

**THE RELATIONSHIP BETWEEN LEADER EMOTIONAL INTELLIGENCE AND
PSYCHOLOGICAL CLIMATE: AN EXPLORATORY STUDY**

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**This assignment is in partial fulfilment of the requirements for the degree of
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AF SCHLECHTER

AB BOSHOFF

APRIL 2004

DECLARATION

I, the undersigned, hereby declare that the work contained in this assignment is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.

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12 March 2004

ABSTRACT

An exploratory study, conducted in a clothing manufacturing plant, investigated the presence of a single psychological climate in an organisation, as well as the relationship between two increasingly important constructs namely: leader emotional intelligence and the psychological climate of an organisation. Of a total employee population of 1725 a sample of 600 participants were drawn. 297 Completed responses were returned for analyses. An Exploratory Factor Analysis (EFA) was conducted on both The Swinburne University Emotional Intelligence Test (SUEIT), which is designed to measure emotional intelligence, and the Organisational Climate Questionnaire of Koys and DeCotiis, which measures psychological climate. Stepwise discriminant analysis provided evidence to accept the proposition that a single psychological climate existed in the organisation. The results of a Pearson correlation analysis, multiple regression and discriminant analysis indicated that emotional intelligence is significantly, positively related to psychological climate as a dependant variable.

OPSOMMING

'n Eksploratiewe studie is onderneem in 'n klere vervaardigingsonderneming om ondersoek in te stel na die aanwesigheid van 'n enkel sielkundige klimaat, asook die verwantskap tussen twee belangrike konstrunkte, naamlik emosionele intelligensie en sielkundige klimaat in 'n organisasie. 'n Steekproef van 600 deelnemers is geneem uit 'n populasie van 1725 waarvan 297 voltooide antwoorde ontvang en geanaliseer is. 'n Eksploratiewe Faktor Analise (EFA) is op beide die Swinburne Universiteit Emosionele Intelligensie Toets (SUIET), en die Organisasie Klimaat Vraelys van Koys en De Cotiis, wat onderskeidelik emosionele intelligensie en sielkundige klimaat meet, uitgevoer. Bewyse deur middel van stapsgewyse diskriminante analise is ingewin om die hipotese te aanvaar dat 'n enkel sielkundige klimaat in die organisasie aanwesig is. Die resultate van 'n Pearson korrelasie, meervoudige regressie en diskrimante analise het aangedui dat emosionele intelligensie beduidend, positief verwant is aan sielkundige klimaat as 'n afhanklike veranderlike.

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Introduction

What makes a successful organisation? The increasingly competitive business environment has prompted organisations, management-researchers and practitioners alike to search for new and innovative answers to this important question. De Vries (2001) found that successful organisations share several important characteristics. An organisational climate that fosters and nurtures high employee morale, in which employees can enjoy themselves, is one of these characteristics. De Vries (2001) provided evidence that organisational climate has a significant impact on organisational performance. Similarly, Goleman (2002) proposes that organisational climate can account for twenty to thirty percent of business success.

If organisational climate drives such a significant portion of business results, the question can rightly be asked, "What drives organisational climate?" 53 to 72 percent of how employees perceive their organisation's climate can be linked to the actions of one person – the leader (Kelner, Rivers and O'Connell, 1996). According to Scholtz (2002) various studies have shown that the philosophy, policies and actions of the leader could have a significant influence on the well being of employees, the organisational culture and the organisational climate. Goleman (2002) suggests that leaders play a key role in driving the organisational climate. Their actions and behaviour, which are a result of their own emotional states, will affect how the people they lead, will feel and perform. Business performance will, therefore, be influenced by how well leaders manage their own and their subordinate's moods. This ability to manage your own moods and that of others, is what Goleman (2002) defines as emotional intelligence.

Although Goleman (2002) suggests that the emotionally intelligent leader has an effect on the organisational climate, no empirical studies have yet been done to validate this claim. The specific objective of the present study is to determine whether there is a relationship between the leaders' emotional intelligence and organisational climate. More specifically, the psychological climate of the organisation. This relationship is important, as it is believed that creating the right psychological climate will result in the effective utilisation of human capital in a manner that maximises the contribution to the success of the organisation. The study is of an exploratory nature as no previously conducted research on the relationship between these two constructs could be found in literature. Cilliers and Kossuth (2002) suggested that future research on organisational climate must include more salutogenic constructs, with specific reference to emotional intelligence. This study attempts to address this gap in literature.

Emotional Intelligence

The word *emotion* comes from the Latin word *motere*, which means, “to move” (De Vries, 2000). According to Cooper and Sawaf (1997) it may be simply defined as applying “movement”, either metaphorically or literally, to core feelings. Contrary to most conventional thinking, emotions are inherently neither positive nor negative. It serves as the single most powerful source of human energy, authenticity and drive, offering a source of intuitive wisdom (Cooper and Sawaf, 1997). *Intelligence* is defined by Carrol (1993) as a group of mental abilities. Carrol (1993) further defines ability as an individual’s successful completion of a task of defined difficulty, under favourable testing conditions. In recent years several comprehensive models of emotional intelligence provided alternative theoretical frameworks for conceptualising this construct. Although these models do not necessarily contradict one another, they represent different perspectives (Schutte, Malouff, Hall, Haggerty, Cooper, Golden and Dornheim, 1998).

Emotional intelligence has its origin in the concept of “social intelligence” which was first identified by Thorndike in 1920. Thorndike defined social intelligence as “... the ability to understand and manage men and women, boys and girls – to act wisely in human relations” (Walker and Foley, 1973, p. 840). Gardner (1983) deems intelligence to be a multifaceted attribute and differentiates between seven types of intelligence, namely: 1) spatial, 2) physical, 3) musical, 4) linguistic, 5) logical-mathematical, 6) interpersonal and 7) intrapersonal intelligence. Social intelligence consists of a person’s *interpersonal* and *intrapersonal* intelligence. Intrapersonal intelligence relates to one’s intelligence in dealing with oneself. It is the ability to symbolize complex and highly differentiated sets of feelings (Gardner, 1983). Interpersonal intelligence relates to one’s intelligence in dealing with others. It is the ability to notice and make distinctions among other individuals, and in particular, among their moods, temperaments, motivations and intentions (Gardner, 1983). Even though Gardner did not use the term emotional intelligence, his concepts of intrapersonal and interpersonal intelligence provided a foundation for later models of emotional intelligence (Schutte et al., 1998).

In the past many theorists have made attempts to conceptualise emotional intelligence. However, much of the work on this construct approached emotional intelligence from a popular angle. This has not been accompanied by many empirical studies, particularly focusing on the measurement of the construct. The implications of this became apparent when the first attempts were made to measure the construct. It was found that the sampling domain for emotional intelligence was not clear-cut and its operationalisation strongly depended on the method of measurement (Petrides and Furnham, 2000b). As a result, Petrides and Furnham (2000a) proposed a differentiation between trait and information-processing emotional intelligence, based on the different measurement approaches and operational definitions adopted by the various theorists. Trait emotional intelligence is embedded within the personality framework and is assessed through validated self-report inventories that measure typical

behaviour. Information-processing emotional intelligence is specifically concerned with actual abilities. Thus best assessed by means of maximum-performance measures consisting of items with correct or incorrect responses. Mayer, Salovey and Caruso (2000) also note the importance of understanding the various ways the term emotional intelligence is used by exploring emotional intelligence as a personality trait and as an ability. They, however, add a third meaning, namely emotional intelligence as zeitgeist, or a cultural trend.

Emotional Intelligence as a Personality Trait

Some researchers, when defining emotional intelligence, refer to a long list of attributes or abilities drawn from several aspects of personality. One such conceptualisation is that of Goleman (1995). He proposed that emotional intelligence consists of five dimensions: 1) self-awareness, 2) self-regulation, 3) motivation, 4) empathy and 5) social skills. More recently Goleman (1998) defines emotional intelligence as "the capacity for recognising our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships" (Goleman, 1998, p.317). He further describes the five dimensions of emotional intelligence in terms of twenty-five different emotional competencies.

Bar-On's (1997) definition proposed that one's ability to succeed in coping with environmental pressures is influenced by non-cognitive capabilities, competencies and skills. He developed the Bar-On Emotional Quotient Inventory (Bar-On, 1997) and conceptualises emotional intelligence as five broad areas of skills or competencies namely: 1) intrapersonal, 2) interpersonal, 3) adaptability, 4) stress management and 5) general mood.

Cooper and Sawaf (1997) formulated a model of emotional intelligence that relates specific skills and tendencies to a Four Cornerstone model. This model moves emotional intelligence out of the realm of psychological analysis and philosophical theories, into the realm of direct knowing, exploration and application. The four dimensions are: 1) emotional literacy, 2) emotional fitness, 3) emotional depth, and 4) emotional alchemy. Cooper and Sawaf (1997) define emotional intelligence as "the ability to sense, understand, and effectively apply the power and acumen of emotions as a source of human energy, information, connection, and influence" (Cooper and Sawaf, 1997, p. xiii).

Emotional Intelligence as a Mental Ability

From a mental ability perspective, emotional intelligence is conceptualised as mental abilities, skills, or capacities. Salovey and Mayer (1990) were among the first to propose the name *emotional intelligence* to define the ability of people to deal with their emotions as "...the subset of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (Salovey and Mayer, 1990, p. 189).

Their original model postulated that emotional intelligence consisted of three categories of variables that traditionally belonged in areas outside intelligence, namely: 1) appraisal and expression of emotion, 2) regulation of emotion and 3) utilisation of emotions in solving problems. A revised model was proposed by Mayer and Salovey (1997) that redefined emotional intelligence emphasising the cognitive components as well as conceptualising emotional intelligence in terms of potential for intellectual and emotional growth. The revised model consists of four distinct dimensions:

1. *Appraisal and expression of emotion in the self* – this relates to the individual's ability to understand his/her own deep emotions and to be able to express these emotions naturally. Individuals rating high on this dimension will sense and acknowledge their emotions well before most people.
2. *Appraisal and recognition of emotion in others* – this relates to the ability of individuals to perceive and understand the emotions of people around them. These individuals are sensitive to the feelings and emotions of others as well as reading their minds.
3. *Regulation of emotion in the self* – this relates to the ability of individuals to regulate their emotions, which will enable a more rapid recovery from psychological distress.
4. *Use of emotion to facilitate performance* – this relates to the ability of individuals to make use of their emotions by directing them towards constructive activities and personal performance (Mayer and Salovey, 1997).

Measurement of Emotional Intelligence

Although the interest in emotional intelligence has advanced theoretically, the assessment of the construct has not kept pace with the interest in it. Several attempts were made to devise measures to assess the construct. These attempts represented a number of non-scientific as well as a wide variety of scientific measurement scales (Schutte et al., 1998). As discussed above the content of these scales vary widely as a consequence of the different conceptualisations of the term emotional intelligence.

These measurement models can be divided into: 1) Ability Scales - the Multifactor Emotional Intelligence Scale (MEIS) (Mayer and Salovey, 1997) - an example of an ability scale that measures emotional intelligence, as an intelligence per se, as it relates to processing information; 2) Self-report Scales – the BarOn EQ-I (Bar-On, 1997) and the EQ-Map (Cooper and Sawaf, 1997) - examples of self-report scales where respondents are asked to indicate, to what extent a series of descriptive statements describe or do not describe themselves; and 3) Observer-rating Scales - the Emotional Competence Inventory (ECI) (Boyatzis, Goleman and Hay/McBer, 1999) scale is an example of a joint self-report/observer rating scale.

Therefore, in evaluating a measure of emotional intelligence, the content validity and the method by which the test gathers information, need to be considered (Mayer et al., 2000). According to Schutte et al. (1998) there is still a need for brief, validated measures of emotional intelligence that are based on a cohesive and comprehensive model of emotional intelligence.

The Psychological Climate in the Organisation

A great deal of research and literature reviews of the organisational climate construct has appeared since the mid 1960's, illustrating the importance of the construct (Campbell, Dunnette, Lawler and Weick, 1970; Forehand and Gilmer, 1964; Glick, 1985; Hellriegel and Slocum, 1974; James and Jones, 1974; Joyce and Slocum, 1982; Litwin and Stringer, 1968). These reviews have been critical in the progress that has been made in the conceptualisation and measurement of organisational climate (Schneider and Reichers, 1983). Considerable controversy still remains around the construct, particularly regarding its measurement. Knowledge of organisational climate is thus important to understand an individual's behaviour so that he or she can be managed effectively and efficiently, only in as far as climate influences the individual (Tustin, 1993). Field and Abelson (1982) regards the construct as important as it provides a conceptual link between analysis at the organisational and the individual level.

Many definitions of organisational climate exist in literature (Forehand and Gilmer, 1964; Hellriegel and Slocum, 1974; Moran and Volkwein, 1992; Ostroff and Schmitt, 1993; West, Smith, Lu Feng and Lawthom, 1998). However, the study of organisational climate is grounded in the theory of Kurt Lewin, who argued that behaviour is a function of the person and the environment. As a result, Litwin and Stringer (1968, p.1) defined organisational climate as: "...a set of measurable properties of the work environment, perceived directly or indirectly by the people who live and work in this environment and assumed to influence their motivation and behaviour".

According to Glick (1985), the study of climate in organisations has been complicated by the fact that it is a complex, multi-level phenomenon. Initially, organisational climate was approached as an objective construct, consisting of organisational attributes such as structure, context and processes. It was believed that an accurate and objective measure of the degree to which these attributes was present in an organisation could be obtained, based on the assumption that these attributes affected the employees indirectly. The objective approach has been criticised and its validity questioned due to the fact that it ignored the individual's perceptions of organisational attributes (James and Jones, 1974). The objective approach of organisational climate has been personified by Forehand and Gilmer's (1964) definition as: "... the set of characteristics that describes an organisation and that (a) distinguish

the organisation from other organisations, (b) are relatively enduring over time, and (c) influence the behaviour of people in the organisation "(Forehand and Gilmer, 1964, p. 362).

In contrast the perceptual approach believes that individuals are greatly influenced by their perceptions, or the psychological meaning they attach to organisational attributes. Schneider (1973) states that "...the concept of climate in the present research may best be described as personalistic; climate is an individual perception. There was no attempt to restrict the climate definition to perceptions shared by members of a work group or organisation" (Schneider, 1973, p.254). Organisational climate is also defined by West et al. (1998) as the "perceptions that organisation members share of fundamental elements of their organisation" (West et al., 1998, p.262). Koys and DeCotiis (1991) suggest that organisational climate perceptions summarise the individual's description, rather than the evaluative reaction of his or her organisational experience; is relatively stable over time and are widely shared by the members of the organisational unit.

The controversy around organisational climate has been aggravated by the fact that the aggregated scores of the participating individuals in a climate survey, were considered to be an indication of the degree to which everyone in the organisation experienced a specific dimension in the climate. Individuals within the same organisation could view climate dimensions differently (Tustin, 1993). This operationalisation of organisational climate has been criticised by Guion (1973), questioning whether climate was organisational if the individual participants did not agree to what the organisational climate was.

The confusion as to whether organisational climate constituted an individual or an organisational attribute, caused by the emphasis placed on underlying psychological processes, led James and Jones (1974) to differentiate *organisational climate* from *psychological climate*. They recommend the term *organisational climate* when climate is regarded as an organisational attribute, and *psychological climate*, when climate is regarded as an individual attribute. Thus, psychological climate is studied at the individual level of analysis, referring to the individual's descriptions of organisational practices and procedures, while organisational climate is most often assessed through the average perceptions of the members of the organisation, thus referring to a collective description of the same environment (Joyce and Slocum, 1982).

At an early stage Hellriegel and Slocum (1974) presented another aspect of climate at subsystem or group level. They stated: "Organisational climate refers to a set of attributes which can be perceived about a particular organisation and/or its subsystems, and that may be induced from the way that the organisation and/or its subsystems deal with their members and environment "(Hellriegel and Slocum, 1974, p. 256). Joyce and Slocum (1982) clarify the controversy concerning organisational versus group

versus individual climate. Stating that all climates are perceptions that individuals have of their environment determined by the quasi-physical, quasi-social, quasi-conceptual facts and intersubjectivity which an individual is aware of. Climate has therefore evolved from being an exclusive organisational attribute to an attribute that may be subsystem (either the group or the individual) specific. Although it has been defined at three levels of analysis in the organisation, the common elements are that climate has measurable, enduring qualities, which influence the behaviour of individuals in the organisation (Field and Abelson, 1982). This present study focuses on perceptions that individuals have of their own environment and thus, measures psychological climate.

Recently the focus of organisational climate research has recently been on four themes according to Sparrow and Gaston (1996): 1) climates for innovation and organisational learning, a need for better empirical definition of underlying climates; 2) empirical representation of organisational culture and its link to organisational phenomena such as diversity; 3) employee retention and person-organisation fit and 4) the relationship of climate and culture.

Organisational Climate versus Organisational Culture

There has been considerable debate about the relationship between organisational climate and culture. Some researchers do not make a differentiation on any frames of reference but on emphasis and degree; other researchers believe that organisational climate is a total different construct from culture. Sparrow and Gaston (1996) derived a number of conceptual differences from the literature based on their frames of organisational reference, units of theory and analysis, and implied level of awareness. These differences are summarised in Table 1.

Table 1
Conceptual differences between Organisational climate and culture
 (Based on Sparrow et al., 1996)

<u>CONCEPTUAL DIFFERENCES</u>	<u>ORGANISATIONAL CLIMATE</u>	<u>ORGANISATIONAL CULTURE</u>
1. Frames of organisational references	Psychological schema: Based on hidden personal values that may be aggregated across organisations.	Group understandings: Ways of perceiving, thinking or feeling in relation to a group's problems.
2. Unit of theory	Individual and shared psychological fields: Average	System-sanctioned behaviours: Norms, beliefs

	of how people perceive the way in which the environment is personally beneficial or not.	and justifying ideologies that are appropriate and beneficial to all members of the system.
3. Unit of analysis	Vary from individual to aggregate measures of consensus at work group, division or organisation level – shared and learned perceptions resulting from policies, practices and procedures.	Always on collective groups , never the individual – deeper elements of analysis such as shared meanings, assumptions and values that underlie these organisational policies.
4. Implied level of consciousness	Conscious subset of learned responses and acquired meanings.	Subconscious , taken-for-granted learned responses.

Organisational culture researchers focus on qualitative analysis, using interviews, case studies and observations. The data was thus not measured, but rather revealed. According to Schein (1989) organisational culture is visible in the organisation on three levels: 1) easy observable surface signals although they are difficult to interpret, e.g. language, symbols and myths; 2) reinforced behaviour patterns e.g. rituals, norms, beliefs and values and 3) deeper core values and assumptions which are perceived to be the most stable and contributing elements of organisational culture.

Organisational climate researchers on the other hand focus on quantitative measurement. The different facets of organisations and management styles, values and permitted behaviours are reflected by the numerical data obtained from these measurements. They measure those behavioural and value aspects of organisational culture that may be generalised across all organisations. Organisational climates are not necessarily the same across organisations; they are however, a collective set of constructs that are believed to be representative of life within most organisations. Organisational climate surveys are a popular tool that is used for Organisational Development initiatives, measuring the gaps of the existing and future desired organisational climate in an organisation (Sparrow and Gaston, 1996).

Psychological Climate Dimensions

As mentioned in the above discussion, there appears to be little agreement on the dimensionality and thus the measurement of organisational climate. Although many dimensions have been identified, four common dimensions were originally suggested by Campbell et al. (1970), namely: (a) autonomy/control; (b) degree of structure; (c) rewards, and (d) consideration, warmth and support. It appears that these dimensions are consistent across all organisations. There may be other dimensions that are organisation specific. The disagreement on the dimensionality and measurement of organisational climate lead Koys and DeCotiis (1991) to develop a scale to measure psychological climate.

Social Desirability

For the past four decades researchers have been concerned about the “distorted” way people respond to surveys and test items. The results of surveys that investigate attitudes, opinions and personalities can be influenced by the effect of social responsibility or “faking good” as a variable. Marlowe-Crowne (Crowne and Marlowe, 1960) included some of these items in surveys, in an attempt to assess and estimate the amount of variability that can be attributed to social desirability. This proportion of variance can be determined by following multiple regression procedures and then correcting the distortion by using partial correlation or canonical correlation analysis (Fraboni and Cooper, 1989).

The Relationship between Leader Emotional Intelligence and Psychological Climate

According to Cilliers and Kossuth (2002) organisational climate refers to the organisation’s psychological atmosphere on the *meta-level*. On the *operational level*, organisational climate consists of organisational, interpersonal and individual dimensions. The following table is a summary of these various dimensions:

Table 2
Dimensions of Organisational Climate
 (Based on Cilliers et al., 2002)

<u>ORGANISATIONAL DIMENSIONS</u>	<u>INTERPERSONAL DIMENSIONS - NATURE OF MANAGERIAL SUPPORT</u>	<u>INDIVIDUAL DIMENSIONS</u>
Formal level: Structure, policy, objectives,	Directive properties: Structure, role clarity, job	The individual’s frame of reference influences his/her

management practice, task specialisation, decision making, standard, and reward.	standards, managerial effectiveness and job satisfaction.	perception of the nature of organisational climate.
Informal level:	Interactive properties:	
Identity, employee needs, responsibility, interactive communication, information sharing, support, warmth and conflict handling.	Communication, team functioning, contribution to profits, conflict handling and reward.	

Support provided by managers in their role as leaders have a positive, constructive and helpful attitude towards their subordinates in order to reach organisational goals. House, 1989 (cited in Cilliers and Kossuth, 2002) conceptualises managerial support as information support, appraisal support, instrumental support and emotional support. The manner in which the above organisational dimensions are managed, as well as the quality of the leadership style of the manager, would therefore, influence the organisational climate. The traditional organisational climate model in Field and Abelson (1982) indicates three main classes of variables that influence the perceived organisational climate: 1) external influences; 2) organisational influences; and 3) leadership/managerial influences. The awareness of these variables is moderated firstly by the group the individual is a member of, secondly the task of the individual, and thirdly the individual's personality. The leader influences the psychological climate by his/her managerial behaviour and leadership pattern, rewards and controls. According to Hughes, Ginnet and Curphy (2002) leadership involves both rational and emotional sides of human experience as people think, feel, hope and dream differently. Thus, due to this fact, leaders use rational and/or emotional techniques to influence followers, weighing the consequences of their actions. Leader emotional intelligence is necessary to distinguish which technique to use, to ensure that the desirable psychological climate is instilled in the follower. An adapted model of Field and Abelson (1982) that portrays this relationship is proposed in Figure 1.

Influences On Psychological Climate as Perceived by the Individual

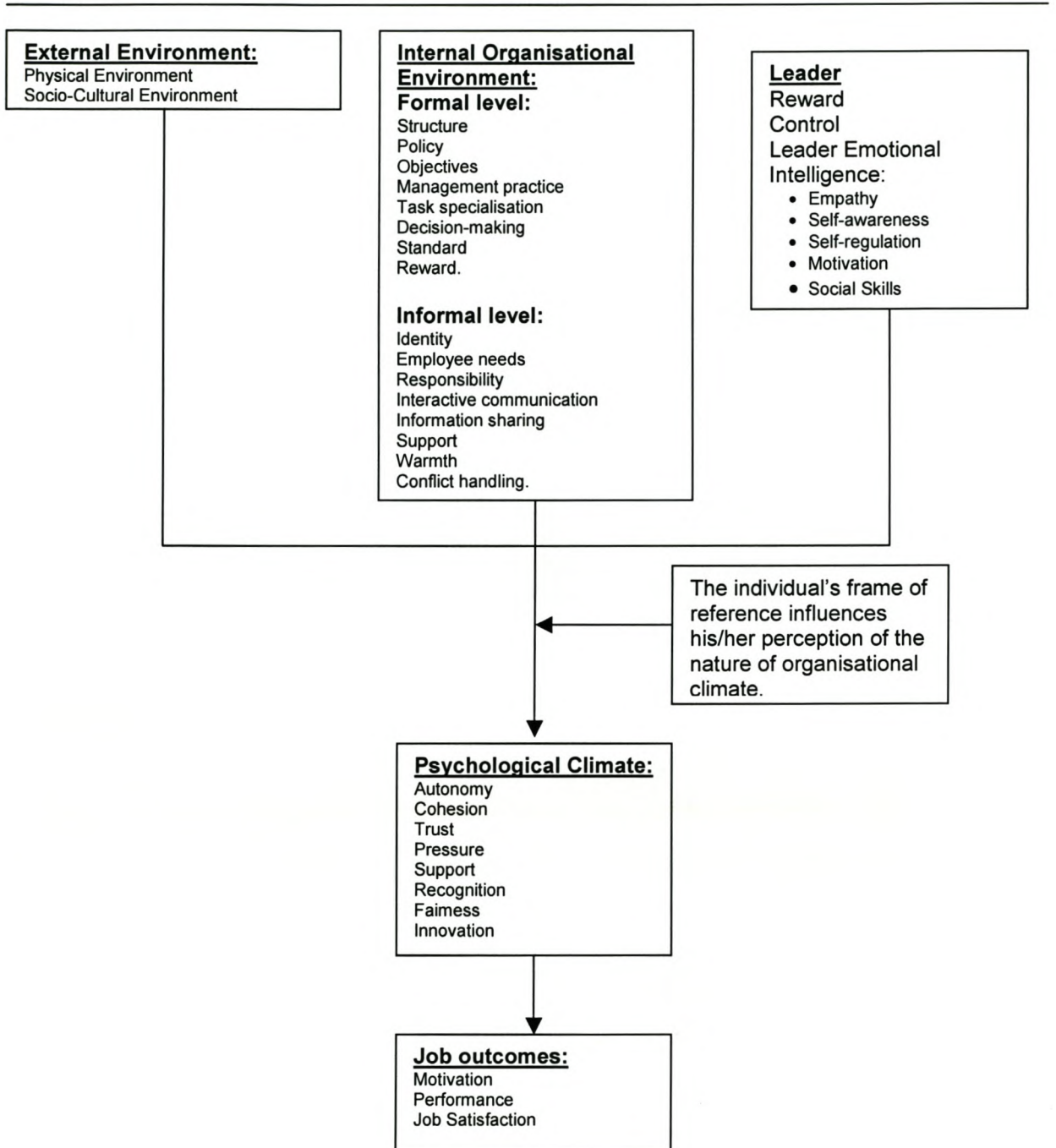


Figure 1: An integrated model of leader emotional intelligence on psychological climate (Adapted from Field et al., 1982, p.183)

Aim and Research Design

The purpose of this study was to examine the relationship between emotional intelligence and psychological climate. In accordance with the proposed relationships among the concepts and the research problems as stated above, the following hypotheses are formulated:

Hypothesis 1: A single psychological climate profile exists in the organisation.

Hypothesis 2: A significant, positive relationship exists between leader emotional intelligence and psychological climate.

Method

Population and Sample

The research was done in a clothing manufacturing plant in the Western Cape with a total employee population of 1725 (Dept 1=238; Dept 2=403; Dept 3=481; Dept 4= 482 and Dept 5= 121). From this population a representative sample of 600 participants (34,8%) were drawn, using proportional cluster random sampling. The sample consisted of 78 (13%) employees of Department 1, 150 (25%) employees of Department 2, 165 (27,5%) employees of Department 3, 165 (27,5%) employees of Department 4 and 42 (7%) of Department 5. A total number of 297 completed responses were received: 45 of Department 1, 61 of Department 2, 86 of Department 3, 66 of Department 4, 29 of Department 5. 10 Respondents did not indicate their departments. The sample consisted of 251 females and 40 males, while six respondents did not indicate their gender. The average age of the respondents was 34,75 (SD = 8.39) years. The race distribution in the obtained sample was: African (N=8), White (N=3), Asian (N=3) and Coloured (N=278). Seven respondents did not indicate to which race group they belong. In terms of qualifications: 15 Respondents had a Primary School qualification, 159 respondents had a mean qualification of Grade 8 to Grade 10; 89 respondents had Grade 12; 20 respondents had a Tertiary qualification, of which two respondents had a degree. 12 Respondents did not indicate their qualifications. The respondents represented the following occupations: 222 shop floor employees, 30 clerks, 29 supervisors, 14 heads of departments and two senior managers. The respondents had an average of 11,3 (SD = 7.3) years service to the company of which they have been reporting an average of 5,8 (SD = 5.14) years to their current supervisor or line manager.

Measuring Instruments

The constructs which were the focus of this study, were assessed or measured by the measuring instruments that follow.

Emotional Intelligence

Emotional Intelligence was measured using the Swinburne University Emotional Intelligence Test (SUEIT) developed by the Organisational Psychology Research Unit of the University of Swinburne. A number of different models and measures of emotional intelligence have been developed since the early 1990s, for example, Bar-On (1997), Cooper and Sawaf (1997), Goleman (1995) and Mayer and Salovey (1997). The SUIET was developed as there is little consensus amongst researchers regarding how best to conceptualise and measure the EI construct. Thus, the SUEIT was developed as a result of the search for answers to what the most definitive dimensions of the construct could be, based on this great plethora of different models and measures of emotional intelligence. In Australia, a large factor analytic study with a representative sample of the general population (n=310) was done. Most of the current available measures of emotional intelligence were included in this battery: 1) Mayer, Salovey, Caruso Emotional Intelligence test (MSCEIT; Mayer, Salovey and Caruso, 1999); 2) Bar-On Emotional Quotient Inventory (Bar-On, 1997); 3) Trait Meta-Mood Scale (Salovey et al., 1995); 4) twenty-item Toronto Alexithymia Scale-II (TAS-20; Bagby, Taylor and Parker, 1994); 5) the scale by Schutte et al (1998) and 6) the scale by Tett et al., (1997). Each scale was factor analysed separately. The component score coefficients were used to form factor-based scores for each of the dimensions identified for each test. These dimensions were again used as "items" for the principle component analysis. This resulted in five factors having eigenvalues greater than one, thus matching the criteria and explaining 58% of the total variance. The following five factors were identified from the items: 1) Emotional recognition and expression, 2) Understanding others' emotions, 3) Emotions direct cognition, 4) Emotional management and 5) Emotional control. This empirically-based model of emotional intelligence, consisting of 64 items, is uni-dimensional, which means that the factors represent a set of related abilities concerned with how effectively emotions are dealt with in the workplace.

The 360° version of the SUIET was used for this study. The participants had to respond to the 64 items on a five-point scale (1= never, 2= seldom, 3= sometimes, 4= usually, 5= always). They were asked to indicate the extent to which the statements (items) are true of the way the person (supervisor or line manager), whom they have been asked to rate, typically thinks, feels and deals with emotions at work. Some items are negatively worded and the scores on these items were reversed. The overall scale reliability (the standardised Cronbach alpha) of the questionnaire is 0,88 while the index for the sub-scales were found to be: 1) Emotional recognition and expression: $\alpha = 0,73$; 2) Understanding of emotions external: $\alpha = 0,83$; 3) Emotions direct cognition: $\alpha = 0,63$; 4) Emotional Management: $\alpha =$

0,72 and 5) Emotional control: $\alpha = 0,72$. The full-scale reliability and most sub-scales are high with the exception of the Emotions direct cognition sub-scale (SUIET, Palmer and Stough, 2002).

Psychological Climate

In this study psychological climate was measured with the Organisational Climate Questionnaire developed by Koys and DeCotiis (1991). These authors defined psychological climate as "...an experiential-based, multi-dimensional, and enduring perceptual phenomenon, which is widely shared by the members of a given organisational unit. Its primary function is to cue and shape individual behaviour towards the modes of behaviour dictated by organisational demands" (Koys and DeCotiis, 1991, p. 266).

Initially a list of over 80 organisational climate dimensions was identified. Several decision rules were established to reduce the number of dimensions to a manageable and yet comprehensive universe of psychological climate dimensions. Firstly, selected dimensions had to be measures of perception as opposed to objective measures of climate. Secondly, selected dimensions were required to be descriptive, and not evaluative of the activities in question. Finally, dimensions were required not to be an aspect of organisational or task structure. Applying the above criteria resulted in the elimination of all objective, evaluative, affective and organisational structure measures. Sixty-one of the reported climate dimensions were still listed. These dimensions were subjected to further elimination by cluster analysis. The process resulted in forty-five dimensions being retained and categorised into eight concepts that are viewed as the universe of psychological climate. The eight concepts are: 1) Autonomy, 2) Cohesion, 3) Trust, 4) Pressure, 5) Support, 6) Recognition, 7) Fairness and 8) Innovation. The present study focuses on the perceptions that individuals have of their environment and will, therefore, measure psychological climate.

The participants responded to a total of 40 items, based on a 7-point Likert-type scale, ranging from "strongly disagree" to "strongly agree". Adding the scores of the relevant items in each dimension and dividing these totals by the number of items, measuring each dimension, determined the eight dimension scores for each respondent. Resulting in the psychological climate profile for that respondent. Items 16, 18, 19, 20 and 27 of the questionnaire are negatively keyed and were reverse scored. Research by Koys and DeCotiis (1991) reported satisfactory psychometric properties of the items and scales. The reliability (Cronbach alpha) of the eight dimensions for two sample groups are as follow: 1) Autonomy $\alpha = 0.83$ (Group 1) and 0.76 (Group 2); 2) Cohesion $\alpha = 0.87$ (Group 1) and 0.82 (Group 2); 3) Trust $\alpha = 0.88$ (Group 1) and 0.87 (Group 2); 4) Pressure $\alpha = 0.81$ (Group 1) and 0.57 (Group 2); 5) Support $\alpha = 0.89$ (Group 1) and 0.9 (Group 2); 6) Recognition $\alpha = 0.83$ (Group 1) and 0.84 (Group 2); 7) Fairness $\alpha = 0.82$ (Group 1) and 0.82 (Group 2); and 8) Innovation $\alpha = 0.80$ (Group 1) and 0.87 (Group 2).

Social Desirability

According to Geher, Warner and Brown (2001) the implementation of social-desirability scales have been shown to increase the reliability of self-report scales. Strahan and Gerbasi (1972) developed the 10-item uni-dimensional Marlowe-Crowne Scale-Short Form. It is based on the original model and scale of social desirability by Crowne and Marlowe (1960). An alpha coefficient of 0,70 was reported by Fraboni and Cooper (1989) for the scale.

Data Collection

The 600 participants, drawn by means of proportional cluster random sampling, received a questionnaire from their respective Human Resources officers of the company, which consisted out of the following: a covering letter, a biographical section and the three measuring instruments. The covering letter briefly explained the reason for the survey, how to complete the questionnaires and whom to return it to. Complete confidentiality and anonymity were guaranteed. The three instruments were translated from English into Afrikaans by using the back translation method. Following this method, the text was translated into Afrikaans and then back to English. Ensuring that the Afrikaans version was equivalent to the English form and that results could be compared. Respondents evaluated the organisation's psychological climate, the perceived emotional intelligence of their supervisor/line-manager and completed the social desirability scale. Of the 600 questionnaires, 375 (62,5%) were returned to their Human Resources representatives. Only 297 could be used for the purposes of this study.

Data Processing

The following statistical analyses were done using SPSS Version 11: Exploratory factor analysis, Pearson correlation coefficient, One-way ANOVA, Stepwise discriminant analysis and Hierarchical multiple regression analysis.

Results

Statistical Analysis

Exploratory Factor Analysis - SUEIT

The responses to the 64 items of the SUEIT and the 40 items of the Organisational Climate Questionnaire were firstly subjected to Exploratory Factor Analysis (EFA) using SPSS (ver.11). The aim of the EFA was to identify a minimal set of variables or factors that accounted for a major portion of the total variance of the original items. The EFA was conducted by using the Principal-axis factoring extraction method, followed by direct oblimin rotation. The factor loadings in the rotated matrix were inspected after the factor structure was determined. An item was rejected if it had a loading of ≤ 0.30

on all factors or when it cross-loaded, i.e. if the loadings differed by ≤ 0.25 across factors. The EFA was repeated and all items were rejected that did not comply with the above criteria, until a “clean” factor structure was obtained. The Kaiser criterion, which specifies that only factors with eigenvalues of 1.00 or greater than 1.00 should be retained, was used as a guide to the number of factors to extract.

The first round of EFA of the SUIET was performed using all of the 297 responses to the 64 items. Several rounds of EFA’s specifying a three-factor solution eliminated the following items: Round 1 - V63, V66, V70, V78, V94; Round 2 – V56, V58, V64, V68, V69, V71, V75, V80, V81, V85, V87, V89, V92, V95, V96, V105, V115; Round 3 – V72, V88, V99 and Round 4 – V59. The final factor structure contained 38 items. The Exploratory Factor Analysis yielded three factors with eigenvalues exceeding 1,0: Factor 1: eigenvalue = 10.12, explaining 20.65% of the total variance; Factor 2: eigenvalue = 3.86 explaining 7.87% of the total variance; Factor 3: eigenvalue = 1.97, explaining 4.01% of the total variance. Therefore, the three factors together explained 32.53% of the total variance. The Cronbach alpha coefficient for the instrument in this study was 0.87 and for the factors as follow: Factor 1: $\alpha = 0.87$, Factor 2: $\alpha = 0.79$ and Factor 3: $\alpha = 0.70$. Table 3 shows the final factor structure for the whole sample. After inspecting the items that loaded meaningfully, the three factors were identified as follow: EQ factor 1 = perception of and control over emotions, EQ factor 2 = displaying emotions, and EQ factor 3 = giving credence to emotions.

Table 3
Factor Structure of Emotional Intelligence Questionnaire

Questionnaire number	Perception of and control over emotions	Displaying emotions	Giving credence to emotions
V100	.639		
V82	.608		
V111	.587		
V108	.587		
V106	.571		
V110	.567		
V101	.555		
V83	.550		
V84	.510		
V62	.497		
V74	.480		
V76	.461		

V103	.460		
V65	.459		
V90	.455		
V60	.455		
V73	.447		
V57	.431		
V97	.422		
V93	.321		
V67	.309		
V107		.601	
V104		.570	
V102		.559	
V114		.537	
V91		.473	
V109		.462	
V98		.441	
V86		.435	
V79		.434	
V113		.418	
V77		.394	
V112		.342	
V61		.342	
V53			.651
V54			.643
V52			.620
V55			.432
Eigenvalues	10.117	3.857	1.964
Percentage of variance explained	20.647	7.872	4.009
Cumulative percentage of variance explained	20.647	28.519	32.528

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization

Rotation converged in 10 iterations

Exploratory Factor Analysis – Psychological Climate Questionnaire

The first round of EFA on the responses to the Psychological Climate Questionnaire was performed using all of the 297 responses to the 40 items. The following items were removed after the first round: V28, V29, V33, V34, V36, V37, V39, V40, V41, V45, V46. After the second round of EFA V28, V33, V39 were removed as they did not meet the criteria, leaving a remaining 32 items – the final factor structure. The Exploratory Factor Analysis revealed the presence of five potentially meaningful factors with eigenvalues exceeding 1,0: Factor 1: eigenvalue = 11.25, explaining 35.16% of the variance; Factor 2: eigenvalue = 2.82, explaining 8.82% of the variance; Factor 3: eigenvalue = 2.40, explaining 7.51% of the variance; Factor 4: eigenvalue = 1.90, explaining 5.95% of the variance and Factor 5: eigenvalue = 1.17, explaining 3.67% of the variance. Together, the five factors explained 61.1% of the variance. The Cronbach alpha coefficient for the instrument in this study was 0.93 and for the factors as follows: Factor 1: $\alpha = 0.94$, Factor 2: $\alpha = 0.85$, Factor 3: $\alpha = 0.82$, Factor 4: $\alpha = 0.66$ and Factor 5: $\alpha = 0.88$. Table 4 shows the final five-factor structure that was accepted.

Table 4
Factor Structure of Psychological Climate Questionnaire

Questionnaire number	Trust	Cohesio n	Autono my	Pressu re	Innovati on
V32	.879				
V24	.833				
V25	.806				
V42	.739				
V22	.734				
V35	.724				
V36	.679				
V23	.636				
V44	.619				
V34	.617				
V43	.596				
V26	.479				
V18		.804			
V19		.786			
V17		.757			
V20		.719			
V21		.538			
V13			.811		

V14			.785		
V12			.679		
V15			.610		
V16			.543		
V30				.658	
V27				.603	
V31				.563	
V38				.461	
V49					.828
V48					.822
V50					.713
V47					.703
V51					.547
V41					.403
Eigenvalues	11.25	2.821	2.402	1.903	1.174
	3				
Percentage of	35.16	8.816	7.505	5.948	3.668
variance explained	4				
Cumulative	35.16	43.980	51.485	57.433	61.100
percentage of variance	4				
explained					

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization

Rotation converged in 6 iterations

After inspecting the items that loaded meaningfully, the five factors were identified as: climate factor 1 = Trust; climate factor 2 = Cohesion; climate factor 3 = Autonomy; climate factor 4 = Pressure and climate factor 5 = Innovation. The factor structures obtained from the Exploratory Factor Analysis were used in all subsequent analysis.

Social Desirability

The Pearson correlation coefficient was used to investigate the influence of social desirability in the responses of the participants. Only one small significant correlation between Social desirability and Trust ($r=0.163$, $p<0.01$) was found. None of the other factors of psychological climate and emotional intelligence correlated significantly with social reliability.

Analysis of Variance Between and Within Groups

One-way ANOVA was used to determine whether the scores of members from the five departments on the dependant variable, psychological climate, differed from each other. The proposition being tested was that a single psychological climate profile exists in the organisation. There was a statistically significant difference at the $p \leq 0.05$ level for scores for the departments in Trust [$F(4, 282) = 2.62$, $p = 0.035$], Autonomy [$F(4, 281) = 4.23$, $p = 0.002$], Pressure [$F(4, 281) = 4.97$, $p = 0.001$], and Total Psychological Climate [$F(4, 281) = 4.25$, $p = 0.002$]. There was no significant difference between the departments for Cohesion and Innovation. For results see Table 5.

Table 5
Oneway Anova

		Sum of Squares	df	Mean Square	F	Sig
Trust groups	Between	28.330	4	7.083	2.622	0.035
	Within	761.843	282	2.702		
	Total	790.173	286			
Cohesion groups	Between	9.082	4	2.271	0.876	0.479
	Within	730.951	282	2.592		
	Total	740.033	286			
Autonomy groups	Between	44.111	4	11.028	4.227	0.002
	Within	735.739	282	2.609		
	Total	779.849	286			
Pressure groups	Between	49.862	4	12.466	4.970	0.001
	Within	707.341	282	2.508		
	Total	757.203	286			
Innovation groups	Between	21.974	4	5.493	1.815	0.126
	Within					
	Total					

	Within	850.713	281	3.027		
groups	Total	872.686	285			
Total Psychological Climate	Between	22.790	4	5.698	4.245	0.002
groups	Within	377.122	281	1.342		
groups	Total	399.912	285			

Having received a statistically significant difference in the overall ANOVA, the results of the post-hoc tests were analysed. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for Department 1 ($M=4.66$, $SD=1.77$) and Department 4 ($M=4.85$, $SD=1.74$) was significantly different from Department 5 ($M=5.85$, $SD=1.46$) on Trust; Department 1 ($M=3.90$, $SD=1.87$) and Department 2 ($M=4.03$, $SD=1.40$) significantly differed from Department 5 on Autonomy; Department 1 ($M=3.1$, $SD=1.54$) and Department 4 ($M=3.17$, $SD=1.62$) significantly differed from Department 5 ($M=4.53$, $SD=1.53$) on Pressure and on the Total Psychological Climate factor, Department 1 ($M=4.33$, $SD=1.30$), Department 2 ($M=4.52$, $SD=1.018$), Department 3 ($M=4.62$, $SD=1.24$) and Department 4 ($M=4.54$, $SD=1.24$) significantly differed from Department 5 ($M=5.41$, $SD=1.15$).

Stepwise Discriminant Analysis

Due to the fact that the ANOVA is not robust against large numbers in groups to be compared (as was the case in the present study), discriminant analysis was used to predict the department membership. Thus, determining whether a single psychological climate existed in the organisation. Discriminant analysis combined the independent variables into a single new variable called a discriminant function. According to this variable, participants' scores were distinguished or discriminated among those participants in the different categories of the dependent variable (Kinnear and Gray, 2000). Wilk's Lambda was used to test the value of the discriminant function that was producing significant differences among the groups. A value between 0.8 and 1 indicated a poor grouping. The scores on the psychological climate sub-scales were used as independent and departmental membership of respondents, as the dependant variable.

Using the discriminant functions developed in the analysis Table 6 provides an indication of the success rate for predictions of membership, of the different departments. Correct classification of 75% and higher were considered to be a meaningful discrimination level. The overall success rate of classification was 29.4%, which is low. Department 5 was the most accurately classified with 58.6% of

the cases correct and Department 3 the lowest, with 16.3% of its members correctly classified. The Wilk's Lambda values varied between 0.861 and 0.997 and are also shown in table 6.

Table 6
Stepwise Discriminant Analysis

	% Predicted Group Membership					Total
	Dept 1	Dept 2	Dept 3	Dept 4	Dept 5	
Dept 1	40.0	15.6	4.4	20.0	20.0	100.0
Dept 2	26.2	21.3	8.2	21.3	23.0	100.0
Dept 3	10.5	17.4	16.3	26.7	29.1	100.0
Dept 4	26.2	12.3	6.2	33.8	21.5	100.0
Dept 5	13.8	6.9	6.9	13.8	58.6	100.0
Ungrouped cases	20.0	.0	10.0	20.0	50.0	100.0

a. 29.4% of original grouped cases correctly classified

Test of Function(s)	Wilks' Lambda
1 through 4	.861
2 through 4	.954
3 through 4	.988
4	.997

Pearson Correlation Coefficient

The proposition that a significant positive relationship exists between leader emotional intelligence and psychological climate, was investigated by means of the calculation of Pearson correlation coefficients. The Pearson correlation coefficient was used to determine the strength of the relationship. Cohen (1988) suggests the following guidelines to interpret the values obtained: 1) Small ($r = +/-0.10$ to $+/-0.29$), 2) Medium ($r = +/-0.30$ to $+/-0.49$) and 3) Large ($r = +/-0.50$ to $+/-1.00$). Small significant correlations were found between a number of the emotional intelligence and psychological climate factors. There were medium level significant correlations between Emotional Intelligence Factor 1 and Pressure ($r=0.318$, $p<0.01$), Emotional Intelligence Factor 3 and Trust ($r=0.370$, $p<0.01$), Emotional Intelligence Factor 3 and Innovation ($r= 0.375$, $p<0.01$), Emotional Intelligence Factor 3 and the Total Psychological Climate score ($r=0.418$, $p<0.01$) and the Total Emotional Intelligence Factor and Trust ($r=0.376$, $p<0.01$). Medium level significant correlations were also found between Total Psychological Climate and Total Emotional Intelligence ($r=0.366$, $p<0.01$). The results can be seen in Table 7. The

coefficient of determination (R Square x 100) indicates the amount of variance that is shared between two variables. It is: 10.11% for Emotional Intelligence Factor 1 and Pressure; 13.7% for Emotional Intelligence Factor 3 and Trust; 14.06% for Emotional Intelligence Factor 3 and Innovation; 17.5% for Emotional Intelligence Factor 3 and the Total Psychological Climate score; and 14.14% for the Total Emotional Intelligence Factor and Trust.

Table 7
Pearson Correlations Coefficients

		Trust	Cohesion	Autonomy	Pressure	Innovation	Total Psych Climate
Perception of and control over emotions	Pearson Correlation	.294(**)	.112	.124(*)	.318(**)	.116(*)	.291(**)
	Coefficient of Determination	8.64%	1.25%	1.54%	10.11%	1.35%	8.47%
Displaying emotions	Pearson Correlation	.220(**)	-.004	.053	.059	.180(**)	.185(**)
	Coefficient of Determination	4.84%	0.00%	0.28%	0.35%	3.24%	3.42%
Giving credence to emotions	Pearson Correlation	.370(**)	.242(**)	.247(**)	.097	.375(**)	.418(**)
	Coefficient of Determination	13.69%	5.86%	6.1%	0.94%	14.06%	17.47%
Total EQ	Pearson Correlation	.376(**)	.125(*)	.160(**)	.265(**)	.230(**)	.366(**)
	Coefficient of Determination	14.14%	1.56%	2.56%	7.02%	5.29%	13.4%

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

* Correlation is significant at the 0.05 level (2-tailed).

Hierarchical Multiple Regression Analysis

Hierarchical multiple regression analysis was used to determine the relative contribution of each of the sub-factors of emotional intelligence to the scores on psychological climate dimensions. The three dimensions of emotional intelligence were regressed against the five dimensions of psychological climate. By using hierarchical multiple regression the variables were entered into blocks in a predetermined order. Age, number of years service and number of years worked under the supervisor or line-manager were entered into the first block. During the second step the other independent

variables were entered into a block, thus removing the possible effect of age, number of years service and number of years worked under the supervisor or line-manager. This would also be an indication of whether the block of independent variable, emotional intelligence, are able to explain some of the remaining variance in the dependent variable, psychological climate.

After the variables in Block 1 (age, number of years service and number of years worked under the supervisor or line-manager) were entered, the overall model explained 0.4% of the variance of Total Psychological Climate. When Block 2 was entered, the model as a whole (age, number of years service and number of years worked under the supervisor or line-manager, as well as the emotional intelligence dimensions) explained 21.6% of the variance of Total Psychological Climate. The R Square change indicates that emotional intelligence explains an additional 21.3% in variance for Total Psychological Climate when the age, number of years service and number of years worked under the supervisor or line-manager variables are controlled. This is a statistically significant contribution as indicated by the change in F-value of 0.000. In order of importance, the independent variables as determined by the standardised beta coefficients, that statistically and significantly contribute to the explanation of emotional intelligence influencing the Total Psychological Climate, are: EQ Factor 3 - giving credence to emotions (beta = 0.324) and EQ Factor 1 - perception of and control over emotions (beta = 0.286).

After the variables in Block 1 (age, number of years service and number of years worked under the supervisor or line-manager) were entered, the overall model explained 1.3% of the variance of Trust. When Block 2 was entered, the model as a whole (age, number of years service and number of years worked under the supervisor or line-manager, as well as the emotional intelligence dimensions) explained 20.2% of the variance of Trust. The R Square change indicates that emotional intelligence explains an additional 19% in variance for Trust when the age, number of years service and number of years worked under the supervisor or line-manager variables are controlled. This is a statistically significant contribution as indicated by the change in F-value of 0.000. In order of importance, the independent variables as determined by the standardised beta coefficients, that statistically and significantly contribute to the explanation of emotional intelligence influencing Trust, are: EQ Factor 3 - giving credence to emotions (beta = 0.327) and EQ Factor 1 - perception of and control over emotions (beta = 0.206).

After the variables in Block 1 (age, number of years service and number of years worked under the supervisor or line-manager) were entered, the overall model explained 1.9% of the variance of Cohesion. When Block 2 was entered, the model as a whole (age, number of years service and number of years worked under your supervisor or line-manager, as well as the emotional intelligence dimensions) explained 9% of the variance of Cohesion. The R Square change indicates that emotional

intelligence explains an additional 7.2% in variance for Cohesion when the age, number of years service and number of years worked under the supervisor or line-manager variables are controlled. This is a statistically significant contribution as indicated by the change in F-value of 0.010. The only independent variable that statistically and significantly contribute to the explanation of emotional intelligence influencing Cohesion is: EQ Factor 3 - giving credence to emotions (beta = 0.263).

After the variables in Block 1 (age, number of years service and number of years worked under the supervisor or line-manager) were entered, the overall model explained 0.9% of the variance of Autonomy. When Block 2 was entered, the model as a whole (age, number of years service and number of years worked under the supervisor or line-manager, as well as the emotional intelligence dimensions) explained 7.4% of the variance of Autonomy. The R Square change indicates that emotional intelligence explains an additional 6.5% in variance for Autonomy when the age, number of years service and number of years worked under the supervisor or line-manager variables are controlled. This is a statistically significant contribution as indicated by the change in F-value of 0.017. The only independent variable that statistically and significantly contribute to the explanation of emotional intelligence influencing Autonomy is: EQ Factor 3 - giving credence to emotions (beta = 0.241).

After the variables in Block 1 (age, number of years service and number of years worked under the supervisor or line-manager) were entered, the overall model explained 0.2% of the variance of Pressure. When Block 2 was entered, the model as a whole (age, number of years service and number of years worked under the supervisor or line-manager, as well as the emotional intelligence dimensions) explained 10.5% of the variance of Pressure. The R Square change indicates that emotional intelligence explains an additional 10.3% in variance for Pressure when the age, number of years service and number of years worked under the supervisor or line-manager variables are controlled. This is a statistically significant contribution as indicated by the change in F-value of 0.001. The only independent variable that statistically and significantly contribute to the explanation of emotional intelligence influencing Pressure is: EQ Factor 1 - perception of and control over emotions (beta = 0.320).

After the variables in Block 1 (age, number of years service and number of years worked under the supervisor or line-manager) were entered, the overall model explained 1.3% of the variance of Innovation. When Block 2 was entered, the model as a whole (age, number of years service and number of years worked under the supervisor or line-manager, as well as the emotional intelligence dimensions) explained 14.9% of the variance of Innovation. The R Square change indicates that emotional intelligence explains an additional 13.6% in variance for Innovation when the age, number of years service and number of years worked under the supervisor or line-manager variables are

controlled. This is a statistically significant contribution as indicated by the change in F-value of 0.001. The only independent variable that statistically and significantly contribute to the explanation of emotional intelligence influencing Pressure is: EQ Factor 3 - giving credence to emotions (beta = 0.344). These results are summarised in Table 8.

Table 8
Hierarchical Multiple Regression: Model Summary And Standardised Beta Coefficients

Dependant Variable	Model	R ²	R ² Change	F (df)	Sig F Change	Standardised Coefficients:														
						Model 1:					Model 2:									
						Age	organ. service in	with supervisor	Age	organ. service in	with supervisor	and control	over	credence to emotions	Displaying emotions or perceptions	Displaying emotions	sig, giving credence to emotions			
Trust	1	.013	.013	.658 (3)	.579															
	2	.202	.190	11.89 (3)	.000															
Cohesion	1	.019	.019	.972 (3)	.408															
	2	.090	.072	3.937 (3)	.010	.005	-.117	.005	-.062	-.046	-.035	.206	.047	.327	.008	.563	.000			
Autonomy	1	.009	.009	.462 (3)	.709															
	2	.074	.065	3.5 (3)	.017	.065	.095	-.015	.007	.142	-.063	0.094	-.107	.263	.252	.214	.003			
						.093	.000	.005	.042	.046	-.034	.091	-.046	.241	.273	.598	.006			

Pressure	1	.002	.002	.110	.954													
				(3)														
	2	.105	.103	5.75	.001													
				(3)														
Innovation	1	.013	.013	.667	.573	.042	-.019	-.032	.034	.005	-.029	.320	-.040	.044	.000	.635	.611	
				(3)														
	2	.149	.136	7.794	.000													
				(3)														
Total Psychological Climate:	1	.004	.004	.179	0.911	.066	-.124	.101	-.005	-.059	.053	.029	.061	.344	.718	.466	.000	
				(3)														
	2	.216	.213	12.86	0.000													
				(3)		.064	-.005	-.019	-.042	.099	-.019	0.286	-.004	.324	.000	.961	.000	

Model 1: Predictors: (Constant), Period of time working under supervisor/line manager – years, Age, Length of service in organisation

Model 2: Predictors: (Constant), Period of time working under supervisor/line manager – years, Age, Length of service in organisation, EQ Factor 1, EQ Factor 2, EQ Factor

Discussion

An EFA was conducted to determine the smallest number of factors that can best be used to represent the inter-relations among the set of variables. In this study, the Exploratory Factor Analysis provided support for only 3 of the 5 dimensions of the SUIET, of Palmer and Stough (2002) and 5 of the 8 dimensions of the Organisational Climate Questionnaire of Koys and DeCotiis (1991). A possible reason for the decrease of factors could be that the South African respondents understood and interpreted the items differently to those participants in Australia and the United States of America. Another explanation for the different interpretations could be that the qualification level of the respondents did not meet the minimum requirements, especially with reference to the SUIET. Based on Australian school levels the SUIET is specified to be used by eight to ninth grade reading level respondents. The highest average qualification level attained by the participants in the obtained sample was Grade 8 to Grade 10 or equivalent. This may be a lower education level as the prescribed requirement to comprehend and complete the test. The fact that the questionnaires were drafted in English, although also translated to Afrikaans, could also have contributed to a misinterpretation of the questions. English is the first language of only 14.8% of the participants.

The participants however, have a sound knowledge of their company and their respective supervisors or line managers. They have an average of 11,3 years service to the company, of which they have been reporting an average of 5,8 years to their current supervisor or line managers. They were definitely in the position to evaluate their own psychological climate and the perceived emotional intelligence of their supervisor or line-manager. A further explanation for the change in the factor structure of the instrument could be the cultural difference in the interpretation of the items. It would seem that the SUEIT is not entirely robust against cultural differences.

An important finding was that the participants did not significantly relate the questionnaire scores to social desirability responses. Only one small significant correlation could be found between Social desirability and Trust ($r=0.163$, $p<0.01$). No other significant correlations existed between Social desirability and all the factors of emotional intelligence and psychological climate. Social desirability was thus not taken into account in the correlation analysis. This suggests that the emotional intelligence and psychological climate instruments were not sensitive to the effect of social desirability.

The statistically significant difference at the $p\leq 0.05$ level for psychological climate scores for the five departments [$F(4, 281)=4.25$, $p=0.002$], indicate that there is a significant difference among the mean scores of psychological climate, for the five departments. Post-hoc comparisons using the Tukey HSD test indicated that the psychological climate in Department 1, 2, 3 and 4 differed significantly from Department 5. However, discriminant analysis indicated that the psychological climate factors did not

meaningfully group the departments correctly, as the Wilk's Lambda value obtained is 0.861. This means that there is no significant difference in psychological climate among the different departments. In view of these findings, proposition 1 can be accepted.

This study was also an exploratory attempt to determine whether leader emotional intelligence is related to the psychological climate of an organisation. The Pearson correlation and the hierarchical multiple regression analysis provided support for the second proposition that a significant positive relationship exists between leader emotional intelligence and psychological climate. The Pearson correlation was disappointingly small, though significant ($r=0.366$, $p<0.01$) and could only explain 13.4% of the variance. The correlation, although small, confirmed the expected results. A hierarchical multiple regression showed that none of the biographical information variables significantly influenced the dependent variable, psychological climate. The hierarchical multiple regression also showed that two of the three factors of emotional intelligence significantly predicted psychological climate in the organisation. In the view of these findings, future research on the nature of the relationship is recommended.

Implications for Management

This study provided support proving that organisations should carefully recruit and select leaders as they have the ability to influence the psychological climate of an organisation, consequently impacting on the performance of the organisation. Adequate training and development for leaders that score low on emotional intelligence must be provided. Leaders, who have higher emotional intelligence create stronger interpersonal relationships and trust with their subordinates, lead and support more effectively, and function better under pressure. These characteristics all contribute to a successful organisation.

Limitations and Recommendations for Future Research

A limitation of this study would be the presence of common method variance in the measures that affect the correlations between the independent and dependent variables. An attempt should be made to overcome this in future. A further limitation is the nature of the sample - the study was based on a single organisation in the clothing industry. The lack of tertiary educated respondents could have negatively influenced the results. Care should thus be taken not to generalise the findings to other organisations. The portability of the measuring instruments can be identified as another limitation as the instrument was developed on a people's culture that was very different than the one used in this study.

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