model</strong></td>
<td>Whether the job meets personal expectations, needs and values (Weiss &amp; Brief, 2001).</td>
<td>The match and mismatch between coping resources and the contextual factors (e.g., job control) (De Rijk et al., 1998).</td>
<td>The match and mismatch between the person and the work environment (e.g., a lack of appropriate rewards meeting the person’s preferences; Maslach et al., 2001).</td>
</tr>
</tbody>
</table>
3.4 Emotion, EI and Work Well-being

3.4.1 Emotion at work and Affective Events Theory

The early literature in organisational psychology paid only limited attention to studying emotions and associated processes. As described by Forgas (2000, as cited in Eide, 2005), emotions were generally seen as the “ugly duckling” within the triangle of emotion, cognition and motivation. Such a situation lasted until the last decade of the twentieth century. As mentioned by Briner (1999), emotions have been neglected in organisational psychology and other domains of psychology for many years, and have only recently emerged as a field of scholarly interest. Even though there was some research on feelings in the workplace, the major focus was usually on job satisfaction and stress per se (Briner, 1999). Such studies also paid limited attention to addressing the functions of specific emotions behind those “bad” and “good” attitudes, and their underlying mechanisms (Briner, 1999). Nevertheless, according to Briner (1999), it now appears that psychology has, in general, turned its attention to the nature and importance of emotions at work. Current research suggests that rationality is well served by emotions and that emotions are necessary for good judgment and decision-making (e.g., Damasio, 1994). As proposed by Salovey and Mayer (1990), affect may also have an important role in processing complexity. At the same time, several researchers have argued against the mechanistic perspective on organisations and human beings. Mumby and Putnam (1993, as cited in Hartel et al., 2005), for example, introduced the idea of “bounded emotionality”, which gave great importance to the role of emotions in organisations. As Hartel et al. (2005) commented, the notion of “bounded emotionality” can be regarded as a mark of reviving interest in emotions in academic studies. As a result, more and more researchers nowadays have become aware of the important roles of emotions in organisational life (Hartel et al., 2005).
One notable impetus for the study of affect in work settings was the publication in 1996 of Affective Events Theory (AET, Weiss & Cropanzano, 1996). AET is concerned with how emotional events in the workplace influence a person’s emotions, which may in turn have an impact on their attitudes and work behaviours (Weiss & Cropanzano, 1996). A basic assumption of AET is that job satisfaction should be conceptualised as an evaluative judgement about a person’s job, which should not be confused with real-time emotions or moods at work (Weiss & Cropanzano, 1996). Further, since emotions are different from attitudes such as job satisfaction, the causes and consequences of emotions may also be distinctive from those of overall judgement in the job (Weiss & Cropanzano, 1996). Accordingly, Weiss and Cropanzano (1996) further proposed two different types of behaviours: affect-based behaviour, and cognitively driven behaviour in the workplace. AET suggests that job satisfaction, as an overall evaluative judgement, mainly explains cognitively driven behaviour such as turnover decisions (Weiss & Cropanzano, 1996). On the other hand, affect-based behaviour, such as organisational citizenship behaviour, is more directly affected by actually aroused emotions (Weiss & Cropanzano, 1996). Yet the difference does not imply that affective and cognitive processes are independent of each other. According to Wegge, Van Dick, Fischer, West, and Dawson (2006), only the relative weight and importance of both processes should be considered to be different. More importantly, emotions still have substantial influences on job attitudes (Weiss & Beal, 2005). In a study by Weiss, Nicholas, and Daus (1999), average levels of pleasant mood were found to make significant contributions to the prediction of job satisfaction among a sample of managerial workers, which had incremental validity beyond personal traits (Weiss et al., 1999). Likewise, AET has also been applied to the study of other job attitudes including stress and burnout (e.g., Lam & Chen, 2012).
Ashkanasy and Humphrey (2011) have recently proposed a five-level model to address the role of emotions in the organisation. The first is the within-person level, which focusses mainly on temporal emotions experienced by individuals (Ashkanasy & Humphrey, 2011). The second is the between-person level, which focusses on individual differences (e.g., EI) and attitudes (e.g., job satisfaction) (Ashkanasy & Humphrey, 2011). Thirdly, the interpersonal level addresses the display and communication of emotions in dyadic relationships (Ashkanasy & Humphrey, 2011). Fourthly, the group and team level focusses on group affect, leadership and team performance. Finally, at the apex of the model is the organisation-wide level, which deals with the organisation as a whole (e.g., treating emotional climate as a part of organisational culture) (Ashkanasy & Humphrey, 2011).

In summary, since the 1990s there has been a surge in research on emotions in the workplace. A main motivation behind this interest is that emotions have come to be seen not as a source of disturbance to work behaviours but, rather, as having the potential, if appropriately managed, to add value to the individual and team performance, particularly in professional, managerial and service roles. This tendency has been prompted largely by advances in theory in the field of organisational psychology. Theories have also been developed to explain the role of emotions at work and the underlying mechanisms linking emotions to work outcomes. In particular, AET (Weiss & Cropanzano, 1996) suggests that emotions and affective attitudes are different constructs that may have their distinctive influences on work behaviours. Nevertheless, it is also being recognised that employees’ emotions are closely related to their job attitudes and have the potential to exert influence beyond the influence of traditionally recognised factors such as personal traits. As such, it is meaningful to study individual differences in emotional capability.
(i.e. EI) and how this can further affect work attitudes and work outcomes, such as well-being.

3.4.2 Emotional labour

Besides taking a general view on the role of emotion in the organisation, some scholars (e.g., Ashforth & Humphrey, 1995; Hochschild, 1983) have focussed on the particular jobs in which emotion and its relevant processes are seen as important outputs. According to these scholars, emotional labour refers to the workload related to a person’s expressing and managing emotions (Wong & Law, 2002). In her seminal book published in 1983, Hochschild investigated the work of flight attendants. She demonstrated that their job could not be fully described by physical aspects and cognitive demands, but that a substantial part of their job was dealing with passengers and their emotions. As such, attendants were required to manage their emotions as part of their job (Hochschild, 1983). Based on the observation, Hochschild (1983: 7) suggested that “this kind of labour calls for a co-ordination of mind and feeling, and it sometimes draws on a source of self that we honour as deep and integral to our individuality”.

Although Hochschild’s findings were based on the study of one occupation (i.e. airline stewards), they have subsequently been shown to have wide application. For instance, McQueen (2004) demonstrated the importance of emotional labour in establishing therapeutic nurse-patient relationships. As the purpose of emotional labour was to promote in others a feeling of being cared for (as a commodity), its relevance in nursing was enhanced since caring was a central element in nursing (McQueen, 2004). Other occupations with high demands of emotional labour include those of police officer, customer service operator and retail sales personnel (Daus & Ashkanasy, 2005).
Nevertheless, as Tolich (1993) has argued, it was not necessary that emotional labour should be managed wholly by the organisation, which usually results in a dissonance between the job requirements and the individual’s actual emotional state. Employees themselves can generate spontaneous emotional regulation. To illustrate this point, Tolich (1993) related the case of supermarket clerks who truly love their jobs and regulate their emotions to create enjoyment at work. As a result, self-motivated emotional labour may enhance both job satisfaction and job performance.

Furthermore, research shows that emotional labour involves various affective, cognitive and behavioural processes. Hochschild (1983) originally described two processes: surface acting and deep acting. Surface acting requires the individual to alter their outer expressions to achieve the change of feelings and behaviours; deep acting, in contrast, may require the change of a person’s true feelings, which then have further influences on their emotion expression and behaviours (Hochschild, 1983). As Grandey (2000) argued, deep acting (directly changing a person’s own feeling and expressing genuine emotions) was perhaps “healthier” than surface acting, which often led to a dissonance between the person’s actual feelings and those displayed. These processes were further guided by unconscious or semiconscious “feeling rules” derived from social norms, from others or from their own expectations (Hochschild, 1983). Alternatively, Grandey (2000, 2003) emphasised the process of emotional dissonance, which arises when expressions differ from feelings and the emotion-regulation processes when the individual attempts to modify expressions to meet work demands. Other researchers (e.g., Ashforth & Humphrey, 1995) focus on the display of emotions. As Ashforth and Humphrey (1995) have argued, workers can conform to emotional display rules without engaging in emotion management, as the concept of surface acting implies.
Overall, emotional labour can refer to jobs with a high workload of dealing with one’s own emotions and those of others, or the processes of managing and displaying feelings in oneself and others. Consequently, employees with a high capability for recognising, displaying and regulating emotions may have better behavioural outcomes and well-being in jobs with a high demand of emotional labour, as their skills and abilities have a better fit with the work demands. Moreover, there are also different processes of managing feelings, including the surface versus deep acting. The latter seems to be more associated with positive affective and attitudinal states than the former. As such, in any analysis of the EI-well-being relationship, it is important to take account of both the degree of emotional labour involved and the factors that may allow the individual to capitalise more effectively on EI ability in pursuit of greater well-being.

3.4.3 EI and work well-being

Mechanisms linking EI to well-being

Over the past two decades, the development of the notion of EI has given rise to another domain for studying the effect of emotions in organisations. As EI is a form of intelligence dealing with emotions, it is believed that high EI can itself lead to better well-being in the workplace (Goleman, 1998). Equally, this may involve several different mechanisms.

Firstly, according to AET (Weiss, 2002; Weiss & Cropanzano, 1996), emotions are different from job attitudes but can have a substantial influence on them (e.g., job satisfaction). In this sense, if EI can help individuals better manage their feelings in the workplace, it may lead to higher work well-being. The ability to understand and regulate emotions enables individuals to accurately label and discriminate among emotions, and
identify and interpret the cues within their emotional experiences (Brackett et al., 2010; Karim & Weisz, 2010; Mayer et al., 2002). In turn, such information can lead to effective self-regulatory actions (Karim & Weisz, 2010; Mayer & Salovey, 1993). Accordingly, high EI persons appear to be better able to use their positive resources to deal with their anxiety and depression (Karim & Weisz, 2010). They also have rich knowledge about how to maintain and modify the emotions among themselves and others in the workplace (Brackett et al., 2010). Consequently, such effort may lead to more positive feelings and less negative feelings within the person, which may have further influences on their work well-being. The influence of emotions can also be two-fold. On the one hand, the evaluation of well-being might be based on the person’s aggregated feelings in the workplace (which are stored as the emotional experiences) (Weiss et al., 1999). On the other hand, the temporary emotions or emotional events may have a direct impact on the individual’s choices when he or she is trying to retrieve those experiences to make the judgement of their well-being. Some researchers argue that, when making social evaluations, people are selectively sensitive to information and process information that accords with their current mood (Bower & Forgas, 2001). Affects may also precede cognition to provide direct judgement (as in the affect primacy effect; Zajonc, 2000). Overall, because of its influence on feelings, EI facilitates the individual’s well-being at work.

Secondly, according to the fit approach (e.g., Weiss & Brief, 2001), the match or mismatch between various job demands and rewards and the individual’s needs or abilities may increase job satisfaction or decrease perceived stress and burnout in the workplace. In this sense, it is possible that the effect of EI on well-being may be much more salient among jobs with high emotional labour. As Daus and Ashkanasy (2005)
have suggested, some jobs (e.g., sales or customer service) required a great amount of emotional labour, including the maintaining of a positive mood, the proper expression of emotions to others, and the wise regulation of others’ feelings. Other jobs (e.g., artist) may need the ability to integrate emotions in thinking and behaviours to facilitate creation (Zeidner et al., 2004). Consequently, individuals with high EI may perform better in such jobs since they are good at displaying their emotions, sharing their feelings and thoughts with others, and empathising with the people around them. For instance, higher EI has been found to lead to greater use of deep acting among a sample of call centre staff (Cheung & Tang, 2009). Those with low EI, however, tended to apply ineffective emotional labour strategies such as surface acting, which may require less cognitive effort (Cheung & Tang, 2009). Accordingly, EI may create a better fit between the person and their work.

A third approach emphasises the external environment, particularly, the social environment. As the conservation of resources theory (Hobfoll, 1989) indicates, social resources play a major role in dealing with negative feelings in the workplace (including job stress and burnout). It is also found that support from others can increase an employee’s job satisfaction (Gaertner, 1999). Accordingly, it is possible that EI may help people manage their social environment (e.g., relationships with others), and therefore boost their work well-being (Zeidner et al., 2004). According to Keltner and Haidt (1999), emotions have important social functions including informative functions, evocative functions and incentive functions. Therefore, if a person can deal wisely with their own and others’ emotions, they may have better relationships with others in organisations (Brackett, Rivers, Shiffman, Lerner, & Salovey, 2006; Caruso, Mayer, & Salovey, 2002; Lopes et al., 2011). For instance, employees may use their knowledge to
label and understand others’ feelings and the concerns behind them (Mayer & Salovey, 1997). Based on that information, they may then use effective regulatory strategies to attenuate others’ negative feelings or enhance their positive affects (Mayer & Salovey, 1993), which in turn may lead to positive feedback from others. In a recent study based on a sample of grocery store employee, Niven, Holman, and Totterdell (2012a) also found that deliberate regulation of others’ feelings led to perceptions of friendship and trust among both the targets and the regulators. The positive effect of emotion regulation was also mediated by the positive changes to their feelings (Niven et al., 2012a). Further, these positive relationships (or social interactions) may prove helpful when the person faces difficulties in the organisation. Since high EI employees tend to have good relationships with colleagues, they may receive both emotional and instrumental support (Hobfoll, 1989) when performing their tasks and dealing with work stressors.

A fourth and final approach to understanding the link between EI and well-being is that of emphasising ways of coping with stress. It is argued that a high EI person is likely to cope with stress more efficiently (MacCann, Fogarty, Zeidner, & Roberts, 2011). Relevant knowledge of emotions may enable the person both to make an optional choice of coping strategy and to successfully apply that choice (Matthews et al., 2006). In other words, if a person knows the reasons why they feel distressed in the workplace, it is likely to be easier for them to take actions to solve the problem. However, in some contexts, when employees face great stress but have little control over it, it might be more appropriate to distract a person’s attention from the stressor and concentrate on the bright side in order to maintain a positive mood (e.g., De Rijk et al., 1998). The coping mechanism has been confirmed by several studies which report a negative relationship between EI and disengagement coping (Gohm et al., 2005), and a positive relationship
between EI and problem-focussed coping (Matthews et al., 2006).

Nevertheless, it is necessary to differentiate between emotional abilities/EI and the coping strategies per se. First, EI includes multiple abilities such as understanding and management (Mayer & Salovey, 1997), while coping is more specific in dealing with stress and the use of relevant strategies. Second, EI targets various emotions (Mayer & Salovey, 1997), while coping targets stress (Lazarus & Folkman, 1984). Consequently, the target of EI may cover a wide range of affect such as anger, depression, happiness and surprise. In contrast, both the strain feelings (e.g., anxiety) and the stressors (e.g., role ambiguity) should be the objects of coping strategies. Therefore, although both constructs may form a constant movement involving both cognitive and behavioural effort, EI can only assist in coping with stress; it cannot replace it or be replaced by it.

Overall, then, it is intuitive that EI is positively related to employee well-being. Table 3.3 concludes the main mechanisms linking EI to work well-being. In general, as employees are better at understanding and regulating emotions in themselves and others, they are likely to have more positive and fewer negative feelings in the workplace. Also, through the proper use of emotional knowledge and skills, they can achieve better social relationships with other people in organisations (e.g., Lopes et al., 2011), and can wisely choose strategies to cope with their stress and burnout at work (e.g., Matthews et al., 2006). The effect of EI could be even more salient if the job involves high emotional labour content.
<table>
<thead>
<tr>
<th>EI constructs</th>
<th>Mechanism</th>
<th>Possible effect on work well-being</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotion understanding and management</td>
<td>Emotions at work</td>
<td>Emotional abilities enable employees to better understand and manage their feelings at work, which may further influence their affective experiences at work and their evaluation of the job.</td>
</tr>
<tr>
<td>Emotion perception, understanding and management</td>
<td>Social factors</td>
<td>Being empathetic to others through better perceiving and understanding others’ emotions may facilitate further management of social relationships. Also through the use of emotion regulation strategies, employees with high EI can have better relationships with others at work, which can increase their social resources and decrease their social stressors.</td>
</tr>
<tr>
<td>Emotion understanding and management</td>
<td>Coping</td>
<td>The ability to understand and regulate emotions may support a person’s coping with stress at work through providing relevant knowledge about emotions and a rich source of emotion regulation strategies.</td>
</tr>
<tr>
<td>Emotion perception, facilitation, understanding and management</td>
<td>Job requirement</td>
<td>Some jobs need the performing of certain emotional abilities to attain better results. Accordingly, individuals with high EI may perform better at those jobs and may have higher work well-being as a consequence of the positive job outcome.</td>
</tr>
</tbody>
</table>
What, though, does the available research evidence indicate about the influence of EI on work well-being?

**Empirical studies and mixed findings**

In recent decades, various studies have sought to link EI to a person’s general and work well-being (e.g., Abraham, 2000; Carmeli, 2003; Ciarrochi, Chan, & Caputi, 2000; Day, Therrien, & Carroll, 2005; Higgs & Dulewicz, 2014; Kafetsios & Zampetakis, 2008; Livingstone & Day, 2005; Lopes et al., 2006; MacCann & Roberts, 2008; Mikolajczak, Menil, & Luminet, 2007; Petrides & Furnham, 2006; Schutte, Manes, & Malouff, 2009; Sy, Tram, & O’Hara, 2006; Wong & Law, 2002). Yet nearly two-thirds of the studies measure EI via self-report scales such as the SSREIT by Schutte et al. (1998), the WLEIS by Wong and Law (2002), and the TMMS by Salovey et al. (1995). As noted in Chapter 2, self-rated scales may actually measure emotional “personality” (i.e. self-efficacy, trait and competency) rather than actual intelligence (e.g., Petrides, 2009). As such, the following review focusses mainly on the ability model proposed by Mayer and Salovey (1997).

A majority of the studies employing the ability model have used the assessment developed by Mayer and colleagues in the form of MEIS (Mayer et al., 1997, as cited in Mayer et al., 1999) and its successor, MSCEIT (Mayer et al., 2002). Yet due to the length of MSCEIT (141 items) and MEIS (402 items), many such studies have only applied part of the test (e.g., a branch or a task). Other ability tests such as STEU and STEM by MacCann (2006) and DANVA (Nowicki & Carton, 1993) have also been found in some studies (e.g., MacCann & Roberts, 2008; Rubin et al., 2005). Concerning the findings reported, most studies have focussed on the relationships between EI and general well-
being (e.g., life satisfaction or subjective well-being). This is not surprising because the measurement of emotional abilities is still in its developmental period. As a result, the main objective of these studies has been to establish EI’s predictive validity on meaningful life outcomes. For instance, Mayer et al. (1999) reported a positive correlation between the total score of MEIS and that of life satisfaction. Similar results have also been found by Murphy (2006), Law et al. (2008), MacCann and Roberts (2008), Cote, Gyurak, and Levenson (2010), and Karim and Weisz (2010). Furthermore, emotional abilities are found to predict fewer negative emotions such as depression (Ciarrochi et al., 2000) and distress (Matthews et al., 2006). It is noteworthy that many of these findings are also based on responses from university students rather than employees.

Turning to those studies that have been conducted in an occupational setting, Rubin et al. (2005) explored the influence of emotional recognition on leadership behaviours and their findings supported the argument that EI predicted high task performance (as transformational leadership behaviour). Among 44 employees from an insurance company, Lopes et al. (2006) reported that the total score of EI (measured by MSCEIT) significantly predicted peer-rated sociability, supervisor-rated liking, and supervisor-rated stress tolerance. Likewise, based on the responses from 56 managers, Bostjancic (2010) found that EI (as assessed by MEIS; Mayer et al., 1997, as cited in Mayer et al., 1999) significantly predicted job satisfaction. The total score of MEIS was found to be moderately related to satisfaction with associates, while understanding emotions had a positive correlation with satisfaction with co-workers (Bostjancic, 2010). Finally, Brackett et al. (2010) have shown that the ability to regulate emotions (as a branch of MSCEIT) is positively related to PA, job satisfaction and personal accomplishment (as a
dimension of work burnout) among middle school teachers.

Notwithstanding these findings, some other studies have found no such relationship, or even a negative relationship. Gohm et al. (2005), for instance, reported that total EI was not related to perceived stress of the participants (as feelings of inability to control life). Likewise, in a study of undergraduates, Rossen and Kranzler (2009) found that the total MSCEIT score was not related to average academic grade, peer attachment and psychological well-being. Similar findings have also been reported in studies by Zeidner and Olnick-Shemesh (2010) and Karim and Weisz (2010). Ciarrochi, Deane, and Anderson (2002) even found that emotion perception was positively related to hopelessness, and that it can intensify the effect of life problems on an individual’s depression and hopelessness. In organisational settings, Humpel et al., (2001) used the stories sub-test of MEIS (Mayer et al., 1997, as cited in Mayer et al., 1999) to assess EI among a group of nurses. However, they did not find a significant relationship between EI and work stress. Similarly, Livingstone and Day (2005) tested the predictive validity of EI among a sample of 268 military personnel, but found that none of the MSCEIT branches was significantly related to the participants’ life or job satisfaction. Brackett et al. (2010) also found that the ability to regulate emotions was not related to either emotional-exhaustion or depersonalisation (as indicators of job burnout). Finally, while Lopes et al. (2006) found a positive relationship between EI and positive social interaction in the workplace, they found no significant correlation between EI and job satisfaction.

Revisons for the mixed findings between EI and work well-being

The mixed findings may be associated with methodological issues. They may be the
result of the small sample size (Humpel et al., 2001) or the range limitation of the sample (MacCann & Roberts, 2008). The inconsistencies may also be associated with the problematic reliability or validity of the EI measures used (e.g., Zeidner & Olnick-Shemesh, 2010; Brackett et al., 2010) or of the well-being measures (e.g., Livingstone & Day, 2005). They may even be attributable to the potential cultural biases in the EI tests (e.g., Karim & Weisz, 2010; Zeidner & Olnick-Shemesh, 2010). Another possible reason could be related to the constructs. As EI includes multiple abilities, each of them may have different functions. For instance, according to the cascading model advanced by Joseph and Newman (2010), emotion perception may only act as a signal receiver, the products (i.e. emotional signals) of which need to be further processed by the ability to understand and manage emotions to yield the final outcomes. However, if the signals cannot be properly dealt with, people with higher emotion perception may even experience more stress compared to those who are not sensitive to emotions (Ciarrochi et al., 2002). In this sense, it seems that the ability to understand and manage emotions should be the key variable in predicting an employee’s well-being in the workplace. As discussed in the previous section, most of the arguments concerning the link between EI and well-being also seem to focus on the understanding-regulation dimension of EI (e.g., Brackett et al., 2010; Karim & Weisz, 2010). This is also the reason why the current study focusses on the ability to understand and regulate emotions.

Given the wide use of the MSCEIT and other ability tests, it is plausible that the findings of non-significance may have another (and quite ironic) cause. Some respondents with high EI ability may simply not be motivated to use their emotional abilities in real life. In this regard, Fiori (2009) has argued that ability tests of EI (e.g., MSCEIT; Mayer et al., 2002) were strongly based on a person’s conscious processes in dealing with emotions,
and therefore, may require the respondents to be engaged in thoughtful reasoning processes. In other words, it is assumed that people should be aware of their emotions and be motivated to regulate these emotions (Fiori, 2009). Otherwise, emotional abilities as measured by tests could be less effective if people allow these abilities to remain dormant and not apply them actively. However, is it always the case that people with high EI are motivated to use their EI in solving real-life tasks? Perhaps sometimes they are, but for most of the time, perhaps they are not. One reason is that the use of EI does consume extra energy and personal resources (e.g., attention and cognition). In a recent study, for instance, Singh et al. (2010) found a curvilinear relationship between EI and job performance, with high EI even leading to diminished performance in situations of high task uncertainty/pressure. As they argued, in such circumstances, high EI may consume too high a level of cognitive resources within an individual, which may even distract them from routine tasks; that is, high EI may induce a state of emotional ‘over-analysis’. As such, it is possible that when not under any pressure, people may typically choose to follow their automatic cognitive processes, which are supposed to be less effortful and perhaps be more effective in the process (Stanovich & West, 2000), rather than actively utilising their emotional abilities. Further, Petrides and Furnham (2001) have suggested that the ability model of EI (Mayer & Salovey, 1997) differs from the trait model in that the former reflects a person’s maximum performance in tests while the latter is associated with the person’s typical behaviours. Accordingly, maximised performance in ability tests may not reflect the individual’s behaviours unless it has been activated or motivated. Boyatzis (2009), for instance, has suggested that personal capabilities should be consistent with the job requirements or organisational environment to maximise their effectiveness. Obviously, jobs such as those with high workload of emotional labour can strengthen the effect of EI on work outcomes (as discussed earlier).
As to internal motivators, these may include motivations, traits, and values, which may form the basis of a person’s emotional competencies (Boyatzis, 2009). Similar constructs also include the trait-meta mood experience, as proposed by Salovey et al. (1995). Overall, then, it would seem to be appropriate to seek to identify the motivators or facilitators of emotional abilities, which may enhance their predictive effects.

Although it is possible that the effect of EI can be moderated by other factors, empirical studies regarding this issue are relatively scarce. Of the available studies, some have focussed on external factors. For instance, Wong and Law (2002) reported that the effect of EI was moderated by emotional labour in predicting job performance, satisfaction, organisational commitment and turnover among a sample of Chinese employees. Other studies have paid attention to the moderating effect of personal traits on the EI-performance link. Following the study by Wright, Kacmar, McMahan, and Deleeuw (1995), for example, Rode et al. (2007) tested the interaction between Conscientiousness and EI in predicting academic performance among a group of business undergraduates. They found that among those with high Conscientiousness, EI had a more significant impact on students’ group behaviour and public speaking effectiveness.

Conscientiousness, these authors noted, is related to an individual’s striving for achievement. Accordingly, it was suggested that those with high Conscientiousness tended to put more cognitive effort in utilising their emotional abilities, and therefore, achieved better task results (Rode et al., 2007). However, another study by Rode, Mooney, Arthaud-Day, Near, and Baldwin (2008) found no such moderating effect in predicting students’ career success after graduation. Likewise, Rubin et al., (2005) found that Extraversion moderated the relationship between emotion recognition and leadership transformational behaviour since Extraversion led to more expressiveness on the part of
the managers, which allowed them to make better use of their recognition ability (Rubin et al., 2005). Fernandez-Berrocal et al. (2005) further tested the moderating role of cultural values (i.e. Individualism versus Collectivism, and femininity versus masculinity) on the relationship between EI and depression. They found that the effect of EI is stronger in US, a supposedly individualistic and masculine society, than that in Chile, said to be a collectivistic and feminine society. However, since this study used TMMS (Salovey et al., 1995) to assess EI, and also applied nationality as a proxy of cultural values, it is difficult to determine what factors actually contribute to the interactions between EI and cultural values. Overall, considering the scarcity of research on the moderators of the EI effect, it is appropriate to examine further the personal factors that may moderate the predictive effectiveness of EI on employee well-being.

In sum, the mixed findings regarding the EI-well-being relationship may be due in part to methodological limitations in assessing EI and the different functions of the EI components such as emotion perception. Nevertheless, it is also possible that there may be other reasons related to EI itself. As some researchers (e.g., Fiori, 2009) claim, the ability models may only reflect the controlled process of dealing with emotions, which are supposed to need more energy and cognitive resources. EI may also need to be activated or motivated in order to maximise its effects in real life (e.g., Boyatzis, 2009). Consequently, it would seem to be essential to identify those motivators, which might be linked to the individual’s personal characteristics. Empirical studies on the issue, however, are relatively scarce. Thus, to contribute to knowledge in this field, the current study focusses on PA and Individualism as two personal factors that have the potential to motivate the use of EI. The relevant literature regarding each of these potential moderators is reviewed in the subsequent two chapters.
3.5 Conclusion

The chapter has reviewed the literature on the role of emotions in the workplace and the link between EI and work well-being. First, based on the theories of subjective well-being, work well-being can be conceptualised as a person’s job attitudes associated with their various workplace experiences. According to De Jonge and Schaufeli (1998), the concept can be operationalised through three dimensions: job satisfaction; stress; and burnout. These can be said to reflect an employee’s feelings of happiness, anxiety and depression at work, respectively. Work well-being is a very important personal indicator in modern work systems, which can predict many meaningful outcomes such as the task and the contextual performances. Consequently, it is important for practical purposes to study the predictors of well-being.

Considering the antecedents of work well-being, although the three indicators (i.e. satisfaction, stress, and burnout) are studied separately, some common ground exists regarding how they are influenced by various factors. One approach focusses on external factors including the job characteristics, the work environment and the social context. Another approach concentrates on individual factors, among which self-cognition (e.g., self-efficacy) and personal traits (e.g., trait affectivity) seem to be the key predictors. In addition, one line of investigation has explored the role of coping in dealing with stress. Finally, a number of studies have explored how organisation-person fit can influence a person’s attitudes at work.

However, despite the substantial research on work well-being using the three approaches, little attention has hitherto been paid to the role of emotions in the workplace and in shaping well-being. Emotion was once accorded little importance in research in
industrial/organisational psychology. It was also regarded as something which should be suppressed at work. Yet the situation has been transformed in recent decades, particularly because of the rise of service work in post-industrial economies. It is argued that emotions are critical inputs to certain jobs (e.g., those with high emotional labour). Emotion or affect is also different from job attitudes but may still have a substantial influence on an employee’s work behaviours and well-being. Accordingly, as a form of intelligence in dealing with emotions, EI is proposed to have positive effects on the individual’s feelings in the workplace.

Regarding the links between EI and work well-being, it is generally assumed that employees with high EI have a high level of well-being compared to those with low EI, as they are considered to have better job performance, more positive feelings (and fewer negative feelings), richer social resources and wiser coping strategies. Some empirical evidence also suggests that high EI may lead to high job satisfaction, low job stress and burnout among employees. Yet the research findings remain mixed. Although the issues of construct or measurement may affect the results of EI, a core reason for the mixed findings may be the ability model itself. Some researchers (e.g., Fiori, 2009) argue that EI, as assessed by ability tests, may only reflect a person’s controlled ways of dealing with emotions. Hence, in order to maximise the effect of emotional abilities, individuals need to be motivated to use those abilities in dealing with real-life tasks. Therefore, it is important to identify the potential motivators or facilitators of EI since this may be beneficial for both the theoretical development and practical application of EI. The ensuing two chapters examine theory and evidence relating to the potential influence of personal traits (in the form of PA) and personal values (in the form of Individualism) on the EI-well-being relationship.
Chapter 4 Positive Affectivity as a Potential Moderator of the Relationship between Emotional Intelligence and Work Well-Being

4.1 Introduction

Considering the mixed findings associated with the effects of EI on work well-being, it is possible that other factors may moderate the relationship between EI and the well-being of employees in the workplace. Personal traits have been used as the moderating constructs in exploring the relationship between personal abilities and success in the organisation (e.g., Wright et al., 1995; Rode et al., 2007). In particular, trait affectivity (e.g., PA and NA) has been found to influence work well-being including job satisfaction, stress and burnout (e.g., Hulin & Judge, 2003). As trait affectivity is also related to the ways in which individuals typically deal with emotions (Watson & Clark, 1984), it is possible that trait affectivity may influence how people use their abilities to understand and manage emotions. Since the current study focusses on the possible moderating effect of trait affectivity on EI, this chapter provides an overview of the previous literature on the notion of trait affectivity and its links with work well-being, with particular attention to the potential moderating effects of PA and NA.

The chapter is divided into two sections. The first section extends the discussion of the trait approach to personality, including the history of the approach and its different models. The relevant constructs are then reviewed with a focus on the traits of Extraversion and Neuroticism, and the Behavioural Approach System (BAS) and Behavioural Inhibition System (BIS), which are considered to share the same affective and motivational components as trait affectivity (e.g., Elliot & Thrash, 2002). Drawing on the existing literature, the chapter further introduces the notion of trait affectivity and
how it can be treated as a construct including two dimensions: PA and NA. Its relationship with Extraversion/Neuroticism and BAS/BIS is then addressed.

In the second section, the links between PA/NA and work well-being are discussed, along with the underlying mechanisms, including those of sensitivity, cognition, behavioural reactions and self-regulation. Based on the various mechanisms linking PA and NA to work well-being, the chapter further discusses the potential moderating effects of trait affectivity on the EI-well-being link, which includes the activating and the motivational effects. The existing empirical findings are also summarised.

4.2 Personal Traits and Trait Affectivity

4.2.1 History of trait models

To understand the nature and significance of trait affectivity, it is necessary to locate the construct in the context of the development of the trait approach to personality, particularly the emergence of the trait models. As noted in Chapter 2, Cattell’s pioneering inter-war work on personality identified 12 primary personality factors. Although few empirical studies have replicated the twelve factors from Cattell’s studies (John et al., 1988), his work stimulated others’ efforts in the field. Some of these (e.g., Tupes & Christal, 1961, as cited in John et al., 1988) built their research upon Cattell’s list of personality terms, while others independently searched for personality descriptors in dictionaries (e.g., Norman, 1963). These post-war studies frequently identified five personality factors, which have been summarised by Tupes and Christal (1961, as cited in John et al., 1988) as: (1) Surgency (i.e. talkative); (2) Agreeableness (i.e., good-natured); (3) Dependability (i.e., conscientious); (4) Emotional Stability; and (5) Intellect. Later, Norman’s (1963) work was refined by Goldberg (1990) and summarised by McCrae and
John (1992) to formulate the now classic ‘Five-Factor’ or ‘Big Five’ model of personality, which generally refers to the traits of Extraversion, Neuroticism, Conscientiousness, Agreeableness and Openness to Experiences.

Another influential work is the model proposed by Eysenck (1947, as cited in De Raad, 2009). The original items in Eysenck’s measure were selected based on the records from a group of psychiatric patients (De Raad, 2009). Subsequent research on the measure resulted in a three-factor structure: Psychoticism; Extraversion; and Neuroticism (Eysenck, 1952, as cited in De Raad, 2009). The latter two seem to be consistent with the two factors of the same names in the Big Five model (e.g., Goldberg, 1990). Another contribution of Eysenck’s work was his effort to link traits to biological structures. Eysenck’s personality theory stated that individual differences in personal traits were related to the organic structure of the person (Eysenck, 1967, as cited in Corr, 2004). For instance, introverted individuals compared to extraverted ones should be easier to be conditioned as they have a lower threshold of arousal (Corr, 2004). Although empirical findings seem to be inconsistent regarding his claims (Corr, 2004), Eysenck’s work was certainly a milestone in the history of personality psychology, which also prompted the later research on the biological basis of traits, including Reinforcement Sensitivity Theory by Gray (1982, as cited in Corr, 2004).

A similar yet distinct notion to traits is that of temperament. This construct figured centrally in research conducted by Eastern European researchers on child development in the post-war period (Revele, 1995). Rothbart, Sheese, and Conradt (2009: 177) defined temperament as “constitutionally based individual differences in emotional, motor and attentional reactivity and self-regulation, showing consistency across situations and

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relative stability over time”. Rothbart et al. (2009) further clarified that the term “constitutional” referred to the biological nature of temperament. For children in particular, since their personality structures are not yet fully developed, their ways of behaving largely depend on instinctive or biological processes (Rothbart et al., 2009). Accordingly, temperament studies, especially those conducted in Eastern Europe, were heavily influenced by Pavlov’s animal experiments (Rothbart et al., 2009). Yet it has been suggested that the term “temperament” can be used interchangeably with the term “trait” in the case of adults (Rothbart et al., 2009). Gray’s (1982, as cited in Corr, 2004) insights on the motivational systems of BAS and BIS, which has direct salience to the development of the concept of trait affectivity, and which is considered in more detail below, can also be regarded as an important theory of temperament (Rothbart et al., 2009).

In summary, the research on personal traits has always been a main stream in personality psychology. Traits are said to be the latent constructs accounting for individual differences in typical behaviours. Various models of traits have been proposed. Among these models, the five-factor model seems to be the most prominent. As will be discussed shortly, the concepts of PA and NA originated in the traits of Extraversion and Neuroticism and share the same affective components. There were also researchers who focussed on the biological nature of traits and proposed the concept of temperament. Their works stimulated the later theory by Gray (1982, as cited in Corr, 2004) that focusses on the motivational systems of BAS and BIS, which are also considered to have close relationships with PA and NA.
4.2.2 Extraversion and Neuroticism

Deary (2009) reviewed studies following the trait approach, and concluded that: (1) there was some agreement on the basic traits as characterised by the five-factor model; (2) the five-factor model had achieved some consensual validity across cultures; (3) traits, as represented in the five-factor model, were relatively stable across the individual’s life-span; and (4) genetic studies (e.g., twin studies) demonstrated the heritability of traits. Among the five factors, Extraversion and Neuroticism seem to be the most common in various trait models (e.g., Goldberg, 1990). They are also closely linked to the key constructs of trait affectivity in the current study.

In trait studies, Extraversion is usually associated with adjectives such as active, assertive, energetic, enthusiastic, outgoing and talkative (McCrae & John, 1992). In studies using psychological inventories, the dimension typically involves sub-scales of warmth, assertiveness, activity, excitement seeking and positive emotions (McCrae & John, 1992). Moreover, Eysenck (1967, as cited in Corr, 2004) tended to link Extraversion to a person’s responses to classic conditioning as they had lower thresholds. Nevertheless, although there has been a long history of studying Extraversion in psychology, there is less consensus as to its definition (McCrae & John, 1992). Some researchers might identify the trait as Dominance, while others prefer to locate it as occupying a middle position between Dominance and Warmth (McCrae & John, 1992). As McCrae and John (1992) have argued, it was better to balance the interpersonal and emotional components within Extraversion than to focus on only one side. In this sense, positive emotions should be seen as the core of Extraversion and as the determinants of sociability (i.e. dominance, talkative, sociable and warm) (McCrae & John, 1992). Individuals with low Extraversion, on the other hand, tend to be quiet, reserved, shy,
silent and withdrawn (McCrae & John, 1992).

Originally, according to Eysenck’s theory, Neuroticism indicates the degree of emotionality; that is, the intensity of a person’s emotional reactivity towards stimuli (Gray, 1970). For instance, high levels of both Neuroticism and Introversion were seen as giving rise to a state of anxiety (Gray, 1970). In lexical terms, Neuroticism is usually related to terms such as anxious, unstable and worrying, and includes facets such as anxiety, hostility, depression and vulnerability (McCrae & John, 1992). Accordingly, it seems that negative emotions are at the core of Neuroticism. Unlike Extraversion, there seems to be less controversy as to the definition of Neuroticism (McCrae & John, 1992). As McCrae and John (1992) have suggested, Neuroticism reflected individual differences in experiencing distress and the corresponding behavioural and cognitive styles. Accordingly, people with high Neuroticism may have chronic negative feelings and are prone to developing a variety of psychiatric diseases (McCrae & John, 1992). These negative feelings and disorders further lead to irrational thoughts and behaviours among individuals, including rumination on negative experiences, somatic complaints and ineffective coping with stress (McCrae & John, 1992). On the other hand, individuals with low Neuroticism may not have more positive feelings; but they are usually much calmer and more relaxed (McCrae & John, 1992).

Overall, according to McCrae and John (1992), affective components seem to be the core constructs of Extraversion and Neuroticism. The former is usually associated with positive emotions, which make the person more energetic and active, while the latter tends to be linked to negative emotions, further inducing maladaptive behaviours. For the current research purposes, the key point here is that the components of trait affectivity,
including PA and NA, can be said to have their origins in these two personal traits.

4.2.3 Behavioural approach and inhibition Systems

Trait affectivity is also said to be related to temperament. As described by Rothbart et al. (2009), Gray’s (1982, as cited in Corr, 2004) theory is one of the major psycho-biological models of temperament. This theory is also closely associated with trait models such as that proposed by Eysenck (1947, as cited in De Raad, 2009). The idea that behaviour can be reduced to approaching and avoidance tendencies has a long history in psychology, and can be traced back to Freud’s idea of aspired and forbidden behaviours in a person’s superego (Carver, Sutton, & Scheier, 2000). In 1970, Gray proposed a theory of personality that accounted for the neuro-psychological basis of individual differences in behaviours. The theory subsequently came to be called Reinforcement Sensitivity Theory, which assumed that personality factors deriving from statistical analysis actually reflected the sources of individual differences in neural and biological systems (Corr, 2004).

Gray’s (1970) original theory modified Eysenck’s theory by clarifying the position of Extraversion and Neuroticism in the factor space, and by reaffirming their neuro-psychological bases. Specifically, Gray (1970) differentiated between the signals of rewards and those of punishment. As such, highly impulsive persons were seen as being sensitive to signals of rewards, while those with high anxiety and fear were said to be sensitive to signals of punishment (Gray, 1970). Later, Gray (1982, as cited in Corr, 2004) proposed that the traits of impulsivity, and anxiety and fear were controlled by their own biological systems. The system linked to impulsivity was called the Behavioural Approach System (BAS), and the systems linked to trait anxiety and fear
were the Behavioural Inhibition System (BIS) and the Fight-Flight System (FFS) (Gray, 1982, as cited in Corr, 2004). BIS is sensitive to conditioned aversive stimuli, termination of expected reward and extreme novelty, leading to avoidant behaviours, which is also related to the trait of anxiety; FFS is sensitive to unconditioned aversive stimuli, controls the emotions of rage and panic, and is linked to the trait of Psychoticism in Eysenck’s model; BAS is sensitive to conditioned appetitive stimuli, which is activated by stimuli associated with rewards or the signals of withdrawing punishment, and is also related to the personality dimension of impulsivity (Gray, 1982, as cited in Corr, 2004).

The propositions of Gray’s (1982, as cited in Corr, 2004) theory have received some support from the experimental data. For instance, in Zinbarg and Revelle’s (1989) study, individuals with high trait impulsivity (or BAS) learnt more quickly to make responses to achieve rewards; in contrast, those with high BIS learnt more rapidly to inhibit response in the presence of punishment. Likewise, Boddy, Carver, and Rowley (1986) found that inverts (with high trait anxiety and fear) had better performance under punishment, while extraverts (with high trait impulsivity) performed better under reward. However, the dimension of trait anxiety and fear seems to be much more complex than that of trait impulsivity, as the former includes two systems (as BIS and FFS). In a recent revision by Gray and McNaughton (2000), FFS is responsible for all the aversive stimuli, while BIS is used to resolve the conflict between BAS and FFS. Yet many researchers (e.g., Elliot, 2006) prefer to use BIS as representing the general system of avoiding and BAS as the system of approaching. According to Carver (2006), other researchers have also adopted a “duel view” of people’s motivational systems (e.g., Cloninger, 1987; Davidson, 1998; Depue & Collins, 1999). Some researchers have also developed specific measures to test
these two dimensions (e.g., Carver & White, 1994).

Overall, based on Gray’s (1982, as cited in Corr, 2004) theory, there are three basic motivational systems: BAS; BIS; and FFS. BAS is sensitive to positive stimuli, which also drives approaching behaviours towards those stimuli; BIS and FFS are responsible for negative stimuli and avoiding behaviours (Gray, 1982, as cited in Corr, 2004). Later the theory was modified with only one system for avoiding behaviours. Many researchers prefer to label the avoiding/inhibition system as BIS. They also develop measures accordingly. Thus, the current study also treats BIS as the avoiding system and BAS as the approaching system. As will be noted in the next section, BAS and BIS are linked closely with trait affectivity (as PA and NA), particularly in providing its motivational nature.

4.2.4 PA, NA, and their relations with Extraversion, Neuroticism, BAS and BIS

As emotions are generally considered to be the core components of Extraversion and Neuroticism, some researchers have focussed on exploring whether feelings can actually be temperamental or not. Trait affectivity or emotionality was a concept originally proposed by Tellegen (1984, as cited in Watson & Tellegen, 1985). In his Multidimensional Personality Questionnaire, Tellegen (1984, as cited in Watson & Tellegen, 1985) interpreted the “extraverted” and “neurotic” higher order trait dimensions as Positive Affectivity (PA) and Negative Affectivity (NA), respectively. Such a division reflected the findings on self-report mood scales, which constantly revealed a two-factor structure (Tellegen, 1984, as cited in Watson & Tellegen, 1985). For instance, in an overview of the studies, Watson and Tellegen (1985: 231) concluded that “Positive and Negative Affect consistently emerge as the first two rotated
dimensions in orthogonal factor analyses, or as the first two second-order factors derived from oblique solutions...which together account for one half to three quarters of the common variance”. As such, based on the findings from the factor analysis, it appears that these may be traits which are specifically related to how a person experiences and deals with emotions (Watson & Tellegen, 1985).

Tellegen’s work was developed further by Watson and Clark (1984), who proposed NA as a disposition related to an individual’s negative emotional experience. As defined by these authors, NA reflected “individual differences in negative emotionality and self-concept” (p.465). Accordingly, high NA individuals are more likely to be distressed or upset and may also have a negative self-identity (Watson & Clark, 1984). NA is still distinctive from other relevant constructs in several ways. Firstly, NA involves trait anxiety but is not congruent with it (Watson & Clark, 1984). NA is more general in nature, and includes other affects such as anger, guilt and sadness (Watson & Clark, 1984). Secondly, compared to trait anxiety, the effect of NA is more pervasive, which means that people with high NA may feel negatively no matter what the situation is or whether there is a stressor or not (Watson & Clark, 1984). Thirdly, NA is centred on the person’s subjective experience rather than on their objective condition (e.g., low self-esteem or resiliency) (Watson & Clark, 1984). Fourth, high NAs tend to apply defensive styles such as dwelling upon mistakes and threats, and magnifying the feelings of frustration and disappointment (Watson & Clark, 1984). They are also more likely to withdraw in the face of negative or unfamiliar stimuli (Watson & Clark, 1984). Finally, NA should be seen as a single dimension and, accordingly, not the only contributor to Neuroticism, which is considered to be multi-faceted (Watson & Clark, 1984). Yet, as previously mentioned, NA reflects the basic affective component of Neuroticism.
Another emotional trait is PA. According to Watson and Pennebaker (1989: 234), PA reflects “one’s level of energy, excitement, and enthusiasm”. People with high PA are generally considered to be happy in their life, and at the same time, maintain a high level of activity (Watson & Pennebaker, 1989). In contrast, those with low PA may be easily exhausted and typically in the states of sadness and loneliness (Watson & Pennebaker, 1989). Individuals with high trait PA also tend to have more positive emotional experiences, high-levels of well-being and effective interpersonal skills (Watson & Clark, 1984). Similar to the notion of NA, PA is a unified dimension composed of various positive affects (e.g., happiness, high activity and excitement) and has pervasive influences on a person’s feelings (Watson & Pennebaker, 1989). Individuals with high PA are also likely to use more approaching-oriented behavioural strategies in situations which may yield pleasure or rewards (Watson & Clark, 1984). For instance, they are usually motivated to have social interactions with others (Watson & Pennebaker, 1989). As a result, PA could be seen as the core component of Extraversion (McCrae & John, 1992) and could be assessed via the same measures (Watson & Pennebaker, 1989).

Based on the studies by Gray and other researchers, Elliot and Thrash (2002) further proposed that the two systems - BAS and BIS - can actually be treated as two temperaments - the avoidance and the approach temperaments. The approach temperament may be considered to be the motivational force of directing behaviours towards approaching positive stimuli, whereas the avoidance temperament directs behaviours away from negative stimuli (Elliot, 2006). Accordingly, Elliot and Thrash (2002) suggested that these two temperaments were the core constructs of PA/NA and
Extraversion/Neuroticism, reflecting the neural and psychological bases of how individuals organise their perception, reactions and behaviours towards either positive or negative signals in their environment. Elliot and Thrash (2002) tested their propositions in a series of studies using exploratory and confirmatory factor analysis. Their results suggested that the measures of Extraversion, PA and BAS were highly correlated and loaded on a single factor as the approach temperament, while those of Neuroticism, NA and BIS were also closely associated with each other and formed a single factor as the avoidance temperament.

Further, Elliot and Thrash (2002) have associated the two latent constructs with individuals’ achievement goals. As they argue, approach temperament should be positively related to mastery goals, focussing on the development of competence and task mastery, while avoidance temperament should predict avoidance goals, focussing on avoiding incompetence relative to others (Elliot & Thrash, 2002). Mastery goals also lead to high achievement, whereas avoidance goals are usually aversive and can lead to negative emotions in model societies (Elliot & Harackiewicz, 1996). Accordingly, Elliot and Thrash (2002) found that BAS, Extraversion and PA moderately and positively correlated with master goals in both nomothetic and idiographic reports, while BIS, Neuroticism and NA moderately and positively correlated with avoidance goals.

Elliot and Thrash’s (2002) propositions have also been supported by the empirical findings in neuroscience. For instance, in one exploratory study, Canli, Zhao, Desmond, Kang, Gross, and Gabrieli (2001) found that Extraversion and Neuroticism were associated with brain activation, especially that of the amygdala, to positive and negative stimuli, respectively. Canli et al. (2001) also found that the activation of the anterior
cingulated cortex (as another region of the brain engaged in affective processing) to positive emotional words was positively associated with Extraversion (Canli et al., 2001). Likewise, Haas, Constable, and Canli (2008) confirmed the idea that exposure to negative stimuli should trigger sustained activation of the medial prefrontal cortex as a function of Neuroticism. As concluded by DeYoung and Gray (2009), findings from studies of personality neuroscience are consistent with research (e.g., Elliot & Thrash, 2002) showing that Neuroticism and Extraversion are tapping latent constructs of the BIS and BAS and are also associated with a person’s positive and negative feelings, respectively.

Overall, although trait affectivity, Extraversion/Neuroticism and motivational temperaments should be treated as separate constructs, they share the same affective components as positive and negative emotions, and the same motivational components as the systems of BAS and BIS. Table 4.1 summarises the characteristics of PA and NA, their links with the Big Five model and the motivational systems. Accordingly, it can be argued that people with high PA may experience more positive feelings as a result of their sensitivity and approaching behaviours towards positive stimuli, while those with high NA may have more negative feelings due to their sensitivity to negative stimuli and avoiding reactions and behaviours. Further, when discussing the effect of PA and NA, the findings or propositions relating to other relevant constructs (e.g., Extraversion and Neuroticism) may also be helpful if they refer to the same underlying mechanisms (e.g., the affective or motivational components).
Table 4.1 Characteristics of Positive Affectivity and Negative Affectivity

<table>
<thead>
<tr>
<th></th>
<th>Basic definition</th>
<th>Linkage with Big-Five model</th>
<th>Linkage with motivational systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Affectivity (PA)</td>
<td>A unified personal trait associated with individual differences in positive emotions (e.g., happiness, excitement and enthusiasm).</td>
<td>PA is a sub-construct under the broad personal trait - Extraversion. It is considered to be the core component of Extraversion since positive emotions energise trait expressions such as active social interactions.</td>
<td>PA is linked to the Behavioural Approach System (BAS). People with high BAS are sensitive to positive stimuli (e.g., rewards) in the environment, and are motivated to take proactive behaviours approach these stimuli.</td>
</tr>
<tr>
<td>Negative Affectivity (NA)</td>
<td>A unified personal trait associated with individual differences in negative emotions (e.g., depression and anxiety).</td>
<td>NA is a sub-construct under the broad personal trait - Neuroticism. It is considered to be the core component of Neuroticism since negative emotions are the main determinants of dispositional behaviours such as avoiding and withdrawal.</td>
<td>NA is linked to the Behavioural Inhibition System (BIS). People with high BIS are sensitive to negative stimuli (e.g., punishment) in the environment, and generally tend to take more avoiding behaviours.</td>
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</table>
4.3 The Moderating Effects of PA and NA on the Relationship between EI and Work Well-being

4.3.1 Moderating roles of PA and NA

As noted previously, one traditional approach to studying the antecedents of well-being is to focus on individual factors, among which personal traits such as trait affectivity have frequently been found to be the main predictors (e.g., Hulin & Judge, 2003). PA and NA have been found to have substantial influences on the individual’s work well-being. PA is usually positively related to job satisfaction (e.g., Judge et al., 2008; Lent et al., 2011), and negatively related to job stress (e.g., Fogarty et al., 1999) and burnout (e.g., Alarcon et al., 2009). NA, in contrast, usually predicts high level of stress and burnout (Brief et al., 1995; Moyle, 1995; Zellars et al., 1999) and low level of satisfaction (e.g., Bowling, Hendricks, & Wagner, 2008). It has been argued that the effect of trait affectivity is mediated by various mechanisms including perception and sensitivity, cognition, behavioural reactions, and regulation and coping (Judge & Larson, 2001). Some of these mechanisms also appear to moderate the effect of other factors on work well-being (e.g., Cropanzano, James, & Konovsky, 1993; Heinisch & Jex, 1997; Hochwarter, Kacmar, Perrewé, & Johnson, 2003). As PA and NA are linked to the individual’s motivational systems (as BAS and BIS), and also because they reflect the person’s typical ways of dealing with emotions, it is possible that they may moderate the effect of EI on work well-being. The following sections address their potential moderating roles in detail.

The activating effect

The activating mechanism is associated with a person’s emotional sensitivity. Watson and Pennebaker (1989) proposed that high NA individuals were hyper-responsive to painful stimuli. They were more likely to pay attention to such stimuli in the environment and,
therefore, to further analyse the meanings of those stimuli (Watson & Pennebaker, 1989). From a physiological perspective, Rothbart and Sheese (2007) suggested that the approach and inhibition systems of trait affectivity influenced a person’s arousal and behavioural readiness when encountering certain events, which may include changes in “skin conductance, heart and respiration rate, blood pressure and patterns of blood circulation” (Rothbart & Sheese, 2007: 340). For instance, low behavioural inhibition was linked to high heart-rate variability; cortisol increases tended to be higher among those children who were higher in the approach temperament after a competitive interaction with an adult (Rothbart & Sheese, 2007). Those physiological changes may further increase a person’s sensitivity to external stimuli (Rothbart & Sheese, 2007). Accordingly, Judge and Larson (2001) further suggested that affective dispositions may moderate the links between emotional or social stimuli and an employee’s perception in the workplace. In line with the proposition that BIS and BAS provide the underlying motivational drivers (e.g., Corr, 2004; Elliot & Thrash, 2002), Judge and Larsen (2001) have argued that people with high PA are sensitive to positive stimuli in the organisations, including rewards, promotional opportunities and positive feedback from others. They are also likely to perceive the workplace to be more positive than those with low PA (Judge & Larsen, 2001). High NA, in contrast, may lead to a high level of sensitivity to negative stimuli (e.g., punishment, negative feedback and emotions from others) and to generate a negative perception of work (Judge & Larsen, 2001).

Perkins and Ritchhart (2008) provided a useful framework for examining the relationship between a person’s sensitivity and intelligent behaviours. They suggested that although the abilities-centric view was once the dominant view, more and more researchers are now paying attention to an alternative view - the dispositional view of thinking, which
looks not only at what people are able to do but also at what they typically do (Perkins & Ritchhart, 2008). Accordingly, Perkins and Ritchhart (2008) proposed a three-way framework to account for a person’s “good thinking”. The framework included three components: sensitivity; inclination; and ability (Perkins & Ritchhart, 2008). Sensitivity was about whether the individual noticed the occasions in an on-going event which may need further deliberate processing (Perkins & Ritchhart, 2008). Inclination was about whether the person tended to put effort in the processing of those occasions in a persistent way (Perkins & Ritchhart, 2008). Finally, ability was about whether the person was able to process the occasions effectively (Perkins & Ritchhart, 2008). In particular, Perkins and Ritchhart (2008) argued that a person’s sensitivity was the most critical (and difficult) part for initiating “good thinking”. They reported a series of studies exploring how students responded to stories such as that concerning Mrs. Perez,¹ and found that, after reading the story, most students initially failed to detect the possibility of alternative choices. When they were reminded or informed about these possibilities, many of them were able to construct those choices (Perkins & Ritchhart, 2008). Furthermore, Perkins and Ritchhart (2008) suggested that a person’s sensitivity was closely linked to their dispositions (e.g., a general alertness or mindfulness).

Based on these propositions by Perkins and Ritchhart (2008), it is plausible to suggest that if people are sensitive to either positive or negative emotional or social stimuli in their environment, their sensitivity may serve to initiate the use of the emotional abilities. Accordingly, as individuals with high PA are sensitive to positive signals (e.g., Elliot &

¹ The story concerned a woman who told her daughter about the fact that her company would be relocated to another city. As a result, the women said that they would have no choice but move their home to another city and leave their friends. In the experiment, the students were first asked about their thoughts about the reasoning in the story (as a test of sensitivity for alternative solutions). They were then provided with some cues suggesting that there could be alternative choices (as a test for inclination). Finally, they were asked to provide those choices in detail (as a test for ability). For detail about the studies, please see Perkins and Ritchhart (2008).
Thrash, 2002; Judge & Larson, 2001), they may further use their EI to undertake a full analysis of the signals, including what positive outcomes the signals may indicate. They may also use their regulatory abilities to achieve these outcomes. Conversely, since people with high NA are sensitive to negative stimuli (e.g., Elliot & Thrash, 2002; Judge & Larson, 2001), their negative feelings (e.g., anxiety or depression) can further lead to more use of their emotional abilities to understand and manage those feelings. Consequently, for employees in work organisations, sensitivity to emotions may increase the chance of applying EI in processing emotional information. Since EI can lead to higher satisfaction, and less stress and burnout at work (e.g., Brackett et al., 2010), emotional sensitivity may serve to enhance the effect of EI on aspects of well-being. In contrast, if a person is not influenced by emotions or emotional signals around them, the effect of EI on the person’s work well-being may be negligible.

The motivational effect

The tradition of treating traits as motivational forces can be traced back to Allport and his theory of personal traits. Allport (1931: 168, as cited in Deary, 2009) seemed to emphasise traits as the driving force behind human behaviours as he claimed that “a trait is dynamic or at least determinative”. In general, it is assumed that individuals are motivated to express their traits and attain trait-congruent goals (Tett & Burnett, 2003). The dispositional motivations are considered to be intrinsic in nature (Tett & Burnett, 2003), fulfilment of which can create more positive and fewer negative feelings (Diener, 1984). Accordingly, since positive feelings are in congruence with the trait of PA, people with high PA might be intrinsically motivated to achieve more positive emotions. This motivation can become even stronger when the person’s current mood or emotions are not compatible with their traits (Rusting, 1998). For instance, if a person with high PA is
not in a good mood, he or she might be motivated to change the mood and apply more regulatory strategies. Moreover, according to Elliot and Thrash (2002), PA is linked to a person’s BAS and mastery goals. As such, high PAs are driven to achieve mastery of their tasks and approach positive outcomes, which in turn result in high well-being. Conversely, NA may lead to more negative emotions. On the one hand, if negative feelings are in accordance with the trait of NA, then people with high NA are motivated to gain more negative feelings. On the other hand, as Elliot and Thrash (2002) have argued, NA is positively related to BIS and avoidance goals, both of which are linked to a person’s passive and avoiding behaviours. As a result, those behaviours may not help to deal with the source of the negative feelings, which may even lead to more of those feelings later.

More specifically, since traits are expressed via a person’s thoughts and behaviours, and since PA and NA are also linked to the BAS and BIS systems, PA and NA may influence people’s cognition, selection, creation, and management of themselves and the social environment. Regarding cognition, when a person receives external stimuli, they may respond by seeking to appraise and understand the stimuli (Judge & Larsen, 2001). However, PA and NA may involve different ways of dealing with the stimuli (Judge & Larsen, 2001). According to Judge and Larsen (2001), those with positive traits were more likely to understand the stimuli in a positive way (e.g., seeing difficulties as learning opportunities), while those with negative traits may tend to interpret them negatively (e.g., treating others’ suggestions as offences). This conclusion is not surprising, since PA and NA are related to different self-images (e.g., Watson & Clark, 1984), which in turn may have substantially different effects on a person’s interpretation and understanding of emotional and social stimuli. Also, according to Rusting (1998),
people usually process emotional information in congruence with their traits. Such processes could become even more salient when there is incongruence between trait and mood (Rusting, 1998). Likewise, borrowing from Motowidlo’s model, Bowling et al. (2008) made a similar point regarding the effect of PA and NA on an individual’s processing of information. These authors suggested that employees with high PA were more likely to store and retrieve positive memories at work, whereas those with high NA may recall more negative experiences toward the job. The cognition mechanism is further supported by a series of experimental studies (e.g., Rusting, 1998; Rusting & Larson, 1998). Rusting and Larson (1998), for instance, found that Extraversion (as aligned with BAS) was related to better recall of positive words among the participants, while Neuroticism (associated with BIS) was related to fewer errors on recalling negative items.

The selection mechanism implies that individuals with different affective traits may tend to select certain situations or jobs which align with their traits (Judge & Larsen, 2001). It is argued that a suitable situation or event is critical for the expression of traits, which can make the individual feel more comfortable (Diener, 1984). For instance, individuals with high NA are more likely to stay in stressful tasks as a result of their avoiding strategies in coping with stress (Judge & Larsen, 2001; Spector et al., 2000). High PA persons, on the other hand, may perform more actively and positively in job interviews, and therefore, are likely to get more favourable jobs (Alarcon et al., 2009).

The evocation mechanism suggests that people with certain affective dispositions may create trait-congruent situations for themselves (Judge & Larsen, 2001). To illustrate, it is likely that high NA people have a greater degree of conflict with others in the workplace.
(Spector et al., 2000). Since they express more negative feelings towards others, they may incur more negative responses from others (Alarcon et al., 2009). High PA employees, however, may evoke more positive feelings via actively attaining their intrinsic work goals (Judge & Larson, 2001). They also actively seek out rewards and challenges, and look for circumstances which make positive outcomes more likely (Elliot & Thrash, 2002).

Finally, trait affectivity is expressed via people’s self-regulation. The traditional focus is usually on how individuals cope with their stress. From this perspective, some strategies (e.g., problem-focused and engagement coping) are considered to be more effective in reducing stress than others (e.g., emotion-focused and disengagement coping) (Ebata & Moos, 1991). Accordingly, Carver and Connor-Smith (2010) suggest that Extraversion (which is linked to BAS) should predict more engagement and problem-focused coping, as it provides the energy and positive affect necessary for coping (Carver & Connor-Smith, 2010). On the other hand, Neuroticism should be linked to emotion-focused and disengagement coping, as it is associated with more distress and avoidance tendencies (Carver & Connor-Smith, 2010). According to Elliot and Thrash (2002), because PA and NA are also linked to BIS and BAS, similar assumptions may also apply to them. In addition to studies of coping, there is a growing body of literature on the role of emotion regulation in predicting work well-being. From a general perspective, John and Gross (2004, 2007) have suggested that an energetic approach tendency can increase more active regulation strategies such as situation modification and decrease the chance of suppression, while negative emotions and a tendency to avoid increase the probability that a person will be motivated to evade uncomfortable situations and to decrease other active regulating effort such as attention deployment and situation modification.
Accordingly, Judge & Larson (2001) have argued that the outcomes of emotion regulation further influence the individual’s satisfaction/dissatisfaction with their work situation.

Overall, then, when considering the interaction between trait and ability, it is reasonable to suggest that as people with high PA are typically motivated to have positive feelings and outcomes in their life, they would put more effort into fulfilling these purposes. Obviously, their effort may include the proactive use of EI. Moreover, Tett and Burnett (2003) have suggested that the expression of traits depends on personal abilities. In other words, relevant knowledge and abilities are important for a person to successfully express their traits. Accordingly, people with high PA and BAS may use their skills of emotional understanding and regulation more frequently in order to enhance interpretation and management (including selection, evocation and regulation) of the situation. For a high PA person in the workplace, EI may help him or her achieve better performance in various situations (e.g., interviews), interact with others more smoothly, and regulate feelings and cope with work stress in a more effective way. Such effort may enable the individual to achieve a higher sense of work well-being. However, for those with high NA, the situation is ambiguous. The primary goal of NA is associated with avoidance of negative outcomes (Elliot & Thrash, 2002) rather than promotion of personal achievement and wellness. Thus their behaviours are likely to be more passive and involve more avoidant behaviours (John & Gross, 2007; Judge & Larson, 2001). As such, although the expression of NA and BIS may also require the use of emotional abilities (e.g., understanding and dealing with the negative feelings), it is not clear whether those behaviours can actually lead to a greater sense of personal well-being. In a study by Tamir (2005), people with high NA were even found to actively seek out
negative affect in order to attain their performance goal linked to BIS. Since the current study focusses on the employee’s affective well-being at work (e.g., De Jonge & Schaufeli, 1998), it is not likely that behaviours leading to negative feelings can yield high affective well-being.²

A summary of the moderating effects of PA and NA on EI

Table 4.2 provides an overview of the moderating mechanisms discussed above. Overall, PA is likely to strengthen the positive effect of EI on work well-being through its positive activating and motivating effects. As PA is linked to BAS, employees with high PA are likely to be sensitive to positive emotions and emotional signals (e.g., rewards) in the work environment, which can further activate their emotional abilities to deal with such signals. Individuals with high PA are also motivated to attain positive feelings and high well-being in order to preserve complementarity with their trait positivity. Consequently, employees with high PA may use their EI to select or develop a more compatible emotional and social context for themselves. They may also regulate emotions and cope with stress via using effective strategies. Accordingly, PA can facilitate the positive effect of EI. The effect of NA is somewhat contradictory. Although NA may activate the use of emotional abilities through raising a person’s sensitivity to negative emotions, it can also motivate individuals to remain attached to negative feelings rather than to regulate or cope with these feelings actively and effectively. As a result, the effect of EI among those with high NA is less clear.

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² However, it could be possible that high NAs can make themselves feel ‘comfortable’ through gaining more negative feelings, which might be an interesting topic for future research.
| **Table 4.2 The moderating effects of Positive Affectivity and Negative Affectivity on EI** |
|---|---|---|
| **Activating effect** | **Motivational effect** | **Overall effect** |
| **Positive Affectivity (PA)** | People with high PA are sensitive to positive emotions and emotional stimuli in the environment. The sensitivity may further activate their emotional abilities. (+) | **People with high PA are generally motivated to attain positive feelings and deal with emotions actively: (+)** | **PA is likely to strengthen the effect of EI on well-being due to its positive activating and motivational effects. (+)** |
|  | - Cognition: they understand and store more positive emotions. |  |
|  | - Selection: they select positive (or potentially positive) environments in congruence with their trait positivity. |  |
|  | - Creation: they actively create positive events and situations (e.g., job promotion). |  |
|  | - Self-regulation: they regulate emotions and cope with stress via using active and effective strategies. |  |
| **Negative Affectivity (NA)** | People with high NA are sensitive to negative emotions and emotional stimuli in the environment. The sensitivity may further activate their emotional abilities. (+) | **People with high NA are generally motivated to attain negative feelings and deal with emotions passively: (-)** | **The effect of NA is less certain due to its positive activating but negative motivational effects. (??)** |
|  | - Cognition: they understand and store more negative emotions. |  |
|  | - Selection: they stay in negative (or potentially negative) environments in congruence with their trait negativity. |  |
|  | - Creation: they are likely to create negative events and situations (e.g., interpersonal conflict). |  |
4.3.2 Current findings on the moderating effects of PA and NA

Although substantial research has been conducted on the main effect of trait affectivity, few studies have explored its possible moderating effects on other factors. Following the mechanism of sensitivity, most studies have explored how trait affectivity, and particularly NA, can moderate the relationships between environmental factors and work well-being (e.g., Barsky, Thoreson, Kaplan, & Warren, 2004; Heinisch & Jex, 1997; Moyle, 1995; Noor, 1997; Parkes, 1990). For example, Parkes (1990) found that the negative effect of work demand (e.g., pressure and quantitative overload) on job stress was more salient among employees with high NA. Similarly, Moyle (1995) reported that NA moderated the relation between job characteristics and work well-being. Under conditions of fluctuating workload and low job control, individuals with high NA reacted more negatively compared to those with low NA (Moyle, 1995). Interestingly, NA has also been found to weaken the effect of positive job characteristic on well-being. Irving, Coleman, and Bobocel (2005), for instance, found that perceived procedural justice (i.e. fairness of decision-making process in the organisation) was positively related to job satisfaction. However, the relationship was much weaker among employees with high NA because they perceived the context to be more negative and failed to consider the positive implications of procedural justice (or being less sensitive to the positive aspects) (Irving et al., 2005).

Based on the mechanism of sensitivity, PA has also been found to enhance the positive effect of pay increases on pay satisfaction (Shaw, Duffy, Jenkins, & Gupta, 1999) and to buffer the negative effect of organisational politics (with high collective efficacy) on job satisfaction (Hochwarter et al., 2003). Moreover, the motivational nature of PA usually leads to positive outcomes. Cropanzano et al. (1993), for example, found that PA could
moderate the relationship between job tenure and job performance since long tenure can led to better performance among those with high PA. As Cropanzano et al. (1993) explained, due to the honeymoon effect, all employees were motivated to create a positive impression at the beginning of their jobs; however, such effect soon wore off, while traits became more and more important. Employees with high PA, therefore, could utilise their work experiences to achieve better performance, as they were intrinsically motivated to attain positive outcomes (Cropanzano et al., 1993). Yet it is interesting to note that the motivational effect of PA is not always beneficial for employee well-being. Goussinsky (2011), for instance, found that a high frequency of customer aggression led to more job stress among call centre employees, while such an effect was much stronger among those with high PA. According to Goussinsky (2011), this finding may result from a mismatch between the employee’s trait and their work environment. As individuals with high PA were motivated to have a positive work environment, a detrimental context could induce even more stress among them if they were less able to manage the situation (Goussinsky, 2011). Accordingly, it seems that besides a positive trait, the ability to manage self and others may also be a critical piece of the “well-being puzzle”.

As mentioned in Chapter 3, although substantial research has been conducted on the main effect of EI, only a small number of studies have focussed on the interaction between EI and personality in predicting the individual level well-being. In one study, Gohm et al. (2005) tested the moderating effect of emotional traits (measured by TMMS) on EI (as measured by MSCEIT) and perceived stress with a group of freshmen from a mid-sized US university. They found that EI was only related to stress among persons who tend to perceive more emotions (assessed by the Attention subscale in TMMS) and put more effort in understanding those emotions (assessed by the Clarity subscale in
TMMS). In a recent study, it was also found that among employees with high PA, a high level of self-efficacy in the ability to regulate emotions led to more use of deep acting among call centre staff (Cheung & Tang, 2009). Overall, empirical studies on the interaction between emotional abilities and traits in predicting well-being are relatively scarce. Consequently, there is a need for further research in this field.

4.4 Conclusion

This chapter has provided a review of the key research variables - trait affectivity, defined as PA and NA - and their relevant constructs including Extraversion, Neuroticism, BAS and BIS. The chapter further discussed the potential moderating effects of PA and NA on work well-being, which informed the basic mechanisms (e.g., activating and motivational effects) concerning the interaction between the two emotional traits and EI.

The trait approach, which remains the dominant approach to the study of personality, explores stable individual differences in thoughts and behaviours across situations. Traits are usually assumed to be motivational in nature. Of the various typologies of personality traits that have been advanced, most recognise two traits in common traits: Extraversion and Neuroticism. Extraversion is usually linked to positive affects and sociability, while Neuroticism is usually associated with negative feelings and withdrawing behaviours. Following the study on the two broad traits, other researchers have focussed on their emotional nature and further proposed the notion of PA and NA. Individuals with higher PA tend to have more positive feelings, whereas those with higher NA are more likely to have negative feelings. Furthermore, it is suggested that PA and Extraversion are linked to the motivational system of BAS, while NA and Neuroticism are associated with the
systems of BIS (Elliot & Thrash, 2002). The former is related to sensitivity to positive stimuli and approaching behaviours, while the latter is linked to sensitivity toward negative stimuli and more avoiding behaviours.

As a result, when considering the moderating effect of trait affectivity on the relationship between EI and work well-being, it is necessary to clarify the underlying mechanisms. Firstly, it is argued that trait affectivity can increase a person’s sensitivity towards certain stimuli at work. Employees with high PA are sensitive to positive stimuli (e.g., rewards) and are more likely to be aroused by those stimuli, while those with high NA are sensitive to negative signals (e.g., punishment) and are easily affected by the signals. Trait affectivity also channels an employee’s perception of their job and environment. In this way, both PA and NA may activate the use of EI to understand and manage positive and negative stimuli in the environment.

Secondly, it is suggested that the tendency to express traits may intrinsically motivate the individual to attain either positive or negative results in the workplace. In particular, affective traits can influence a person’s understanding and memorising of emotional experiences. Individuals with high PA may interpret their workplace to be more positive and tend to store and retrieve more positive experiences. High NAs, on the other hand, may have more negative interpretations and are likely to recall more negative feelings at work. Moreover, high PA employees are motivated to select and create a positive work environment for themselves. They also tend to use effective strategies to regulate their emotions and cope with stress. In contrast, those with high NA may behave and react in a more negative and passive way, which could even lead to negative feelings and outcomes at work. Accordingly, employees with high PA are more likely to use their EI to facilitate...
their feelings and well-being in the organisation. For those with high NA, however, the effect of EI is somewhat mixed.

Compared to the number of studies on the main effects of PA and NA, only a small number of studies have explored their potential moderating effect. Most researchers have focussed on how PA/NA can moderate the relationship between external factors (e.g., work environment or job characteristics) and work well-being (e.g., satisfaction and stress) by increasing a person’s emotional and social sensitivity. It is also argued that PA may motivate individuals to achieve better feelings and outcomes at work. Yet BAS could become ineffective under certain situations (e.g., in a high trait-incongruent job). The empirical evidence regarding the interaction between EI and trait affectivity is even more scarce. Consequently, it is necessary to provide some tentative explanations as to mechanisms and processes that may underlie the roles of PA and NA in moderating the relationship between EI and work well-being.
Chapter 5 Individualism as a Potential Moderator of the Relationship between Emotional Intelligence and Work Well-Being

5.1 Introduction

If emotional ability does not reflect a person’s typical behaviours (Petrides & Furnham, 2001), what individual factors other than personal traits may motivate its use in real life? Another such motivators might be personal values. Values are different from traits, as the former are more likely to be influenced by the individual’s nurture (e.g., education and social environment) (Hofstede, 2001). In particular, two cultural values - Individualism and Collectivism - have been found to have a substantial influence on the individual’s emotions and subjective well-being (e.g., Schimmack et al., 2002). Some researchers (e.g., Fernandez-Berrocal et al., 2005) also suggest that the predictive effect of EI may vary among people with individualistic or collectivistic values. Accordingly, it is possible that those values may moderate the relationship between EI and work well-being. This chapter reviews the literature on cultural values with a particular focus on the role of Individualism and Collectivism, and their moderating effects on the relationship between EI and employee well-being.

The discussion is divided into two sections. Firstly, the chapter provides an overview of the literature concerning the theories of cultural values and the conceptualisation of Individualism and Collectivism. The chapter begins by introducing the research on values and its significance in cross-cultural psychology. The model of cultural values by Hofstede (2001) is then reviewed, which can be seen as one of the points of origins of the concepts of Individualism and Collectivism as cultural dimensions. The chapter then proceeds to consider the different components of Individualism and Collectivism.
Although there are various models of Individualism and Collectivism (e.g., Markus & Kitayama, 1991; Triandis & Gelfand, 1998), they tend to share some general components, such as self-representation, agency belief and value orientations (Brewer & Chen, 2007). More importantly, Individualism and Collectivism can also be studied at both the national and the individual levels. Reasons are given as to why this study has chosen to treat Individualism and Collectivism as personal values.

The second part of the chapter provides an overview of extant literature on the relationships among Individualism, Collectivism, emotions and work well-being. It is argued that cultural values may have substantial influences on how people perceive, understand and regulate emotions, and cope with stress. More specifically, through the activating, motivational and self-construal effects, Individualism and Collectivism can moderate the relationship between EI and work well-being. Research evidence is further summarised with regard to the moderating effect of Individualism and/or Collectivism on the EI-well-being relationship.

5.2 Cultural Values, Individualism and Collectivism

5.2.1 The concept of values

Research on values has a long history in psychology (e.g., Atkinson, 1964, as cited in McClelland, 1985). Building upon earlier theories, modern theories of expectancy-value (e.g., Feather 1988; Eccles & Wigfield, 2002) treat values as important components of human motives, which are also seen as being linked closely with a person’s feelings and behaviours. Feather (1988, 1992), for instance, extended Atkinson’s notion of value by linking it to an individual’s affective experiences and perceived valence of outcomes. Originally, Feather (1982: 275, as cited in Feather, 1992) defined value as:
Organised summaries of experience that capture the focal, abstracted qualities of past encounters, that have a normative or oughtness quality about them, and that function as criteria or frameworks against which present experience can be tested... But they are not affectively neutral abstract structures. They are tied to our feelings and can function as general motives.

Feather (1988) further suggested that value preferences could be associated with: (1) idiosyncratic experiences; (2) a group or culture; and (3) universal laws shared by all the individuals. Accordingly, all such experiences and criteria may influence the individual’s beliefs about what should or should not be done, which may also affect their preferences for certain things or events over others.

Further, Feather (1992: 112) argued that values were one class of motives influencing “a person’s cognitive-affective appraisal of a situation in relation to both means and ends”. Accordingly, he suggested that value not only determined whether certain outcomes were preferred or not (i.e. the valence of the outcomes), but also indicated the proper way to attain the outcomes (i.e. the instrumentality of the actions) (Feather, 1988, 1992). For instance, people who regard equality to be important may also see an arrangement aimed at reducing inequality as being attractive (Feather, 1988). As valence can further trigger a person’s positive and negative feelings, values become important motivators of human behaviours (Feather, 1988, 1992). It is interesting to note that in Feather’s (1988, 1992) theory, value may influence both the valence (i.e. what is good or bad) and the instrumentality components (i.e. what things can produce certain results or not).

Likewise, Eccles and Wigfield (2002) introduced an expectancy-value theory, which
assumed that values and probability of success were the key determinants of a person’s achievement motives. They proposed that a task-related value was closely associated with an individual’s self-schema (or knowledge about self; Cantor, 1990) (Eccles & Wigfield, 2002). Accordingly, it was not only the valence of the results that was important, but also whether the tasks could lead to results confirming or improving a person’s actual or ideal self (Eccles & Wigfield, 2002).

Overall, then, values may reflect an individual’s general preferences for certain situations and behaviours. Such preferences are likely to be linked to feelings of oughtness or rightfulness, the instrumentality of the situations and behaviours, and self-actualisation, which, in classic motivation theory, are considered to be important higher order individual needs.

5.2.2 Individualism and Collectivism in cross-cultural psychology

Cross-cultural psychology is a branch of psychology that looks at how cultural factors influence human behaviour. According to Smith (2010), the most central theme in cross-cultural psychology has been the assertion that human behaviour cannot be understood on the basis of studies conducted at any single location. Most cross-cultural psychologists believe that psychology can only reach the highest level of scientific understanding by extending its investigations to other places in the world (Lonner, 2000). Therefore, in order to extend the boundary of psychology, the goal of cross-cultural researchers is to explore both universal behaviours and unique behaviours and to identify the ways in which culture impacts our behaviours and thoughts.

Before proceeding further, it is important to first define the term “culture”. According to
Georgas and Berry (1995), much cross-cultural research equated “nation” and “ethnic group” with “culture”. However, the statement that Americans and Japanese behave differently because of their culture does not convey much meaning and merely paraphrases the existence of these differences (Georgas & Berry, 1995). The use of the name of a culture as a substitute for explanation of cultural variables that may account for phenomena has been referred to by Georgas and Berry (1995) as the “onomastic fallacy”. To address the issue, psychologists have focussed primarily on the aggregated psychological characteristics of people within a defined location or category. From this perspective, culture is defined as the pattern of values, attitudes and beliefs that affect the behaviour of the peoples within a region (e.g., Hofstede, 2001). One of the most well-known theories of this type is that proposed by Hofstede (2001). Hofstede (2001: 9) defined culture as the “collective programming of the mind that distinguishes the members of one group or category of people from another”. At the heart of those “programs”, he suggested, were systems of values, with value defined as “a broad tendency to prefer certain states of affairs over others” (Hofstede, 2001: 6). While such a definition is generally in accord with the definition of values in the literature on social psychology (e.g., Feather, 1988), it also implies that cultural values should be determined mainly by the collective culture or cultural norms rather than other factors such as personal experiences.

Based on the findings from attitude surveys undertaken between 1967 and 1973 within subsidiaries of an information technology company in 66 countries, Hofstede (1983, as cited in Hofstede, 2001) identified four universal dimensions of cultural values: Power Distance Index; Individualism; Masculinity; and Uncertainty Avoidance Index. Other researchers have subsequently proposed their own models of cultural values, including
the work by Schwartz (1999), and that by House et al. (2004) based on a global leadership study. Despite their differences, certain values, such as Individualism-Collectivism, are common across these models. As noted by Triandis et al. (1988), many studies have focussed on Individualism and Collectivism as key dimensions of cultural difference. Both dimensions have also continued to be the most prominent constructs in cross-cultural psychology. Indeed, Vandello and Cohen (1999) have claimed that Individualism-Collectivism is perhaps the most useful and actively studied dimension in cross-cultural psychology.

5.2.3 Competing conceptualisations of Individualism and Collectivism

Hofstede (2001) treated Individualism and Collectivism as a single dimension at the national level. Accordingly, Individualism concerned “the degree to which individuals are supposed to look after themselves or remain integrated into groups” (Hofstede, 2001: xv). People with high Individualism or low Collectivism were assumed to depend on themselves and be independent from the collective, while those with low Individualism or high Collectivism were seen as tending to rely more on others in their group and to stay much closer to their group members (Hofstede, 2001).

As noted by Oyserman, Coon, and Kemmelmeier (2002), however, some researchers conceptualise Individualism and Collectivism at the individual level and correlate their assessments with individual outcomes in the form of behaviours, attitudes and beliefs. A major contribution to this approach is the work of Triandis and colleagues (e.g., Triandis et al., 1988; Triandis & Gelfand, 1998). According to Triandis et al. (1988), the Collectivism and Individualism constructs reflect people’s different ways of processing and evaluating social information or events. The major themes of Collectivism are “self-
definition as part of group(s), subordination of personal goals to in-group goals, concern for the integrity of the in-group, and intense emotional attachment to the group”, where the group is defined as “a set of people with whom one shares some attributes that contribute to one’s positive social identity” (Triandis et al., 1988: 335). The major themes of Individualism are “a self-definition as an entity that is distinct and separate from group(s), emphasis on personal goals even if pursuit of such goals inconveniences the in-group, and less concern and emotional attachment to the in-groups” (Triandis et al., 1988: 335). Triandis and Gelfand (1998) further divided each of the constructs into two dimensions, the vertical and the horizontal. In horizontal Individualism, people define themselves independently from the groups, while in horizontal Collectivism, people see themselves as similar to other members in the group and share common goals; in vertical Individualism, people are driven to be distinctive from other group members through competition, whereas in vertical Collectivism, people emphasise the harmony of the group and are even likely to sacrifice their own interests in favour of group interests (Triandis & Gelfand, 1998).

Likewise, Markus and Kitayama (1991) have proposed the notion of self-construal with a specific focus on a person’s ways of defining self. According to their argument, people usually have different ways of perceiving the self. A typical western view of the self may include the “individual as an independent, self-contained, autonomous entity who (a) comprises a unique configuration of internal attributes (e.g., traits, abilities, motives, and values) and (b) behaves primarily as a consequence of these internal attributes” (Markus & Kitayama, 1991: 224). Markus and Kitayama (1991) termed this the independent self-construal. In contrast, some people may view themselves in a way which is related to others (e.g., I am a polite person with my boss but not with my subordinates) (Markus &
Kitayama, 1991). As such, this kind of selfhood might be labelled as the interdependent self-construal, as the individual’s experiences and behaviours result not only from their own attributes but also from relationships with others (Markus & Kitayama, 1991). Markus and Kitayama (1991) further argued that the difference in self-construal may influence a person’s cognition and emotions. For instance, those with interdependent self-construal may treat knowledge about themselves and others as specific to the context and process it accordingly, while those with independent self-construal may treat this knowledge as having universal application (Markus & Kitayama, 1991). Cultures with interdependent self-construal are likely to emphasise the role of other-focused emotions such as shame and sympathy; the display of emotions is usually controlled by social rules and norms (Markus & Kitayama, 1991). Also, individuals with high levels of interdependent self-construal are motivated to attain social harmony, while those with independent self-construal are driven to achieve personal success (Markus & Kitayama, 1991).

Based on a more recent content analysis of existing scales (e.g., Hui, 1988; Triandis & Gelfand, 1998), Brewer and Chen (2007) developed a model of Individualism and Collectivism, which included three components: self-representations; agency beliefs; and values. The components of self-representations and values seem to align with the previous models (e.g., Markus & Kitayama, 1991; Triandis et al., 1988). In particular, self-representation is about the way of defining self, while values are concerned with what is important or should be done. For individualists, emphasis is likely to be placed on individual rights, achievements and wellness. Collectivists, however, are more likely to prioritise social harmony and group welfare (Brewer & Chen, 2007). Considering the notion of group, Brewer and Chen (2007) found that there are multiple targets of
Collectivism, which may cover different types of in-groups (e.g., spouse, kin, neighbours and friends; Hui, 1988). In this sense, Brewer and Chen (2007) differentiated between the two levels of Collectivism, one of which was related to close social relationships (e.g., family), and the other associated with institutions and typical groups (e.g., society).

The component of agency beliefs seems to be less mentioned by previous studies, but still exists in various measures of Individualism and Collectivism (Brewer & Chen, 2007). The notion of agency belief can be traced back to the social-cognitive theory proposed by Skinner, Chapman, and Baltes (1988), who suggested that there were three distinctive sets of beliefs within the concept of perceived control: control beliefs; means-ends beliefs; and agency beliefs. Control belief had to do with the general relationship between an agent (either individual or group) and ends; means-ends belief was about what means actually contribute to the ends; while agency belief was about whether the agent possesses the relevant means (Skinner et al., 1988). In contrast, the concept by Brewer and Chen (2007) is much broader and seems to cover both the control and the means-ends beliefs. According to Brewer and Chen (2007: 139), agency beliefs refer to “implicit or explicit understandings about what makes things happen in the social world”. They further suggested that individualists may believe individual agency (e.g., personal attributes) as the basis for their achievement, while collectivists may trust social responsibility and group agency. As an illustration, Brewer and Chen (2007) re-analysed the data by Brockner and Chen (1996) and found that only the component of agency belief influenced how people attribute their performance to their own abilities. It was found that compared to Chinese participants (with high interdependent agency belief), American participants (with high independent agency belief) were concerned more with their own abilities (Brewer & Chen, 2007).
Table 5.1 summarises the major models of Individualism and Collectivism as discussed above. Accordingly, three conclusions can be drawn. Firstly, regarding the polarity of Individualism-Collectivism, although they could be treated as a uni-dimension (orthogonal) at the national level, the two constructs are generally independent of each other at the individual level. That is, a person could have a value orientation that is simultaneously high collectivist and high individualist. Second, both constructs are multi-facetted and tap different components of assessments (e.g., agency belief, self-construal and obligations). Finally, the conceptualisation of Collectivism seems to be more problematic than that of Individualism, since there could be different types of in-groups depending on which group the construct is targeted. This ambiguity regarding targeting appears to be one of the reasons for the lack of consensus among researchers regarding appropriate measures for Collectivism. As a result, for those who want to study Individualism and Collectivism at the individual level, it is important to make clear what component they are measuring. Such a strategy is also likely to benefit the study’s reliability and validity.

5.2.4 The treatment of Individualism and Collectivism in the current study

Due to the multiple definitions of Individualism and Collectivism, it is first necessary to clarify which level is the main focus in the current study and why this approach is taken. The current study chooses to explore the influence of Individualism and Collectivism at the individual level for several reasons. Firstly, as the study aims to identify the personal motivators of EI on work well-being, assessing personal values (i.e. Individualism and Collectivism) is more suitable for exploring individual differences and their influences on personal behaviours and attitudes. Second, exploring intra-cultural variation in cultural values is also important for uncovering the effect of cultural values on individual
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<td><strong>Individualism</strong></td>
<td>A single dimension at the national level Relating to the degree to which people (and their identities) are linked to groups, and are supposed to look after themselves</td>
<td>Defining self as a distinct entity, and valuing personal goals (Triandis et al., 1988)</td>
<td>Defining self independently (horizontal Individualism), and driven to be distinctive from others through competition (vertical Individualism) (Triandis &amp; Gelfand, 1998)</td>
<td>Independent self-representation</td>
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<td>Defining self independently (horizontal Individualism), and driven to be distinctive from others through competition (vertical Individualism) (Triandis &amp; Gelfand, 1998)</td>
<td>Behaving as a result of personal attributes</td>
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<td><strong>Collectivism</strong></td>
<td>Defining self as part of groups, and valuing group goals (Triandis et al., 1988) Seeing self as similar to other group members (horizontal Collectivism), and valuing group interest and social harmony (vertical Collectivism) (Triandis &amp; Gelfand, 1998)</td>
<td>Defining self as relating to others Behaviours resulting from others and relationships</td>
<td>Valuing personal achievement and well-being</td>
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<td>Interdependent self-representation</td>
<td>Interdependent agency belief (e.g., outcomes depend on group agency)</td>
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<td>Valuing social harmony and group interest</td>
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behaviours since intra-cultural variation can be as large as cross-cultural variation (Au, 1999). Thirdly, since the practical implication of the study is to improve employee well-being through personal training and development, understanding the effect of values at the individual level might be more meaningful for those practices.\(^3\)

Focussing on personal values does not mean that the current study will exclude all the theories or evidence concerning the effect of Individualism and Collectivism at the national level. Indeed, many theories about Individualism and Collectivism (e.g., Markus & Kitayama, 1991) are actually about the individual’s thoughts and behaviours. In his well-known book, *Culture’s Consequences*, Hofstede (2001) has also cited notions such as self-construal as reflecting cultural differences between Individualism and Collectivism. Moreover, there are substantial similarities among the empirical findings at the different levels (e.g., national, group and individual level) (Kirkman, Lowe, & Gibson, 2006). Accordingly, it is possible that national level findings or theories may have some implications for the discussion on the interaction between EI and Individualism/Collectivism at the individual level.

According to many models (e.g., Triandis & Gelfand, 1998), self-construal and values (or oughtness) can be considered to be the core components of Individualism and Collectivism. Brewer and Chen (2007) also point out that most measures include the dimension of agency belief. It can thus be suggested that the three components are actually associated with each other, which reflect the multiple dimensions of a person’s preferences (e.g., Feather, 1988). People who define themselves independently may treat

\(^3\) In addition, due to the time and resource limitations necessarily involved in a doctoral study project, it has not been possible to generate adequate research samples from different countries that would permit analysis of possible cross-cultural differences in the influence of each value. Consequently, focussing on personal values represents a suitable way of overcoming this empirical difficulty (Lonner, 2000).
their behaviours primarily as the result of their own attributes or characteristics (e.g.,
ability or traits) (Markus & Kitayama, 1991). They may also regard their own
achievement (as the outcomes of their behaviours) to be important, which might be seen
as critical component of defining themselves. Consequently, items tapping the three
components can legitimately be combined to reflect the dimension of Individualism
(Brewer & Chen, 2007). Thus, in order to ensure the content validly of studying
Individualism and Collectivism, the current study follows Brewer and Chen (2007), and
defines Individualism and Collectivism based on the three components: self-
representation; agency belief; and values. Such a definition may also be helpful for
discussing the moderating effect of Individualism/Collectivism on the EI-well-being link
(as will be addressed in the next section).

Accordingly, in the current study, Individualism is characterised by an independent self-
construal, a belief on individual agency and a pursuit for personal success and welfare
(Brewer & Chen, 2007). Collectivism is taken as including an interdependent self-
construal, a belief in group agency and a focus on social harmony and in-group4 welfare
(Brewer & Chen, 2007). As will be explained further in Chapter 7, the measures of
Individualism and Collectivism applied in this study have also been carefully chosen to
reflect these three components.

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4 The definition of Collectivism in this study does not distinguish between different levels of in-groups. The main reason
for this is that for most measures, the level of in-groups tends to be mixed (including relatives, colleagues, or group not
specified) (Brewer & Chen, 2007). Also characteristics of different in-groups are not the focus of the current study.
Accordingly, in-groups in the current study may include all those levels to which a person might belong.
5.3 The Moderating Effects of Individualism and Collectivism on the Relationship between EI and Work Well-being

5.3.1 Moderating roles of Individualism and Collectivism

Some studies suggest that compared to people in supposedly collectivistic national cultures, those in individualistic cultures seem to be more satisfied with their lives (Oyserman et al., 2002). Some cross-cultural findings also suggest that people in an individualistic culture tend to have higher overall job satisfaction than those in a collectivistic culture (e.g., Kanungo & Wright, 1983; Lincoln & Kalleberg, 1985; Taras, Kirkman, & Steel, 2010). However, Diener, Oishi, and Lucas (2003) have argued that the main effects might be due to either the wealth of the country or the self-serving bias among the participants. In particular, the self-serving bias is said to be more frequent among participants from North America (with high Individualism) but less frequent among East Asians (with high Collectivism) (Diener et al., 2003). More importantly and for our purposes, it has been found that Individualism and Collectivism can influence how individuals perceive, understand and regulate their feelings. Matsumoto et al. (2008), for instance, reported that country-level Individualism was positively related to the use of reappraisal and negatively related to the use of suppression in emotion regulation, with the latter two being associated with levels of positive and negative adjustment among people in different countries. Accordingly, it is possible that Individualism and Collectivism may moderate the effect of EI via their influences on the emotional processes, including the mechanisms of activation, motivation and self-construal.

The activating effect

To recap from the previous chapter, the activation mechanism is associated with a
person’s sensitivity to emotions. Since individualists share an independent self-construal (Markus & Kitayama, 1991), they may pay more attention to the positive and negative feelings within themselves (Lee, Aaker, & Gardner, 2000). Also since personal achievement and happiness are very important to them, individualists might be hyper-responsive to self-conscious feelings associated with their own performance or achievement (Eid & Diener, 2001; Markus & Kitayama, 1991). People with high Collectivism, on the other hand, have an interdependent self-construal (Markus & Kitayama, 1991). Accordingly, others’ feelings are much more important for their self-defining; hence, collectivists are more sensitive to the emotions (or the relevant emotional signals) from others, especially those emotions which have social meanings attached to them (e.g., the behaviour of parents or supervisors) (Lee et al., 2000).

Interestingly, in a recent study, Liew, Ma, Han, and Aziz-Zadeh (2011) found that whereas American doctoral students were better at identifying their peers’ (similar to their own) facial expressions rather than their supervisors’ (i.e. a self-face advantage), their Chinese counterparts were able to recognise their supervisors’ facial expressions even better than recognising their peers’ (i.e. a boss-face advantage). As Liew et al. (2011) have argued, since research supervisors are critical figures to the Chinese students, the supervisors’ facial expressions assumed much more salience to Chinese students. Moreover, Collectivism is typically associated with an emphasis on group welfare and social harmony (Triandis & Gelfand, 1998). Accordingly, people with high Collectivism are more likely to be emotionally aroused if they or a peer violate social norms or fail to fulfil their social responsibilities (Eid & Diener, 2001; Frijda & Mesquita, 1994).

Similar to the argument about trait affectivity advanced in the previous chapter, based on
the framework by Perkins and Ritchhart (2008), it is possible that the emotional sensitivity resulting from a person’s high value orientations (either Individualism or Collectivism) may increase the likelihood that the person will make use of their emotional abilities rather than allowing these abilities to remain dormant. An individualistic employee, for instance, might be more concerned about their own emotions at work, particularly those emotions associated with work performance or achievement. Consequently, this sensitivity may activate the use of the employee’s EI to decode the meaning behind emotions and further manage them. A collectivist, on the other hand, might be more sensitive to others’ feelings at work (e.g., the emotional expressions by their boss). The person may also care more about whether he or she may break the social rules of the organisation or act in accordance with the value preferences of peers. These emotional arousals may eventually facilitate the use of EI among collectivists. Overall, then, if EI can lead to better work well-being, it is plausible that both Individualism and Collectivism may have an enhancing effect through increasing a person’s emotional sensitivity.

**The motivational effect**

As previously discussed, values are important components of human motives, which are also linked to the valence and the instrumentality of different objects and behaviours (e.g., Feather, 1988, 1992). When it comes to cultural values, the valence nature of Individualism and Collectivism is quite obvious. In line with the value component in Brewer and Chen’s (2007) framework, individualists may prefer tasks associated with the fulfilment of self-interest, and place a high value on self-achievement and actualisation. Collectivists, in contrast, may regard the fulfilment of social obligations to be highly desirable (Brewer & Chen, 2007; Triandis & Gelfand, 1998). They are also likely to be
motivated to pursue group welfare and social harmony since they place high importance on these outcomes (Brewer & Chen, 2007). Accordingly, it seems that Individualism may drive people to use their EI more often for their own purposes (including the facilitation of their work well-being), whereas Collectivism may motivate individuals to apply EI more for social purposes.

Based on the concepts of Individualism and Collectivism advanced by Brewer and Chen (2007), there seems to be another critical component - the agency belief - which needs to be taken into account. Brewer and Chen (2007) suggested that agency belief involved two major types: independence versus interdependence. The former is associated with the belief in individual agency (e.g., effort or ability) as the basis for making things happen, while the latter emphasises the role of interpersonal and group agency in generating the outcomes (Brewer & Chen, 2007). As such, compared to people with high Collectivism, those with high Individualism might be more willing to put their individual effort (including the use of the EI) into facilitating their own well-being, to which individualists are likely to attach greater importance.

Therefore, when taking into account both the valence and the instrumental components, the motivational functions of Individualism and Collectivism are likely to be different. Since individualists value their own performance and wellness and believe in self agency, they are more likely to use personal abilities (such as EI) to increase their own well-being at work. Conversely, although collectivists may care more about social harmony and group welfare, since they believe in relational or group agency, they are less likely to take active individual actions (including the use of EI) to attain their social goals. Such patterns, as will be discussed in the following paragraphs, seem to be consistent with
how people process emotions, including understanding and management of emotions.

Regarding the understanding of emotions, Frijda and Mesquita (1994) proposed that cultures may vary in their focus on appraisal dimensions. In particular, in cultures which emphasise relationships with other people, emotional appraisals may include social dimensions (e.g., social responsibility) more readily, whereas appraisals in a culture valuing independent selves are less likely to include social dimensions (Frijda & Mesquita, 1994). This pattern has been found in understanding both the positive (e.g., Diener & Diener, 1995; Kitayama, Markus, & Kurokawa, 2000; Kitayama, Mesquita, & Karasawa, 2006; Oishi & Diener, 2001) and the negative emotions (e.g., Fry & Grover, 1982; Furnham & Malik, 1994; Tanaka & Marsella, 1976). In a recent study by Uchida and Kitayama (2009), for instance, Americans (in a highly individualistic culture) were found to associate positive hedonic experience of happiness with personal achievement, whereas Japanese (who are characterised as being more collectivistic) tended to associate happiness with social harmony.

Nevertheless, although both individualists and collectivists may use their abilities to interpret emotions and emotional information, they appear to respond to emotions and information differently. A first point of difference here has to do with a person’s management of emotions. Whereas the experience and expression of emotions - particularly positive ones - are important markers of the independent self in North American cultural models, in East Asian models strong emotions are seen to distract from an individual’s ability to fulfil role obligations and to maintain relational harmony (Mesquita & Albert, 2007). As a result, emotion moderation in general and the practice of emotions oriented to self-improvement (rather than self-expression or enhancement)
seem to be the ideal pattern of emotions among East Asian cultures (Kitayama et al., 2000). Further, according to Lee et al. (2000), Individualism is usually linked to a promotion-focussed form of self-regulation, while Collectivism is generally related to prevention-focussed self-regulation. Brockner and Higgins (2001) suggested that the former was associated with the goal of attaining more positive feelings through personal success, while the latter was about minimising negative emotions via ensuring safety. As such, self-enhancement tends to be the primary regulatory goal of individualists, whereas self-transcendence is more likely to be the goal for collectivists (Lee et al., 2000; Kitayama et al., 2000). It also seems that acting towards and acting against are found to be more important for the individualistic people, whereas withdrawal and submission explain more variance in feelings among collectivistic groups, which accords with the understanding that the collectivistic cultures are concerned primarily with maintaining relational harmony (Markus, Mullally, & Kitayama, 1997, as cited in Mesquita & Albert, 2007). For collectivists, the regulatory strategies may involve withdrawal and suppression of one’s own emotions in order to facilitate the social harmony (as a signal of safety) (e.g., Matsumoto et al., 2008; Mesquita & Albert, 2007). In contrast, individualists may prefer to directly act on emotions in order to facilitate their own well-being. Hence, strategies like direct expression seem to be more common among individualists (e.g., Luomala, Kumar, Worm, & Singh, 2004; Matsumoto, 1990; Matsumoto et al., 2008).

A second point of difference relates to how the person copes with stress. As Chun, Moos, and Cronkite (2006) proposed, Individualism and Collectivism may vary in the goals of coping. The former may focus on the needs of self (e.g., actively reducing one’s own stress), whereas the latter may primarily be concerned with the needs of others (e.g.,
suppressing personal feelings in favour of the group benefits) (Chun et al., 2006).

Accordingly, individualists also prefer to control and manage the external environment to achieve their coping goals while collectivists may focus on adjusting their internal selves (Chun et al., 2006; Tweed, White, & Lehman, 2004). In particular, collectivistic people tend to make the welfare of the in-group members a critical part of their self-defining and these other-focused coping goals require some amount of self-sacrifice which may even lead to an increase in perceived stress (Chun et al., 2006). Further, McCarty et al. (1999) have suggested individualists are also likely to use more active and primary control strategies to change or modify the environment (e.g., confronting the source of stress) in order to make it better fit with their own needs. Collectivists, on the other hand, may prefer more passive and secondary control strategies to cope with their stress including the acceptance of the current situation and restructuring their own cognition (McCarty et al., 1999). Consequently, members of collectivistic cultures typically value external factors such as fate or social support (rather than individual effort) as an important source of coping (Chun et al., 2006). Yeh and Wang (2000), for instance, report that Asian Americans tend to emphasise talking with their relatives as coping resources. It is also found that collectivistic cultural groups, such as Latino and African Americans, use social support systems to a greater extent than White European Americans (e.g., Dunkel-Schetter, Gurung, Lobel, & Wadhwa, 2001, as cited in Yeh, Arora, & Wu, 2006).

In summary, the motivational effects of Individualism and Collectivism highlight the different ways of using EI among people with different cultural values. People with high Individualism are motivated to put their effort in regulating and managing their feelings towards the positive. Accordingly, employees with high Individualism may actively use their EI to attain their goals through effective regulatory and coping strategies. However,
people with high Collectivism are more inclined to be concerned about others’ feelings and social harmony. Although they might use their EI to interpret the social meaning of various emotional stimuli, they are less likely to apply their emotional abilities to actively regulate their own feelings or to cope with stress (due to the interdependent agency belief and valuing social harmony). They may even sacrifice their self-interests in favour of the group welfare. Consequently, the motivational effect of Collectivism is likely to weaken the relationship between EI and personal well-being.

*The self-construal effect*

The third mechanism is linked to the component of self-construal. As previously discussed, people with different cultural values may define themselves differently. Those with high Individualism may treat the knowledge of themselves and others as linked to their own attributes and status; those with high Collectivism may regard the knowledge as being associated primarily with social dimensions (e.g., the group status) and controlled by social rules and norms (Markus & Kitayama, 1991). Further, since emotions are critical predictors of how work is experienced (Weiss & Cropanzano, 1996), it is possible that when making evaluative judgements about their jobs, individualistic employees are more likely to refer to their own emotional experiences (e.g., positive or negative feelings at work) as the source of information to make the judgement, whereas collectivistic employees may prefer to use external and social information (e.g., the contribution of the job to the society) as the basis for evaluation.

As discussed in Chapter 3, a critical mechanism linking EI to work well-being is through the management of emotions (e.g., Brackett et al., 2010; Mayer & Salovey, 1993). As such, it is plausible to suggest that Individualism may enhance the effect of personal
emotions on work well-being, and in turn, enhance the effect of EI. Collectivism, however, may weaken the relation between personal emotions and work well-being (due to its interdependent self-construal), and, therefore, may further weaken the influence of EI. As argued by Fernandez-Berrocal et al. (2005), Collectivism may reduce the predictive effect of EI on a person’s depression because people with high Collectivism tend to put less emphasis on personal emotional experiences. Consequently, for collectivists, external factors, particularly interpersonal or group influences rather than one’s own feelings, may have much more influence on judgements about their own well-being (Mesquita & Albert, 2007).

A summary of the moderating effects of Individualism and Collectivism on EI

Table 5.2 provides a summary of the moderating effects of Individualism and Collectivism on the relationship between EI and work well-being. In general, Individualism is likely to enhance the positive effect of EI on well-being. It is argued that due to their independent self-construal, individualists are sensitive to their own emotions and such sensitivity can further activate the use of EI among them. Independent self-construal can further strengthen the relation between a person’s emotions and their well-being, which serves as the main mechanism linking EI to work well-being as discussed in Chapter 3. It is also noteworthy that employees with high Individualism are motivated to use their emotional abilities to achieve high well-being at work since they value personal well-being and believe in their individual agency. Accordingly, they treat emotions thoughtfully and use effective strategies for regulatory and coping purposes. In contrast, although Collectivism may increase a person’s sensitivity to others’ or group emotions, it can also prevent the person from actively managing their own or others’ emotions due to their interdependent agency beliefs and preferences for respecting social harmony.
Table 5.2 The moderating effects of Individualism and Collectivism on EI

|                      | Activating effect                                                                                                                                                                                                 | Motivational effect                                                                                                                                                                                                 | Self-construal effect                                                                                                                                                                                                 | Overall effect                                                                                                                                                                                                 |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| **Individualism**    | Individualists are sensitive to their own emotions. The sensitivity further activates their emotional abilities to understand and manage those feelings. (+)                                                            | Individualists are motivated to use their own abilities to actively promote their own well-being: (+)                                                                                                                | Individualists evaluate their well-being mainly based on their own emotional experiences. (+)                                                                                                                                                                                                                                         | Individualism is likely to enhance the effect of EI through its positive activating and motivational effects. It also strengthens the link between emotion and well-being. (+) |
|                      | - Understanding: they understand emotions from a personal perspective.                                                                                                                                                                                                       | - Understanding: they understand emotions from a personal perspective.                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                         |
|                      | - Self-regulation: they regulate emotions and cope with stress with a promotion-focus and through effective strategies.                                                                                                                                                    | - Self-regulation: they regulate emotions and cope with stress with a promotion-focus and through effective strategies.                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                         |
| **Collectivism**     | Collectivists are sensitive to others’ emotions and group harmony. The sensitivity further activates their emotional abilities to understand and manage the feelings of others or of groups. (+)                                                | Collectivists are less motivated to use their own abilities. Their primary goal is to maintain social harmony and group welfare, even with the loss of personal interest: (-)                                      | Collectivists evaluate their well-being based on social perspectives (e.g., norms) rather than personal emotions. (-)                                                                                                                                                                                                                      | The effect of Collectivism is less certain due to its positive activating but negative motivational effects. It also weakens the link between emotion and well-being. (??) |
|                      | - Understanding: they understand emotions from a social perspective.                                                                                                                                                                                                       | - Understanding: they understand emotions from a social perspective.                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                         |
|                      | - Self-regulation: they regulate emotions and cope with stress passively and though ineffective strategies (e.g., avoiding or submission).                                                                                                                                 | - Self-regulation: they regulate emotions and cope with stress passively and though ineffective strategies (e.g., avoiding or submission).                                                                   |                                                                                                                                                                                                                                                                                                                                         |
Further, Collectivism is likely to weaken the link between emotions and work well-being by reducing the importance of emotions in formulating a person’s evaluation of well-being. Therefore, the role of Collectivism moderating the effect of EI is mixed and less clear.

5.3.2 Current findings on the moderating effect of Individualism/Collectivism

In the extant empirical studies on the moderating roles of Individualism and Collectivism, researchers have tended to focus on the valence/value component. In general, it is argued that if certain predictors of well-being match with the individual’s values (or goals), they will exert a positive influence on well-being; however, a mismatch can create negative effects. For example, Kirkman and Shapiro (2001) argued that practices based on teamwork might have no (or even a negative) influence on well-being among people with low Collectivism because they place less value on collective behaviours. Likewise, Spector et al. (2007) found that national-level Individualism moderated the link between perceived work interference with family and job satisfaction such that the link was much stronger among the individualistic people. They further argued that for Chinese employees, work itself might be a way of fulfilling social responsibility and, as such, collectivistic values may buffer the negative effect of work demands on their well-being at work.

Some studies also report findings related to the self-construal effect. In line with the proposition that personal attributes are more critical components of the self-definition for individualists, it has been found that such attributes have stronger impacts on a person’s general judgment on satisfaction; in contrast, internal factors have been found to be less important for collectivists, who usually focus on others and group status (e.g., Chiu,
In this regard, personal emotions are weaker predictors of life satisfaction in collectivistic cultures (Suh et al., 1998), whereas, Individualism has been found to strengthen the relationship between a person’s positive/negative emotions and life satisfaction (Schimmack et al., 2002). It is also found that negative emotional experiences are more negatively related to life satisfaction in individualistic than in collectivistic nations (Kuppens et al., 2008). Conversely, among collectivistic people, the social aspects (e.g., other’s or the group feelings) seem to have substantial influences on their feelings (Mesquita & Albert, 2007). Likewise, Suh and Diener (2001, as cited in Diener et al., 2003) found that perceived acceptance by parents and friends tended to predict general well-being more strongly among people with high Collectivism.

Regarding the empirical findings on EI and cultures or cultural values, a few researchers have sought to generalise the construct of EI assessment (both trait and ability formats) across cultures (e.g., Ghorbani, Bing, Watson, Davison, & Mack, 2002; Parker, Duffy, Wood, Bond, & Hogan, 2005; Rahim et al., 2002). However, the evidence regarding the moderating effect of cultural values on the predictability of EI (as an integrative ability) remains scarce. The study by Fernandez-Berrocal et al. (2005) has been reported in Chapter 3. Similarly, in another study by Ghorbani et al. (2002), TMMS was found to correlate with all the output measures (e.g., depression and perceived stress) in both the US and the Iranian samples after ensuring methodological equivalence. Recently, Karim and Weisz (2010) tested the MSCEIT among students from Pakistan (said to be a collectivistic culture) and France (an individualist culture). The findings indicated that in both cultures, the total score of MSCEIT correlated with both psychological distress and well-being. Further, some studies have verified that specific emotional abilities can lead
to different outcomes across cultures. For instance, although it was found that increased use of expressive suppression (as an ineffective regulatory strategy) predicted increased levels of negative well-being outcomes among the American, Norwegian and Australian participants (Haga, Kraft, & Corby, 2009), anger suppression was not necessarily related to depressive symptoms among the Asian Americans but was closely related to depression among the European Americans (Cheung & Park, 2010). It is possible that a stronger interdependent self-construal (i.e. making self-evaluation by following social norms) may compensate for disadvantages in emotional knowledge and abilities. However, further research is needed to explore the interactions between EI and Individualism/Collectivism in predicting employee well-being.

5.4 Conclusion

While the influence of culture on well-being has received growing attention in recent decades, there is continuing disagreement about how to define the term “culture” and about the appropriate level of analysis of cultural values. Psychologists have studied cultures based on the assumptions that it may include a set of values and beliefs and there are various models of cultural values. Although the various models include different dimensions and components of cultural values, the dimension of Individualism-Collectivism seems to be much more common and shared by most of the models. As such, this represents an appropriate focus for examining the potential role of personal values in the EI-well-being relationship.

Individualism and Collectivism are usually treated as a single dimension at the national level, which reflects how people are connected with each other in society (e.g., Hofstede, 2001). At the individual level, however, they are separate (i.e. non-orthogonal)
constructs, both of which can be held simultaneously by an individual. Based on propositions put forward by several researchers (e.g., Brewer & Chen, 2007), the core components of Individualism can be said to include independent self-construal, a belief in personal agency and pursuit for personal achievement and well-being. Conversely, the core components of Collectivism can be said to involve interdependent self-construal, a belief in group agency and a desire for social harmony and others’ welfare. As this chapter has sought to establish, a focus on Individualism and Collectivism as individual values may be helpful in exploring the personal motivators of EI.

Findings from cross-cultural studies have suggested that cultural values, particularly, Individualism and Collectivism, may have major influences on a person’s processing of emotions. On the one hand, individuals with high Individualism may perceive and understand emotions with more emphases on themselves, and may deal with emotions in a more active and direct way (e.g., changing the environment) to attain self-enhancement (e.g., Suh et al., 1998). On the other hand, those with high Collectivism may tend to appraise emotions with more references from others, and apply more passive strategies of emotion regulation (e.g., emotion suppression) in order to maintain social harmony (e.g., Suh et al., 1998). Further, empirical findings have shown that Individualism and Collectivism may have moderating effects on people’s general and work well-being. In particular, the link between personal emotions and well-being seems to be weaker among collectivists (e.g., Schimmack et al., 2002). Therefore, it is possible that the effect of EI can be strengthened by Individualism via mechanisms such as the activating effect, the motivational effect and the self-construal effect. In contrast, the moderating role of Collectivism is less clear. Although it can activate the use of EI, because collectivists care more about the group welfare or others’ feelings and believe in group agency, they
may be less likely to actively use their emotional abilities for facilitating their own well-being.

Given the limited findings on the interaction between EI and Individualism or Collectivism, further theoretical and empirical exploration of the issue is warranted. In the next chapter, a model for undertaking such an inquiry is outlined, along with a number of related hypotheses.
Chapter 6 Research Variables, Hypotheses and Model

6.1 Introduction

The previous chapters reviewed the research variables and their empirical relations. It is argued that EI reflects a person’s rational ways of dealing with emotions (e.g., Mayer & Salovey, 1997). Accordingly, EI is proposed to have positive influences on work well-being. However, the empirical findings are somewhat mixed, suggesting that certain factors may moderate the effect of EI. At the individual level, these moderators include personal traits and values, among which, trait affectivity and individualistic/collectivistic cultural orientation are the main focusses of the current study. Trait affectivity and Individualism/Collectivism usually have close relationships with a person’s general and work well-being (e.g., Hulin & Judge, 2003; Oyserman et al., 2002), which also moderate the effect of other factors (e.g., Judge & Larsen, 2001; Schimmack et al. 2002).

Based on the literature review, this chapter proposes specific research hypotheses regarding the moderating effects of PA and Individualism on the relationships between EI and work well-being. The moderating effects of NA and Collectivism are also addressed. The chapter is organised as follows. Firstly, the chapter briefly reiterates the variables in the current research, including EI, work well-being (i.e. job satisfaction, stress and burnout), trait affectivity (i.e. PA and NA), and Individualism and Collectivism. Because most of the research variables are multi-dimensional in nature, the chapter proceeds to discuss the level of analysis among these variables in the current study. The research hypotheses are then developed. The moderating roles of PA and NA are discussed concerning their activating and motivational effects on the relationship between EI and the well-being indicators. The interactions between EI and Individualism/Collectivism
are also addressed with their predictive effects on job satisfaction, stress and burnout. Finally, the chapter provides a summary of the research hypotheses in the form of a research model.

6.2 Review of the Research Variables

**Emotional intelligence (EI)** - As detailed in Chapter 2, this study follows Mayer and Salovey’s (1997) ability model of EI and accordingly, defines EI as a person’s emotional abilities. Considering the various emotional abilities, the current study focusses on the ability to understand and regulate emotions. These abilities reflect a person’s rational and strategic use of their abilities to interpret the meanings of emotions and further take actions to manage emotions in self and others (Mayer et al., 2002). They are also considered to be key components in predicting an individual’s general or work well-being (e.g., Brackett et al., 2010; Lopes et al., 2011).

**Work well-being** - As noted in Chapter 3, people’s well-being is usually subjective in nature, which is related to their emotional experiences (both positive and negative) and evaluative judgement (or attitudes) (Diener et al., 1999). The current study follows the model by De Jonge and Schaufeli (1998) and therefore, operationalises work well-being via three job attitudes: job satisfaction; job stress; and job burnout.

**Job satisfaction** is defined as a person’s positive evaluation of their job, which is associated with feelings of happiness in the workplace (De Jonge & Schaufeli, 1998). **Job stress** is regarded as an evaluation of whether the demands in the workplace surpass an employee’s resources (e.g., Lazarus & Folkman 1984), which is also closely related to the experience of anxiety (De Jonge & Schaufeli, 1998). **Job burnout** is defined as an
employee’s evaluative attitude of workload that may be associated with feelings of exhaustion and depression at work (De Jonge & Schaufeli, 1998; Kristensen et al., 2005).

**Positive Affectivity (PA) and Negative Affectivity (NA)** - As discussed in Chapter 4, following Watson and Clark (1984), the current study defines NA as individual differences in negative emotionality and self-concept, which is also related to the tendency of avoiding negative stimuli. PA, in contrast, represents a person’s level of energy and positive feelings such as happiness, excitement and enthusiasm (Watson & Pennebaker, 1989). People with high PA also engage in more social interactions with others (Watson & Pennebaker, 1989).

**Individualism and Collectivism** - As discussed in Chapter 5, following Brewer and Chen (2007), the current study focusses on Individualism and Collectivism as personal values. Accordingly, they are treated as distinctive constructs at the individual level. Individualism may involve an independent self-construal, a belief in individual agency and an emphasis on personal achievement and welfare (Brewer & Chen, 2007). Collectivism is associated with interdependent self-construal, a belief on group agency and a focus on maintaining social harmony and fulfilling social responsibility (Brewer & Chen, 2007).

### 6.3 Level of Analysis among Multi-dimensional Variables

There are many multi-dimensional constructs in organisational studies. According to Law, Wong, and Mobley (1998), it could be problematic to use a dimension to represent the whole construct if their relationship is not clarified. Wong, Law, and Huang (2008), for instance, re-analysed the data by Bagozzi, Verbeke, and Gavino (2003, as cited in
Wong et al., 2008) and found that the significant result associated with one particular
dimension of organisational citizenship behaviours - civic virtue - cannot be replicated
with the whole construct when treating organisational citizenship behaviours as a latent
variable of its four dimensions. In other words, it is possible that the significant result
may be due solely to the specific feature of civic virtue and not be generalised to the
whole construct of organisational citizenship behaviours. As such, when studying
constructs with multiple dimensions, Law et al. (1998) suggested that researchers should
be precise regarding the level of their analysis (i.e. studying dimensions versus studying
constructs) before interpreting findings or drawing theoretical inferences.

Based on the relationship between dimensions and the whole construct, Law et al. (1998)
have proposed three models of multi-dimensional constructs: the latent model, the
aggregated model, and the profile model. The latent model indicates that the construct is
a latent common factor or a high-order general factor underlying the dimensions (Law et
al., 1998). An example of this model might be the “g factor” of general intelligence. An
aggregated model can be a mathematical composite of its dimensions (Law et al., 1998).
It is not necessary that its dimensions are highly correlated with each other (e.g., overall
job characteristics; Law et al., 1998). Finally, dimensions in a profile model may not be
correlated to each other at all and it may be difficult to use a mathematical (or linear)
equation to calculate the whole score based on the dimension scores (Law et al., 1998).
In this case, researchers may use artificial dichotomisation to produce the “profile” of
each sample (Law et al., 1998). A personality profile serves as a good example here (Law
et al., 1998). Thus, the taxonomy offered by Law et al. (1998) provides an approach for
researchers to deal with multi-dimensional constructs at the construct-level.
The current study also has variables with multiple dimensions. According to their definitions and operationalisation, these variables include EI, employee well-being, Individualism and Collectivism. Thus, it is necessary to consider the level of analysis before making any hypothesis relating to them. Firstly, for EI, although the label of the construct has been used throughout this thesis, as discussed in Chapter 2, the current study has actually focused on the construct of strategic EI in the ability model (Mayer & Salovey, 1997). Since research on EI is still in its developmental phase and because much of the existing research has focused on the ability to understand and manage emotions (e.g., MacCann, 2006), this thesis subscribes to the current practice of using “EI” as the label of the construct. However, it should be kept in mind that the findings of this study may not be generalisable to other EI models (e.g., trait model; Petrides, 2009) or other emotional abilities (e.g., emotion perception). Further, when being studied as a construct, EI, or more precisely strategic EI, includes two dimensions: emotion understanding and emotion management (Mayer et al., 2002). According to the original model advanced by Mayer and Salovey (1997), all emotional abilities are organised under a common factor of EI. For this reason, EI or strategic EI may fit well with the latent model as proposed by Law et al. (1998). The construct will be computed by summing up the scores of the two dimensions following Mayer et al. (2002).

Secondly, for employee well-being, as discussed in Chapter 3, there are also different approaches and models. Based on Law et al.’s (1998) taxonomy, employee well-being might be considered to be a latent model involving different dimensions (e.g., Diener et al., 1999). Alternatively, its dimensions can be studied independently (e.g., job satisfaction; Hulin & Judge, 2003). Although the current study follows De Jonge and Schaufeli (1998) in operationalising well-being via three dimensions (job satisfaction,
job stress, and job burnout), it is still necessary to be clear about whether the study will treat employee well-being as a whole construct or study its dimensions separately. Concerning this issue, I have chosen to study three dimensions independently and to develop hypotheses accordingly. The main reason for doing so is that although all these dimensions are affective in nature, they each tap a different emotional experience: happiness versus anxiety versus depression/exhaustion. Thus, as reviewed in Chapter 3, these job attitudes may have different predictors (e.g., coping predicting stress and burnout but not satisfaction). Since the effect of EI may also be linked with these predictors (e.g., EI facilitating coping), such effect cannot be uncovered if only the common factor is addressed. Further, since all three dimensions receive solid support from theories and evidence in previous literature (e.g., Hulin & Judge, 2003; Sonnentag & Frese, 2003), it is also legitimate to study the effect of EI on them separately. Therefore, the study of employee well-being is conducted at the dimension-level in the current thesis.

Finally, as discussed in Chapter 5, Individualism and Collectivism are also multi-dimensional constructs including the components of self-construal, value, and agency belief (e.g., Brewer & Chen, 2007). Since the current discussion has been built upon all these components, Individualism and Collectivism will be studied at the construct-level. Regarding the relationship between dimensions and constructs, Individualism and Collectivism might be considered as belonging to the latent model category since the above three components are generally understood to be related to each other (e.g., Brewer & Chen, 2007; Markus & Kitayama, 1991). Accordingly, the thesis will include all the dimensions and study the general effects of Individualism and Collectivism as whole constructs.
In sum, in terms of the level of analysis in this research, EI, Individualism, and Collectivism will be studied at the construct-level, while employee well-being will be observed at the dimensional-level. The former constructs, which accord most closely with the latent models as proposed by Law et al. (1998), are therefore defined and operationalised by treating their dimensions as a whole. In contrast, well-being is defined and operationalised via three indicators (dimensions), which are examined separately.

6.4 Hypotheses Development

It is assumed that employees with high EI should have a high level of well-being in the workplace. Since high EI individuals are better at understanding and managing their feelings, such abilities may help them maintain a positive mood at work (Brackett et al., 2010; Karim & Weisz, 2010). Further, EI may facilitate social resources (Lopes et al., 2006), which may also support effective coping behaviours among the employees (MacCann et al., 2011; Matthews et al., 2006). However, despite these propositions, the relevant empirical evidence is somewhat mixed. Some studies seem to support a positive role for EI in boosting work well-being (e.g., Bostjancic, 2010; Brackett et al., 2010; Lopes et al., 2006). Others fail to find a significant relationship between EI and well-being (e.g., Gohm et al., 2005; Livingstone & Day, 2005). As EI represents a person’s rational and controlled ways of dealing with emotions (Fiori, 2009), it is important to find the motivators or facilitators that can maximise personal effort towards using EI in the workplace. In this respect, existing theory and evidence suggests that personal traits and values are likely to be salient influences in the activation and application of emotional abilities. Accordingly, the current study focusses on trait affectivity and Individualism/Collectivism, and explores how they can moderate the effect of EI on employee well-being. The following section addresses the associated research
hypotheses in detail.

6.4.1 The moderating effects of PA and NA on the relationship between EI and job satisfaction/stress/burnout

Based on the discussion in Chapter 4, it is plausible to suggest that PA should enhance the positive effect of EI on work well-being. A person’s sensitivity to positive emotional or social stimuli may activate their use of emotional abilities. The trait-congruent motivation to have more positive feelings and higher achievement may further guide the use of EI towards positive outcomes. As PA is also linked to a person’s BAS and mastery goals (Elliot & Thrash, 2002), it may drive individuals to actively create and select a positive work environment, and manage their feelings and cope with stress in a more effective way (Judge & Larson, 2001). Accordingly, the positive effect of EI is likely to be further enhanced through its applications in those activities.

It is assumed that positive feelings are the main predictors of job satisfaction (Weiss et al., 1999). Since employees with high EI are able to manage and maintain a positive mood at work, those with high PA are even more motivated to use their abilities to achieve that purpose. Also, high PAs may frequently use their emotional abilities for effective communication with others at work. As a result, they are able to create a better work environment which fits with their trait positivity and further leads to high job satisfaction among them (Hulin & Judge, 2003; Weiss & Brief, 2001). Accordingly, it is hypothesised that:

Hypothesis 1a: PA moderates the relationship between EI and job satisfaction such that the positive effect of EI on job satisfaction is strengthened among employees with
The effect of EI could also be more salient on job stress among employees with high PA. It is generally agreed that interpersonal conflicts and other negative social relationships can become stressors (Sonnentag & Frese, 2003). As individuals with high PA prefer to engage in social interactions more frequently, if they can also use their emotional abilities to interact with others in a more effective and wise way, the effect of social stressors could be significantly reduced - and perhaps even be turned into their social resources and supports. People with high PA are also likely to actively seek to manage their feelings and cope with their stress due to the nature of BAS and trait-congruent goals (Carver & Connor-Smith, 2010). Consequently, high emotional capabilities may enable them to cope with work stress more effectively (Matthews et al., 2006), which can further reduce their anxious feelings at work. Therefore, it is hypothesised that:

*Hypothesis 1b:* PA moderates the relationship between EI and job stress such that the negative effect of EI on job stress is strengthened among employees with high PA.

Similar to job stress, social factors and resources are critical predictors of job burnout (e.g., Hobfoll, 1989). As PA is linked to the motivation of selecting and creating a better work environment (including the social environment) (Judge & Larson, 2001), it can enhance the effect of EI in improving an employee’s social relationships and can further lead to low burnout among employees. Moreover, as job burnout is mainly a result of overloaded “people work” or emotional labour (e.g., Zapf et al., 2001), the ability to understand and manage emotions in one’s self and others may eventually help employees become less burnt out at their jobs if they are motivated to use the ability to achieve high
performance or well-being at work (e.g., Cropanzano et al., 1993). They are even able to exhibit self-motivated emotional labour (e.g., regulating emotions to create enjoyment; Tolich, 1993) to make the work more joyful and valuable. Finally, as PA is linked to a tendency to use effective coping strategies (e.g., problem-focused coping) (Carver & Connor-Smith, 2010), it may facilitate the proper use of EI with those strategies, which can further enhance the effect of EI in reducing a person’s feelings of exhaustion at work. Accordingly, it is hypothesised that:

**Hypothesis 1c**: PA moderates the relationship between EI and job burnout such that the negative effect of EI on job burnout is strengthened among employees with high PA.

Nevertheless, whether NA can strengthen or weaken the effect of EI on work well-being remains unclear. On the one hand, NA may increase the emotional sensitivity of the individual, which may activate the use of EI. On the other hand, as NA is also linked to the goal of performance avoidance (Elliot & Thrash, 2002), people with high NA may prefer to stay in their current status or situations. They are also inclined to use passive or avoidant coping and regulatory strategies (e.g., Carver & Connor-Smith, 2010), which are in accord with their motivation system of BIS. Consequently, employees with high NA may care more about the instrumental benefits of their goals and motivations (Tamir, 2005), may even sacrifice their affective well-being and be inclined to use their EI accordingly. For this reason, the moderating effect of NA could be mixed. Consequently, there is no hypothesis regarding NA. The findings regarding NA in this study are thus purely exploratory.
6.4.2 The moderating effects of Individualism and Collectivism on the relationship between EI and job satisfaction/stress/burnout

Following the discussion in Chapter 5, it is clear that Individualism may strengthen the positive relationship between EI and work well-being. Employees with high Individualism are likely to be more sensitive to their feelings at work, particularly those linked to their own performance and well-being. Accordingly, this emotional sensitivity may activate the use of emotional capabilities among them. Further, individualists may be motivated to gain high achievement and well-being at work. They also believe in personal agency, including their own abilities and knowledge, to make things happening (Brewer & Chen, 2007). Consequently, they are more likely to take active steps, such as the use of EI, to manage their feelings and cope with stress in the workplace. Finally, when being asked to make evaluations on their jobs, individualists tend to take more of their emotional experiences into consideration. As such, the effect of EI on work well-being via emotions is further strengthened.

It is argued that emotions, particularly positive emotions (e.g., happiness), are critical predictors of job satisfaction (Weiss et al., 1999). Furthermore, job satisfaction could be a result of positive work outcomes and appropriate rewards (e.g., Hulin & Judge, 2003). As such, if Individualism heightens employees’ sensitivity to their positive feelings at work, it can activate the use of EI to understand and maintain those feelings, which may lead to high satisfaction. As Individualism also motivates people to use their own capabilities to achieve high performance or promotion at work, it may further enhance the positive effect of EI on job satisfaction. Accordingly, it is hypothesised that:

Hypothesis 2a: Individualism moderates the relationship between EI and job
satisfaction such that the positive effect of EI on job satisfaction is strengthened among employees with high Individualism.

Similarly, as job stress is closely linked to an employee’s negative feelings (De Jonge & Schaufeli, 1998), being sensitive to those feelings may facilitate the use of emotional abilities. Also since Individualism is usually linked to a tendency to apply effective coping and regulatory behaviours (e.g., Chun et al., 2006), it may further enhance the effect of EI in reducing job stress through EI informing those behaviours. Therefore, an individualistic employee may care more about their work stress, and may seek actively to deal with the stress via the application of emotional abilities and knowledge. When being asked to rate work stress, the employee may also rely on their emotional experiences to make the judgement. Eventually, high EI may lead to low stress among the employee. Accordingly, it is hypothesised that:

Hypothesis 2b: Individualism moderates the relationship between EI and job stress such that the negative effect of EI on job stress is strengthened among employees with high Individualism.

Finally, work burnout is closely related to a person’s depressive feelings at work (e.g., Lam & Chen, 2012). This relationship is likely to be even stronger among individualists due to their independent self-construal (Markus & Kitayama, 1991). It is also argued that effective coping behaviours (e.g., problem-focussed coping) can significantly reduce work burnout (Maslach et al., 2001). Hence, as Individualism can increase an individual’s emotional sensitivity, it may also motivate the individual to further interpret and manage negative feelings in order to maintain high personal well-being. Accordingly,
an employee with high Individualism may be highly concerned about their depressive emotions at work and may be motivated to use their emotional abilities to further identify the meanings and the causes of these emotions. Such emotional knowledge may further guide the use of effective regulatory and coping strategies. In this way, Individualism may enhance the effect of EI in preventing employee burnout. Therefore, it is proposed that:

*Hypothesis 2c:* Individualism moderates the relationship between EI and job burnout such that the negative effect of EI on job burnout is strengthened among employees with high Individualism.

Nevertheless, the effect of Collectivism is somewhat less clear. The activating effect suggests that sensitivity to the feelings of others or the group can facilitate the use of emotional abilities. Yet, as the primary goal of collectivists is to maintain social harmony and attain group welfare (Brew & Chen, 2007; Triandis & Gelfand, 1998), it is unlikely that they will invest more effort in regulating their own feelings and well-being. Also as they typically believe in interpersonal or group agency (Brew & Chen, 2007), collectivists may tend to adjust their thoughts and behaviours in accord with those of the group. They usually respond to both negative and positive stimuli in a more passive way rather than actively using their emotional abilities to change or manage situations (Lee et al., 2000). Furthermore, due to interdependent self-construal, evaluation of the job by a collectivistic employee may be based mainly on external or social factors (e.g., social norms). As such, the effect of EI could be further limited due to the less predictive effect of emotions. However, since social factors (e.g., group harmony or support) are still important sources of work well-being among collectivistic employees, it not clear if
Collectivism can actually weaken the effect of EI (which can lead to better social relationships with others). Due to this ambiguity, no specific hypothesis is offered with respect to the influence of Collectivism.

6.5 Research Model

The research model examined in this study proposes that ability EI is positively related to employee well-being, proxied by job satisfaction, stress and burnout. It also proposes that this relationship is moderated by personal traits and values. The focal moderators incorporated in the research model are PA and Individualism. PA is conceptualised as a person’s emotional trait linked to positive feelings (e.g., Watson & Clark, 1984). It is also considered to be associated with BAS as a person’s motivational system sensitive to positive stimuli (Elliot & Thrash, 2002). Accordingly, PA is proposed to enhance the effect of EI on work well-being via positive activating and motivational effects (e.g., Judge & Larson, 2001). Individualism is treated as a personal value that is composed of an interdependent self-construal and agency belief and an emphasis on personal achievement and well-being (Brewer & Chen, 2007). It is argued that through positive activating, motivational and self-construal effects, Individualism can enhance the effect of EI on employee well-being (i.e. job satisfaction, stress and burnout). The research model does not include NA and Collectivism due to their mixed moderating effects on EI. They will be involved in further analysis for control and exploratory purposes.

The hypothesised relational paths are illustrated in Figure 6.1, which also describes the overall research model.
6.6 Conclusion

This chapter has provided a summary of the research constructs, explained the level of analysis applied to each, and further developed salient hypotheses based on previous theory and research. The previous literature suggests that EI is positively related to employee well-being. Yet the empirical findings are somewhat mixed, suggesting that the effect of EI can be moderated.

The current study explores two personal factors that can enhance the effect of EI. The first is PA. As employees with high PA are sensitive to positive emotional and social stimuli in the workplace, they are more likely to apply EI into dealing with those stimuli.
Moreover, due to the motivational effect of BAS and trait-expression (Tett & Burnett, 2003), people with high PA are motivated to have positive outcomes and feelings in organisations. Consequently, they may actively use their regulatory or coping strategies to manage their well-being at work, including the use of EI. Accordingly, PA can strengthen the positive relationship between EI and work well-being (including satisfaction, stress and burnout). The moderating role of NA, however, seems to be mixed.

It is also argued that individualistic employees are concerned more about their own feelings and are motivated to have high achievement and well-being in the workplace. They also believe in personal agency to yield these outcomes (Brewer & Chen, 2007). As such, individualists are more likely to apply their emotional abilities in effective emotion regulation and coping behaviours. Moreover, due to their independent self-construal (Markus & Kitayama, 1991), employees with high Individualism may depend on their emotional experiences to make the evaluations of their jobs. Therefore, if EI can lead to better feelings and higher work well-being, then Individualism can enhance its impact. Yet since the possible effect of Collectivism is unclear, the relevant findings in the current study are treated as purely exploratory.
Chapter 7 Research Method

7.1 Introduction

As the current study applies a quantitative research approach, it is necessary to describe and justify the specific research design and method used in the study. According to Bryman and Bell (2007: 40), research design provides “a framework for the collection and analysis of data”, while research method is usually treated as “a technique for collecting data”. Moreover, since the study uses a sample of Chinese professionals and managers, it is particularly important to justify the use of this research sample, and further ensure that all the measures are reliable and valid within the sample.

These methodological considerations are addressed in this chapter, which is organised as follows. First, the chapter revisits the philosophical position of the study as proposed in Chapter 1, which further informs the use of the research design and the method of data collection. Secondly, the study’s research design is discussed with a focus on the advantages and disadvantages of the cross-sectional design approach taken. Thirdly, the sampling method is described along with a justification of the sample (e.g., size and characteristics). Fourthly, the measures used in the research are reviewed with a concern for their reliabilities and validities. The measurement issues are also discussed with regard to the influence of common method variance and measurement equivalence. Finally, the chapter provides an overview of the research procedure followed, including the recruitment of the participants, the conducting of the survey, the treatment of the missing data and the stages of data analysis.
7.2 Philosophical Positions Revisit

As discussed in Chapter 1, this study takes a positivist position to address the research questions. The position is chosen because it is best suited to the research aim. Since the research concepts and variables (e.g., EI) are generated from previous theories and frameworks (e.g., the ability model of EI; Mayer & Salovey, 1997), which are regarded to be universal and objectively exist (i.e. independent from human beings and the social context), it is proposed that a position of positivism is best suited to further investigate these concepts and variables. The research questions also address the causal relationship between EI and work well-being as well as the moderating effects of PA and Individualism on their relationship. The research further extends the current literature of EI and well-being by providing general arguments based on the research findings. Accordingly, positivism is the appropriate epistemological framework for an inquiry which seeks to identify causality and their moderating effects and to test and confirm universal propositions or laws (Bryman & Bell, 2007; Saunders et al., 2009).

The research also follows a deductive approach to explore the research question. According to Saunders et al. (2009: 125), deductive research typically goes through four sequential stages: (1) deducting a hypothesis from the theory; (2) operationalising the terms in the hypothesis to further explore their relationship; (3) testing the hypothesis using proper method(s); (4) examining the outcomes, and if necessary, “modifying the theory in light of the findings”. Accordingly, the first four chapters of this thesis review the relevant theories and evidence linked to the research questions (i.e. the moderators of the relationship between EI and work well-being), while Chapter 6 further develops research hypotheses based on the literature and expresses the hypotheses with operationalised terms (e.g., operationalising EI via the ability to understand and manage
emotions and work well-being via job satisfaction, stress and burnout). The aim of this chapter, therefore, is to consider the third stage, which proposes a proper research method for testing the research hypotheses.

Saunders et al. (2009) further suggest that there are three important characteristics of research method(s) following a deductive approach. The first is its application of controls to allow the testing of research hypotheses free of possible extraneous influences. In other words, in order to clarify the relationship between two factors, it is necessary to control for other factors that may influence their relationship. These factors may include other latent variables or even methodological factors (Saunders et al., 2009). The second is the use of a structured methodology to ensure the reliability and generalisability of the research findings (i.e. whether they can be replicated by other researchers using the same method) (Saunders et al., 2009). Accordingly, it is necessary to apply standardise research methods (e.g., design and sampling method) and measures (e.g., established psychological tests). Finally, deductive method concerns the operationalisation of the research concepts and hypotheses, which enables the research variables to be captured quantitatively (Saunders et al., 2009). Overall, all of these characteristics are present in the current study, as is addressed in the following sections, which discuss the choice of research design, sampling method, research measures, the procedure of data collection, and the statistic techniques used for analysing data.

7.3 Research Design

Bryman and Bell (2007) identify five main types of research design: (1) experimental design; (2) cross-sectional design; (3) longitudinal design; (4) case study; and (5) comparative design. Each, they suggest, has both advantages and disadvantages
regarding reliability, validity and generalisability (Bryman & Bell, 2007). Of the five, experimental design and cross-sectional design are the two that have been most common in quantitative studies. Experiments are usually conducted in a laboratory setting where the researchers manipulate the independent variables and control for other factors that may influence the results (Bryman & Bell, 2007). True experiments may have very strong internal validity (i.e. validity concerning the causality between independent and dependent variables) due to their robust manipulations; however, there may still be problems with external validity and ecological validity (i.e. applicable of the research findings in real life) (Bryman & Bell, 2007). Further, field experimentation is relatively rare in business research since it is usually not possible (or not ethical) to apply experimental control over the individual’s behaviour in an organisational context (Bryman & Bell, 2007).

A second approach is that of cross-sectional design. This is also called social survey design because of its use of surveys for data collection (Bryman & Bell, 2007). Such design is composed of several key elements. First, researchers who use cross-sectional design are usually interested in inter-case variation (Bryman & Bell, 2007). As such, it is essential to have more than one case in the study (Bryman & Bell, 2007). Sometimes, for the purpose of generalisation, a large number of participants are recruited for the study following certain sampling methods (Bryman & Bell, 2007). Second, research data are collected more or less simultaneously (Bryman & Bell, 2007). In other words, when a person completes a survey, all the variables for the study are collected at the same time. Thirdly, the data could be either quantitative or qualitative in nature (Bryman & Bell, 2007). Last and most importantly, with a cross-sectional design, it is only possible to examine the time-fixed associations between variables rather than to examine and
explain causal associations between variables as they change over time (Bryman & Bell, 2007).

Unlike experiment design, a cross-sectional design may have relatively weak reliability and validity (Bryman & Bell, 2007). Regarding internal validity, since there is no time ordering, it is difficult to establish a causal relationship (Bryman & Bell, 2007). Nevertheless, a main benefit of using cross-sectional design is that it does not need to apply manipulations to the independent variables; instead, the design uses variations among cases for testing associative effects (Bryman & Bell, 2007). As a result, cross-sectional design is more often used in business and management research (Bryman & Bell, 2007). Further, according to Bryman and Bell (2007: 341), it is still possible to infer some causality from the associations between variables if “a relationship between two variables is discerned”. For instance, if age is related to job satisfaction, then it is plausible to suggest that age is the causal factor since it is counterintuitive that the link might be reversed (i.e. with job satisfaction influencing age). Finally, in order to enhance reliability, it is essential for researchers using cross-sectional design to describe carefully the selection of participants, the choice of measures, the administration of measures and the analysis of data (Bryman & Bell, 2007).

It is also worth noting a third possible approach - longitudinal design. Longitudinal design can be regarded as an extension of cross-sectional design, in which the collection of survey data is not completed in one stage but over several sequential stages (Bryman & Bell, 2007). For instance, a survey might be taken twice with a one-year interval. In this case, changes can be observed within the variables as measured by the survey. Further, in order to observe a causal relationship between two variables, the independent
variable can be assessed at Time I following the dependent variable at Time II, so that the
researchers know which variable is the prior one and can thus serve as the predictor of
the latter (as a causality indicated by the time sequence). Accordingly, as suggested by
Bryman and Bell (2007), although longitudinal design may use surveys similar to those
in cross-sectional design, it can better address the causality of the research findings.
Longitudinal design generally takes the form of either a cohort design (i.e. with
participants experiencing the same event in a selected period) or a panel design (similar
to ordinary survey design but with time internals) (Bryman & Bell, 2007). However,
longitudinal design has its own weaknesses. Firstly, it is usually time-consuming and
costly (Bryman & Bell, 2007). Secondly, longitudinal design has the problem of sample
attrition (e.g., participants change their jobs and organisations, or withdraw from the
study), which cannot be totally controlled by the researchers (Bryman & Bell, 2007).
Finally, there is the panel conditioning effect, which arises because people who continue
their participation in a longitudinal study are likely to have different behaviours from
those who do not participate (Bryman & Bell, 2007). For all these reasons, longitudinal
study is little used in organisational studies (Bryman & Bell, 2007).

Considering the nature and the aims of the current study, a cross-sectional design is the
appropriate choice. It does not seem to be possible to manipulate the level of EI as a
personal characteristic. It is also not realistic to build a laboratory setting similar to a
general work environment. Moreover, since the study is partly exploratory in nature, a
cross-sectional design might be valid enough to find the associations between the
variables. Finally, cross-sectional design is less difficult to conduct compared to other
designs (e.g., longitudinal design) that require more resources and time (Bryman & Bell,
2007). For these reasons, this study applies a cross-sectional design approach and a
single-respondent survey method to gather quantitative data.

7.4 Sampling

7.4.1 Sampling method

Once the research design is determined, the next step is to select participants. Sampling is always an important issue in social science inquiry. According to Bryman and Bell (2007), a representative sample allows researchers to generalise findings from a sample to a population. As such, it is very important for researchers to select a proper sampling method for their research. Generally, there are two categories of sampling methods: probability sampling and non-probability sampling (Bryman & Bell, 2007). The former is based on a random selection process, which can minimise sampling error (and maximise the representativeness of the sample) (Bryman & Bell, 2007). This category of sampling method includes simple random sampling, systematic sampling, stratified random sampling and multi-stage cluster sampling (Bryman & Bell, 2007). As Gravetter and Forzano (2011) argue, probability sampling should meet three essential conditions. First, the exact size of the population must be known; or it must be possible to list all the individuals (Gravetter & Forzano, 2011). Second, each individual must have a specified probability of selection (Gravetter & Forzano, 2011). Third, selection must be a random process when being conducted among a group of individuals who are assigned the same possibility of participating (Gravetter & Forzano, 2011). However, for most behavioural studies, information concerning the whole population is unknown to the researchers (Gravetter & Forzano, 2011). Accordingly, probability sampling is rarely used (Gravetter & Forzano, 2011).

In non-probability sampling, it is not necessary to have all those conditions met
Convenience sampling is the approach chosen for the current research. One reason for this choice is that, since the research is not targeting at any specific employee group, it is not possible to identify all the members in the population. Second, due to the time/resource limitations of this doctoral project, convenience sampling is more feasible. Finally, as the study is partly exploratory in nature, generalisability of the research findings can be addressed by future studies with more robust sampling methods. However, following the suggestion by Gravetter and Forzano (2011), a wide cross-
section of participants have been obtained in the current study to minimise the potential bias of the research sample and increase generalisability of the findings. This includes a balanced number of genders (i.e. males and females), a broad range of ages, and a variety of industrial backgrounds (e.g., business, education, public sector, etc.) among the participants. More importantly, as suggested by Schilpzand et al. (2013), in order to capture the effect of cultural values, it is necessary to use a research sample with large cultural variations. Accordingly, the current study used a sample of Chinese managers to test research propositions. It has been observed (e.g. Au, 1999) that intra-cultural variation can be as large as inter-cultural variation in personal values. Therefore, a monocultural (i.e. single country) sample might be sufficient for testing the moderating effect of personal values. Moreover, using participants from one country may also help to minimise the various influences of national-level differences on the results (e.g., Chen, Lee, & Stevenson, 2005). Lastly but most importantly, it is found that compared to the “old” generation, the new generation of Chinese managers appears to be much more individualistic and less collectivistic (Ralston et al., 1999; Ralston, Yu, Wang, Terpstra, & He, 1996). The apparent change of values may be due to the rapid social and economic transformation that has been occurring in China in recent decades (Ralston et al., 1999). Therefore, a sample of Chinese managers (with a large age range) might be quite suitable for testing the moderating effect of Individualism because of the likelihood of high variation among the participants.

7.4.2 Sample size

A further issue of sampling concerns the sample size. According to Aron and Aron (1994), sample size and effect size are two important determinants of the statistical

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5 This is also the reason why the current study does not apply a comparative research design as described by Bryman and Bell (2007).
power of a quantitative study, which represents the likelihood that the study will yield a significant result if the research hypothesis is true. It is generally accepted that a larger sample size is more likely to produce a significant result, while a smaller sample size is less likely to have a significant result even if the research hypothesis is true. As noted by Combs (2010), there have been two trends in management studies over the last 20 years. One has been an increase in typical sample size; the other, however, has been a decrease in the effect size (even if still significant due to larger sample size) (Combs, 2010). It thus seems that in order to achieve significant results, researchers have been trying to obtain larger and larger sample sizes (Combs, 2010). However, is it necessarily the case that the larger the sample size, the better the study? Perhaps so, but only up to a point. To obtain a large sample requires a considerable investment of resources and effort. Yet, according to Green (1991), the representativeness of the sample only has minor increases when the sample size exceeds 100. As such, a target sample size of several hundred may be adequate. Another consideration here is the ecological validity of the research findings. As Combs (2010) argues, even with a very large sample, results with an effect size of less than .005 might not be particularly meaningful for management practice. Overall, then, with convenience sampling and limited research resources, it would seem to be prudent to determine an adequate target sample size prior to data collection being commenced.

But what is an adequate sample size? According to Green (1991: 499), a proper sample size can only be determined by three values: (1) alpha, as the “probability of committing a Type 1 error” (incorrectly rejecting the null hypothesis); (2) power, “one minus the probability of making a Type II error” (accepting a false null hypothesis); (3) effect size, “the degree to which the criterion variable is related to the predictor in population”.
Obviously, the latter two values are unknown to most researchers. Accordingly, one can only make an estimation of these values (e.g., assuming that the effect size would be moderate). Consequently, a number of rules-of-thumb offered in the quantitative methods literature. Green (1991) has observed that those rules might fit into three categories: (1) sample size equal to a certain constant; (2) sample size no smaller than the number of variables multiplied by a certain constant; and (3) sample size no smaller than the sum of a certain constant and the number of variables multiplied by another constant (i.e. a mixed approach). Tabachnick and Fidell (1989, as cited in Green, 1991) suggested that it might be necessary to have more than 100 cases. Comb (2010: 13) expressed a similar comment by claiming that “a sample of 100 is not so bad if construct validity is high”. Nunnally (1978, as cited in Green, 1991) further suggested that if there were only two or three independent variables, 100 or more subjects might be enough but also that when there were more than nine independent variables, it might be necessary to have 300 or 400 subjects to prevent substantial biases (Green, 1991). Regarding the ratio between subjects and independent variables, Tabachnick and Fidell (1989, as cited in Green, 1991) suggested that the minimal requirement ratio might be five cases for each variable, while the ideal condition was 20 cases for each. Yet, Schmidt (1971, as cited in Green, 1991) suggested a minimum ratio from 15:1 to 25:1 for subjects and independent variables. Likewise, Gravetter and Forzano (2011) recommended that a sample size of 25 or 30 for each treatment would be a preferable target, while a minimal requirement might be 10 or 15. However, none of these prescriptions consider the estimation of the effect size or power. Accordingly, Green (1991) compared those rules-of-thumb with the power tables provided by Cohen (1988), and explored whether they were ideal for reaching sufficient power or not. Green (1991) found that a general rule-of-thumb of “larger than 50 plus the number of variables multiplied by 8” seemed to be more accurate than the
previous prescriptions and that this could be used for a test of a multiple correlation with a medium effect size.

Thus, while it may be difficult to determine an exact sample size for the current study, it is possible to identify a desirable range. For instance, most researchers accept that 100 is the minimal requirement for all regression analyses (e.g., Nunnally, 1978, as cited in Green, 1991; Tabachnick & Fidell, 1989, as cited in Green, 1991; Combs, 2010). As the model developed for the current study includes some 15 variables, following the ratio of 25:1 (e.g., Schmidt, 1971, as cited in Green, 1991; Gravetter & Forzano, 2011), 300 might be an ideal number for a study with around ten independent variables. Therefore, given resource and time limitations, a proper range of the sample size for the current study would seem to be between 100 (minimum) and 300 (maximum).

7.5 Measurement

7.5.1 Reliability and validity

Reliability and validity are two critical concepts in psychometrics. The former ensures that the measure of a psychological construct is internally and externally consistent, while the latter decides whether the measure is a proper representation of the construct (Bryman & Bell, 2009). The current study also has its own specific focus on the reliability and validity issues including the common method variance and the measure equivalence, which will be discussed in section 7.5.3. Here, the general theories of measurement reliability and validity are addressed.

Reliability may include stability, internal reliability and inter-observer consistency (Bryman & Bell, 2009). Stability indicates whether the test score is stable over time
which is also known as the test-retest reliability. Inter-observer consistency refers to the consistency of the test score as judged by different persons. It is usually applied when a considerable degree of subjective judgment is involved in constructing measurement (Bryman & Bell, 2009). Internal consistency is about whether multiple indicators of the same constructs are related to each other (Bryman & Bell, 2009). For instance, if there are five items in a summated scale measuring depression, it is expected that when participants complete those items, the item scores will be highly intercorrelated. Otherwise, it might be suspect whether those items are measuring the same construct or not. For most quantitative studies, internal consistency is generally the most often reported (Bryman & Bell, 2009). There are also various methods for calculating internal reliability. One traditional method is the split-half method (Bryman & Bell, 2009). Following this method, researchers divide the measure into two halves with each supposed to be similar to the other (Bryman & Bell, 2009). Then, the correlation between the scores of the two parts is calculated; if the correlation coefficient is high enough, it may indicate that the measure is internally consistent (Bryman & Bell, 2009). The test of Cronbach’s alpha is a developed form of the split-half method, which is actually an “average of all possible split-half coefficients” in the measure (Bryman & Bell, 2009: 164). However, for this reason, Cronbach’s alpha may not be suitable for a test with heterogeneous contents. As an illustration, the reliability of MSCEIT (including the total, branch, and dimension scores) is reported with the split-half method, since the testing tasks are generally heterogeneous in nature (with different scenes and vignettes) (Mayer et al., 2002). Furthermore, a rule-of-thumb regarding the value of reliability is that if the value is more than .70, the reliability is generally considered to be good (Nunnally, 1978, as cited in Lance, Butts, & Michels, 2006). Yet such criteria may be arbitrary and depend on the measurement context. For
instance, Cronbach’s alpha is very sensitive to the number of items used; as the number increases, its value generally increases regardless of the intercorrelations among the items (Cortina, 1993).

The issue of validity is more complex still. In order to ensure that measurement is valid, the researcher may need to provide a variety of validity evidence, including evidence on face validity, content validity, construct validity and predictive validity (Bryman & Bell, 2009). Firstly, face validity has to do with whether the measurement appears to assess the construct or not (Bryman & Bell, 2009). However, researchers may sometimes not want the items in the scale to be too “obvious”. Otherwise, the responses can be easily faked. Secondly, content validity is usually related to the theoretical model of the measure (e.g., does it capture all the components of a construct?) (Bryman & Bell, 2009). Thirdly, construct validity relates to whether the measurement is relevant to the concept (Bryman & Bell, 2009). As Zeidner et al. (2009) mention, construct validity may involve both discriminant validity and convergent validity. The former is related to the extent to which the measure is different from measures of other constructs, whereas the latter relates to the correlation between the measure and other measures which are assumed to assess the same construct (Zeidner et al., 2009). As an illustration, a test of EI may need to be highly related to other tests of EI, but still need to demonstrate its distinctiveness from measures of traditional constructs such as the general intelligence or personal traits. A further effort of establishing construct validity might be to explore the factor structure (or the factorial validity) of the measurement. Some measures (e.g., the MSCEIT; Mayer et al., 2002) may have multiple dimensions, which form different factors under the same construct. If the factor structure of a measure can be replicated, it might be reasonable to assume that the measure is valid. The test of factorial validity is usually completed by
confirmatory factor analysis (CFA) as a kind of factor analysis used for the purpose of confirmation (rather than exploration) (e.g., Palmer, Gignac, Manocha, & Stough, 2005). Finally, there is the issue of predictive validity (or criterion validity). Some constructs may be important predictors of other constructs (e.g., EI as the predictor of life satisfaction). Accordingly, their assessments are said to be related to those outcomes. In some quantitative studies, researchers may also need to establish the predictive validity of the measure over measures of other constructs. In other words, the new measurement should explain extra variance beyond other existing predictors. This is usually called incremental validity. For instance, some studies of EI (e.g., Brackett & Mayer, 2003) may suggest that the MSCEIT has incremental validity over the personality measures (e.g., the measurement of the five-factor model).

In sum, reliability and validity are critical psychometric issues, particularly for studies using surveys. Accordingly, it is necessary to ensure that the measures in the current study are reliable and valid. In general, reliability includes stability, internal reliability and inter-observer consistency, of which internal reliability is the main focus for most studies (Bryman & Bell, 2009). Validity may involve face validity, content validity, construct validity and predictive validity (Bryman & Bell, 2009). The latter two are very important for many psychological assessments (Zeidner et al., 2009). Particularly, construct validity concerns the discriminant validity and convergent validity of the assessments, which is also associated with their factor structures (Zeidner et al., 2009). The following section addresses the reliability and validity of the current research measures in detail.
7.5.2 Measures

Independent variable

Emotional intelligence (EI) - A variety of EI measures have been used for both research and practical purposes. As reviewed in Chapter 2, some of those measures are based on self-reports of personal traits or self-cognitions (e.g., Bar-On, 1997; Petrides, 2009), while others are more closely related to the traditional approach of assessing human intelligence (e.g., Mayer & Salovey, 1997). As the current study focusses on EI as the ability to understand and manage emotions, the MSCEIT developed by Mayer et al. (2002) was chosen as the measurement of EI. The test is designed to assess the four-branch model proposed by Mayer and Salovey (1997).

The MSCEIT has 141 items covering eight tasks with two for each branch of EI ability. This item/task/branch structure is detailed in Table 7.1. As explained in Chapters 2 and 3, for the purpose of the current study, two branches of EI ability have been identified as having special salience: firstly, understanding emotions and, secondly, emotion management. The branch of understanding emotions includes the tasks of “Changes” and “Blends” (Mayer et al., 2002). The “Changes” task assesses individuals’ ability to “recognise transitions among emotions, such as the transition from anger to satisfaction, or from anger to shame” (Mayer & Salovey, 1997: 11). The “Blends” task is related to the ability to “understand complex feelings such as a combination of fear and surprise” (Mayer & Salovey, 1997: 11). The branch of managing emotions includes the tasks of “Emotion Management” and “Emotional Relations” (Mayer et al., 2002). The “Emotion Management” task is related to a person’s ability to regulate their own emotions (Mayer et al., 2002). For each four items in the task, participants are given a short vignette about how a person has generated certain emotion (e.g., anger or happiness) and is required to
choose a proper answer for either maintaining or appeasing the emotion (Mayer et al., 2002). The “Emotional Relations” task measures “the respondent’s ability to incorporate emotions into decision making that involves other people” (Mayer et al., 2002: 20). Participants are asked to evaluate the effectiveness of each action (item) in achieving certain social or relational outcomes (Mayer et al., 2002). The item format is similar to that of the “Emotion Management” task.

Considering the scoring procedure, as discussed in Chapter 2, there are generally three scoring methods for tests of “soft” skills, as target-scoring, expert-scoring, and consensus scoring (Legree et al., 2005; MacCann, 2006). There are two options for scoring MSCEIT - the expert consensus and the general consensus. As described by Mayer et al. (2002), the expert criteria were based on a sample drawn from members of the International Society for Research in Emotions who attended a meeting in 2000. Membership included scientists and scholars who demonstrated a strong commitment to the study of emotions (Mayer et al., 2002). The final expert sample involved 10 men and 11 women with an age range between 30 and 52 (Mayer et al., 2002). Likewise, consensus scoring was based on a normative sample of 5000 individuals in US (Mayer et al., 2002). Of these, 52% were women and 37.3% were men, with 10.7% unreported (Mayer et al., 2002). The age of the participants ranged from 17 to over 50 with more than half of them between 17 and 29 years old (Mayer et al., 2002). Considering ethnicity, Mayer et al. (2002) mentioned that there were 920 Asians and 2041 Whites in the norm. Finally, when comparing consensus scoring with expert scoring, it is worth noting that the two scoring methods are highly correlated, usually having a correlation coefficient higher than .90 (e.g., Lopez, Brackett, Nezlek, Schutz, Sellin, & Salovey, 2004; Mayer et al., 2002).
Table 7.1 Internal reliabilities of MSCEIT tasks, branches, dimensions and total scale (adopted from Mayer et al., 2002)

<table>
<thead>
<tr>
<th>Total</th>
<th>Split-half coefficient</th>
<th>Dimension</th>
<th>Split-half coefficient</th>
<th>Branch</th>
<th>Split-half coefficient</th>
<th>Task</th>
<th>Cronbach’s alpha</th>
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<td>Total EI</td>
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<td>Experiential EI</td>
<td>Consensus: .90</td>
<td>Perception</td>
<td>Consensus: .91</td>
<td>Faces</td>
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<td>Expert: .90</td>
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<td>Expert: .90</td>
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<td>Consensus: .81</td>
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<td>Expert: .87</td>
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<td>Total EI</td>
<td>Consensus: .93</td>
<td>Facilitation</td>
<td>Consensus: .79</td>
<td>Pictures</td>
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<td>Expert: .76</td>
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<td>Consensus: .64</td>
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There is also an alternative option for scoring MSCEIT in the form of consensus scoring based on the local sample. Roberts et al. (2006) reported that they used a sample of 138 Australian students to determine the weight of each selection in the MSCEIT tasks. As suggested by Roberts et al. (2006), the scoring enabled them to freely calculate the reliability of MSCEIT, which was usually not available with the consensus scoring based on the US norm (as provided by the test publisher). Scoring based on a local sample is also likely to minimise the potential cultural confounds in scoring based on the US norm (Roberts et al., 2006). A similar procedure can be found in the study by Zeidner and Olnick-Shemesh (2010), which explored the effectiveness of EI in predicting subjective well-being among a sample of 203 Israeli adolescents. Accordingly, the consensus scoring based on local samples may afford support for the reliability and validity of the MISCEIT instrument.

The reliabilities provided by Mayer et al. (2002), and reported in Table 7.1, above, were generally acceptable across all the branches and tasks. It seems that reliabilities based on general or consensus scoring were a little bit higher than those based on expert scoring. The overall reliability of the whole scale was .93 for general scoring and .91 for expert scoring. The reliability of strategic EI (including the branches of understanding and management) was .88 for general scoring and .86 for expert scoring. For each branch, the reliabilities were .80 (consensus) and .77 (expert) for understanding and .83 (consensus) and .81 (expert) for management. It should be noted that due to item heterogeneity, all these reliabilities were split-half reliabilities corrected by the Spearman-Brown formula (Mayer et al., 2002). For task reliabilities based on general scoring, the Cronbach’s alphas were .70 for “Change”, .66 for “Blend”, .69 for “Emotion Management”, and .67 for “Emotional Relations”, respectively (Mayer et al., 2002). As concluded by the
authors, the tasks seemed to be less reliable, but still comparable to traditional intelligence tests (Mayer et al., 2002). Available reliabilities from a number of other studies suggest that the internal consistency reliability of the MSCEIT is generally acceptable (e.g., Brackett & Mayer, 2003). Super-ordinate constructs such as general EI have especially high reliability coefficients (e.g., .90 or above). However, several subtests and branches of the MSCEIT (e.g., the branch of emotion facilitation) may have marginal reliabilities (Roberts et al., 2006).

The reliability of MSCEIT has also been tested in several cross-cultural studies. Karim and Weisz (2010) found that the full-test split-half reliability was .84 for a French sample and .85 for a Pakistani sample. The reliability of strategic EI was .63 for French students, and .82 for Pakistani students (Karim & Weisz, 2010). For each branch, the reliability was relatively good among the Pakistani students (from .74 to .86), but not so acceptable among the French students (from .51 to .87) (Karim & Weisz, 2010). In another study by Zeidner and Olnick-Shemesh (2010) using Israeli students, while internal consistency was found to be satisfactory for the whole scale, the coefficient for each of the four-branch scores was relatively low (Zeidner & Olnick-Shemesh, 2010). Regarding the use of MSCEIT among Asian participants, Law et al. (2008) found that the mean scores of Chinese employees were substantially lower than those based on the US norm (Law et al., 2008). Accordingly, the researchers suggested that “task-based EI tests may reflect cultural biases” (Law et al., 2008: 64). In contrast, Ma, Tsai, Chang, and Lane (2010) reported that the three tasks of MSCEIT (including “Emotion Management” and “Emotional Relations”) were generally reliable (with coefficients ranging from .57 to .84) among three groups of Chinese participants (undergraduate and graduate students, security guards, and clinical patients).
Regarding the validity of the MSCEIT, there is some debate over its factor structure. Although Mayer et al. (2002) reported that CFA generally supported a one-, two-, and four-factor structure of MSCEIT (based on the four-branch model), other researchers have found different results. A common finding is that the facilitation branch seems to be less valid and overlaps with other branches (e.g., Gignac, 2005; Palmer et al., 2005). However, since the current study focuses on the branches of understanding and management, and excludes the facilitation branch, this is not problematic. Concerning the discriminant validity of EI, as previously discussed, its correlations with the five-factor personality traits (i.e., Openness to experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism) are usually small (e.g., Bastian, Burns, & Nettelbeck, 2005; Brackett & Mayer, 2003; Day & Carroll, 2004). The correlations between EI and verbal/general intelligence also tend to be moderate, which suggest that although EI is associated with a person’s cognitive abilities, it is still a distinctive form of intelligence specifically dealing with emotions (e.g., Bastian et al., 2005; Mayer, Salovey, & Caruso, 2004; Van Rooy et al., 2005).

Overall, it can be concluded that the reliability and the validity of MSCEIT are generally acceptable. For the scoring procedure, as the study of EI is still a developing field, the current study incorporated consensus scorings based on both the US norm and the local sample (e.g., Roberts et al., 2006; Zeidner & Olnick-Shemesh, 2010). The purpose of using both scorings was to minimise potential cultural bias of the test and increase the robustness of the research findings. Consensus scoring based on the US norm is a common practice among most EI studies (e.g., MacCann & Roberts, 2008; Matthews et al., 2006; Roberts, Zeidner, & Matthews, 2001). It also has higher reliability than expert scoring (Mayer et al., 2002). The scoring itself was conducted by the test publisher who
had the scoring keys. Further, the reliability of the US consensus scores was calculated in the current research sample with assistance from one author of MSCEIT. Consensus scores based on a Chinese sample were used for the purpose of minimising the potential cultural variation produced by the US norm as signalled by several researchers such as Law et al. (2008). Accordingly, following Legree et al. (2005), the current research sample was used to determine the consensus-weight of each option in the test items. After applying both scorings, their similarities and differences were further explored, along with their reliability and validity. Both scorings were then used for testing the research hypotheses. The results are presented in Chapters 8 and 9.

Dependent variables

Following the model proposed by De Jonge and Schaufeli (1998), employee well-being was composed of three measures: job satisfaction; job stress; and job burnout.

Job satisfaction was captured using five items developed by Brayfield and Rothe (1951) anchored with “strongly disagree” (1) and “strongly agree” (7). Brayfield and Rothe (1951) defined job satisfaction as attitudinal evaluation of the job. The definition of job satisfaction used in the current study accords with that offered by these authors. Their scale assesses an employee’s general attitudes and is applicable to a wide variety of jobs. Originally, five items were chosen from the index by Judge et al. (1998). According to Judge et al. (1998), the five-item version yielded a Cronbach’s alpha of .88 and correlated .89 with a composite measure of job satisfaction - Job Descriptive Index (Smith, Kendall, & Hulin, 1969, as cited in Judge et al., 1998). A sample item is: “Most

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6 The problem is that although MSCEIT has 141 items, some of the items are not included in the scoring process but are only kept for keeping the integrity of the test format (Lopes et al., 2004). For this reason, many researchers like Wong and Law (2002) and Roberts et al. (2006) were not able to calculate the reliability of the test since they did not know which items should be excluded.
days I am enthusiastic about my work”. The five-item version has been further used in several organisational studies (e.g., Fogarty et al., 1999; Judge et al., 2008; Kafetsios, Nezlek, & Vassiou, 2011; Lent et al., 2011) and has yielded good reliabilities and validities.

**Job stress** was assessed with five items from the scale of job stress developed by Parker and DeCotiis (1983). The original scale has 13 items organised into two dimensions: time pressure and job anxiety. The subscale of job-related anxiety (five items) has been chosen in the current study for the reason that it is closely related to the notion of job stress as a job attitude associated with emotions (e.g., De Jonge & Schaufeli, 1998), whereas the subscale of time pressure is much closer to the concept of job stressor (see Sonnentag & Frese, 2003). The measure is a Likert-type scale with one to five response options - 1 indicating a strong agreement and 5 indicating a strong disagreement with the item. A sample item is: “I have felt fidgety or nervous as a result of my job”. In the original article by Parker and DeCotiis (1983), the scale yielded a Cronbach’s alpha of .74 and also correlated with various job stressors including job stability, workload, organisational structure and climate, role conflict, and closeness of supervision. The scale has also been frequently used to capture job stress in other studies and has had good psychometric properties (e.g., Jamal, 1999; Wu, 2011).

**Job burnout** was measured by the Copenhagen Burnout Inventory (CBI, Kristensen et al., 2005). The inventory is a five-point Likert scale with three subscales - personal burnout, work-related burnout, and client-related burnout. Only the work burnout subscale of the CBI was used for the purpose of the current research. The scale has seven items. A sample item is: “Do you feel that every working hour is tiring for you”. CBI is
originally developed based on a sample of 1024 participants from seven different types of workplaces (e.g., hospital, social welfare offices and homecare service). The Cronbach’s alpha for the work-related burnout subscale was .87 in the study by Kristensen et al. (2005). CBI is also theoretically proposed to be related to the Exhaustion subscale of the Maslach Burnout Inventory - General Survey, a widely used measurement for job burnout (Kristensen et al., 2005). There is evidence that the two measures indicate substantial similarity in the overall proportion of respondents identified as highly burnt out at work (e.g., Winwood & Winefield, 2004).

**Moderators**

**Positive Affectivity (PA) and Negative Affectivity (NA)** - Trait affectivity was originally assessed by the Positive and Negative Affect Schedule (PANAS) developed by Watson, Clark and Tellegen in 1988. The PANAS has 10 positive and 10 negative adjectives associated with different emotions (e.g., interested, distressed, or alert) (Watson et al., 1988). Respondents were asked to rate each adjective according to the extent they felt that emotion during a certain time ranging from the current moment to general or on average (Watson et al., 1988). As such, the scale can be used to assess either a person’s temporary emotions or general tendency to have certain feelings (as trait affectivity). Mackinnon et al. (1999) further provided a short form of PANAS with only 10 items (five for PA and five for NA), which was based on early studies of PANAS. Mackinnon et al. (1999) tested the short version among a large probability sample of 2651 individuals whose ages ranged from 18 to 79. Based on the results from CFA, Mackinnon et al. (1999) found that the short PANAS tended to be more cohesive, and had good reliability and construct validity. For instance, Mackinnon et al. (1999) reported a Cronbach’s alpha of .78 for the PA scale and .87 for the NA scale. The factor structure
of the scale has also been confirmed across four different age groups (i.e. 18 - 29, 30 - 44, 45 - 64 and 65 and over). The short version has also been used in several organisational studies (e.g., Messer & White, 2006), which has yielded good predictive validity. Accordingly, for the purpose of the current study, which treats NA and PA as unified dimensions, the short form of PANAS by Mackinnon et al. (1999) has been applied.

**Individualism and Collectivism** - There are many scales that can be used for assessing Individualism and Collectivism. These include the scales by Triandis and colleagues (e.g., Triandis & Gelfand, 1998), the Self-Construal Scale by Singelis (1994) and the Individualism-Collectivism scale by Hui (1988). As reviewed by Brewer and Chen (2007), the various measures tap different components of Individualism and Collectivism. Some, for instance, focus solely on one aspect (e.g., Singelis, 1994), while others cover a broad range of elements (e.g., Triandis & Gelfand, 1998). For this reason, it is important to choose a proper measure to match with the purposes of the current study. As Individualism and Collectivism in the current study include the components of self-representation, agency belief and value orientations (see Brewer & Chen, 2007), a scale including all the three components is essential. Accordingly, the scale developed by Triandis and Gelfand (1998) was chosen for the reason that the scale is balanced on each of the components. As discussed in Chapter 5, Triandis and Gelfand (1998) divided values into two dimensions: the vertical and the horizontal. They further proposed 16 items as representative of the two dimensions of Individualism and Collectivism. According to Brewer and Chen (2007), these two dimensions cover most of the contents in self-construal, agency belief and values. For Individualism, a sample item for self-construal is: “My personal identity, independent of others, is very important to me”; one
for agency belief is: “I’d rather depend on myself than others”; and one for value orientation is: “It is important that I do my job better than others”. For Collectivism, one sample item for self-construal is: “If a co-worker gets a prize, I would feel proud”; one for agency belief is: “It is important to me that I respect the decisions made by my groups”; and one for value orientation is: “It is my duty to take care of my family, even when I have to sacrifice what I want”. Further, according to the previous literature, the 16 items can be used as a self-report scale to measure Individualism and Collectivism, which have illustrated acceptable or good reliabilities (e.g., Lalwani, Shavitt, & Johnson, 2006; Ng & Van Dyne, 2001). The items are usually rated with seven points ranging from (1) “strongly disagree” to (7) “strongly agree”.

Control variables

Five demographic variables were controlled in the current study. They include (1) gender (1 - male, 2 - female), (2) age (in years), (3) job tenure (as the length of time the participant has stayed in their current job), (4) job income (divided into twelve categories: 1 = Less than 3,000 CNY\(^7\) per month; 2 = 3,001 to 5,000; 3 = 5,001 to 8,000; 4 = 8,001 to 12,000; 5 = 12,001 to 16,000; 6 = 16,001 to 20,000; 7 = 20,001 to 25,000; 8 = 25,001 to 30,000; 9 = 30,001 to 35,000; 10 = 35,001 to 45,000; 11 = 45,001 to 60,000; and 12 = More than 60,000), and (5) job rank with four categories (1 - line staff, 2 - line manager, 3 - middle manager, and 4 - senior manager and above). Education background was not controlled due to the small variance among Chinese managers. In China it is widely believed that having a bachelor degree is an entrance requirement for becoming a manager. Other demographic variables were chosen as control variables because, as suggested by prior research, they may influence the individual’s self-report work well-

\(^7\) 1 CNY = 0.186 AUD (January, 2014)
being including job satisfaction, stress and burnout (e.g., Hulin & Judge, 2003; Kacmar & Ferris, 1989; Lim, Kim, Kim, Yang, & Lee, 2010; Maslach et al., 2001; Sonnentag & Frese, 2003).

Moreover, as discussed in Chapter 3, if a job requires the utilisation of emotional abilities, employees with high EI could be more successful in doing the job (e.g., Daus & Ashkanasasy, 2005) and therefore may have higher well-being. As the current study did not focus on any particular job, it is necessary to control for the effect of emotion-related job content/demands. Accordingly, a self-report measure of emotional labour (Wong & Law, 2002) was applied to serve the purpose. The scale has five items with 7-point ratings (Wong & Law, 2002). A sample item is: “to perform my job well, it is necessary for me to hide my actual feelings when acting and speaking with people”. The reliability of the measure is acceptable (Cronbach’s alpha = .69) in Wong and Law’s (2002) study.

Finally, according to the fit approach to studying the antecedents of well-being (Cable & DeRue, 2002; also see Weiss & Brief, 2001), if the organisational culture and characteristics do not match with personal values and traits, an individual may feel dissatisfied about their job. To control for the organisation-person fit, the self-rated scale developed by Cable and Judge (1996) was used. The scale has three items anchored in five points ranging from 1 = not at all to 5 = completely. A sample item is: “To what degree do you feel your values ‘match’ or fit this organization and the current employees in this organization”. Cronbach’s alpha of the three items was .68 in the study by Cable and Judge (1996).
7.5.3 Other measurement issues

Common method variance

In the current research, all the data were collected via self-reports from the participants. Accordingly, it is necessary to discuss the use of self-reports in all the constructs of interest and the method variance that is likely to be produced. As defined by Doty and Glick (1998: 376), method variance is the “systematic error variation that is related to the measurement approach rather than to the constructs of interest”; common method bias is “the magnitude of the discrepancies between the observed and the true relationships between constructs that results from common method variance”. In other words, common method bias could be detrimental to the research if the findings are mainly due to it. As self-rated scales have been used frequently in organisational studies - sometimes as the sole method of data collection - such an approach has incurred criticism for being prone to common method variance. For instance, Schmitt (1989) claimed as follows: “I believe that additional research on stress, job satisfaction, and job characteristics in which all the variables are self-report measures are no longer acceptable”. There is also a widespread suspicion that “method alone is sufficient to produce biases, so that everything measured with the same method shares some of the same biases” (Spector, 2006: 223).

Nevertheless, empirical studies do not seem to support such a view. For example, based on a review of over 500 articles, Crampton and Wagner (1994) concluded that the percept-percept inflation in self-rating scales tended to be neutral and not particularly significant for self-reports. Likewise, Doty and Glick (1998) argued that although most observed correlations in their review (based on a meta-analysis of six social science journals) were inflated by over 26.4% due to method variance, the figure was still not sufficient to challenge the theoretical relationship as proposed. Similar opinions have
also been adopted by Spector (1987), Williams, Cote, and Buckley (1989), and Meade, Watson, and Kroustalis (2007). More importantly, common method variance may vary cross self-reports of different constructs. Obviously, there are different sources of the variance. From the individual perspective, these include acquiescence bias, social desirability, consistency motif, implicit theories, leniency biases, and carelessness (e.g., Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Schmitt, 1994; Spector, 1987, 2006).

From the research perspective, possible sources of method variance include the nature of the measured constructs (e.g., self-report performance versus bio-data; Doty & Glick, 1998; Schmitt, 1994; the sensitivity of the items; Donaldson & Grant-Vallone, 2002), the design of the questionnaire (e.g., common scale formats and anchors; Podsakoff et al., 2003), contextual effects (e.g., high versus low situational pressure; Donaldson & Grant-Vallone, 2002) and the research design (e.g., the use of multiple methods or applying time lags to data collection; Spector, 1994). Therefore, the sources of method bias are many and it is questionable to claim that all the findings based on self-reports of research constructs are biased or that self-report is necessarily the main source of possible error. Overall, it would appear to be necessary to consider both the individual and the research perspectives, and whether or not any bias arising may harm the validity of the research results.

For the current study, there was no specific information suggesting that the individual characteristics of the participants have potential links to certain biases (e.g., social desirability). Regarding the constructs, it is generally acceptable to use self-reports for assessing employee perceptions and feelings in the workplace (Schmitt, 1994; Spector, 1994). While there may be a risk in using self-report affectivity (PA and NA) as the predictors while the dependent variables (e.g., job satisfaction) are also self-reported, and
notwithstanding the claims of the spurious effect created by NA, it is widely recognised that there are a variety of meaningful mechanisms linking trait affectivity and work well-being (e.g., Judge et al., 2008; Spector et al., 2000; Zellars, Meurs, Perrewe, & Kacmar, 2009). For the EI measurement, since the MSCEIT is assessing the individual’s abilities (judged by objective criteria) rather than perceptions, the test is likely to be free of self-report biases such as acquiescence bias and social desirability bias. Regarding the contextual effect, since the study is based on anonymous and voluntary responses it can therefore be considered to produce low situational pressures upon participants to provide socially desirable answers (Donaldson & Grant-Vallone, 2002). To further control for the common method variance, three data collection periods were set in the current study to create a temporal separation (approximately one week) in taking the survey among the participants (Podsakoff et al., 2003). Finally, since the study was partly exploratory in nature, the use of self-reports may be helpful for providing some initial observations on the research questions. As Schmitt (1994) argued, self-reports might be less obtrusive to organisations as well as being more suitable for studies in emerging areas of research interest. Therefore, although the current study has applied self-reports for measuring all the constructs of interest, it is submitted that common method variance is unlikely to have a significant impact on the final results.

Measurement equivalence

Another measurement issue warranting consideration is that of measurement equivalence. Equivalence is an important notion in cross-cultural research. It generally refers to the comparability of a study in one culture to that in another culture. Accordingly, it may include the equivalence of constructs and notions, measurement, sampling, research procedure and data analysis (Steenkamp & Hofstede, 2002; Van de
Vijver & Leung, 1997). For the measurement equivalence, researchers may need to consider the equivalence of measurement unit, structure and score (Steenkamp & Hofstede, 2002; Van de Vijver & Leung, 1997). For instance, the education system might be different in two countries; as a result, it might be difficult to compare the educational levels of the participants from the two countries. As suggested by Steenkamp and Hofstede (2002), when calibration equivalence is problematic, researchers can recode the responses into broader categories (e.g., high versus low), although such an approach may lead to a loss of information. Another approach is to apply the same instrument across cultures and therefore facilitate the comparison of the results (Van de Vijver & Leung, 1997). Structure equivalence mainly concerns the similarity of the structure of the measurement in the research (Van de Vijver & Leung, 1997). Accordingly, structure equivalence can be addressed by either applying factor analysis or calculating the internal reliability of the measurement (Van de Vijver & Leung, 1997). Finally, the score equivalence is more complex in nature, as it can be influenced by many other factors beyond the cultural differences of interest. For instance, an instrument may have a similar factor structure in two cultures, but still have different meanings associated with it. As Steenkamp and Hofstede (2002) suggest, lack of score equivalence may also be the result of cross-cultural differences in response styles including the acquiescence bias, the extremity bias and the social desirability response (Paulhus, 1991). Hence, it is generally difficult to use raw scores directly for comparison. The scores need to be weighted by ruling out any covariance created by factors other than cultural differences (Van de Vijver & Leung, 1997).

To ensure measurement equivalence, a primary focus should be on translation. Translation is very important if researchers want to apply or adapt the original instrument
in a culture where people use different languages (Van de Vijver & Leung, 1997). A common practice adopted by many studies is the translation-back translation method (e.g., Brislin, 1970). As described by Van de Vijver and Leung (1997), an instrument is first translated into another language and then translated back to its original language by another independent translator to compare the equivalence. The procedure can also be conducted more than once to ensure the reliability of the translation (e.g., Steensma, Marino, & Dickson, 2000). Yet, as commented by Van de Vijver and Leung (1997: 266), the method may sometimes produce a “stilted” language, which “reproduces the original language version well, but is not easily readable and comprehensible”. Consequently, they further proposed an approach involving professional translation. This method allows instruments to be translated by a team of competent bilinguals (Van de Vijver & Leung, 1997). As such, rather than solely relying on back translation, the team might apply evaluative criteria to measure the accuracy of the translation (Van de Vijver & Leung, 1997). Finally, translation can be pre-tested in the counties of interest (Steenkamp & Hofstede, 2002). Psychometric techniques such as differential item functioning may also help to identify the problems in item translations (Van de Vijver & Leung, 1997).

Most prior research in this and cognate fields has used instruments originally in English and applied only in a Western context. However, since the current study was conducted among Chinese participants, it has been necessary to ensure that the instruments also work well in the Chinese context so that the research findings can be compared to those in other cultures. Measurement equivalence, therefore, is an important consideration in the current study. Since the study was conducted only in one ethnic group, calibration and score equivalence can be ignored (as there was no direct comparison of scores). In contrast, structure equivalence may be a critical issue. In other words, it is necessary to
ensure that all instruments still assess the constructs that they were originally assumed to assess. Following the suggestion by Van de Vijver and Leung (1997), a first step was to apply the original instruments without any modification. As all of them are well-established measures in the field, this strategy helped to prevent any change in the constructs they measure. Secondly, to ensure that all the instruments were properly translated, translation-back translation was applied following the approach recommended by Brislin (1970). The translations were then examined according to the suggestions by Van de Vijver and Leung (1997), to make the translations more readable and understandable. It is worth noting that the Chinese version of MSCEIT was provided by the test publisher, a renowned assessment company in US. For this reason, MSCEIT was not included in the translation process. Finally, in the translated versions, tests of reliabilities were conducted among all the self-report scales to ensure the accuracy of the measurement (Van de Vijver & Leung, 1997). CFA was also conducted with each of the key variables (including EI, trait affectivity, values, and the three indicators of work well-being) to ensure the equivalence of the measurement structure.

7.6 Research Procedure

7.6.1 Data collection

The participants for the current study were recruited from several postgraduate and executive management programs in a top-tier university in east China. The researcher first contacted the coordinators of the programs for permission to conduct the research with their students. The coordinators then informed the lecturers of which courses were likely to provide a chance for the researcher to present the research and recruit participants during a lecture break. The participants were informed about the aim of the research, the research methodology, participant benefits and the way to access the survey.
In accordance with the recruitment procedure approved by the University of Sydney Human Research Ethics Committee, potential participants were informed in writing that their participation would be purely voluntary with no pressure and obligation. A copy of the Participation Information Statement is provided in Appendix A.

The surveys were distributed in paper form during the break-time and completed forms then collected at the subsequent class. The surveys were collected by the doctoral researcher without the presence of either the coordinator or the lecturer. It is worth noting that all participants had a full-time job at the time of data collection.

As previously mentioned, to avoid common method variance, the survey was divided into three parts completed by the participants at different times. Participants were asked to finish the EI test at Time I; affectivity, Individualism and Collectivism, some control variables and bio information at Time II; and well-being questionnaire at Time III. A time interval of one week was applied between the rounds. The whole period of data collection began in September 2012 and ended by April 2013. A copy of the survey can be found in Appendix B.

The whole survey, all three parts including over 200 items, generally took 50 to 60 minutes to complete. Consequently, it was necessary to take steps to prompt responses from prospective participants. In this regard, Simsek and Veiga (2001) provided several useful suggestions that included the use of prior notification, a good introduction, the use

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8 This design, however, is different from longitudinal design as discussed earlier in this chapter. Although there are few guidelines as to the length of the time interval that should be applied in longitudinal design (Bryman & Bell, 2007), many longitudinal studies apply an interval of at least several months in order to observe the long-term effect of the predictor(s). For this reason, the current study still follows a cross-sectional design despite a short time lag being incorporated into the data gathering process.

9 Due to copyright issues, MSCEIT has not been included. The survey is the original English version. For the Chinese version, please contact the author of this thesis.
of follow-up mailings, the claim of sponsorship (e.g., by the local university), proper incentives and a good design of the survey (involving extra features to minimize completion time and maximise respondent convenience). Likewise, Stanton and Rogelberg (2001) suggested that providing personalised feedback to the participants could be a good way to increase their responses. Finally, Schwarz, Groves, and Schuman (1998) mentioned the ways of using advance letters, payment to respondents and repeat call-backs to prompt reluctant respondents. Yet they also argued that effort to persuasion or inducement might sometimes violate the informed consent principles, and therefore, might not be so effective. Overall, the current study applied multiple ways to increase the response rate of the survey. A main strategy, following Stanton and Rogelberg (2001), was to provide each of the participants personal feedback regarding their survey results (compared to the results of the whole research sample). An example of the personal feedback can be found in Appendix C. Other strategies included introduction of the research during courses and a survey design which may minimise any inconvenience for the participants.

7.6.2 Treatment of missing data

A final methodological issue is that related to the treatment of the missing data. Generally speaking, there were two categories of missing data in the current research. The first was survey non-response (i.e. survey not returned). As Rogelberg and Stanton (2007) argued, there were typically two kinds of non-responses. One was the passive non-response. As they described it: “passive non-respondents may not have actually received the survey, might have forgotten about it or mislaid it” (Rogelberg & Stanton, 2007: 200). Accordingly, for most studies, passive non-response is unlikely to create any bias in the findings (Rogelberg & Stanton, 2007). Passive non-respondents may also
include those who completed one or two parts of the survey, but failed to complete the whole one (probably due to absence from lectures). A second form is active non-response, which is classified as being intentional in nature (Rogelberg & Stanton, 2007). In other words, the participants may avoid answering questions on the survey for specific purposes. For instance, Tompson and Surface (2007) found that both negative and positive factors (job dissatisfaction and satisfaction) might be related to active non-response. As such, these factors may actually affect the research findings if they are chosen as the constructs of interest. In the current study, since the participation was wholly voluntary and the participants were informed about the research aims, it is not likely that those people who did not return the survey intentionally withheld their responses. However, there is still the possibility that individuals with high negativity may not be willing to participate in the study, which may cause some response bias.

A second category of missing data in the current study was the missing values within the self-report scales. For instance, a person might have answered some items within a scale, but may have failed to answer the remaining ones. In this regard, McDonald, Thurston, and Nelson (2000) compared the effectiveness of different treatments (e.g., the list-wise deletion, the item/person mean substitution and the regression method). They found that the regression imputation was the most effective way of dealing with missing values within a summated scale. Although list-wise deletion (i.e. deletion of cases with missing values) yielded unbiased estimations, the estimated values (e.g., mean) had major differences from the true values of the population (McDonald et al., 2000). Even so, the regression method may have its own limitations. As the method assumes a linear relation between the predictor and the missing value, the imputed value sometimes may exceed the range of the variable (e.g., a value more than 7 in a 7-point scale) (Little & Rubin,
Furthermore, since there is only one item for each of the demographic variables, the regression method is not a suitable means of handling missing data in this case. Accordingly, Little and Rubin (1987) recommended the expectation maximisation (EM) algorithm as a technique to impute the missing values. The method is based on the assumption that the information of the values in other relevant variables (e.g., covariance) can predict the missing responses. The procedure is as follows: “(1) replace missing values by estimated values, (2) estimate parameters, (3) re-estimate the missing values assuming the new parameter estimates are correct, (4) re-estimate parameters, and so forth, iterating until convergence” (Little & Rubin, 1987: 129). According to Little and Rubin (1987), the EM algorithm can be applied if a value is missing at random (which is not due to the characteristics of the variable). As such, it can cover a broad range of situations including simple carelessness and non-response due to factors other than the variable itself. Consequently, the current study followed the suggestion by Little and Rubin (1987) and treated missing values using the EM algorithm. The EM algorithm was computed using SPSS 13. One exception was the MSCEIT. Missing values were input as “?” in the online answer sheet following the instruction by the test publisher (and were also treated thus by the publisher).

### 7.6.3 Stages of data analysis

The data analysis involved several distinct stages. First, missing data was treated via the EM algorithm (Little & Rubin, 1987). Second, the internal reliabilities and factorial validity of the self-report scales and the MSCEIT were calculated to ensure that all the measures were reliable and valid among the Chinese participants. Thirdly, a general description of the variables was provided including the mean scores, SDs, and range minimum and maximum. The correlations among the variables were also calculated and
recorded in the correlation matrix. Fourthly, the research hypotheses were tested using hierarchical regression. Significant moderating effects were then depicted in graphs. The research findings are reported in Chapters 8 and 9.

### 7.7 Conclusion

This chapter has provided an overview of the research methodology used in the current study. In accordance with the research questions, the current study takes a philosophical position of positivism and follows a deductive process to explore the questions. Accordingly, the study followed a quantitative approach for the purposes of controlling the effects of irrelevant factors and increasing the generalisability of the research outcomes. The research design, sampling method, measurement and procedure were further chosen to fulfil these purposes. Table 7.2 summarises the research methodology used in the current research.

Regarding the research design, the study has incorporated a cross-sectional design in which data were collected via surveys simultaneously. Such a design is common in organisational studies, since it enables researchers to explore the associations between variables that cannot be manipulated by experiments. Furthermore, convenience sampling was applied for the purpose of data collection. In order to minimise sampling error, a broad range of participants has been chosen intentionally. The sample included different genders, ages and industrial backgrounds. Moreover, using a sample of Chinese managers can increase the variation of Individualism, and therefore, may facilitate the analysis of its moderating effect. The target sample size was between 100 and 300.

All measures in the current research have been used by previous studies, which have
yielded good reliability and validity. For example, the three indicators of work well-being (as satisfaction, stress, and burnout) were operationalised via the scales developed by Brayfield and Rothe (1951), Parker and DeCotiis (1983), and Kristensen et al. (2005), respectively. PA and NA were assessed by a short version of PANAS (Mackinnon et al., 1999), while Individualism and Collectivism were captured by the 16 items proposed by Triandis and Gelfand (1998). EI was measured by a proprietary ability test - MSCEIT (Mayer et al., 2002) - to which the researcher acquired access on a commercial basis with a volume-based fee applied. It is also noteworthy that two scorings of the EI test were applied to explore the research proposition, which can minimise potential cultural bias in the test and can also increase the robustness of the findings.

Given that all the measures are self-reports, it is suggested that common method variance has only limited effects on the research results concerning the interaction between EI and trait affectivity or values on well-being. Nonetheless, it is still necessary to confirm internal reliability and factor structure of measurement to ensure the methodological equivalence among the Chinese participants in the current study.

Finally, regarding the research procedure, participants were mainly recruited from several management courses in a high-ranked university in eastern China. All the participants had a full-time job at the time of data collection. Due to the length of the survey, various strategies were employed to increase response rate, including the providing of personal feedback. The survey was also divided into three parts in order to minimise the effect of common method variance. The whole data collection took nearly half a year to complete. Missing data were then treated following the EM algorithm by Little and Rubin (1987). Statistical techniques such as hierarchical regression were used.
for the analysis of the data, which are all common practices in organisational studies.
<table>
<thead>
<tr>
<th>Table 7.2 Overview of the research methodology adopted in the current study</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Philosophical position</strong></td>
</tr>
<tr>
<td><strong>Research approach</strong></td>
</tr>
<tr>
<td><strong>Research methodology</strong></td>
</tr>
<tr>
<td><strong>Research design</strong></td>
</tr>
<tr>
<td><strong>Sampling method</strong></td>
</tr>
<tr>
<td><strong>Measurement</strong></td>
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<tr>
<td></td>
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<tr>
<td><strong>Procedure</strong></td>
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<td></td>
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</tr>
</tbody>
</table>
Chapter 8 Sample Demographics, Measurement Reliability and Validity and Descriptive Results

8.1 Introduction

This chapter describes sample demographics, the process applied to data preparation, the procedures and results for examining measurement reliability and validity, and descriptive results for univariate analysis. The chapter is composed of five sections. In the first section, the final research sample is briefly described. The second section describes how missing data were treated to ensure a complete database for further analysis. Thirdly, the Chinese consensus scoring of MSCEIT (Mayer et al., 2002) was determined using the local sample. The similarities and differences between the US and the Chinese consensus scorings are also discussed. Fourthly, the internal reliability and factor structure of the research assessments are reported. Reliability is reported with Cronbach’s alpha and split-half coefficient. Factor structure is examined by confirmatory factor analysis (CFA). Finally, the chapter provides a general description of the variables in the current research, including their means, standard deviations (SDs) and minimum and maximum values. The distribution of each variable is also presented in graphs.

8.2 Final Sample

As mentioned in Chapter 7, the participants in the current study were recruited from a sample of students enrolled in several postgraduate and executive programs in a top-rank university in east China. The programs are supported by the School of Management in this university. All potential participants are full-time employees from a variety of organisations. Full-time employment is actually the entry requirement of the programs. Most of the potential participants are also managers (e.g., line, middle or senior
managers) in organisations.

The survey was divided into three parts to prevent common method variance and a total of 412 sets of questionnaires were issued to prospective participants in the first round. The response rate was 88.1% (363 copies) for the first part of the survey, which then dropped to 71.4% (294 copies) for the second part, and 58.3% (240 copies) for the final part. As such, the rate of attrition in each round was approximately 20%, which was quite stable across the whole period of data collection. While a small number of initial participants simply forgot the other parts of the survey and later came to the researcher to ask to complete those parts, for most non-respondents evidently, they either decided not to participate or missed the classes in which surveys were distributed. For these reasons, the data initially provided by those who did not complete all three parts of the survey were not included in further analysis, since deletion of these data did not stand to create any bias in research (Rogelberg & Stanton, 2007).

The final research sample included 240 participants, all of whom were Chinese citizens. Nearly 99% of the participants had a bachelor’s qualification or higher degree and all were currently employed. Respondents came from a variety of industries, including banking, business consulting, the chemical industry, computer and technology, the food industry, media, manufacturing and the public sector. Their demographic information is further provided in Table 8.1. As shown in the table, 142 of the participants were male and 98 were female. Their average age was 33.99 years with a SD of 5.34. The participants had stayed in their current jobs for an average of 6.62 years (SD = 4.18). Most had tenure of less than 10 years, with the longest employed participant having tenure of 22 years. Regarding participants’ incomes, the mean value of income for the
Table 8.1 Overview of research sample demographic details (n = 240)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>n</th>
<th>%</th>
<th>Category</th>
<th>n</th>
<th>%</th>
<th>Category</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>(1) Male</td>
<td>142</td>
<td>59.17</td>
<td>(2) Female</td>
<td>98</td>
<td>40.83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(5) 12,001 to 16,000 CNY</td>
<td>28</td>
<td>11.67</td>
<td>(9) 30,001 to 35,000 CNY</td>
<td>15</td>
<td>6.25</td>
</tr>
<tr>
<td></td>
<td>(2) Female</td>
<td>98</td>
<td>40.83</td>
<td>(6) 16,001 to 20,000 CNY</td>
<td>30</td>
<td>12.50</td>
<td>(10) 35,001 to 45,000 CNY</td>
<td>12</td>
<td>5.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(3) 5,001 to 8,000 CNY</td>
<td>16</td>
<td>6.67</td>
<td>(11) 45,001 to 60,000 CNY</td>
<td>12</td>
<td>5.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(4) 8,001 to 12,000 CNY</td>
<td>17</td>
<td>7.08</td>
<td>(12) More than 60,000 CNY</td>
<td>15</td>
<td>6.25</td>
</tr>
<tr>
<td>Income</td>
<td>(1) 3,000 CNY and less</td>
<td>0</td>
<td>0.00</td>
<td>(5) 12,001 to 16,000 CNY</td>
<td>28</td>
<td>11.67</td>
<td>(9) 30,001 to 35,000 CNY</td>
<td>15</td>
<td>6.25</td>
</tr>
<tr>
<td></td>
<td>(2) 3,001 - 5,000 CNY</td>
<td>2</td>
<td>0.83</td>
<td>(6) 16,001 to 20,000 CNY</td>
<td>30</td>
<td>12.50</td>
<td>(10) 35,001 to 45,000 CNY</td>
<td>12</td>
<td>5.00</td>
</tr>
<tr>
<td></td>
<td>(3) 5,001 - 8,000 CNY</td>
<td>16</td>
<td>6.67</td>
<td>(7) 20,001 to 25,000 CNY</td>
<td>19</td>
<td>7.92</td>
<td>(11) 45,001 to 60,000 CNY</td>
<td>12</td>
<td>5.00</td>
</tr>
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<td></td>
<td>(4) 8,001 - 12,000 CNY</td>
<td>17</td>
<td>7.08</td>
<td>(8) 25,001 to 30,000 CNY</td>
<td>20</td>
<td>8.33</td>
<td>(12) More than 60,000 CNY</td>
<td>15</td>
<td>6.25</td>
</tr>
<tr>
<td>Job rank</td>
<td>(1) Line staff</td>
<td>43</td>
<td>17.92</td>
<td>(3) Middle manager</td>
<td>38</td>
<td>15.83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2) Line manager</td>
<td>94</td>
<td>39.17</td>
<td>(4) Senior manager and above</td>
<td>15</td>
<td>6.25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable</td>
<td>Mean</td>
<td></td>
<td></td>
<td>Minimum</td>
<td></td>
<td></td>
<td>Maximum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>33.99</td>
<td>5.34</td>
<td>26.00</td>
<td>55.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tenure</td>
<td>6.62</td>
<td>4.18</td>
<td>0.20</td>
<td>22.00</td>
<td></td>
<td>202</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ordinal income variable was 6.99, which indicated that the average income might be between 16,001 to 25,000 CNY per month.\textsuperscript{10} Regarding participants’ job hierarchy, 43 of them were line staff, 94 were line managers, 38 were middle managers, and 15 were senior managers or above, with 50 missing responses.\textsuperscript{11} As such, most participants were managers from different organisations. Overall, the sample fitted well with the sampling requirement as mentioned in Chapter 7 (i.e. the sample size between 100 and 300, and a sample of Chinese managers with a broad range of ages).

8.3 Treatment of Missing Data

The percentage of missing values is reported in Table 8.2. As can be seen, most of the items did not have missing values, while some items had only a trivial rate of missing values (less than 1%). Missing responses were most prevalent in the demographic variables, which is understandable, given that some demographic information may be sensitive to some individuals, especially those related to personal income. Since the data collection was anonymous and voluntary in nature, it was not likely that the missing values were due to the characteristics of the variables themselves (e.g., non-response of income from low-income people).

Nonetheless, the scales of stress and burnout had rates of missing values greater than expected. A close check on the data and the questionnaire suggested that in one round of data collection (involving nearly 25% of the whole data), the researcher failed to include

\textsuperscript{10} 1 CNY = 0.186 AUD (January, 2014). No participant had income equalling or less than 3,000 CNY. Two had monthly incomes between 3,001 and 5,000 CNY, 16 had income between 5,001 and 8,000 CNY, 17 had between 8,001 and 12,000 CNY, 28 had between 12,001 and 16,000 CNY, 30 had between 16,001 and 20,000 CNY, 19 had between 20,001 and 25,000 CNY, 20 had between 25,001 and 30,000 CNY, 15 had between 30,001 and 35,000 CNY, 12 had between 35,001 and 45,000 CNY, 12 had between 45,001 and 60,000 CNY, and 15 had More than 60,000 CNY, with 54 missing responses.

\textsuperscript{11} It is worth noting that the missing responses in job income has no association with those in job rank, suggesting that the missing data in these two variables are not likely to be a result of unemployment.
some of the items in the two scales. Since this error was not related to the research
variables themselves, the values were considered to be missing at random. Hence, they
can be treated by the proper imputation method according to Little and Rubin (1987). As
the two scales are uni-dimensional in nature, other items in the same scale can be used as
predictors of the missing data (McDonald et al., 2000). For this reason, these data were
retained for further analysis.

Table 8.2 Percentage of missing values among the survey items (n = 240)

<table>
<thead>
<tr>
<th>Item name</th>
<th>Age</th>
<th>Tenure</th>
<th>Income</th>
<th>Job rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage missing</td>
<td>5.4%</td>
<td>12.5%</td>
<td>22.5%</td>
<td>20.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item name</th>
<th>Burnout_1</th>
<th>Burnout_2</th>
<th>Burnout_5</th>
<th>Burnout_7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage missing</td>
<td>0.4%</td>
<td>0.4%</td>
<td>26.7%</td>
<td>28.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item name</th>
<th>Culture_7</th>
<th>Culture_9</th>
<th>Stress_1</th>
<th>Stress_2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage missing</td>
<td>0.4%</td>
<td>0.4%</td>
<td>25.8%</td>
<td>25.8%</td>
</tr>
</tbody>
</table>

Note. The table only includes items that have missing values.

Following the method by Little and Rubin (1987), the missing values were treated using
the EM algorithm. The whole procedure was conducted by means of the missing value
analysis in SPSS 13.0. For the missing values in the summated scales (e.g., stress or
burnout), the EM algorithm was performed with all the items in the same scale, which
can provide sufficient information for the imputation. For data omitted from the
demographic variables, the EM method was applied using all the other demographic
variables. The intercorrelations among demographic variables are provided in Table
8.3. As shown in the table, age, income and job rank were positively correlated with each
other. Income was also negatively related to job tenure. Therefore, values in other

---

12 Correlation coefficients were calculated based on Pearson’s r. The results using Spearman’s rho yielded a similar result.
13 The negative relationship is possibly due to the changing role of tenure in Chinese society. According to Xie and Wu
demographic variables can legitimately be used to predict missing responses. Overall, after treating missing values, the dataset included a total of 240 full responses.

Table 8.3 Correlations among demographic variables (before the treatment of missing values; n = 240)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Age</td>
<td>-.12</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Tenure</td>
<td>.10</td>
<td>.01</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>4. Income</td>
<td>-.04</td>
<td>.52**</td>
<td>-.27**</td>
<td>-</td>
</tr>
<tr>
<td>5. Job rank</td>
<td>-.05</td>
<td>.48**</td>
<td>.13</td>
<td>.28**</td>
</tr>
</tbody>
</table>

*Note.* **p < .01

8.4 The Chinese Consensus Scoring of MSCEIT

As mentioned in Chapter 7, this study uses both the US and the Chinese consensus scorings of MSCEIT (Mayer et al., 2002) to explore the effect of EI. On the one hand, the consensus scoring based on the US norm has been widely applied in organisational studies (e.g., Matthews et al., 2006; Roberts et al., 2001), the reliability of which is also higher than expert scoring (see Mayer et al., 2002). On the other hand, the consensus scoring based on local samples has been used in several studies (e.g., Roberts et al., 2006; Zeidner & Olnick-Shemesh, 2010) and has the advantage of minimising local variation (e.g., different concepts of certain emotions) in the test scoring. Therefore, both scorings are applied in data analysis to increase the reliability of the research findings.

(2008), the traditional work system in China (as “Dan Wei”) accorded high respect to the length of service. However, because of the major economic and social reform in China in recent decades, the role of Dan Wei on personal income has become less significant (Xie & Wu, 2008) and the imperative is now about whether the organisation can improve profitability (Xie & Wu, 2008). As such, the negative relationship may indicate that employees who have the motivations and capabilities to secure high income frequently change their jobs (and companies) to achieve a high level of salary compared to those who still remain in the “Dan Wei” systems.
The consensus scoring based on the US norm was calculated by the test publisher, who had the scoring keys. The consensus scoring based on the Chinese sample was determined according to the responses from the participants who completed the first round of the survey. As mentioned earlier, the survey was divided into three rounds to minimise common method variance. In the first round, participants completed the EI test. Accordingly, these responses (not the responses from the final research sample) were used for the calculation of consensus weights, since they involved more participants and were likely to be more fully representative. The first round had 363 valid responses. The sample characteristic was quite similar to that of the final research sample (since the final sample was also involved in these responses). The weight of each option in the test items was calculated following the method recommended by Legree et al. (2005). For instance, if 23% participants chose option “A” for a certain question, then this option was endowed with a score of .23.

After determining the Chinese consensus scoring, it was applied to the final research sample as described at the beginning of this chapter. To further compare the scores based on the US norm with those on the Chinese sample, correlations were calculated between the two scorings at both the item level and the aggregated level (i.e. task, branch and total scores). As shown in Table 8.4, items scored by the two scoring methods are highly correlated with each other. Most correlation coefficients were close to 1.00. This suggests that consensus scoring is consistent across the US norm and the Chinese sample. In other words, the options that are regarded as emotionally intelligent by US people are also considered by the Chinese participants in the current research to reflect a person’s EI. Nevertheless, Table 8.4 also shows that nearly 15% of the test items may

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14 Due to copyright issues, the Chinese consensus scoring is not reported in this thesis.
15 Correlation coefficients were calculated based on Pearson’s r.
have different scoring keys in the two samples. In particular, some of the correlations (e.g., item 12 in the Change task) are negative, which indicates that there might be substantial differences in responses of these items between the US norm and the local sample. Further, as shown in Table 8.4, the aggregated scores are highly correlated between the two scorings with a coefficient typically near .80. Such a coefficient suggests that there is considerable similarity between the US and the Chinese consensus scorings, while variation still exists in some of the test items.

Since the main aim of the current study is not to address the potential cultural differences in the EI test, both scorings were applied in further analysis primarily to cross-validate the research findings. The next section presents their reliability and validity along with those of other research measures.
Table 8.4 Correlation coefficients between the Chinese and the US consensus scores (n = 240)

<table>
<thead>
<tr>
<th>Changes</th>
<th>Pearson’s r</th>
<th>Blends</th>
<th>Pearson’s r</th>
<th>Emotion Management</th>
<th>Pearson’s r</th>
<th>Emotion Relations</th>
<th>Pearson’s r</th>
<th>Aggregated scores</th>
<th>Pearson’s r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1</td>
<td>1.00</td>
<td>Item 1</td>
<td>.72</td>
<td>Item 1</td>
<td>.99</td>
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<td>1.00</td>
<td>Changes</td>
<td>.82</td>
</tr>
<tr>
<td>Item 2</td>
<td>1.00</td>
<td>Item 2</td>
<td>1.00</td>
<td>Item 2</td>
<td>.38</td>
<td>Item 2</td>
<td>.64</td>
<td>Blends</td>
<td>.66</td>
</tr>
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<td></td>
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</tr>
</tbody>
</table>
8.5 Reliability and Validity of the Measures

8.5.1 Internal reliability

Since all measures used have been reported to be reliable and valid in the previous literature, the current study only examined the internal consistency and factor structure of the measures to ensure measurement equivalence (Van de Vijver & Leung, 1997) among the Chinese participants. An overview of the internal reliability regarding each measure is provided in Table 8.5.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Internal reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI (MSCEIT)</td>
<td>.67&lt;sup&gt;a&lt;/sup&gt; (.71&lt;sup&gt;a, b&lt;/sup&gt;)</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>.68</td>
</tr>
<tr>
<td>Job stress</td>
<td>.58 (.70&lt;sup&gt;c&lt;/sup&gt;)</td>
</tr>
<tr>
<td>Job burnout</td>
<td>.78</td>
</tr>
<tr>
<td>Positive Affectivity</td>
<td>.69</td>
</tr>
<tr>
<td>Negative Affectivity</td>
<td>.81</td>
</tr>
<tr>
<td>Individualism</td>
<td>.72&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Collectivism</td>
<td>.69&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Organisation-person fit</td>
<td>.81</td>
</tr>
<tr>
<td>Emotional labour</td>
<td>.62</td>
</tr>
</tbody>
</table>

<sup>Note</sup>. <sup>a</sup>Split-half coefficient based on the Spearman-Brown formula; <sup>b</sup>reliability based on the Chinese consensus scoring; <sup>c</sup>reliability based on the four-item version of job stress.
Following Mayer et al. (2002), a split-half method was used for MSCEIT. The split-half coefficient was computed according to the Spearman-Brown prediction formula. As shown in Table 8.5, the split-half coefficient for the US consensus scoring of the whole test was .67. The same formula was applied to the Chinese consensus scores\(^\text{16}\) in the final sample. The split-half coefficient for the Chinese consensus scoring was .71, which is slightly higher than that of the US consensus scoring (.67). The split-half method was also used with the measures of Individualism and Collectivism due to their multi-dimensional nature (Triandis & Gelfand, 1998). The split-half coefficient for Individualism was .72 and that for Collectivism was .69.

Reliabilities of other self-report measures were calculated with Cronbach’s alpha. The Cronbach’s alpha for job satisfaction was .68, while that for job burnout was .78. Likewise, the internal reliability was .69 for PA and .81 for NA. The scale of organisation-person fit also had a high reliability (Cronbach’s alpha = .81). Some coefficients were below .70, but were still considered to be acceptable. The scale for emotional labour, with an alpha coefficient of .62, is a case in point. Since the scale involves different types of emotional workloads (e.g., expression and management) but with only five items, it may have a relatively low Cronbach’s alpha. In the original article by Wong and Law (2002), the reliability of the scale was also below .70. More problematic was the coefficient for the self-report scale of job stress (Cronbach’s alpha = .58). An examination of the correlations among the items suggested that one item - “I feel guilty when I take time off from job” - was particularly problematic in that it was not significantly related to any of the other items. While exclusion of the item raised the

\(^{16}\) Items that were not in the US consensus scoring were excluded in order to facilitate the comparison between the two scorings. Also since these items are simply used for keeping the integrity of the test format (Lopes et al., 2006), excluding them may not influence the validity of the test scores.
Cronbach’s alpha of the scale to .70, it was still necessary to check the factor structure of the measure before excluding the item from further analysis.

Overall, most of the research measures had good or acceptable reliabilities (above or close to .70). However, the scale for job stress required further examination regarding its factor structure in order to determine whether certain item in this scale should be excluded from the data analysis. The results are reported in the following subsection.

8.5.2 Factorial validity

The factor structures of the main variables were checked by CFA. CFA is different from exploratory factor analysis as the former is usually used for confirmatory purposes (Thompson, 2004). In the current study, CFA was applied to see if the structures of the measures were similar to what they were originally proposed to be. The measures included MSCEIT and the self-rated scales of job satisfaction, stress, burnout, PA, NA, Individualism and Collectivism.17

Following Mayer et al. (2002), a two-factor structure of MSCEIT was tested with the sample data. The two factors reflected the two branches of EI (as understanding and management), which were also allowed to correlate with each other to show their oblique nature (to form a single dimension of strategic EI; Mayer et al., 2002). To prevent under-identification of the latent variable (see Little, Cunningham, Shahar, & Widaman, 2002), task scores were not used as the item parcels. Instead, each task was divided into two parallel parts to create two parcels (i.e. odd versus even number items). Accordingly,

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17 The factor structures of the scales of emotional labour and organisation-person fit were not tested due to the under-identification of the scale items for the latent factors (Little et al., 2002), that is, there should be at least four items for each of the latent factors. Otherwise, results from CFA can be misleading (Little et al., 2002).
there were four parcels for each factor, which may help to balance the identification of the latent variables (Little et al., 2002). Further, according to Mayer et al. (2002), method variance (e.g., different question formats) needs to be controlled when performing CFA. As such, the error terms of the two parcels in each of the tasks were allowed to be correlated, which may reflect the different testing methods used. The fitness of the model is presented in Table 8.6. Based on the criteria proposed by MacCallum, Browne, and Sugawara (1996) and also by Hu and Bentler (1999), the two-factor structure provided an excellent fit with the data based on the US consensus scoring ($\chi^2 = 12.71$, d.f. = 15, $p > .1$, RMSEA = .00, SRMR = .03, TLI = 1.00, CFI = 1.00). The factor structure of MSCEIT also fitted well with the data using the Chinese consensus scoring ($\chi^2 = 15.84$, d.f. = 15, $p > .1$, RMSEA = .02, SRMR = .04, TLI = .99, CFI = .99). Accordingly, both scorings confirmed the factor structure of MSCEIT.

The three well-being indicators were tested separately regarding their unified structures. For job satisfaction, the fitness indices were generally acceptable except for RMSEA ($\chi^2 = 28.54$, d.f. = 5, $p < .01$, RMSEA = .14, SRMR = .06, TLI = .89, CFI = .95). As suggested by Kenny, Kaniskan and McCoach (2011, as cited in Kenny, 2014), RMSEA is an absolute measures of fit that can be largely influenced by small sample size or degree of freedom (particularly the latter). For this reason, RMSEA could be misleading in the current study with measures that only had five or six items. For job stress, the unified structure seemed to have a mediocre fit with the data ($\chi^2 = 19.81$, d.f. = 5, $p < .01$, RMSEA = .11, SRMR = .06, TLI = .84, CFI = .92). However, as the tested model suggested that the item - “I feel guilty when I take time off from job” - was negatively related to the general factor of job stress and after dropping the item, the fitness indices improved dramatically ($\chi^2 = 1.20$, d.f. = 2, $p > .1$, RMSEA = .00, SRMR = .02, TLI = .
1.00, CFI = 1.00). Finally, the one-factor model of burnout provided a mediocre fit with the data \( \chi^2 = 70.55, \text{d.f.} = 14, p < .01, \text{RMSEA} = .13, \text{SRMR} = .07, \text{TLI} = .81, \text{CFI} = .87 \). The less satisfactory indices might be due to the over-identification of the seven items to job burnout (see Little et al., 2002).

A one-factor model was further tested with the measures of PA and NA respectively. As shown in Table 8.6, the one-factor structure generally had a good fit with the data of PA \( \chi^2 = 14.93, \text{d.f.} = 5, p < .01, \text{RMSEA} = .09, \text{SRMR} = .05, \text{TLI} = .91, \text{CFI} = .95 \) and that of NA \( \chi^2 = 25.76, \text{d.f.} = 5, p < .01, \text{RMSEA} = .13, \text{SRMR} = .04, \text{TLI} = .89, \text{CFI} = .94 \). The scales of Individualism and Collectivism were also tested separately. Based on the measurement structure proposed by Triandis and Gelfand (1998), two oblique factors were tested with Individualism (i.e. horizontal and vertical Individualism) and Collectivism (i.e. horizontal and vertical Collectivism). The two-factor structure provided an acceptable fit with the data of Individualism \( \chi^2 = 40.25, \text{d.f.} = 19, p < .01, \text{RMSEA} = .07, \text{SRMR} = .06, \text{TLI} = .87, \text{CFI} = .91 \). However, the result for Collectivism was somewhat less satisfactory \( \chi^2 = 50.81, \text{d.f.} = 19, p < .01, \text{RMSEA} = .09, \text{SRMR} = .07, \text{TLI} = .80, \text{CFI} = .86 \). This result might be affected by the multiple dimensions and targets of Collectivism (see Brewer and Chen, 2007), which suggests that the two-factor structure might not be sufficiently valid to cover the eight items as measured.

In summary, findings for CFA suggested that the factor structures of most measures were replicated in the Chinese sample. However, one item (“I feel guilty when I take time off from job”) in the measure of job stress was somewhat problematic regarding its factorial validity. In the article by Parker and DeCotiis (1983), the item also had the lowest factor loading on job stress. As Bedford and Hwang (2003) suggested, the concept of guilt in
Chinese culture (i.e. multiple feelings covering a wide range of social responsibilities) might be quite different from that in a western culture (i.e. an emotion relating to transgression). As such, the item could be potentially biased in a Chinese context. Since the item also undermined internal reliability, it was excluded for further analysis. Moreover, although the internal reliability of the Collectivism scale was acceptable, findings from CFA suggested that the scale was somewhat less valid regarding its factor structure. Yet since the main aim of the current study was not to explore the multi-dimensional structure of Collectivism, the variable was retained for further analysis, although the result should necessarily be interpreted with caution.
Table 8.6 Goodness-of-fit statistics for the research measures (n = 240)

<table>
<thead>
<tr>
<th>Measure</th>
<th>d.f.</th>
<th>$\chi^2$</th>
<th>$p$</th>
<th>GFI</th>
<th>NFI</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
<th>SRMR</th>
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<tr>
<td>MSCEIT (US consensus)</td>
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<td>12.71</td>
<td>.63</td>
<td>.99</td>
<td>.91</td>
<td>1.00</td>
<td>1.00</td>
<td>.00</td>
<td>.03</td>
</tr>
<tr>
<td>MSCEIT (CHN consensus)</td>
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<td>15.84</td>
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<td>.90</td>
<td>.99</td>
<td>.99</td>
<td>.02</td>
<td>.04</td>
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<td>28.54</td>
<td>.00</td>
<td>.96</td>
<td>.94</td>
<td>.89</td>
<td>.95</td>
<td>.14</td>
<td>.06</td>
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<tr>
<td>Job stress (5 items)</td>
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<td>19.81</td>
<td>.00</td>
<td>.97</td>
<td>.90</td>
<td>.84</td>
<td>.92</td>
<td>.11</td>
<td>.06</td>
</tr>
<tr>
<td>Job stress (4 items)</td>
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<td>.55</td>
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<td>1.00</td>
<td>1.00</td>
<td>.00</td>
<td>.02</td>
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<td>Job burnout</td>
<td>14</td>
<td>70.55</td>
<td>.00</td>
<td>.92</td>
<td>.85</td>
<td>.81</td>
<td>.87</td>
<td>.13</td>
<td>.07</td>
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<tr>
<td>Positive Affectivity</td>
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<td>14.93</td>
<td>.01</td>
<td>.97</td>
<td>.93</td>
<td>.91</td>
<td>.95</td>
<td>.09</td>
<td>.05</td>
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<td>.00</td>
<td>.96</td>
<td>.93</td>
<td>.89</td>
<td>.94</td>
<td>.13</td>
<td>.04</td>
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<td>Individualism</td>
<td>19</td>
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<td>.85</td>
<td>.87</td>
<td>.91</td>
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<td>.06</td>
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<td>Collectivism</td>
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<td>.95</td>
<td>.81</td>
<td>.80</td>
<td>.86</td>
<td>.09</td>
<td>.07</td>
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</table>
8.6 **Descriptive Statistics**

A description of the research variables is provided in Table 8.7. The distribution of values in the research variables are also presented with histograms and normal curves in Figures 8.1 to 8.15. As shown in Figures 8.7 and 8.8, both US and Chinese consensus scores of MSCEIT are normally distributed. The mean of Chinese consensus scores (Mean = 0.42) was a little bit higher than that of US consensus scores (Mean = 0.40), but with a smaller SD (0.04 compared to 0.05). However, both mean scores were lower than that of the strategic EI in the US norm (Mean = 0.50, SD = .07) as reported by Mayer et al. (2002).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>Minimum</th>
<th>Maximum</th>
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<td>5.21</td>
<td>26.00</td>
<td>55.00</td>
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<td>Tenure a</td>
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<td>22.00</td>
</tr>
<tr>
<td>Income a</td>
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<td>2.00</td>
<td>12.00</td>
</tr>
<tr>
<td>Job rank a</td>
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<td>0.88</td>
<td>1.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Organisation-person fit</td>
<td>9.71</td>
<td>2.32</td>
<td>3.00</td>
<td>15.00</td>
</tr>
<tr>
<td>Emotional labour</td>
<td>24.28</td>
<td>3.82</td>
<td>12.00</td>
<td>35.00</td>
</tr>
<tr>
<td>EI (US consensus)</td>
<td>0.40</td>
<td>0.05</td>
<td>0.15</td>
<td>0.52</td>
</tr>
<tr>
<td>EI (Chinese consensus)</td>
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<td>0.04</td>
<td>0.19</td>
<td>0.49</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>22.05</td>
<td>4.87</td>
<td>8.00</td>
<td>34.00</td>
</tr>
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<td>Job stress</td>
<td>10.34</td>
<td>2.85</td>
<td>4.00</td>
<td>18.67</td>
</tr>
<tr>
<td>Job burnout</td>
<td>17.83</td>
<td>3.98</td>
<td>9.63</td>
<td>31.00</td>
</tr>
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<td>2.74</td>
<td>7.00</td>
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</tr>
<tr>
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<td>21.00</td>
</tr>
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<td>5.58</td>
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<td>56.00</td>
</tr>
<tr>
<td>Collectivism</td>
<td>44.51</td>
<td>4.65</td>
<td>32.00</td>
<td>55.00</td>
</tr>
</tbody>
</table>

*Note.* a After treating with missing values. EI = emotional intelligence.
Regarding the self-report questionnaires, most of the variable data were normally distributed (e.g., PA, satisfaction, or stress). Yet, as shown in Figure 8.13, the distribution of NA is right skewed, suggesting that most participants had a low level of NA. Although skewed variables may have limited influence on the regression results since it is generally assumed that the errors rather than the variables should be normally distributed (Keith, 2006), the skewed data could possibly affect the results if there is a range limitation with the sample. For instance, if all the participants have low NA, it might be difficult to explore the effect of NA and its interaction with EI. Accordingly, this possibility should be taken into consideration in further analysis and discussion of possible NA influence.

8.7 Conclusion

This chapter has provided an overview of the sample demographics, the reliability and validity of the research measurement, and the descriptive results of the research variables. In general, after treating for missing values, the research sample included 240 Chinese employees who were mainly line and middle managers from a variety of industries, drawn from a population of part-time management postgraduate students at a major Chinese university. The Chinese consensus scoring of MSCEIT was further determined using the responses from the local sample. Most of the scoring weights were similar to those in the US consensus scoring. Based on the results from CFA and reliability analysis, the research measures were found to be generally reliable and valid, although some of them (e.g., the scale of emotional labour) had relatively lower reliabilities. A description of the research variables suggested that most variables were normally distributed with only NA somewhat left-skewed. The next chapter takes the data analysis further by reporting the results for bivariate and multivariate analysis. It
also reports and discusses the findings regarding the hypotheses specified in the test model.
Figure 8.1 Distribution of ages among the research participants
Figure 8.2 Distribution of tenure among the research participants
Figure 8.3 Distribution of income among the research participants
Figure 8.4 Distribution of job rank among the research participants
Figure 8.5 Distribution of organisation-person fit among the research participants
Figure 8.6 Distribution of emotional labour among the research participants
Figure 8.7 Distribution of EI (US consensus) among the research participants
Figure 8.8 Distribution of EI (Chinese consensus) among the research participants
Figure 8.9 Distribution of job satisfaction among the research participants
Figure 8.10 Distribution of job stress among the research participants
Figure 8.11 Distribution of job burnout among the research participants
Figure 8.12 Distribution of Positive Affectivity among the research participants
Figure 8.13 Distribution of Negative Affectivity among the research participants
Figure 8.14 Distribution of Individualism among the research participants
Figure 8.15 Distribution of Collectivism among the research participants
Chapter 9 What Determines Work Well-Being? Results for the Test Model

9.1 Introduction

Building on the descriptive results reported in the previous chapter, this chapter reports the analysis of variance results generated by bivariate and multivariate analysis and further discusses these results. The chapter consists of three sections. The first section details the results for variable correlations. The second section reports the results for the hierarchical regression procedure used to test the research hypotheses with each of the three well-being indicators (i.e. job satisfaction, stress and burnout). Significant moderating effects are plotted in graphs. The third section provides a substantial discussion of the results regarding the moderating effects of PA and Individualism, the main effect of EI and trait affectivity, and other variables (e.g., NA and Collectivism) of interest.

9.2 Bivariate Associations

Table 9.1 presents the correlation matrix with all the variables included. As shown in the table results, job satisfaction was positively related to age (r = .29, p < .01), income (r = .28, p < .01), job rank (r = .35, p < .01) and organisation-person fit (r = .52, p < .01); job stress was positively related to emotional labour (r = .21, p < .01), and negatively related to job rank (r = -.18, p < .01) and organisation-person fit (r = -.17, p < .01); job burnout was negatively related to age (r = -.19, p < .01), job rank (r = -.28, p < .01) and organisation-person fit (r = -.27, p < .01). Considering the influences of work condition and organisation-person fit on employee well-being (as discussed in Chapter 3) as well as the potential effects of demographic variables (e.g., Kacmar & Ferris, 1989; Maslach et

18 Correlation coefficients were calculated based on Pearson’s r. The results using Spearman’s rho yielded a similar result.
### Table 9.1 Correlations among the research variables (n =240)

<table>
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*Note.** p < .01; OPF = organisation-person fit; EI = emotional intelligence; PA = Positive Affectivity; NA = Negative Affectivity.*
al., 2001), all these results are as expected. Accordingly, it is important to control the effects of these variables when testing the research hypotheses.

Job satisfaction was also found to be negatively related to job stress ($r = -0.49, p < .01$) and burnout ($r = -0.65, p < .01$), while job stress was positively related to job burnout ($r = 0.66, p < .01$). Aligned with the model of affective well-being by De Jonge and Schaufeli (1998), the intercorrelations between the three indicators of work well-being suggest that they are all linked to a person’s general feelings at work, although each also has distinctive affective components (i.e. happiness, anxiety and depression). Therefore, considering the multi-dimensional nature of affective well-being, it is necessary to explore the research propositions with each of the well-being indicators separately.

In accordance with the results reported in Chapter 8, total EI score based on the US consensus scoring correlated highly with that based on the Chinese consensus scoring ($r = 0.80, p < .01$). It is also interesting to see that the EI score based on the Chinese consensus scoring was negatively related to job income ($r = -0.21, p < .01$). In the current study, this result may perhaps be due in part to industry-related differences in benchmark income within the sample, with some industries (e.g., information technology) having high relative income levels but also placing more emphasis in staffing on technical skills rather than on a high level of EI. The result may also reflect the difference between the two scorings. However, since few studies have yet explored the relationship between EI and job income, the issue needs to be further clarified by future studies. Most importantly and for the purposes of the current study, though, it was found that both EI scores were not significantly related to any indicator of work well-being, which suggests an absence of direct effects. Such a finding, however, might be expected when taking account of the
mixed results of prior research regarding the relationship between EI and work well-being (e.g., job satisfaction and stress), as reported in Chapter 3. However, it is essential to rule out the effects of other variables before observing the relation between EI and employee well-being. Accordingly, the main effect of EI will be further explored via hierarchical regression in the next section.

As to the hypothesised trait affectivity moderators, as expected, PA correlated positively with job satisfaction ($r = .40, p < .01$), but correlated negatively with job burnout ($r = -.22, p < .01$). PA was also positively related to job income ($r = .18, p < .01$) and rank ($r = .18, p < .01$). In contrast, NA correlated negatively with job satisfaction ($r = - .25, p < .01$), but positively with job stress ($r = .44, p < .01$) and burnout ($r = .30, p < .01$). NA was also negatively related to organisation-person fit ($r = -.19, p < .01$). In general, the results suggest that trait affectivity (as PA and NA) is a critical predictor of work well-being (e.g., Judge & Larson, 2001). However, contrary to expectation, the results also indicate that the direct effect of PA on job stress could be limited. In this case, it is necessary to further explore the main effect of PA via hierarchical regression. Its moderating effect on EI also becomes quite critical if PA is said to facilitate the coping with stress in the workplace.

Regarding the proposed moderating influence of personal values (proxied by Individualism and Collectivism), Individualism was found to be negatively related to age ($r = -.21, p < .01$). This result is in accord with the early proposition in Chapter 7 that the younger generation of Chinese managers is more individualistic than the older generation (Ralston et al., 1999; Ralston et al., 1996), which further justifies the sampling method applied in the current research. Interestingly, Individualism was also negatively
associated with job income \( r = -0.19, p < .01 \), although this may also reflect an inter-generational difference in value orientation, with more senior professionals being both better paid and less individualistic. More importantly, as expected, the intercorrelations among PA, NA, Individualism and Collectivism were generally weak, indicating that they were distinctive from each other at the individual level. It is, therefore, legitimate to explore their independent roles in moderating the effect of EI on work well-being.

9.3 Multivariate Analysis and Hypotheses Testing

Following the suggestion by Baron and Kenny (1986), hierarchical regression was used to test the moderating effects of PA and Individualism on the relationships between EI and work well-being including job satisfaction, stress and burnout. Hierarchical regression involves entering the predictors into the regression equation step by step (Keith, 2006). This is different from stepwise regression in that the decision to enter a certain variable in a particular order is theory-based (Keith, 2006). It is also well-suited to examining and comparing main effects and interaction effects such as in a moderation model (Baron & Kenny, 1986). As such, hierarchical regression allows the researcher to analyse the incremental effects of the hypothesised predictors (Keith, 2006).

As described by Baron and Kenny (1986), moderating effects can be tested by exploring the effects of the moderating terms after controlling for the effects of the independent variables. Accordingly, in the current study, the hierarchical regression involved four steps: firstly, all the controlled variables (e.g., demographic variables, emotional labour and organisation-person fit) were entered into the equation; secondly, EI as the independent variable was entered; thirdly, PA, NA, Individualism and Collectivism were entered as the moderators; finally, the moderation terms were added to the equation. The
moderation terms were computed in accord with recommendations by Keith (2006). Both the independent variable and the moderators were first centred by subtracting the mean from each of the scores, and were then combined to create the cross-product (interaction) terms (e.g., EI multiplied by PA). According to Keith (2006: 133), centring continuous variables can help to prevent multicollinearity in the regression, which usually “produces strange coefficients and large standard errors and makes interpretation difficult”. The results of the regressions for each of the three well-being proxies based on the two scorings of EI are provided in Table 9.2 and Table 9.3, respectively.

For job satisfaction, in Table 9.2, Step 1 showed that organisation-person fit was the main predictor ($\beta = .45, p < .001$). Job rank also had a small positive effect on job satisfaction ($\beta = .17, p < .05$). Taken together, the control variables explained 34% of the variance in job satisfaction. In Step 2, EI did not have any significant effect on job satisfaction. When the moderators were entered in Step 3, however, PA was found to have a significant positive effect on job satisfaction ($\beta = .35, p < .001$). NA was also negatively associated with satisfaction ($\beta = -.18, p < .01$). The main effects of trait affectivity increased the explained variance by 13% to 47%. Finally, in Step 4, it was found that PA significantly moderated the relationship between EI and job satisfaction ($\beta = .12, p < .05$). Following the method by Aiken and West (1991), the significant moderating effect was plotted in Figure 9.1. According to the graph, EI was positively related to job satisfaction among employees with high PA. Yet among those with low PA, high EI actually led to lower satisfaction. Likewise, Individualism was also found to have a marginal significant effect on the EI-satisfaction link ($\beta = .09, p < .1$). As shown in

19 Aiken and West (1991) have suggested that for continuous variables, interactive effects can be presented with regression lines calculated based on three levels of the moderator: mean of the moderator (median); one standard deviation above the mean (high); and one standard deviation below the mean (low).

20 A significant level of 0.1 was accepted for two reasons. First, the hypothesis testing was based on the assumption of the
Figure 9.2, EI had a positive effect on job satisfaction among individualists. The effect, however, tended to be non-significant or even reversed among those with low Individualism. The interaction terms explained 2% of the total variance in job satisfaction. The moderating effects of NA and Collectivism were not found to be significant in Step 4. Overall, the model explained 49% of the variance in satisfaction, a relatively high effect size suggestive of model robustness (Cohen, 1988). Further, Table 9.3 shows that regression results based on EI score using the Chinese consensus scoring largely replicate those based on the US consensus scoring. It was found that PA and Individualism significantly and positively moderated the relationship between EI and job satisfaction (PA: $\beta = .11, p < .1$; Individualism: $\beta = .09, p < .1$). The interaction effects can explain 2% of the variance in job satisfaction. As such, findings from both EI scorings support the significant and positive roles of PA and Individualism in moderating the effect of EI on job satisfaction. Accordingly, Hypothesis 1a and Hypothesis 2a are supported by these findings.
Table 9.2 Regression results for job satisfaction, stress and burnout (with EI score based on the US consensus; n = 240)

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<th>Job burnout</th>
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Note: †p < .1, *p < .05, **p < .01, ***p < .001; EI = emotional intelligence.
Table 9.3 Regression results for job satisfaction, stress and burnout (with EI score based on the Chinese consensus; n=240)

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<td>$R^2$ Change</td>
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<td>.11***</td>
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Note: † p < .1, * p < .05, ** p < .01, *** p < .001; EI = emotional intelligence.
Figure 9.1 The moderating effect of Positive Affectivity on the relationship between EI (the US consensus scoring) and job satisfaction

*Note.* PA = Positive Affectivity; EI = emotional intelligence.
Figure 9.2 The moderating effect of Individualism on the relationship between EI (the US consensus scoring) and job satisfaction

Note. IND = Individualism; EI = emotional intelligence.
For job stress, Table 9.2 shows that in Step 1, emotional labour is positively associated with it ($\beta = .20, p < .01$), whereas job rank ($\beta = -.18, p < .05$) and organisation-person fit ($\beta = -.12, p < .1$) are both negatively related to it. The control variables explained 10% of the variance in job stress. In Step 2, EI (scored by the US consensus) was not found to significantly predict job stress. Further, Step 3 indicated that PA was negatively related to job stress ($\beta = -.19, p < .01$), while NA was positively related to it ($\beta = .42, p < .001$). The effects of PA and NA increased the explained variance by 19%. Finally, the interaction terms were entered in Step 4. It was found that only PA significantly moderated the relationship between EI and stress ($\beta = -.15, p < .05$). As shown in Figure 9.3, EI was negatively related to job stress among employees with high PA, but positively related to stress among those with low PA. The moderating effect of PA explained 3% of the variance in job stress. The interacting effect of Individualism was not found to be significant, neither were the effects of NA nor Collectivism. In total, the research variables accounted for 32% of the observed variance in job stress, which also suggested a large effect size of the test model (Cohen, 1988). Nevertheless, the results based on the Chinese consensus scoring were somewhat different. Although most of findings were consistent (e.g., the main effect of trait affectivity and the non-significant moderating effect of Individualism), the moderating effect of PA became less significant in the relation between EI and job stress ($\beta = -.10, p = .11$). Due to this change, the research variables can only explain 30% of the variance in job stress. Overall, Hypothesis 1b regarding the moderating effect of PA was thus only partially supported (with the US consensus scoring of EI), while Hypothesis 2b regarding the moderating effect of Individualism was not supported by findings with either the US or the Chinese consensus scoring of EI.
Figure 9.3 The moderating effect of Positive Affectivity on the relationship between EI (the US consensus scoring) and job stress

Note. PA = Positive Affectivity; EI = emotional intelligence.
Finally, the hypotheses were tested with job burnout. As shown in Table 9.2, Findings from Step 1 suggested that both job rank (β = -.24, p < .01) and organisation-person fit (β = -.22, p < .01) had a negative effect on job burnout, together explaining 14% of the total variance. Step 2, however, showed that the main effect of EI on job burnout was not significant. Further, in Step 3, it was found that PA negatively predicted burnout (β = -.24, p < .001), while NA positively predicted it (β = .27, p < .001). The effect of trait affectivity raised the explained variance by 11% - to 25%. In the final step (Step 4), it was found that PA significantly moderated the relationship between EI and job burnout (β = -.18, p < .01). As shown in Figure 9.4, the negative (or buffering) effect of EI on job burnout was stronger among employees with high PA. By the same token, amongst those with low PA, such an effect was limited or even reversed. Similarly, the interaction between Individualism and EI was found to have a significant effect on burnout (β = -.12, p < .05). Figure 9.5 shows that Individualism strengthens the negative effect of EI on job burnout since EI is more negatively related to burnout among individualists. The moderating effects of PA and Individualism explained 6% of the variance in job burnout, although there was no interactive effect between EI and NA or Collectivism. Overall, the research variables in this model explained 31% of the observed variance in job burnout, again suggesting a good level of model robustness according to Cohen (1988). Further, as shown in Table 9.3, the findings of EI scored by the local sample accorded with those based on the US norm. PA was found to significantly moderate the relationship between EI and job burnout (β = -.20, p < .01), as was Individualism (β = -.12, p < .05). As such, both Hypothesis 1c and Hypothesis 2c are strongly supported by these findings. In contrast, the moderating effects of NA and Collectivism were not significant.
Figure 9.4 The moderating effect of Positive Affectivity on the relationship between EI (the US consensus scoring) and job burnout

Note. PA = Positive Affectivity; EI = emotional intelligence.
Figure 9.5 The moderating effect of Individualism on the relationship between EI (the US consensus scoring) and job burnout

Note. IND = Individualism; EI = emotional intelligence.
Figure 9.6, below, summarises the above results as they relate to the overall research model tested. PA and Individualism significantly moderated the effect of EI on job satisfaction and burnout. The findings were consistent across the two scorings of EI. Research findings with EI scored by US consensus also supported the moderating effect of PA on EI in predicting job stress. In contrast, Individualism was found to have a non-significant moderating effect on the relation between EI and job stress.

Figure 9.6 Results for the moderating effects of Positive Affectivity and Individualism on the relationship between EI and job satisfaction/stress/burnout

Note: † p < .1, * p < .05, ** p < .01. Regression coefficients with EI scored by the Chinese consensus are presented in brackets.
9.4 Discussion

The regression results reported above offer qualified support for the roles of PA and Individualism in moderating the relationships between EI and work well-being (i.e. job satisfaction, stress and burnout). Trait affectivity, including both PA and NA, were also found to have major influences on job satisfaction, stress and burnout. In contrast, the interaction between Individualism and EI did not have a significant effect on job stress, while the moderating effects of NA and Collectivism were also not significant. Moreover, it was found that EI was not directly related to the three indicators of work well-being. These findings are interpreted in more detail below.

9.4.1 The moderating role of Positive Affectivity

Regarding the moderating role of PA, it has been proposed that PA, as an emotional trait, can activate the use of EI among employees and further motivate them to use their emotional abilities to achieve high well-being in the workplace. Since PA is linked to the motivational system of BAS (Elliot & Thrash, 2002), people with high PA are sensitive to positive emotional or social stimuli in the environment, which may attract them to use more of their abilities to understand and manage those stimuli. As suggested by Perkins and Ritchhart (2008), sensitivity is an initial but very critical step for a person’s intellectual behaviours. Furthermore, people are generally (and intrinsically) motivated to express their traits and attain their trait-congruent goals (Diener, 1984; Tett & Burnett, 2003). As such, employees with high PA are more likely to put their effort in gaining more positive feelings and higher personal achievement in the workplace. In particular, as commented by Judge and Larson (2001), high PAs may tend to create a better work environment for themselves by performing actively and interacting frequently with others in the workplace. They are also inclined to use effective regulatory and coping
strategies to deal with their emotions and work stress (Carver & Connor-Smith, 2010; John & Gross, 2004, 2007; Judge & Larson, 2001). Consequently, employees with high PA are likely to utilise their EI more often to get better outcomes from those activities, which can eventually lead to high well-being among them.

Based on these propositions and prior findings, the current study hypothesised that PA should strengthen the positive effect of EI on work well-being and, as reported, this was strongly supported by the quantitative findings. It has been found that PA significantly enhanced the positive effect of EI (based on both the US and the Chinese scorings) on job satisfaction and burnout. In other words, if a high EI person also has high PA, they are more likely to become satisfied and less burnt out at work through the use of emotional abilities. It has also been found that PA significantly moderated the relationship between EI (based on the US scoring) and job stress. Since job satisfaction, stress and burnout are considered to be three different indicators of work well-being (De Jonge & Schaufeli, 1998), the findings suggest that the moderating effect of PA is quite salient, with PA generally enhancing the positive effect of EI on employee well-being.

Nevertheless, the interaction between PA and EI based on the Chinese consensus scoring seems to have a limited effect on job stress. There could be two main reasons for this non-significant result. Firstly, according to the variable description in Chapter 8, Chinese consensus scores had a smaller SD then those based on the US consensus, which may indicate that there is less variation within participants’ EI scored by the Chinese consensus. Consequently, the smaller variation is likely to decrease the significance of the research finding. Indeed, the moderating effect of PA on EI in predicting job stress was quite close to attaining significance ($\beta = -.10, p = .11$). A second reason might be
associated with the difference between the two scorings. As reported in Chapter 8, although the Chinese consensus scoring had a high correlation (r = .80) with the US consensus scoring, variation still existed among some of the test items. It was found that some responses favoured by the Chinese participants were not accorded as a high value in the US norm and were even likely to have a negative rather than a positive effect on a person’s feelings. For instance, the US consensus scoring suggests that thinking about everything that is likely to go wrong in the future is not a wise way to maintain positive feelings, while most Chinese participants in the current study appear to regard it as a desirable approach\textsuperscript{21} even though it can actually lead to more negative feelings, particularly perceived stress. Such a response style by the Chinese participants seems to be in accord with their prevention-focussed approach to coping (Chun et al., 2006) as discussed in Chapter 5. As a result, the difference in scorings may possibly weaken the effect of EI on job stress, which may further undermine the moderating effect of PA. Yet considering the similarity of most research findings between the two scorings, such a difference may only have a limited influence on the predictive effect of EI and may only be salient with certain outcomes (e.g., job stress).

### 9.4.2 The moderating role of Individualism

For the moderating effect of Individualism, the results based on both scorings of EI suggest that among the employees with high level of Individualism, EI can increase their satisfaction at work while, among those who are less individualistic, EI may have limited or even negative effects on job satisfaction. This result confirms the proposition that Individualism can enhance the positive effect of EI on job satisfaction and accords with prior research and theory. In general, prior research suggests that Individualism can raise

\textsuperscript{21} Due to copyright issues, the actual test items are not presented here.
a person’s sensitivity to their own emotions, which are also important components of their self-construal (Lee et al., 2000; Markus & Kitayama, 1991). People with high Individualism may also be more concerned about feelings linked to their own performance or achievement (Eid & Diener, 2001). Accordingly, they are more likely to put effort in interpreting and regulating those feelings. More importantly, based on value-expectancy theories (e.g., Feather, 1988), individualistic values can increase the positivity of the valence associated with personal achievement and welfare. Since individualists also believe in personal agency (Brewer & Chen, 2007), they are generally motivated to achieve high well-being in organisations through the use of their own capabilities (including EI) in effective coping and regulatory behaviours. Further, it is believed that when making attitudinal judgements, individualists may depend more on their own emotional experiences. As such, the ability to understand and regulate emotions may further help them become happier and more satisfied in their jobs.

Likewise, the result concerning job burnout also confirmed the moderating effect of Individualism on EI, as EI (based on both the US and the Chinese consensus scorings) was more negatively related to burnout among those with high Individualism.

Yet, against expectations, the interactive effect between Individualism and EI was found to be weak and non-significant in predicting job stress. The result is consistent across the two scorings of EI. A possible reason might be associated with the relation between job stress and EI. On the one hand, it is generally assumed that the use of EI may consume cognitive effort and energy (Fiori, 2009; Singh et al., 2010). Accordingly, it is possible that reasoning and managing emotions may temporarily raise the tension of the individual. On the other hand, the concept of job stress seems to be more procedural in nature than results-based (e.g., Folkman et al., 1986; Parker & De Cotiis, 1983). In other
words, stress is also likely to be produced during a person’s dealing with the stressors. In this sense, it is possible that maximizing “emotionally intelligent” behaviour may actually create stress while also leading to better results (e.g., more happiness and less exhaustion). A further reason might be associated with the cultural context. It is noteworthy that although a sample of Chinese managers was selected in the current study to increase the variance of Individualism, the Chinese culture, which is generally believed to be highly collectivistic (Hofstede, 2001), may also have some influences on the research findings. As Suh et al. (1998: 483) have argued, collectivistic cultures seem to be much “tighter” than individualistic ones as there is “more social consensus on notions of what is socially appropriate, and the price an individual pays for deviating from shared norms is higher”. Accordingly, it is possible that individualists who take personal steps to manage their feelings and achieve high performance may incur more stress-inducing pressure in a collectivistic organisation, which highly values group conformity and norms. Overall, then, the moderating effect of Individualism on the relationship between EI and job stress might be somewhat limited in a collectivistic context.

9.4.3 Inconclusive findings regarding the role of Negative Affectivity

Despite the significant results with PA, the interaction between EI and NA is less clear. The interactive effect was non-significant in both scorings of EI and there could be several reasons for this. The result could be due to the potentially contradictory influence of NA on EI. On the one hand, NA can raise a person’s sensitivity to negative emotions and stimuli (Elliot & Thrash, 2002), which can activate the use of EI. On the other hand, individuals with high NA are said to be intrinsically motivated to maintain negative feelings due to their passive and avoiding coping and regulatory strategies (as a way of
expressing their traits) (e.g., Judge & Larson, 2001; Tamir, 2005). Accordingly, it is not clear whether the net effect of such competing NA motivations is to enhance the positive effect of EI on work well-being, or to do the opposite. For instance, it is likely that an initial negative interpretation of the situation can easily induce an avoiding behaviour as avoiding requires less effort then confronting (Elliot, 2006). As such, avoiding may prohibit further effort of solving the problem, including the use of EI. Even if emotional abilities are involved in the processes of emotion regulation (e.g., suppressing feelings or distracting attention), they are not likely to provide a positive outcome. Second, considering the distribution of the variable (see Figure 8.1), the right skewness of NA may imply that there could be some degree of limitation in its range. It seems that most participants in this study had a low level of NA as their responses were mainly located at the left end of the scale. It is possible that the participants might have been reluctant to self-report their negativity; or it may have been that those who had medium or high NA were not included in the current sample. Either way, if there was a sample bias regarding NA responses, the interactive effects between EI and NA would be of limited value.

9.4.4 Inconclusive findings regarding the role of Collectivism

For Collectivism also, the interactive effect was non-significant. One potential reason for this may be associated with the variation of the values for this construct among the Chinese participants. In general, compared to that of Individualism, the variance of Collectivism was much smaller in the current study (see Table 8.6: 215). This is reasonable because Chinese people are generally believed to be very collectivistic (Hofstede, 2001). Accordingly, the moderating effect of Collectivism on the relationship between EI and work well-being could be limited in this population due to its
collectivistic cultural profile. A further reason may be related to the function of Collectivism. It is argued that Collectivism can raise a person’s emotional sensitivity to others and to social aspects (Liew et al., 2011; Markus & Kitayama, 1991), which can further facilitate the use of EI. Yet due to an emphasis on social harmony and group welfare, collectivists are not likely to actively use their EI to facilitate their own well-being. Also, owing to their interdependent agency belief, collectivistic employees are said to be reluctant to use their personal abilities and are generally inclined to follow others’ or the group’s decisions or behaviours (Brewer & Chen, 2007). Consequently, the effect of EI on employee well-being could be weakened. Alternatively, it is also possible that collectivists may have their own distinctive ways of using EI. For instance, since EI leads to better social relationships with others at work (Lopes et al., 2006), collectivists with high EI may have a high level of work well-being through facilitating others’ well-being and including those social dimensions in their evaluation of their jobs (due to the interdependent self-construal; Markus & Kitayama, 1991).

9.4.5 Absence of a significant main effect of EI on work well-being

As expected, the main effect of EI (scored by both the US and the Chinese consensus) on work well-being was found to be weak. Firstly, the non-significant result is possibly due to the moderating mechanisms as proposed and further tested in the current study. On the one hand, if PA and Individualism do moderate the effect of EI, then it is plausible to suggest that the overall effect of EI could be limited among Chinese participants since Chinese people are generally said to have low Individualism (Hofstede, 2001) and may also be low on PA compared to other populations (e.g., Chang, Sanna, & Yang, 2003). On the other hand, due to the high Collectivism of Chinese people (Hofstede, 2001), it is plausible to suggest that Chinese participants in the current research may also focus their
efforts on others’ welfare. As such, EI effort directed at one’s own well-being could be further weakened.

Secondly, the absence of any main effect may imply that full mediators (latent in the test model) might be involved. Yet this is not likely to happen with the variables in the current study since the correlations between EI and other variables in the test model are quite weak (as shown in Table 9.1), while a strong correlation between the predictor and the mediator is an essential requirement for formulating a mediating relationship (Baron & Kenny, 1986). However, it is still possible that there could be other latent variables that can mediate the effect of EI on work well-being but have not been included in the test model. As the current study has not tested any mediator of the EI effect, this might be an issue worth exploration for future studies.

Thirdly, in the current study, MSCEIT (including the branches of emotion understanding and management) was less reliable among the Chinese participants (split-half coefficient = .67 for the US consensus scoring and .71 for the Chinese consensus scoring) compared to its reliability among the US norm (split-half coefficient = .88; Mayer et al., 2002). Similar to Wong and Law’s (2002) results, the scores of the Chinese participants were also generally lower than those of the US norm, suggesting that there could be certain cultural biases within the test items. Although the study has incorporated scoring based on the local sample, which may minimise the variation in scoring weights (e.g., Roberts et al., 2001), such a scoring method has little effect in diminishing the potential bias in the test items (e.g., the questions or the description of scenarios). Accordingly, it is possible that the findings regarding EI may also suffer from the small variance and range limitation in the test scores.
Finally, it is also interesting to see that when people had high EI but were not motivated to use it for personal well-being, their emotional abilities were even negatively related to work well-being. For instance, when employees had low PA, their high EI led to low job satisfaction and high stress and burnout. Consequently, the negative effect of EI on work well-being may negate its positive impact. A main reason of such finding, as discussed in Chapter 3, is that high EI consumes a high level of cognitive resources within an individual, which sometimes can even distract them from routine tasks in organisations (Singh et al., 2010). As a result, it is possible that the use of emotional abilities can temporarily raise the tension of the person if they are not willing or accustomed to use these abilities. The result of EI can also be mixed if it is misused for other purposes rather than for improving personal well-being. For instance, an employee may use EI to play “political games” with their colleagues or supervisors (Vigoda-Gadot & Meisler, 2010), which can make them even more stressed by involving them in various social interactions. As suggested by Jordan, Dasborough, Daus, and Ashkanasy (2010), EI does have its “dark side” if not properly used. Finally, such findings may result from a mismatch between abilities and behavioural outcomes. As studies of general intelligence have suggested, a person with a high level of general intelligence may have high expectations about their job or the work environment (Ganzach, 1998). As such, a dissatisfying job or work environment may cause even greater damage to their well-being (Ganzach, 1998).

9.4.6 The main effect of trait affectivity on work well-being

Finally, it is worth mentioning the main effect of PA and NA. In the current study, NA was found to be negatively related to job satisfaction, and positively related to job stress and burnout, while PA was positively associated with satisfaction, and negatively
associated with job stress and burnout. Such results replicate the previous findings regarding the main effect of trait affectivity on employee well-being (e.g., Brief et al., 1995; Noor, 1997; Spector et al., 2000). Yet it was interesting to see that compared to its effect on job satisfaction, the effect of PA on job stress and burnout was much smaller. The correlation between PA and job stress was also weak (as shown in Table 9.1). Some studies have even found non-significant or a negative relationship between PA and job stress or burnout (e.g., Elliott, Chartrand, & Harkins, 1994; Goussinsky, 2011; Naswall et al., 2005). As Goussinsky (2011: 222) argues, high PA individuals could be more “negatively affected by job stressors and dissatisfaction at work” due to a mismatch between their positive disposition and negative work conditions. It is also possible that since PA is related to an employee’s active behaviours to deal with emotions and stress in organisations, if the employee’s coping resources (e.g., emotional skills) are not sufficiently high to facilitate remedial effort, he or she may become even more distressed. Consequently, EI may be even more critical for people who prefer to take active steps to manage their feelings.

9.5 Conclusion

This chapter has reported and discussed the results arising from the bivariate and multivariate analytic procedures applied to the data included in the final sample.

Most of the bivariate results aligned with our expectations. Job characteristics (e.g., job income and emotional labour) and organisation-person fit were found to correlate significantly with the three proxies of work well-being (i.e. job satisfaction, stress and burnout). There were also significant correlations between trait affectivity (i.e. PA and NA) and the well-being indicators. The intercorrelations between PA, NA, Individualism
and Collectivism further indicated that those variables were relatively independent from each other. Accordingly, they may have distinctive moderating effects on EI. Further, although EI based on both the US and the Chinese scorings correlated highly with each other, it was surprising to see that neither of the EI scores correlated with the well-being indicators, implying an absence of the direct effect.

The research hypotheses in the current study were tested by means of hierarchical regression. The results showed that PA significantly moderated the effect of EI (based on both scorings) on job satisfaction and burnout. PA also had a moderating effect on the relationship between EI (scored by the US consensus) and job stress. Likewise, Individualism had a significant moderating effect on the relationship between EI and job satisfaction and also that between EI and job burnout. The results were also consistent across the two scorings of EI. Accordingly, most of the research hypotheses have been solidly supported in the study. However, the interaction between Individualism and EI was not significant in predicting job stress. The moderating effects of NA and Collectivism were also null. Importantly also, while the results accord with prior research showing that trait affectivity (including PA and NA) directly influences the three dimensions of work well-being, EI was found to have no direct relation to any of the well-being indicators.

Based on these findings, four conclusions are warranted. Firstly, the significant moderating effects of PA and Individualism confirm our propositions regarding their positive roles in facilitating the use of EI towards better personal well-being in the workplace, despite the possibility that the effect of Individualism might be limited in a collectivistic context. Secondly, probably due to their potential internally contradictory
functions, the moderating effects of NA and Collectivism are not significant in the current study. Accordingly, their interactions with EI warrant further clarification via future studies. Thirdly, the non-significant effect of EI is in accord with our expectation that emotional abilities and knowledge need to be activated and motivated to maximise their effect, although it may also be due to other reasons (e.g., latent mediators or the less reliable measurement in the current sample). Finally, the fact that PA was found to have both a main and moderating effect on well-being confirms the importance ascribed to it in prior research. By the same token, considering the limited main effect of PA on job stress and burnout, its interaction with EI may become more critical for employees who want to improve their well-being at work.
Chapter 10 General Conclusion

10.1 Introduction

This chapter reiterates the main research findings reported in Chapter 9, reflects on their significance for methodology, theory and practice in the field, acknowledges study limitations and makes suggestions for potentially fruitful areas of follow-up research. The chapter firstly reviews the findings in regard to the moderating effects of PA and Individualism on EI and the possible reasons for the non-significant results, especially regarding the main effect of EI and the moderating effects of NA and Collectivism. Secondly, the chapter focusses on the methodological contributions of the research including the application of MSCEIT in a Chinese context and the exploration of values at the individual level. Thirdly, the chapter addresses the theoretical contributions of the research findings to the EI and well-being literature (e.g., helping to address disagreement on the conceptualisation of EI). The fourth section considers the practical implications of the findings, with particular attention paid to the application of EI in organisations (e.g., personnel training) to facilitate employee well-being. Finally, the chapter canvasses the research limitations (e.g., research design) and provides recommendations for fruitful future studies on EI and work well-being.

10.2 Summary of Key Research Findings

The current study aims to uncover the moderators (i.e. facilitators) of EI and further observe their effects on the relationship between EI and work well-being proxied by job satisfaction, stress and burnout. Based on theories and prior research evidence, it is argued that both PA and Individualism may have a positive moderating effect on the relation between EI and well-being through their activating and motivational functions.
Accordingly, it is hypothesised that PA and Individualism should moderate the predictive effect of EI on job satisfaction, stress and burnout. The research hypotheses were tested among a sample of Chinese managers and professionals. EI was assessed via MSCEIT (Mayer et al., 2002), an ability test which has been commonly used in research in organisational psychology. In order to minimise the local variation in test scoring, both the US consensus scoring and the scoring based on the local sample (as the Chinese consensus scoring) were also applied to test research hypotheses.

In general, it has been found that PA significantly moderates the relationship between EI and job satisfaction (as Hypothesis 1a), as well as the relationship between EI and job burnout (as Hypothesis 1c). Accordingly, employees with high PA can better utilise their emotional abilities and knowledge to become happier and less depressed at work. These findings are all the more robust because they are consistent for EI scores based on both the US and the Chinese consensus scorings. Moreover, it has been found that PA significantly moderates the effect of EI, as scored by US consensus, on job stress (as Hypothesis 1b). As such, individuals with high PA may also actively use their EI to cope with stress at work. On the other hand, the differences between the findings using the US and the Chinese consensus scorings of EI may be due partly to the small variance in the Chinese consensus scores among the participants. Equally, though, such differences indicate that culturally-specific ways of dealing with emotions may have some effect on the research findings using scoring of EI based on local samples.

Similarly, research findings using both the US and the Chinese scorings of EI support a significant role for Individualism in moderating the effect of EI on job satisfaction (as Hypothesis 2a) and burnout (as Hypothesis 2c). Accordingly, high Individualism can
activate the application of EI among employees, and can further motivate them to pursue high personal well-being in the workplace through better understanding and regulating their emotions. Nevertheless, in both scorings of EI, the moderating effect of Individualism has been found to be non-significant on the relationship between EI and job stress (as Hypothesis 2b). This result might be attributable to the countervailing influences of the procedural nature of job stress (e.g., Parker & DeCotiis, 1983) and the resource-consuming nature of EI (e.g., Singh et al., 2010). In other words, the application of EI itself may possibly increase a person’s tension via the consumption of cognitive effort, although it may also produce a better outcome if the person can successfully handle the stressor. Further, a Collectivistic context that values collective behaviours may also place extra pressure on employees who use their own abilities to deal with the stressor.

For controlling and exploratory purposes, the study has also included NA and Collectivism and tested their moderating effects on the EI-well-being link. However, none of the research findings was significant. NA did not moderate the effect of EI on job satisfaction, stress and burnout, and neither did Collectivism. The non-significant results may possibly be due to the range limitation of the research sample. For instance, it is possible that the current research sample has not included enough participants with medium or low NA. Although using a sample of Chinese managers can facilitate the testing of the moderating effect of Individualism, the current study also has the weakness of not capturing a wide range of Collectivism scores because of the national culture (i.e. high Collectivism in China; Hofstede, 2001). Further, these non-significant results may also be due to the contradicting roles of NA and Collectivism in moderating the effect of EI. In particular, despite their activating effects on EI, both NA and Collectivism may
distract a person’s effort from pursuing personal well-being at work. Employees with high NA could even prefer to stay in a stressful context due to their avoiding strategies to cope with stress (e.g., Judge & Larson, 2001).

Finally, the research findings suggested an absence of the main effect of EI (based on both the US and the Chinese consensus scorings) on work well-being. Considering the mixed results of EI in previous studies (e.g., Livingstone & Day, 2005), its weak effect on well-being accords with our expectation. Yet there could be other reasons for the non-significant relationship between EI and work well-being. These may include the existence of potential mediating mechanisms not tested in the study, and the low reliability of the EI test among the Chinese participants. Conversely, the research has replicated the findings with regard to the main effect of trait affectivity on work well-being (e.g., Bowling et al., 2008; Judge et al., 2008). PA was found to be positively related to job satisfaction, and negatively related to stress and burnout, while the effect of NA was in the opposite direction.

Table 10.1 provides a summary of outcomes associated with the research hypotheses. Overall, the findings support the positive moderating effect of PA and Individualism on EI in predicting job satisfaction and burnout. The moderating effect of PA on EI and job stress has also been partially confirmed, whereas results show no significant interaction between Individualism and EI on job stress.
Table 10.1 Outcomes of hypothesis testing (with the US and the Chinese consensus scorings of EI)

<table>
<thead>
<tr>
<th>Research hypothesis</th>
<th>EI - US consensus</th>
<th>EI - Chinese consensus</th>
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<tr>
<td><strong>Hypothesis 1a</strong> PA moderates the relationship between EI and job satisfaction such</td>
<td>Supported</td>
<td>Supported</td>
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<tr>
<td>that the positive effect of EI on job satisfaction is strengthened among employees</td>
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<td>with high PA.</td>
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<td><strong>Hypothesis 1b</strong> PA moderates the relationship between EI and job stress such that</td>
<td>Supported</td>
<td>Not supported</td>
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<td>the negative effect of EI on job stress is strengthened among employees with high PA.</td>
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<tr>
<td><strong>Hypothesis 1c</strong> PA moderates the relationship between EI and job burnout such that</td>
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<td>the negative effect of EI on job burnout is strengthened among employees with high PA.</td>
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<td><strong>Hypothesis 2a</strong> Individualism moderates the relationship between EI and job</td>
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<td>satisfaction such that the positive effect of EI on job satisfaction is strengthened</td>
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<td>among employees with high Individualism.</td>
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<td><strong>Hypothesis 2b</strong> Individualism moderates the relationship between EI and job stress</td>
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<td>such that the negative effect of EI on job stress is strengthened among employees</td>
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<td>with high Individualism.</td>
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<td><strong>Hypothesis 2c</strong> Individualism moderates the relationship between EI and job</td>
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<td>burnout such that the negative effect of EI on job burnout is strengthened among</td>
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<td>employees with high Individualism.</td>
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10.3 Methodological Contributions

Firstly, as a main methodological contribution, the current study has applied MSCEIT (Mayer et al., 2002) among the Chinese participants and further tested its internal reliability and factor structure. The study has also incorporated two scorings of MSCEIT - one based on the US norm and the other based on the local sample - to test the research hypotheses. Accordingly, these results may be beneficial for future studies using MSCEIT in a cross-cultural context. As described in Chapter 7, MSCEIT is an ability of EI, which has objective criteria to determine “emotionally intelligent” knowledge and behaviours. As such, it is important to ensure that the criteria are consistent across cultures (which also form the theoretical basis of the ability model of EI as discussed in Chapter 2). Otherwise the EI test could become less reliable and valid. In this regard, some researchers (e.g., Law et al., 2008) have suggested that the ability test of EI could be potentially biased due to cultural differences in understanding and managing emotions, whereas other researchers (e.g., Karim & Weisz, 2010; Ma et al., 2010) have found evidence supporting the generalisability of MSCEIT across cultures. Therefore, it is important to ensure the reliability and validity of MSCEIT in a different cultural context from which it has been developed. Further, several researchers (e.g., Roberts et al., 2006; Zeidner & Olnick-Shemesh, 2010) have suggested that an alternative way to score MSCEIT is to use the local sample to develop consensus scoring keys. To provide further insight into the choice of scoring and to increase the robustness of the current research findings, both consensus scorings based on the US norm and that using the local sample have been incorporated in the current study.

Regarding the issue of validity, the current study has tested the factor structure of MSCEIT among the Chinese sample via CFA. The findings have generally confirmed a
two-factor structure of the test (with two branches - Emotion Understanding and Emotion Management) using both the US and the Chinese consensus scorings. Yet considering the reliability of the test, the result was somewhat less satisfactory. Although the reliabilities of both scorings were acceptable, they were much lower than those in the US norm. The low reliability might be a result of the potential cultural variation in scoring since the reliability of the scoring based on the Chinese sample was slightly higher than that based the US norm. However, the reliability of the Chinese consensus scoring was still far from being fully satisfactory. Accordingly, there might be other reasons for the low reliability of the Chinese scoring (e.g., potential problems with test format or stimuli). Simply changing the scoring process may have a limited effect on improving the reliability of MSCEIT. A further issue is associated with the selection of the scoring procedure. In the current study, EI scores based on the US norm and those on the Chinese sample were highly correlated and yielded similar results. This may indicate that people in the two countries agree on most of the objective criteria to determine emotionally intelligent responses in the test. Yet variation still exists between the two scorings. Given the small but significant difference in the research findings (regarding the interaction between PA and EI in predicting job stress), it is recommended that future studies make primary use of the US consensus scoring rather than using local samples alone to determine the scoring weights. The former is more stable, while the latter might be influenced by specific patterns of dealing with emotions among the local population (e.g. taking avoiding strategies to cope with stress). Further, using consensus scoring based on the US norm can also facilitate the comparison of research findings.

Another contribution to the research measurement is the translation of the self-report scales in the current study. As discussed in Chapter 7, most of the scales (e.g., Kristensen
et al., 2005; Parker & DeCotiis, 1983) have not been applied in a Chinese population in previous studies, and therefore, need to be translated and further examined regarding their measurement equivalence. The current study followed a translation-back translation process to create the Chinese versions of these measures. The internal reliability and factorial validity of the measures were also generally good. Therefore, the translated version can be used in future studies with Chinese research samples. The findings of reliability and validity may also indicate the generalisability of these measures in a different cultural context.

Finally, it is noteworthy that the current study has applied a within-country rather than a between-country design to explore the moderating effect of Individualism and Collectivism. According to Au (1999), intra-cultural variation of cultural values can be as large as cross-cultural difference. Researchers have also called for more studies on the moderating effects of individual cultural value orientations (e.g., Kirkman et al., 2006; Schilpzand et al., 2013). As such, the current research findings may further suggest the possibility of studying cultural values, particularly Individualism and Collectivism, at the individual level. However, such a design may also have some risks. A main risk is associated with sampling. According to Au (1999), intra-cultural variation of values differs from country to country. As in the current study, although a sample of Chinese managers was selected, which can facilitate the testing of the moderating effect of Individualism, the findings of Collectivism could be limited by this sample due to the high Collectivism of Chinese people. For this reason, it is necessary to choose a sample that can maximise variance in the values of interest, particularly, for studies using cross-sectional design.22 Further, it is critical to choose a suitable measurement to capture a

22 Another solution is to apply priming technique in an experimental setting to control the level of Individualism and Collectivism among the participants (e.g., Holmwall & Bobocel, 2008)
person’s values. There are various measures for Individualism and Collectivism (e.g., Hui, 1988; Singelis, 1994), some of which suffer from low reliability (Sivadas, Bruvold, & Nelson, 2008), while others only capture partial components of the two values (Brewer & Chen, 2007). Given the multi-dimensional nature of Individualism and Collectivism and the multiple referent ‘others’ possible within Collectivism (Brewer & Chen, 2007), the choice of measure can be crucial. Findings from the current study suggest that the eight items developed by Triandis and Gelfand (1998) may be an appropriate measure for Individualism, whereas the measure of Collectivism may still need to be improved regarding its reliability and validity.

10.4 Theoretical Contributions

The findings stand to make several important theoretical contributions to the EI literature. In general, they help to address the debate on the definition of EI (Cherniss, 2010; Daus & Ashkanasy, 2005; Mayer et al., 2008). Some researchers (e.g., Bar-On, 1997; Goleman, 1995; Petrides, 2009) advocate a mixed or trait approach of EI, while others prefer the ability model (e.g., Mayer & Salovey, 1997). It seems that the ability model, which has already received strong support from academic researchers (e.g., Daus & Ashkanasy, 2005; Mayer et al., 2008), has better discriminant validity compared to traditional constructs such as IQ or personal traits. However, based on the current research findings, it is likely that the ability model may still have its own limitations. Most importantly, its general effect on well-being tended to be null, suggesting that EI as measured by the ability tests might not be related to actual “emotionally intelligent behaviours” in real life. In this regard, researchers like Daus and Ashkanasy (2005) recommend studying the predictive effect of EI in jobs that require the use of emotional abilities (i.e. have high emotional labour content). However, in order to explore the
general influence of EI on employee behaviours, it might be necessary to identify the personal motivators of emotional abilities and further clarify the underlying mechanisms. In other words, what is of prime importance is not which is the best model of “emotional intelligence” per se but, rather, how different personal characteristics may work together to produce emotionally intelligent behaviours.

Accordingly, this thesis has proposed and tested two potential motivators or moderators of EI. One is trait affectivity, particularly PA; the other is a personal value, that of Individualism. The former is an emotional trait associated with the typical ways of dealing with emotions (Watson & Clark, 1984). PA is also linked to the BAS motivational system, which has a biological basis (Elliot & Thrash, 2002). Accordingly, people with high PA are sensitive to positive stimuli in the workplace and are more likely to put their effort into understanding and regulating their emotions towards achieving a greater sense of well-being. As compared to traits, values are concerned with an individual’s preferences for certain ideals and outcomes, which might be influenced by personal experiences or social norms (Feather, 1992). It is argued that Individualism may increase the sensitivity to personal emotions, and is likely to drive the individual to achieve better performance and well-being in organisations (Brewer & Chen, 2007). Since individualists also believe in their personal agency, they are motivated to use their emotional abilities in pursuit of enhanced well-being. Therefore, similar to the effect of PA, Individualism also has its own positive moderating effect on EI. Based on the previous literature, it is likely that there are other motivators or activators of emotional abilities besides PA and Individualism. These may include, for example, the emotional self-efficacy (Petrides, 2009), other personal traits (e.g., Rode et al., 2007), other values (e.g., Fernandez-Berrocal et al., 2005), and trait meta-mood experiences (Salovey et al.,
The findings of this thesis confirm the worth of incorporating these additional potential motivators of EI ability into future theoretical models of EI influence on a range of work outcomes.

Secondly, the findings contribute to knowledge in relation to scholarship on well-being at work. Traditionally, researchers have focussed on personal traits or environmental factors as antecedents of work well-being (Judge et al., 1998; Maslach et al., 2001; Sonnentag & Frese, 2003) and have generally ignored the role of personal emotions and emotional abilities in predicting work outcomes (Briner, 1999; Zeidner et al., 2009). Nevertheless, with the development of research on EI, more and more researchers have turned their attention to the role of emotional and social abilities in helping individuals become happier and less stressed at work (e.g., Brackett et al., 2010). Although the current study did not find a direct effect of EI on work well-being, the findings confirm the significant interactions between EI and PA and those between EI and Individualism in predicting job satisfaction, stress and burnout. The interactive effects remained significant even after controlling for main predictors of work well-being such as trait affectivity and organisation-person fit. Accordingly, the findings support the distinct role of emotional abilities, when in conjunction with personal motivators, in predicting and enhancing well-being within work organisations.

Lastly, although not the main focus of this research, the findings concerning the moderating effect of Individualism and Collectivism provide some insights for cross-cultural studies on EI. Based on the theoretical arguments concerning its moderating effects, Individualism was found to positively moderate the relationship between EI and job satisfaction and that between EI and burnout. These results also accord with prior
observations by researchers such as Fernandez-Berrocal et al. (2005). While it is important to be cautious about cross-level generalisation, our results at least imply that, all else equal, including EI being normally distributed across populations, country-level cultures characterised by high Individualism may also be inclined to have higher levels of work well-being. As such, this study may have value in informing national-level studies of the positive moderating role of Individualism on the effect of EI. For Collectivism, however, the results also suggest that parallel national-level inquiry and comparison will require very careful conceptualisation and modelling. Although the current study does not find any significant effect of Collectivism in moderating the relationship between EI and work well-being, it is still possible that collectivists may have their own distinctive ways of utilising their emotional abilities. For instance, Niven, Totterdell, Holman, and Headley (2012b) found that people who used effective strategies to regulate others’ emotions can also become happier in their lives. Hence, it is possible that collectivists may link their feelings to group welfare and manage those feelings accordingly. At the very least, it cannot simply be concluded that Collectivism and collectivist cultures necessarily suppress the effect of EI. Accordingly, further research at both individual and national levels are certainly appropriate.

10.5 Practical Implications

The research findings have several implications for managing employee well-being in the workplace. Firstly, for predicting and selection purposes, measures of trait affectivity might be applied to indicate the extent to which an employee is likely to be satisfied or stressed in the workplace. Since trait affectivity is closely related to a person’s typical processes for dealing with emotional and social information (e.g., John & Gross, 2004; Judge & Larson, 2001; Rusting & Larson, 1998), it has strong main effects on employee
well-being (e.g., Noor, 1997; Spector et al., 2000). These main effects have also been replicated in the current study. As such, management practitioners wishing to increase workforce well-being levels should be mindful of the salience of trait affectivity to psychometric test design and staff selection criteria. Further, the measures of PA and NA can be used as indicators for training and developmental purposes. In particular, for employees with low PA and high NA, it is necessary to pay attention to their personal feelings at work and further design intervention programs to improve their well-being and prevent burnout. At the same time, considering the potential problems with the self-rated scale (Ben-Porath, 2003), it is critical to ensure that the responses from self-reports of trait affectivity are not biased or cannot be easily faked in an organisational setting.

Secondly, the findings have implications for how employee well-being might be facilitated via staff training and development programs. As the findings indicate, EI (as abilities and knowledge) can predict high well-being among employees with high PA and high Individualism. Since abilities and knowledge are much more malleable than personal traits (McAdams & Olson, 2010), training programs can be designed to improve emotional skills and knowledge among employees, which can further facilitate their well-being at work. These programs can perhaps be based on the four-branch model (Mayer & Salovey, 1997) with a focus on development of the abilities to understand and manage one’s own and others’ emotions (e.g., Slaski & Cartwright, 2002, 2003). Further, employees need to be made self-aware of the importance of feelings and well-being so that they can use the abilities more actively after training. For those with low PA or Individualism, however, training on emotional skills alone may have limited effects. In this regard, it may also be necessary for the training course to involve constructs such as emotional self-efficacy (e.g., Petrides, 2009) that are likely to raise the individual’s
willingness to apply their emotional abilities to dealing with the real-life tasks. Of course, it is also critical for employers to create a work environment that can encourage the learning and use of EI (Cherniss & Adler, 2000).

Finally, there is the matter of the management of EI, values and well-being in a global context. Although previous literature suggests that the effect of EI could be limited in a Collectivistic culture (e.g., Fernandez-Berrocal et al., 2005), the current findings imply that, even in Collectivist cultures, there is still variation in the use of EI at the individual level. The individualists in our Chinese sample seem to be better able to self-manage EI to enhance personal well-being than the collectivists. It has been proposed that this is because employees with high Individualism care more about their own feelings, are motivated to utilise their emotional abilities for achieving high well-being at work, and are thus likely to be more effective in becoming happier and avoiding burnout. But does this combination of high EI and high Individualism always deliver superior outcomes in well-being irrespective of the national-level cultural context? Could it be the case that the combination of high EI and high Collectivism is more effective in cultures characterised by high Individualism (e.g., the US, Australia)? While further evidence of a comparative cross-cultural nature is required here, what can safely be concluded for management practice is that emotional knowledge and abilities are of high potential importance to the individual’s well-being. For those who are expected to work in cross-cultural environments (e.g., expatriates), it would be better for them to not only master emotional abilities and knowledge in their own cultures but also be aware of the potential difference in understanding and managing emotions in the local culture (given the potential differences in the scoring of the EI test). As such, they may have better communications and social interactions with their local colleagues. Further, when organisations adjust
their managerial practices to fit with local cultures, it is important to consider not only national-level cultural differences, but also individual differences in EI and value orientations.

10.6 Limitations

Despite the significant findings, the current research still suffers from several limitations. Firstly, regarding the research design, it is clear that a cross-sectional design is appropriate for research that is exploratory in nature (Bryman & Bell, 2007). The design is also relatively easy to conduct (Bryman & Bell, 2007). Yet in order to further validate causal relationships, it would be necessary to apply more rigorous designs. For example, a longitudinal design with a long time lag between responses can better address a causal relationship (Bryman & Bell, 2007) between EI and work well-being. This can also help to rule out the potential influence of common method variance on the final results (Schmitt, 1994).

Secondly, in terms of sampling, while convenience sampling is a common practice in organisational studies, it may still be limited in its power of representativeness (Bryman & Bell, 2007). Since the current research findings are based mainly on responses from Chinese managers, this facilitates testing of the research hypothesis concerning Individualism (via increasing its variance). Conversely, it cannot be assumed that similar findings can also be replicated in a sample of employees with different backgrounds (e.g., nationality or job). Accordingly, one solution would be to increase the diversity of the sample. However, in order to control for diversity, more variables would be needed to be involved in the analysis, which may further raise sample-size requirements (Green, 1991).
A third limitation concerns measurement reliability. As has been noted, the reliability of MSCEIT (Mayer et al., 2002) was much lower with the local sample than that with the US norm. The average score of MSCEIT in the current study was also far below that of the US norm. Moreover, most of the self-report scales were less reliable among the Chinese participants. Although their reliabilities were still acceptable, the measurement variance may have influenced the research findings to some extent. Hence, it is important for future research to rule out any potential bias in the measurement (e.g., by using a more reliable EI test) before conducting further explorations on EI and its effectiveness, particularly, in a cross-cultural context.

A fourth and final limitation is that, although the research hypotheses were theoretically driven, the study only partially tested current theories. For instance, it is argued that Individualism may moderate the effect of EI through using more effective regulatory or coping strategies. Yet the study only tested the associations between EI and Individualism and their interactive effect on well-being (e.g., satisfaction or burnout) but did not take into account any potential mediating effects by other variables (e.g., affective experiences at work). This may also be one of the reasons for the absence of the main effect of EI in the current study. Therefore, it would be appropriate for future studies to apply a more direct test of the underlying mechanisms linking EI and its moderators to well-being by involving any potential mediators.

10.7 Future Directions

Building on the above points, there are several clear recommendations for future investigation. Firstly, for studies on EI and its predictive effects, the current findings suggest that it is important to take both EI and its motivators into consideration. Instead
of simply calculating the correlation or regression coefficients, future studies need to explore the underlying mechanisms regarding the effect of EI and how other personal characteristics (e.g., trait meta-mood experiences, Salovey et al., 1995; emotional self-efficacy, Petrides, 2009) and external factors (e.g., job control; Abraham, 2000) can moderate their effect on the final outcomes. For instance, it is generally believed that emotional skills are much more important in jobs with a high emotional workload (Daus & Ashkanasy, 2005). As such, capability to understand and regulate emotions may lead to a high level of employee well-being in such jobs. Nevertheless, if employees have less control over their jobs, the effect of EI might be limited or even reversed due to high intelligence and high expectations (Ganzach, 1998).

A further research domain is associated with personnel selection and development. Considering current EI measures that take either an ability approach (e.g., Mayer et al., 2002) or a mixed approach (e.g., Bar-on, 1997; Petrides, 2009), it might be instructive to develop an assessment measuring both EI and its facilitators (e.g., Warwick, Nettelbeck, & Ward, 2010), since this may have greater ecological validity in predicting actual emotionally intelligent behaviours in real life. Also, since EI is found to have a positive effect on employee well-being (in conjunction with personal motivators), a further step would be to implement EI development programs in organisations and then to evaluate their effectiveness via rigid research designs such as a test-retest or a between-group design (e.g., Slaski & Cartwright, 2002, 2003).

Thirdly, given the absence of the main effect of EI, there may be benefit in considering partial or full mediation effects on EI. Potential mediators, as discussed in Chapter 3, may include affective experiences at work (e.g., Weiss et al., 1999), coping behaviours
(Matthews et al., 2006), and social interactions and relationships with others (e.g., Niven et al., 2012). For instance, it is likely that EI can improve the quality of social interactions (e.g., with their colleagues) among employees, which may in turn influence their well-being in the workplace. Thus, including these factors in the test model may provide a more comprehensive understanding of the triggers and transmitters of the power of EI.

Fourthly, considering the absence of the main effect of EI and the strong main effect of trait affectivity on work well-being, it may also be revealing to treat emotional abilities and knowledge as the moderator and traits as the predictor. In accordance with the dual-process theories of human cognition (e.g., Kaufman, 2011), Fiori (2009) proposes that there could be two processes influencing a person’s emotionally intelligent thoughts and behaviours: a rational and controlled process, and an automatic and implicit process. The rational process is likely to be associated with emotional abilities and knowledge able to be measured by tests (e.g., MSCEIT; Mayer et al., 2002), while the automatic process might be linked to a person’s dispositional ways of dealing with emotions (Fiori, 2009). In this regard, emotional traits such as PA may not only motivate the individual to utilise their emotional abilities but also have their own internalised process for dealing with emotions. Given the significant effect of PA and NA on work well-being, it is possible that, for most of the time, individuals may follow an automatic process to treat emotions and emotional stimuli, while EI as abilities and knowledge is only used for optimising this process. Although the current study has confirmed the interaction between PA and EI in predicting work well-being, research of a different nature would be required to capture both processes directly (e.g., using techniques such as functional magnetic resonance imaging to locate the different parts of the brain responsible for the processes). Of
course, a research design of this type goes well beyond the scope and resource constraints of this thesis.

Finally, regarding cross-cultural research on EI, it is strongly recommended that future research should distinguish between national and individual levels of analyses and approach the challenge of multi-level analysis with caution and rigour. It would certainly be intriguing to apply a multi-level analysis and study the match/mismatch between the group and individual values, given the lack of research on this topic (Kirkman et al., 2006). For instance, although Individualism may enhance the effect of EI on well-being, this effect might be less significant in a collectivistic context where actions focusing on personal welfare are less valued (Suh et al., 1998). Yet considering the less clear effect of Collectivism on EI in the current study, it is necessary for future studies to consider the distinct way of using EI among collectivists. It would also be helpful to explore different patterns of emotional understanding and regulation in various cultural contexts, including the studies on the effects of other cultural values beyond Individualism and Collectivism (e.g., Uncertainty Avoidance; Hofstede, 2001). Lastly, when conducting EI research in different national/regional cultural contexts, it is crucial to ensure that measurement is reliable and valid and also free of potential value-based biases that may influence results and sample comparisons.

10.8 Conclusion

By way of providing a general conclusion to the study, this final chapter has firstly provided a reiteration of the key research findings. The findings, based on both the US and the local scorings of EI, have confirmed our expectations that emotional abilities need to be activated or motivated to maximise their effects in real life. Accordingly, PA
and Individualism have been found to be the motivators of EI in the current study. Trait affectivity, including both PA and NA, has also been found to have major effects on work well-being. Against expectations, results also show that the ability to understand and manage emotions is not directly related to employee satisfaction, stress and burnout. Thus, in isolation, EI makes no significant difference to employee well-being. In terms of this outcome at least, such a finding challenges the suggestion (e.g., Goleman, 1998) that EI is the critical ingredient for individual and organisational effectiveness. What would seem to be important here are the individual-level correlates of EI, including traits and values.

Regarding the study’s methodological contribution, MSCEIT has been applied to assess EI among the Chinese participants with scorings based on both the US norm and the local Chinese sample. The factor structure of MSCEIT has been confirmed by the local sample, while its reliability still needs to be further improved. The findings also suggest that the US consensus scoring correlated highly with the local scoring, both of which yielded similar results. Yet the former seems to be more stable and can facilitate comparison between research findings, while the latter may have been influenced by local variation in emotion understanding and regulation. A further methodological contribution is the adoption of intra-cultural concepts and design to explore the effects of Individualism and Collectivism at an individual level, although caution is required regarding the reliability and validity of their measures. The study has also applied western-developed measures to a Chinese sample and, with some caveats, results show that these measures remain reliable and valid in a non-western context and can thus be used in future studies in such contexts.
In terms of the study’s theoretical contributions, the findings help to address the issue regarding the conceptualisation of EI. Although the ability model is grounded in a rigorous definition of EI, results show that mixed models are also important as they incorporate factors that appear to serve as important facilitators of emotional abilities and knowledge in real life. Therefore, it would now seem appropriate to move beyond the definitional debate about EI to consider more closely the roles of emotional abilities and other personal characteristics in making people demonstrably emotionally intelligent. Moreover, the study’s findings are also meaningful for the literature on employee well-being and EI, particularly in a cross-cultural setting.

Regarding implications for management practice, the findings could inform personnel selection and development practices aimed at improving employee well-being at work. Measures of PA and NA can be used for predictive purposes in personnel selection where work has high emotional labour demands and where the organisation is committed to maximising employee well-being. Further, the findings highlight the worth of content on emotional knowledge and skills in training and development programs, as a means of assisting employees with high Individualism or PA to maximise their feelings of well-being at work. At the same time, the study’s findings establish the importance of taking the individual’s traits and values into account when designing staff selection and development programs.

Finally, while the study does have a number of limitations associated with its cross-sectional nature and approach to modelling and measurement, it also points the way to further potentially fruitful inquiry. For instance, it would be rewarding if future studies investigated not only the main effect of EI but also the factors (both external and
internal) that can moderate its effect on desired work outcomes as well as potential mediators (e.g., affective experiences). It would also be intriguing to treat traits as the predictors and EI as the moderator and explore how emotional abilities and knowledge may optimise a person’s automatic processes in dealing with emotions in the workplace. Further, for cross-cultural research on EI, it might be fruitful to investigate the influences of both the cultural context and the individual’s values, and their interactions on the predictive effect of EI.
Appendix A Participation Information Statement

Exploring the Effect of Emotional Intelligence on Employee Well-being:
An Exploratory Study in China

1. ‘What is the study about?’
Emotional intelligence is about how we express, perceive, understand, and manage our feelings. The purpose of the study is to investigate whether EI increases our sense of wellbeing about work, and whether the influence of EI on wellbeing applies across individuals with different traits and values. The study is being conducted by Mr XXX, and will form the basis for the degree of PhD at the University of Sydney under the supervision of Professor XXX.

2. ‘Why am I invited to participate in this study?’
You are invited to participate in the study because you are a full-time employee and your responses are very important for our research.

3. ‘What does this study involve?’
This study includes three rounds of data collection: in Round I, you will take an EI test which will generally take 30 to 40 minutes to finish; in Round II (one week later), you will complete a questionnaire about your personal values and traits, which will take about 10 minutes; in Round III (one week after Round II), you will take a questionnaire about your work well-being (5 minutes for completion).

4. ‘Will I benefit from this study?’
In each round of the survey, we will provide you with a personal report on your survey results as well as the aggregate scores of the research group as a whole. This will include a report on your EI (Round 1), one on your traits and values (Round II), and one on your work well-being (Round III).

5. ‘How will my confidentiality be protected?’
You will be asked to provide an email address and last four-digit numbers of your student number in each round of the study. The email address will be used for the sole purpose of receiving individual reports. The four-digit numbers will only be used for matching data from the three rounds of data collection. All individual data will be totally anonymous and will be kept strictly confidential.

6. ‘How can I participate in the study?’
The survey will be distributed in paper form during the break-time. If you want to participate in the study, please take a copy of the survey, complete it when you have time, and bring it back in the next lecture. The completed survey will be collected by the researcher. Neither the course coordinator nor the lecturer will be involved in the whole process.

7. ‘What happens if I don’t want to take part in the study?’
Participation in this study is completely voluntary and you are not under any obligation to consent to complete the survey. Submitting a completed survey is an indication of your consent to participate in the study. You can withdraw any time prior to submitting your completed survey.

8. ‘Who should I contact if I have concerns about the conduct of this study?’
This study has been approved by the University of Sydney HREC. If you would like to know more at any stage, please feel free to contact XXX on XXX@XXX.XX (email). Any person with concerns about the research can contact The Manager, Human Ethics Administration, University of Sydney on +61 2 8627 8176 (Telephone); +61 2 8627 8177 (Facsimile) or ro.humanethics@sydney.edu.au (Email).

This information sheet is for you to keep
Appendix B Survey Rounds II and III

Survey Round II

The last four-digit numbers of your student No.: ____________ (solely for the purpose of matching data).
Your email address: _________________________________ (solely for receiving the individual report).

1. Below is some demographic information about yourself and your job. The information will solely be used for the purpose of this study, which will be strictly confidential and only the researcher will have access to. All individual data provided for the research will be totally anonymous.
   (1) The year of your birth______.
   (2) Your gender: 1. Male  2. Female
   (3) Which of the term best describes your job rank in the organisation?
      1. Line staff   2. Line manager   3. Middle manager   4. Senior manager and above
   (4) Your current job begins from ____ (month) ____ (year).
   (5) What is your monthly pre-tax income (in Chinese Yuan)? Please choose an appropriate option:
      1. Less than 3,000  2. 3,001 to 5,000  3. 5,001 to 8,000  4. 8,001 to 12,000
      5. 12,001 to 16,000  6. 16,001 to 20,000  7. 20,001 to 25,000  8. 25,001 to 30,000
      9. 30,001 to 35,000  10. 35,001 to 45,000  11. 45,001 to 60,000  12. More than 60,000

2. This scale consists of a number of words and phrases that describe different feelings and emotions. Read each item and then choose an appropriate answer for each word. Indicate to what extent you have felt this way generally:

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<th>Very slightly or not at all</th>
<th>A little</th>
<th>Moderately</th>
<th>Quite a bit</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspired</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Alert</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Excited</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Enthusiastic</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Determined</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Afraid</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Upset</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Nervous</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Scared</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Distressed</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

3. Please indicate your agreement with the following items regarding the organisation you are in:
1-Not at all  2-Very little  3-Somewhat  4-To a Great extent  5-Completely

1. To what degree do you feel your values “match” or fit the organization and the current employees in the organization?  
   12345

2. My values match those of current employees in the organization.  
   12345

3. Do you think the values and “personality” of the organization reflect your own values and personality?  
   12345
4. Please indicate your agreement with the following items:

<table>
<thead>
<tr>
<th></th>
<th>1 Strongly Disagree</th>
<th>2 Disagree</th>
<th>3 Somewhat Disagree</th>
<th>4 Neutral</th>
<th>5 Somewhat Agree</th>
<th>6 Agree</th>
<th>7 Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I’d rather depend on myself than others.</td>
<td>① ② ③ ④ ⑤ ⑥ ⑦</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I feel good when I cooperate with others.</td>
<td>① ② ③ ④ ⑤ ⑥ ⑦</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I often do “my own thing”.</td>
<td>① ② ③ ④ ⑤ ⑥ ⑦</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>My personal identity, independent of others, is very important to me.</td>
<td>① ② ③ ④ ⑤ ⑥ ⑦</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>It is important that I do my job better than others.</td>
<td>① ② ③ ④ ⑤ ⑥ ⑦</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>It is my duty to take care of my family, even when I have to sacrifice what I want.</td>
<td>① ② ③ ④ ⑤ ⑥ ⑦</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Competition is the law of nature.</td>
<td>① ② ③ ④ ⑤ ⑥ ⑦</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>If a co-worker gets a prize, I would feel proud.</td>
<td>① ② ③ ④ ⑤ ⑥ ⑦</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>The well-being of my co-workers is important to me.</td>
<td>① ② ③ ④ ⑤ ⑥ ⑦</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>To me, pleasure is spending time with others.</td>
<td>① ② ③ ④ ⑤ ⑥ ⑦</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>I feel fairly satisfied with my present job.</td>
<td>① ② ③ ④ ⑤ ⑥ ⑦</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>It is important to me that I respect the decisions made by my groups.</td>
<td>① ② ③ ④ ⑤ ⑥ ⑦</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Winning is everything.</td>
<td>① ② ③ ④ ⑤ ⑥ ⑦</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Parents and children must stay together as much as possible.</td>
<td>① ② ③ ④ ⑤ ⑥ ⑦</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>When another person does better than I do, I get tense and aroused.</td>
<td>① ② ③ ④ ⑤ ⑥ ⑦</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Family members should stick together, no matter what sacrifices are required.</td>
<td>① ② ③ ④ ⑤ ⑥ ⑦</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To perform my job well, it is necessary for me to...

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>Spend most of my work time interacting with people (e.g., customers, colleagues, and other workers in this organization).</td>
</tr>
<tr>
<td>23</td>
<td>Spend a lot of time with every person whom I work with.</td>
</tr>
<tr>
<td>24</td>
<td>Hide my actual feelings when acting and speaking.</td>
</tr>
<tr>
<td>25</td>
<td>Be considerate and think from the point of view of others.</td>
</tr>
<tr>
<td>26</td>
<td>Hide my negative feelings (e.g., anger and depression).</td>
</tr>
</tbody>
</table>

You have now completed the survey.

Thank you for taking the time to contribute to our study.

We are very grateful for your support.
Survey Round III

The last four-digit numbers of your student No.: ____________ (solely for the purpose of matching data).
Your email address: _________________________________ (solely for receiving the individual report).

1. Please indicate your agreement with the following descriptions regarding your feeling at work:

<table>
<thead>
<tr>
<th>Description</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are lots of times when my job drives me right up the wall.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel guilty when I take time off from job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel fidgety or nervous as a result of my job.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Sometimes when I think about my job I get a tight feeling in my chest.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>My job gets to me more than it should.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. The following statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have had this feeling, indicate how often (or to what extent) you feel it by choosing the appropriate number (from 1 to 5).

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you feel worn out at the end of the working day?</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Are you exhausted in the morning at the thought of another day at work?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you feel that every working hour is tiring for you?</td>
<td></td>
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</tr>
<tr>
<td>Do you have enough energy for family and friends during leisure time?</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is your work emotionally exhausting?</td>
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<td></td>
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<tr>
<td>Does your work frustrate you?</td>
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<td></td>
</tr>
<tr>
<td>Do you feel burnt out because of your work?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Please indicate your agreement with the following items:

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel fairly satisfied with my present job.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most days I am enthusiastic about my work.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Each day of work seems like it will never end.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I find real enjoyment in my work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I consider my job rather unpleasant.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

You have now completed the survey. Thank you for taking the time to contribute to our study. We are very grateful for your support.
Well-being at Work

Individual Report

Prepared by XXX, the University of Sydney Business School

Reference Number: A0001
Participant’s Email Address: XXX@XXX.XX
Gender: Male
Age: 24
Administration Date: 8/8/2012
What is Work Well-being?

Well-being is broadly conceptualised as including positive attitudes and absence of physical and psychological symptoms (Spector et al., 2002). In the workplace, well-being is usually multi-faceted, incorporating a person’s different experiences of work. Such experience may affect the individual’s work motivation, behaviours, and in turn, his or her performance outputs. It may also predict whether a person will stay in a job or choose to withdraw.

The Components of Work Well-being

According to De Jonge and Schaufeli (1998), job-related mental health has mostly been operationalised through three dimensions - job satisfaction, stress/strain and burnout/engagement - which represent our affective experience of pleasure, anxiety and depression, respectively (De Jonge and Schaufeli, 1998).

How to Interpret Your Results?

In your report, all the three dimensions of work well-being are addressed. The score is calculated based on the percentile rank of your raw score compared to the research sample. For instance, if you got a score of 80 for the dimension of job satisfaction, it means that there are approximately 80% people in the research sample who are less satisfied at their jobs compared to your job satisfaction. It also means that there are nearly 20% of people in the research sample who have higher job satisfaction than you do. The research sample includes over 200 full-time employees in China.

Figure based on De Jonge and Schaufeli (1998)
Job Satisfaction

Job satisfaction is defined as the job attitude associated with your positive affect and experience in the workplace (e.g., Cranny et al., 1992). It has been long treated as a critical indicator of employee well-being in the workplace (Weiss and Brief, 2001). Person-job fit has been traditionally regarded as a main determinant of job satisfaction. For instance, you may come to the workplace with different values and expectations. Your satisfaction may be determined by whether the characteristics of the job fit with your expectations and values. In the past two decades, other factors such as personal traits (e.g., Neuroticism) and real-time emotions have also been recognised as important predictors. Furthermore, it is believed that if you are more satisfied in your job, it is more likely that you will put effort into doing the job. Satisfaction is also related to one’s willingness to help others in the workplace.

Your score: 76

Your score indicates that your job satisfaction is higher than that of 76% of the respondents in the research sample. It also means that nearly 24% people in the research sample have higher scores than yours. The higher the score, the more satisfied you are with your job relative to others in the research sample.
Job Stress

A person’s work stress may include three dimensions: the stressor (as the source of the stress), perceived stress (as one’s subjective feelings), and stressful reactions (e.g., physiological reactions) (Sonntag and Frese, 2003). Psychological stress (or perceived stress) is usually conceptualised as a result of a person’s cognitive evaluation towards the workplace. For example, such evaluation could be based on the appraisal of a discrepancy between a difficulty you faced at your work and your capability to deal with it. If the difficulty is beyond your current skill level, you might feel stressed and try to improve yourself to overcome it. Furthermore, environmental factors (e.g., social relationships) and personal characteristics (e.g., self-efficacy and traits) are also likely to have critical influences on one’s perceived stress at work. Research findings suggest that long-term stress in the workplace may result in reduced efforts, and both mental and physical health problems among employees.

Your score: 35

Your score indicates that your job stress is higher than that of 35% of the respondents in the research sample. It also means that nearly 65% of people in the research sample have higher scores than yours. The higher the score, the more stressed you are with your job relative to others in the research sample.
Job Burnout

Job burnout involves emotional exhaustion, a coping style via depersonalisation (i.e. treating others as subjects and numbers), and a sense of low self-achievement, which are all related to employees’ depressive experience in the workplace (Maslach et al., 2001). Situational factors such as work demand (e.g., role conflict or ambiguity) and social resources (e.g., emotional support from colleagues) may have significant impacts on your feelings of burnout. Personal characteristics such as locus of control (i.e. the extent to which you believe that you can change things via your own actions), self-esteem, and coping style may also influence one’s work burnout.

Your score: **23**

Your score indicates that your job burnout is higher than that of 23% of the respondents in the research sample. It also means that nearly 77% of people in the research sample have higher scores than yours. The higher the score, the more burnt out you feel with your job compared to others in the research sample.
Bibliography


175.


437-454.


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emotional intelligence construct: A cross-cultural study of North American aboriginal youth.


Association.


