UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

CONFIRMATORY FACTOR ANALYSIS OF THE ORGANISATIONAL CLIMATE MEASURE: A SOUTH AFRICAN PERSPECTIVE

by

ANNA-MARIE NIEUWOUDT

Submitted in partial fulfilment of the requirements for the degree
MCOM INDUSTRIAL PSYCHOLOGY

in the

FACULTY OF ECONOMIC AND MANAGEMENT SCIENCES

at the

UNIVERSITY OF PRETORIA

SUPERVISOR:

Mr. M.A. Buys

29 August 2011

ABSTRACT

The effective management of organisational climate has become an increasingly important ingredient for business success. This has resulted in a need for up-to-date research and information on the subject, leading to the development of various measurement instruments. The main purpose of this study was to validate the Organisational Climate Measure (OCM) for the South African context. The OCM is designed to serve as a global multi-dimensional measure of organisational climate and is based on the competing values model developed by Quinn and Rohrbaugh. In this study a comprehensive literature review was conducted prior to the OCM's administration to a sample of 200 individuals currently employed in a South African organisation. The reliability and validity of the OCM was evaluated by means of Cronbach's alpha coefficient and confirmatory factor analysis. The results indicated strong correlations between factors and a good model fit. It was concluded that the OCM is a valid and reliable instrument for measuring organisational climate within the South African context.

KEYWORDS: organisational climate, organisational culture, organisational climate measure, internal consistency, confirmatory factor analysis, structural equation modeling.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

DECLARATION OF ORIGINAL AUTHORSHIP

I, Anna-Marie Nieuwoudt, declare that "Confirmatory factor analysis of the Organisational Climate Measure: A South African perspective" is my own work. All the resources I used for this study are sited and referred to in the reference list by means of a comprehensive referencing system. I declare that the content of this dissertation has never before been used for any qualification at any tertiary institute.

ANieuwoudt

Anna-Marie Nieuwoudt

___29 August 2011___

Date

ACKNOWLEDGEMENTS

"I would maintain that thanks are the highest form of thought, and that gratitude is happiness doubled by wonder." (G.K. Chesterton).

Standing at the end of this journey I would like to express my sincerest gratitude towards every individual whose support and guidance assisted me in the completion of this dissertation. I would like to give special thanks to:

- My Creator for the talents and opportunities He gave me, the strength and guidance to achieve my goals, and the most incredible people to support me on this journey;

- My friends and family members for their love and support; and

- My supervisor, Mr Buys, for sharing his knowledge and guiding me every step of the way.

CHAPTER 1: INTRODUCTION

1.1. BACKGROUND

This chapter provides some background information in relation to the study. The problem statement, purpose statement, research objectives and importance and benefits of the study are discussed.

The concept of organisational climate is familiar within the world of work. Research on organisational climate and its importance for organisations has increased over the past few decades (Guldenmund, 2000; Kilburn, 2008; Schyns, Van Veldhoven, & Wood, 2009; Zeeman, 2005). More than half a century ago Kurt Lewin's studies on leadership styles demonstrated that certain social climates exist in organisations, resulting in several applications of the climate concept (Schneider, Brief, & Guzzo, 1996). The study of organisational climate has recently gained increased recognition and there has been rapid growth in the literature, however inconsistencies still remain throughout the research (Zeeman, 2005).

Organisational climate is understood differently in different countries (Arabaci, 2010). According to Kilburn (2008), the power of organisational climate has received little empirical exploration, thus limiting the attention it receives in organisations. Every organisation has a unique climate, which provides the employees of the organisation with similar expectations and influences their behaviour, cognitions and emotions (Kilburn, 2008). Organisational climate is thus a rather complex construct and further research is needed in order to improve the overall understanding and effective management of organisational climate in organisations.

> Organisational climate can be defined as the way that employees feel to work in an organisation or more formally defined as a set of measurable properties of the work environment, based on the collective perceptions of the people who live and work there that influence their motivation and behaviour (Hsu, 2004, p. 3).

Studies concerned with testing employee perceptions of organisational climate help to give direction and assist in the implementation of effective interventions (Johnson, 2000).

However, the results of organisational climate studies vary for different societies, organisations and employee groups and therefore not all climate instruments or interventions will be effective for all organisations. Organisational climate measures and interventions should thus be adapted to meet the unique needs of every individual organisation.

The literature concerning organisational climate clearly shows that most assessment instruments have been developed outside of South Africa (Kitching, 2005). Although some of these questionnaires have been proven to be valid and reliable in the international context it would be irresponsible to use these questionnaires within the South African organisational context without first testing their validity and reliability in relation to this context. The main aim of this study was to apply the Organisational Climate Measure (OCM), a measure of organisational climate developed outside of South Africa, in the South African context in order to determine whether the OCM is a valid instrument for measuring climate in South African organisations.

South African organisations are usually extremely diverse and include people from different backgrounds, beliefs and religions. South Africa has 11 official languages and several identifiable racial groups (Zeeman, 2005). According to Finestone and Snyman (2005), a supportive and accommodating work environment where knowledge and information are shared effectively allows people from diverse backgrounds to relate to and learn from each other. This will improve diversity management and increase innovation, ultimately assisting South African organisations to perform more effectively in global markets.

1.2. PROBLEM STATEMENT

Organisations are increasingly becoming aware of the need to manage organisational climate effectively and this has created an increasing need for up-to-date research and information (Guldenmund, 2000; Kilburn, 2008; Schyns *et al.*, 2009; Zeeman, 2005). However, there are currently very few measures of organisational climate that have been tested for validity and reliability (Patterson *et al.*, 2005). Measures that have been validated internationally need to be assessed for validity before they can be used within the South African context. There is currently no generic measure for organisational climate in existence. South African culture and context are very unique (Merkys, Kalinauskaite, & Eitutyte, 2007) and differ substantially from the culture and context of the United Kingdom where the OCM was originally validated.

1.3. PURPOSE STATEMENT

The main purpose of this study was to validate the OCM, developed by Patterson *et al.* (2005), for use within the South African context.

1.4. RESEARCH OBJECTIVES

The study was guided by the following specific research objectives:

- Review the most important literature with regard to organisational climate.

- Evaluate the reliability and construct validity of the OCM within the South African context by performing a confirmatory factor analysis.

- Compare the results obtained in the United Kingdom with the results obtained in South Africa.

1.5. THE IMPORTANCE AND BENEFITS OF THE STUDY

An organisation's success is dependent upon the effective management of organisational climate. Organisations need to establish a supportive, accommodating work environment with effective information and communication systems that allow employees to relate to and learn from each other (Finestone & Snyman, 2005). Although organisational climate is an important aspect of any organisation research into organisational climate contains a lot of ambiguity and inconsistencies, thus highlighting the need for further investigation (Zeeman, 2005).

Most of the existing organisational climate questionnaires were developed and tested internationally and have not been validated for the South African context.   These questionnaires need to be validated before they can be applied to the unique culture and needs of South African people and organisations.

1.6. DELIMITATIONS

Some delimitations exist in terms of the context, constructs, theoretical perspectives and the target population of this study. Firstly, the study was limited by focusing only on South African organisations. The results obtained from the study are thus limited in terms of generalisability. Secondly, the study focused on a single construct, organisational climate,

and investigated only those dimensions of organisational climate included in the OCM. Although organisational culture is discussed in the literature review it was not included in the measurement. Thirdly, the study is limited due to the lack of research on organisational climate that is specifically applicable to the South African context. The majority of researchers specialising on organisational climate are not from South Africa. Lastly, the sampling methods used have certain limitations in relation to the degree of control the researcher has over the sample as well as the degree to which the sample can be described as representative of the population.

1.7. ASSUMPTIONS

Research is always guided by a set of beliefs or assumptions. These are values or ideas that the research accepts as truths. The study made the following assumptions regarding the elements under investigation:

- Organisational climate is an important aspect in the work environment and influences the effectiveness of an organisation.
- The elements included in the OCM provide sufficient information for a proper study with adequate findings.
- The researcher acted impartially and did not allow personal bias to influence the results of the study.
- The researcher has the necessary skills to ensure that the results were accurately collected and analysed.
- A quantitative research approach is the most effective approach for obtaining and analysing the data.
- The participants understood the questions as intended and answered them truthfully.
- The relationships between item responses are reasonably consistent across different types of jobs and departments as well as between people from different ages, gender and ethnic backgrounds.

1.8. ABBREVIATIONS AND DEFINITIONS

All the main abbreviations used in this study are summarised in table 1.1 below.

Table 1.1: **Abbreviations used in this document**

Abbreviation	Meaning
OCM	Organisational Climate Measure
SA	South Africa
UK	United Kingdom
TCI	Team Climate Inventory
BOCI	Business Organisation Climate Index
CCQ	Creative Climate Questionnaire
SEM	Structural equation modeling
CMIN	Chi-square
CMIN/df	Relative chi-square
GFI	Goodness-of-fit index
AGFI	Adjusted goodness-of-fit index
NFI	Normed fit index
NNFI	Non-normed fit index
CFI	Comparative fit index
SRMR	Standardise root mean square residual
RMSEA	Root mean square error of approximation

All the keywords used in this study are defined below:

Organisational Climate: "Organisational climate can be defined as the way that employees feel to work in an organisation or more formally defined as a set of measurable properties of the work environment, based on the collective perceptions of the people who live and work there that influence their motivation and behaviour." (Hsu, 2004, p. 3).

Organisational Culture: Organisational culture is "…a pattern of shared basic assumptions, invented, discovered, or developed by a given group as it learns to cope with its problems of external adaption and internal integration…" (Schein, 2011, p. 313).

Organisational Climate Measure: The Organisational Climate Measure (OCM) is "a multidimensional measure of organizational climate…based upon Quinn and Rohrbaugh's Competing Values model." (Patterson *et al.*, 2005, p. 379).

Internal Consistency: Internal consistency (reliability) is where the correlations between the items of a test or measurement instrument are calculated in order to determine the degree to which all the items measure the same construct (Maree, 2007).

Confirmatory Factor analysis: "Confirmatory factor analysis (CFA), a statistical modeling method…is a member of the more general family of structural equation models (SEMs) and provides a powerful method for testing a variety of hypotheses about a set of measured variables." (Flora & Curran, 2004, p. 466).

Structural Equation Modeling: "SEM is a collection of statistical techniques that allow a set of relations between one or more independent variables (IVs), either continuous or discrete, and one or more dependent variables (DVs), either continuous or discrete, to be examined." (Ullman, 2006, p. 35).

1.9. CONCLUSION

Organisational climate is an important prerequisite for organisational success. However, the literature concerning organisational climate contains many inconsistencies and ambiguities, thus necessitating on-going investigation of the concept (Finestone & Snyman, 2005; Zeeman, 2005). The OCM has proven to be a valid and reliable tool for measuring organisational climate in the United Kingdom, but it needs to be tested for the South African context. The study aimed to validate the OCM within the South African context by asking people to complete the questionnaire, analysing the data by means of a confirmatory factor analysis and comparing the results with those obtained in the United Kingdom.

In chapter two of this study a comprehensive literature review focusing on the theory and development of organisational climate is presented. In chapter three the relationships between organisational climate and other business success factors are discussed. Chapter four focuses on the different organisational climate dimensions included in the OCM. The main research design and methods of data analysis used in the study are discussed in chapter five. Chapter six presents the results obtained from the quantitative study. Finally, chapter seven provides a discussion of the results as well as recommendations for future research.

CHAPTER 2: ORGANISATIONAL CLIMATE: THEORY AND DEVELOPMENT

2.1. INTRODUCTION

People working in an organisation have shared perceptions of the organisation based on their connection with the basic elements of the organisational environment (Kangis & Williams, 2000). Even employees undergoing the selection process develop perceptions and formulate opinions regarding the organisation (Mastrangelo & Popovich, 2000). These climate perceptions help determine employee behaviour and the ways in which employees respond to the characteristics of the work environment (Carr, Schmidt, Ford, & DeShon, 2003). Hsu (2004, p. 3) defines organisational climate as "…a set of measurable properties of the work environment, based on the collective perceptions of the people who live and work there that influence their motivation and behaviour". Organisational climate serves as the departure point for achieving congruity between employee behaviour and organisational practices and procedures (Kangis & Williams, 2000).

The first organisational climate studies focused on explaining the important elements of the psychological environment of employees in the workplace (Dickson, Smith, Grojean, & Ehrhart, 2001). However, organisational climate research has gradually expanded in scope (Guldenmund, 2000; Kilburn, 2008; Schyns *et al.*, 2009; Zeeman, 2005). Organisational climate is currently regarded as an effective management tool to encourage employee commitment and satisfaction and improve the overall success of an organisation (Kangis & Williams, 2000).

This chapter discusses the most important literature concerning the theory and development of organisational climate. The chapter begins by defining organisational climate and looking at how organisational climate develops. The importance and effective management of organisational climate are then discussed. The differences between organisational climate and organisational culture are also explored. Lastly, some of the most well-known measures of organisational climate are presented and critiques of organisational climate studies are reviewed.

2.2. DEFINING ORGANISATIONAL CLIMATE

The climate of an organisation consists of multiple dimensions, each focusing on a different aspect of the organisational environment and functioning (Dickson *et al.*, 2001; McMurray, Scott, & Pace, 2004). Some of these dimensions are interconnected and overlap, contributing to the complex nature of organisational climate. The interconnected nature of these dimensions makes it difficult to arrive at an exact definition of organisational climate and very little consensus exists between researchers in relation to the definition of organisational climate (Cooil, Aksoy, Keiningham, & Maryott, 2009).

The study of organisational climate is well established and the existing knowledge-base is deeply rooted in the work of some of the greatest theorists such as Lewin (1951), Litwin and Stringer (1968), Moran and Volkwein (1992), and Denison (1996). Organisational climate is more than just a description of the characteristics of an organisation; it is a complex construct that can be measured and analysed at an organisation wide level. Shared perceptions regarding the characteristics of the organisations must exist before an organisation can be seen to have an organisational climate.

Studies of organisational climate have increasingly shifted their focus from the study of individuals to studies of group, departmental and organisation wide issues (Patterson *et al.*, 2005). A wide range of organisational climate assessments have been conducted by various authors, building on existing knowledge but also making their own assumptions and forming their own definitions. Some of the most important definitions are summarised in table 2.1. Although some some of the definitions included in table 2.1 may seem out-dated they are repeatedly quoted in recent studies and as such remain relevant.

Table 2.1:   Definitions of organisational climate

Contributor	Definition
Litwin and Stringer (1968, as cited in Nasurdin, Ramayah, & Beng, 2006, p. 120).	A form of measurable properties of the work environment, perceived directly or indirectly by the work force, and is assumed to influence motivation and behaviour.

Contributor	Definition
Moran and Volkwein (1992, p. 2).	Organisational climate is a relatively enduring characteristic of an organisation which distinguishes it from other organisations; (a) and embodies members' collective perceptions about their organisation with respect to such dimensions as autonomy, trust, cohesiveness, support, recognition, innovation and fairness; (b) is produced by member interaction; (c) serves as a basis for interpreting the situation; (d) reflects prevalent norms, values and attitudes of the organisation's culture; and (e) acts as a source of influence for shaping behavior.
Verbeke, Volgering, and Hessels (1998, p. 320).	…organisational climate is a reflection of the way people perceive and come to describe the characteristics of their environment…
Burton, Lauridsen, and Obel (1999, p. 2).	Climate is the atmosphere of the organisation, a relatively enduring quality of the internal environment of an organisation, which is experienced by its members and influences their behavior.
Watkin and Hubbard (2003, p. 380).	Colloquially, organisational climate is: … how it feels to work in a particular environment and for a particular boss. More precisely, it is a measure of employees' perception of those aspects of their environment that directly impact how well they can do their jobs.
Hsu (2004, p. 9).	Organisational climate can be defined as the way that employees feel to work in an organisation or more formally defined as a set of measurable properties of the work environment, based on the collective perceptions of the people who live and work there that influence their motivation and behavior. Organisational climate is considered as a joint property of both the organisation and the individual.
Silva, Lima, and Baptista (2004, p. 208).	The shared perceptions about organisational values, norms, beliefs, practices and procedures.
Gray (2001, p. 103).	…the climate or atmosphere of an organisation - loosely, what it feels like to work there…
Arabaci (2010, p. 4445).	Organizational climate, being defined as the whole of the characterizing internal aspects of an organization from its peers, affecting the behaviors of the members of a given organization, and being perceived distinctly by each one of the members thereof, is closely interrelated with various factors, including organizational commitment, trust, sense of justice, alienation, exhaustion, and job satisfaction.
Kazama, Foster, Hebl, West, and Dawson (2002, p. 6).	…employees' shared perceptions about the environment in which they work, and the general sense of which behaviors will be rewarded.
Dickson *et al.* (2001, p. 200; 2006, p. 351).	…climate is determined by the organisational members' shared perceptions of the policies, practices, and procedures that are rewarded, supported, and expected in that organization… (2001, p. 200). Organizational climate is an inherently multilevel construct involving distinct perceptions and beliefs about an organization's physical and social environment. (2006, p. 351).
Grojean, Resick, Dickson, and Smith (2004, p. 224).	Organizational climate refers to perceptions of organizational practices and procedures that are shared among members and which provide an indication of the institutionalized normative systems that guide behaviour.

Table 2.1 clearly shows that numerous definitions of organisational climate exist and that the field is therefore very broad. However, researchers seem to agree that organisational climate involves the shared perceptions of employees with regard to the practises and procedures of the organisation.

For the purpose of this study organisational climate was specifically defined as:

- A set of measurable properties of the internal work environment;

- Based on the collective perceptions of employees;

- A result of interaction between employees;

- A reflection of the norms and values of employees; and

- Influencing the motivation and behaviour of employees.

2.3. THE DEVELOPMENT OF ORGANISATIONAL CLIMATE

Every organisation has its own unique climate that influences the actions, emotions and cognitions of its employees. People are greatly affected by the climate in which they live, work and function (Punia, Punia, & Dhull, 2004). Research suggests that organisational climate determines daily routines and employee behaviour (Kilburn, 2008; Punia *et al.*, 2004). Organisational climate is based on employees' perceptions and when these perceptions are shared by members of a specific unit or department it results in employees behaving in similar ways (Schulte, Ostroff, & Kinicki, 2006). For example, people from lower socio-economic class families may have different values and beliefs and behave differently to people in higher socio-eonomic class families. This is also true for organisations. When indiviuduals join an organisation they also bring with them their own values, beliefs and behaviour patterns.

Various elements within organisations contribute to the psychological environment and influence the organisational climate. An organisation's systems, structures, class relations, roles, ownership and functions all play a role in organisational climate (Punia *et al.*, 2004). The values and beliefs of individual employees may not be sufficient to succeed in the organisation, which is why organisational climate is so important. Punia *et al.* (2004) state that the employees have to become part of the organisation. This means that they become part of the systems, structures and procedures used to carry out daily tasks and organisational climate can assist them with developing this role.

The development of organisational climate is influenced by four main factors (Dickson *et al.*, 2001; Klein, Conn, Smith, & Sorra, 2001; Schulte *et al.*, 2006):

- Founder and leaders who bring certain values, climate, goals and structures to the table;
- The exposure of the employees to the same organisational characteristics;
- The recruitment and selection process; and
- The social interaction between employees.

The founders of an organisation incorporate their own values, beliefs and experiences into the structure, policies and climate of the organisation. The climate of the organisation develops over time and influences the reputation of the organisation. When the values of partners differ it can result in conflict and one of the partners may leave the organisation, thus leaving an even more homogeneous climate behind (Dickson *et al.*, 2001).

Personal values play a very important role in how people interpret the climate of the organisation and the influence of external events. The employees' values also grow more similar due to years of daily interaction and discussions (Dickson *et al.*, 2001). Only when employees are in agreement with regard to the work environment can organisational climate be determined, if this agreement does not exist then the phenomenon is simply known as psychological climate (Glisson & James, 2002).

During recruitment management normally chooses employees with assumptions and personalities that are similar to their own. Prospective employees also take the reputation of an organisation into consideration when deciding whether or not to apply for a position. People tend to choose to work for organisations with similar values to their own. Employees want to know that they will fit in with the people and the environment before accepting a job offer. If a person finds that he or she does not feel comfortable working in a specific organisation there is a high likelihood that they will resign. The members of an organisation thus tend to be similar in terms of their interpretations of the world around them (Dickson *et al.*, 2001).

Organisational climate develops primarily through the processes of socialisation and interaction between employees (Allen, 2003). Organisational climate instruments measure employees' current experiences of working in an organisation. They do not measure the employees' beliefs about the way the organisation should be (Dickson *et al.*, 2001). However organisational climate develops over time and it is possible for management to shape the organisation in such a way as to obtain the most positive outcome for both the organisation as a whole and the individual employees.

According to Moran and Volkwein (1992) organisational climate can be viewed from four different perspectives, namely the structural, perceptual, interactive and cultural perspectives. The structural perspective suggests that organisational climate is a manifestation of the structures of the organisation. The perceptual perspective views organisational climate as a psychological process where employees respond to their working conditions in a way that is meaningful to them. According to the interactive perspective employees interact to share ideas and formulate similar meanings and opinions. Finally, the cultural perspective suggests that climate is created by a group of individuals who interact and share a common frame of reference. This shifts the focus from the perception of the individual to the perceptions of the group.

2.4. MEASURING ORGANISATIONAL CLIMATE

Organisational climate is derived from the cognition and perceptions of individuals and is augmented through social interaction (McMurray *et al.*, 2004). Individual perceptions must be similar before they can combine to form an organisational climate. However, this similarity of perception does not necessarily involve perfect agreement as individual differences will always be present due to different backgrounds, values and personality traits. Although all levels of organisational climate describe the same content the analysis of organisational climate can take place at different levels in the organisation (Schulte *et al.*, 2006).

According to Arabaci (2010), organisational climate is a very broad concept that includes factors from all three levels of an organisation. These three levels are the structure and image of the organisation; the conflict and affiliation between team members; and the decision-making and communication of individual employees. Organisational climate can thus be examined on individual, team and organisational levels.

Individual level analysis focuses on psychological climate and examines the individual perceptions of employees regarding their work environment. Team level analysis focuses on the social interaction between members working together in a group, unit or department. There are three conditions that are necessary for the formulation of group level climate (Anderson & West, 1998). Firstly, individuals must have the opportunity to interact with one another. Secondly, individuals must share common goals initiating collective action. Lastly, the duties of team members must be interdependent, leading to individuals developing mutual goals and perceptions. Organisational level analysis includes the collective

perceptions of all the employees and is measured by determining the average perceptions and values of employees with regard to the work environment.

Organisational climate is best measured through the use of a holistic approach as this allows for the simultaneous examination of multiple characteristics while investigating the inter-relationships between employees (Schulte *et al.*, 2006). This provides for a more integrative analysis of climate. However, organisational level analysis requires a large sample because of the large number of dimensions studied simultaneously.

Climate strength is also an important factor in the measurement of organisational climate. The term climate strength refers to the level of agreement between employees' perceptions (Schyns *et al.*, 2009). Although members in an organisation may have similar perceptions and share similar beliefs there is a degree of variance that provides meaningful information about the climate strength (Lindell & Brand, 2000). When climate strength is high it means that employees are in strong agreement with regard to the climate of the organisation (Dickson, Hanges, & Resick, 2006). In contrast, when the climate strength is low it means that employees' views regarding organisational climate differ substantially. High climate strength has been related to improved organisational outcomes and good customer service (Schneider, Salvaggio, & Subirats, 2002). In addition to climate strength, the direction of the organisational climate is also important. For example, in organisations where employees receive commission on sales staff may focus more on sales than on client service. In this situation the climate is strong (the employees' share perception) but it is not in the preferred direction (customer satisfaction) (Dickson *et al.*, 2001).

Although every organisation's climate is unique, Milton (1981, as cited in Brand & Wilson, 2000) identified four elements of climate research that are universal across most organisations. Firstly, organisations may have more than one climate that can be affected differently by different interventions. Secondly, people from different management positions often perceive climate in different ways. For example, people in top management positions may perceive the climate as positive while people in lower management may perceive it as negative. Thirdly, all organisations are unique and have distinctive organisational climates, thus climate changes will impact organisations in different ways. Finally, organisational climate influences organisational variables such as employee motivation and job satisfaction, and changes in organisational climate will also result in changes in these variables.

2.5. THE IMPORTANCE AND EFFECTIVE MANAGEMENT OF ORGANISATIONAL CLIMATE

As previously mentioned organisational climate is a multi-dimensional construct that includes a range of dimensions within the work environment that are evaluated by the individual employees. These dimensions include leadership, safety, communication and service to customers (Neal, Griffin, & Hart, 2000; Nwankwo, Owusu-Frimpong, & Ekwulugo, 2004). Employees' perceptions towards these dimensions influence their attitude towards the organisation as well as the way in which they interact with each other (Neal *et al.*, 2000).

Organisational climate is an important determinant of company success and influences how the company relates to the external market (Nwankwo *et al.*, 2004). In order to retain their best performing employees managers need to establish an encouraging and supportive climate (Hellriegel, Slocum, & Woodman, 2001). Organisational climate is thus instrumental in increasing the performance and effective functioning of an organisation because it encourages people to work together. However, organisational climate can also be a disadvantage as it can result in 'group think', which limits innovation (Punia *et al.*, 2004). It is therefore important to establish a climate of change, so that employees are able to view change as inevitable and are thus less resistant to change.

Organisational climate is an important ingredient of effective leadership. Organisational climate measures provide managers and team leaders with valuable feedback regarding the impact that their leadership styles have on others (Davidson, 2003). Once managers are aware of their own shortcomings and are able to understand how their actions affect individual performance, they are able to correct the situation and develop their managerial skills (Watkin & Hubbard, 2003). Organisational climate is thus also a valuable tool that enables managers to be proactive and solve problems before they arise. Managers are able to identify factors such as whether employees experience role overload or conflict, are under stress or find their jobs to be excessively challenging. If these problems are not attended to they can result in a negative climate (Hemmelgarn, Glisson, & James, 2006) where employees are unhappy and underachieving.

Greatworkplace (2009) identifies the following steps that organisations can take to promote a positive climate:

- Develop programs and initiatives to help support a good working climate;
- Establish norms that promote mutual respect and good behaviour;

- Implement effective communication- and information systems;

- Uphold good values and principles and ensure that these are modelled by all employees, especially managers;

- Ensure that the actions of leaders are supportive of the desired climate; and

- Develop and implement policies and rules ensuring that people are well aware of what they can and cannot do.

Organisational climate can either be positive or negative (Weeks, 2008). A positive climate promotes high levels of employee satisfaction and high morale, while a negative climate indicates that the majority of the employees are not satisfied with their work circumstances. If the organisation is able to establish a positive climate, employees will be more motivated to do a good job and contribute to organisational effectiveness (Neal, West, & Patterson, 2004). However, if employees perceive the climate as negative there will be an overall low morale and a high level of employee turnover (Weeks, 2008).

It is important that employees feel like valued members of the organisation or they will not be committed to achieving the goals and objectives of the organisation. Michie and West (2003) indicate that productivity, financial success and customer satisfaction can be improved by merely encouraging employees to take part in company decision-making and establishing a climate of adaptability and involvement.

Organisations wanting to establish a positive climate need to recognise the importance of the following factors (Gray, 2001):
- Involving employees in defining their own goals and setting their own targets;
- Allowing employees to express new ideas, challenge existing ones and participate in decision-making and problem-solving;
- Treating all members of the organisation with respect and valuing the unique contributions that each individual has to offer; and
- Maintaining high levels of work satisfaction and low levels of doubt and suspicion.

Maintaining a positive climate is also important for effective recruitment and retention programmes. Organisations need employees who are highly motivated, deliver good quality inputs, and who work effectively in a team environment while constantly undergoing personal development (Arabaci, 2010). Humans are by nature social and are therefore greatly influenced by organisational climate (Arabaci, 2010). When employees have positive views

towards the climate they are less likely to seek employment elsewhere and are more committed to achieving the goals of the organisation.

Organisational climate is an integral part of organisational functioning and therefore provides insight into other business functions (Zeeman, 2005). Outcome is one of the business functions that is influenced by organisational climate. According to Michie and West (2003), organisational climate influences outcome on individual-, group- and organisational levels. Individual performance and job satisfaction are examples of individual level outcomes, while employee participation is an example of a group level outcome, and financial indicators are examples of organisational level outcomes.

In organisations where individuals are expected to work in teams it is advisable to allow the team to undergo some form of team development programme in order to improve team cohesiveness. When team members feel confident that the team will not embarrass or reject them they feel safe and team issues are usually resolved more efficiently (Hemmelgarn *et al.*, 2006). A supportive team environment can also promote creative thinking and innovation, leading to better constructed team processes and improved team effectiveness.

The international level of operational risk is increasing (Netter & Poulsen, 2003) and organisational climate is an important determinant for managing current and potential crises (Weeks, 2008). Organisational climate can also help organisations to remain competitive in the global economy (Weeks, 2008). Work environments can only start to improve once organisations understand the importance of promoting and maintaining a positive organisational climate.

2.6. CLIMATE VERSUS CULTURE

Numerous research studies have focused on organisational climate versus organisational culture (Kilburn, 2008) and attempted to gain some insight and lessen the confusion surrounding the differences between these two constructs (Parker *et al.*, 2003). Studies conducted on both climate and culture have focused on the internal social psychological environment from a holistic perspective, looking at employees' collective framework and attempting to understand how this framework is influenced by these constructs (Van den Berg & Wilderom, 2004).

The study of organisational culture or climate is not an easy task as it is difficult to explain mechanisms through which people share norms, values or behaviours (Ruiz-Moreno, Garcia-Morales, & Llorens-Montes, 2008). All employees interpret their work environment in their own way and these perceptions influence their day-to-day behaviour. However, measuring an organisation's culture and climate can help managers to understand how the organisational characteristics influence the behaviour of employees (Croucher, Kabst, Kellerman, & Matiaske, 2004).

According to Ashkanasy, Wilderom, and Peterson (2000), the uncertainties surrounding the inter-connectedness of organisational culture and climate are such that it may be wise to measure both constructs simultaneously. Many studies have used these two concepts interchangeably. According to Alvesson and Berg (1992, p. 89), a "…considerable proportion of what is currently regarded as corporate culture could benefit from being characterised as corporate climate instead." Tosti (2007, p. 21) defines culture as "…the way a group of people prefer to behave…". Seel (2000, p. 2) suggests that "organisation culture is the emergent result of the continuing negotiations about values, meanings and proprieties between the members of that organisation and with its environment". Schein (2011, p. 313) defines culture as "a pattern of shared basic assumptions, invented, discovered, or developed by a given group as it learns to cope with its problems of external adaption and internal integration…".

These definitions all agree that the culture of an organisation can thus be seen as the inherent values and beliefs of employees, which result in the perceptions they have regarding the organisation (Denison, 1996). Organisational climate is thus rooted in the culture of the organisation (Weeks, 2008). For example, this means that if the organisational culture is one of empathy and trust, a favourable organisational climate can be expected.

Employees' values and beliefs (elements of organisational culture) influence their perceptions regarding organisational policies, practices and procedures (elements of organisational climate) (Schneider *et al.*, 1996). Organisational culture and climate both provide employees with similar beliefs, values and expectations with regard to the work environment (Kilburn, 2008). According to McMurray (2003) the belief systems that are important for climate are derived from the value systems that are associated with culture, confirming the strong link between these two constructs.

Despite these strong links between organisational climate and organisational culture, the two constructs should remain distinct (Weeks, 2008). The theoretical and disciplinary differences

between the two constructs should not be ignored (Patterson *et al.*, 2005; Weeks, 2008). Some of the main differences between culture and climate are summarised in Table 2.2.

Table 2.2: **Organisational climate versus organisational culture**

Organisational Climate	Organisational Culture
Represents the perceptions of employees with regard to the policies, practices and procedures of the organisation. Can be seen as a surface manifestation of culture (Patterson *et al.*, 2005).	Represents the shared norms and values guiding employee interactions (Patterson *et al.*, 2005).
Focuses on comparisons between different social settings (Fey & Beamish, 2001).	Focuses on the unique aspects of a particular social setting (Fey & Beamish, 2001).
Emphasis is on employee perceptions and aspects of the observable practices and procedures of the organisation (Fey & Beamish, 2001).	Emphasis is on the values and assumptions underlying the practices and procedures of the organisation (Wong & He, 2001).
Concerned with comparisons across the organisation at a single point in time (Fey & Beamish, 2001).	Concerned with the evolution of the organisation over time (Fey & Beamish, 2001).
Relatively temporary, subject to control (Denison, 1996).	Meaning is established by means of socialization (Denison, 1996).
Rooted in the value system and perceptions of employees (Denison, 1996).	Rooted in the deeper values, beliefs and underlying assumptions of employees (Denison, 1996).
Created at lower levels in the organisation (Denison, 1996).	Created from the values and beliefs of top management (Denison, 1996).
Defined as the recurring patterns of attitudes, feelings and behaviours characterising life in the organisation (Greatworkplace, 2009).	Generally deep and staple (Greatworkplace, 2009).
Relatively easy to change (when compared to organisational culture) (Cotton, 2004).	Difficult to change (Cotton, 2004).
Theoretical perspectives (Moran & Volkwein, 1992): • Structural: Climate is created because employees are exposed to common structural characteristics. • Perceptual: Individuals respond to the situation in a way that is meaningful to them on a psychological level. • Interactive: Interaction takes place between individuals who are responding to the same situation resulting in shared agreement. • Cultural: Members share a common frame of reference.	Theoretical perspectives (Verbeke, Volgering, & Hessels, 2004): • Holistic: Integrates cognitive and behavioural patterns of culture. • Variable: Organisational culture is considered to be a variable of the organisation that can be controlled. • Cognitive: Organisational culture is a knowledge system consisting of learned standards that are used for evaluating the environment.
Measurement mostly conducted quantitatively (Gould-Williams, 2007; Patterson *et al.*, 2005).	Measurement mostly conducted qualitatively (Gould-Williams, 2007; Patterson *et al.*, 2005).

Organisational Climate	Organisational Culture
Research focuses on aspects of the organisation that can be generalised across different settings (Davidson, 2003).	Research focuses on aspects of the organisation that are completely unique (Davidson, 2003).
Research on organisational climate serves as a snapshot of what is currently going on in an organisation (Davidson, 2003).	Research on culture is deep-rooted and focuses on the underlying reasons why things at the organisation are happening (Davidson, 2003).
Organisational climate studies investigate the impact that systems have on groups as well as on individuals (Asif, 2010).	Organisational culture studies observe the evolution of social systems over time (Asif, 2010).
The most well-known dimensions of organisational climate include (Ruiz-Moreno *et al.*, 2008 p. 511): • Management support; • Workload pressures; • Cohesion; • Individual autonomy; • Involvement; • Organisational structure; • Organisational control; • Compensation; • Progress; • Considerations and effect; and • Environmental comfort.	The most well-known dimensions of culture include (Ruiz-Moreno *et al.*, 2008, p. 511): • Orientation to the client; • Orientation to the employees; • The capacity for contributions; • Orientation to organisational results; • Orientation to cost; • Orientation to flexibility; and • Perceptions of support for innovation.

Table 2.2 clearly shows that although organisational climate and culture are very closely linked, they still remain two separate constructs with different dimensions. The two terms are thus not interchangeable.

2.7.   ORGANISATIONAL CLIMATE INSTRUMENTS AND QUESTIONNAIRES

Despite the existence of a large body of research concerning organisational climate, there are very few well-validated and trustworthy measures of the construct (Patterson *et al.*, 2005).   There is thus a need for measures that are both theoretically grounded and empirically validated.   In this section the most well-known assessment instruments for measuring organisational climate are discussed.   Various researchers have made use of numerous instruments, surveys, questionnaires and climate indices in their studies.   Some instruments have also been developed or adapted to measure different organisational climate dimensions and different focus areas of climate, including service climate, climate and innovation, and climate and individual outcomes (Hemmelgarn *et al.*, 2006).

Each organisation has its own unique climate that differs from the climate of other organisations (Merkys *et al.*, 2007) and it is thus necessary to experiment with different instruments and dimensions in order to cater for the needs of each individual organisation. For this reason a single, generic organisational climate instrument that is valid and reliable in every context and every organisation does not exist. General climate dimensions are not relevant to every study and organisational climate dimensions should thus differ in focus depending on the purpose of the study as well as the criterion under investigation (Schneider, 2000). Many of the existing organisational climate measures and relating organisational culture questionnaires are not theoretically grounded and have very little validity information or proof regarding their ability to effectively identify organisational climate (Ashkanasy *et al.*, 2000; Patterson *et al.*, 2005). According to Merkys *et al.* (2007), the Team Climate Inventory (TCI), the Business Organisation Climate Index (BOCI), and the Creative Climate Questionnaire (CCQ) are the three most well-known climate measures. These three questionnaires are discussed below.

The TCI was originally developed by Anderson and West (1998) in order to assess the multi-dimensional nature of team climate (Loewen & Loo, 2004). The TCI can be used to diagnose team climate and performance. The inventory consists of 44 items that are categorised into four main factors. The organisational climate dimensions measured include information sharing, safety, interaction frequency, articulated and enacted support, clarity, perceived value, sharedness, attainability, excellence, appraisal, and ideation (Loewen & Loo, 2004). The TCI makes use of a five-point scale where high scores indicate a more positive climate. According to a study conducted by Loewen and Loo (2004), the TCI is a consistent and reliable measure of organisational climate.

The original BOCI was developed by Payne and Pheysey (1971) and was derived from Stern's Organisational Climate Index (Stern, 1970, as cited in Kangis & William, 2000). The 300 items of the original measure (Organisational Climate Index) were grouped together and items that were seen as irrelevant to the organisation were removed. The scale was thus reduced to 192 items measuring six dimensions, namely authority, restraint, work interest, personal relations, routine, and community (Payne & Pheysey, 1971). Questions are answered through the use of a true/false scale. Despite the reduction of items from the original index the BOCI remains a very lengthy questionnaire (Kangis & Williams, 2000).

The CCQ was developed by Ekvall (1996) and is a questionnaire consisting of 50 items categorised into ten dimensions namely, challenge, freedom, idea-support, dynamism, playfulness, debates, conflicts, risk-taking, and idea-time (Ekvall, 1997). The CCQ is used to

compare different aspects of an organisation and with the exception of conflict all of the dimensions are positively linked to motivation (Ekvall, 1996).

Al three of the instruments described above were developed more than a decade ago and are thus no longer necessarily applicable in the rapidly chaning and expanding field of organisational climate studies. Scientists and researchers disagree on the organisational climate dimensions that should be included in measurement instruments (Ruiz-Moreno *et al.*, 2008). Most of the instruments currently in use are derived from earlier research and have been adjusted to fit the specific study or organisation. Some of the most well-known current climate measures are summarised in table 2.3.

Table 2.3:   Summary of some organisational climate measures

Climate Instrument	Items	Dimensions	Anchor scale	Description	Source
Perceived Work Environment Instrument (PWE)	31 items	• Supervisory style • Co-workers • Work motivation • Employee competence • Decision-making • Performance rewards	Five-point Likert type scale (strongly agree to strongly disagree)	Emphasises the nature of behaviour as both a function of the individual and the environment.	Kangis and William (2000).
Instrument to measure psychological climate	94 items	• Managerial support • Company vision • Open and clear communication • Training focus • Team focus • Personnel support for service • Rewards for service	Five-point Likert type scale (strongly agree to strongly disagree)	Items are based on nine focus group meetings with employees and past studies on psychological and organisational climate.	Schulte *et al.* (2006).
Organisational and Safety Climate Inventory (OSCI)	78 items (22 climate items)	• Support • Goals • Rules • Innovations *Four main scales:* • Safety climate content scale • Safety as an organisational value scale • Organisational safety practices scale • Personal involvement with safety scale	Seven-point Likert type scale (totally disagree to totally agree)	Combination of the Organisational Climate Questionnaire and the Safety Climate Questionnaire. The OSCI appears to have a high level of validity and reliability.	Silva *et al.* (2004).
Quality Culture and	Four demo-graphic		Seven-point Likert type	The primary purpose of the	Johnson

Climate Instrument	Items	Dimensions	Anchor scale	Description	Source
Organisational Climate Survey (QCOCS)	items and 86 culture and climate items		scale (strongly disagree to strongly agree)	QCOCS is to identify strengths and areas of development and to identify trends with regard to the areas being measured.	(2000).
Organisational Climate Scale (OCS)	35 items	• Appraisal and recognition • Goal congruence • Role clarity • Supportive leadership • Participative decision-making • Professional growth • Professional interaction	Five-point Likert type scale (strongly agree to strongly disagree)	Measures employee perceptions regarding the working environment. Based on the School Organisational Health Questionnaire.	Neal *et al.* (2000).
Organisational Climate Scale (OCS)	40 items	• Autonomy • Interpersonal communication • Research • Cohesion • Pressure	Five-point Likert type scale (strongly disagree to strongly agree)	Koys and DeCotiis' OCS (1991) was used and the data obtained from the survey served as the basis for the scale, which was followed by semi-structured interviews.	McMurray (2003).
An Organisational Climate Scale		• Workload pressures • Cohesion • Management support	Seven-point Likert type scale (totally agree to totally disagree).	Derived from Koys and Decotiis' research (1991) where eight climate dimensions were identified.	Ruiz-Moreno *et al.* (2008).
Business Organization Climate Index		• Organisational efficiency • Readiness to innovate • General communication	Five-point Likert type scale (disagree very much to agree very much)		Koene, Vogelaar, and Soeters (2002).
An Organisational Climate Survey	94 items	• Managerial support • Company vision • Open and clear communication • Training focus • Team focus • Clarity • Personnel support • Rewards	Five-point Likert type scale (strongly disagree to strongly agree)	The items used for this survey are based on focus group meetings with employees, past studies of organisational climate and an exploratory factor analysis.	Schulte *et al.* (2006).

Climate Instrument	Items	Dimensions	Anchor scale	Description	Source
Litwin and Stinger's Organisational Climate Survey Questionnaire	40 items	• Structure • Responsibility • Warmth • Support • Standards • Conflict • Identity • Recognition • Risk	Five-point Likert type scale (strongly agree to strongly disagree)	This instrument was updated in 1972 for use in South Africa.	Brand and Wilson (2000).
The Team Climate Inventory (TCI)	44 items	• Participative safety • Support for innovation • Vision • Task orientation • Social desirability	Five-point Likert type scale (strongly disagree to strongly agree)	The TCI is used to assess the multi-dimensional nature of team climate.	Loewen and Loo (2004).
Customer Orientation Organisational Climate scale (COOC)	19 items	• Employee knowledge • Consistent performance • Confidential service • Employee honesty • Confidence in service • Individual attention • Employee appearance • Nice atmosphere	Seven-point Likert type scale (strongly disagree to strongly agree)	Measures the perceptions of individuals with regard to the importance their organisation places on the services it provides.	Perryer (2009).
Survey on Organisational Climate in Healthcare Institutions (ICONAS)	50 items	• Performance assessment and reward system • Leadership style in the unit • Job satisfaction • Organisational communication • Perceived quality of care • Team spirit • Training and development	Ten-point self-anchoring scale.	The main aim of the ICONAS is to analyse the principal dimensions of organisational climate in an organisation and to identify significant differences between groups of employees.	Wienand, Cinotti, Nicoli, and Bisagni (2007).
Organisational Functioning and Readiness for Change (ORC)	115 items	• Goal clarity • Cohesiveness • Autonomy • Openness of communication • Stress • Openness to change	Five-point Likert type scale (strongly agree to strongly disagree).	The ORC was developed by adapting existing scales for measuring organisational climate and incorporating items specifically critical for readiness to change.	Lehman, Greener, and Simpson (2002).

Table 2.3 shows that organisational climate consists of wide-ranging dimensions and that researchers differ in terms of which dimensions they view as important. Early researchers of organisational climate assumed that the construct could be described by looking at only a limited number of dimensions. These initial dimensions were individual autonomy, structure, rewards and consideration, warmth, and support (Cooil *et al.*, 2009). Later researchers realised that these dimensions only begin to describe the field of organisational climate and over time many more climate dimensions were identified (Cooil *et al.*, 2009). Only some of these dimensions are included in table 2.3.

Research focusing on the effects of demographic factors on organisational climate is also limited. Studies that have included demographic information found that employees at all levels want to improve the quality of climate; that all employees are concerned with rewards; that females perceive greater opportunities for quality improvements; and that people in higher levels have more job satisfaction (Johnson, 2000).

Due to the different measures, dimensions and opinions regarding organisational climate it is wise to first test the reliability and validity of a climate instrument before implementing it in an organisation. This is especially important when the instrument was first tested in a different geographical area or cultural context.

2.8. CRITIQUE OF ORGANISATIONAL CLIMATE STUDIES

Studies focusing on organisational climate theory have been critiqued by various researchers. Despite the large volume of organisational studies and the extensive amount of literature on the subject, there is still major dissatisfaction in relation to defining and conceptualising organisational climate and operationalising the existing climate measures (Zeeman, 2005). The difficulty in distinguishing between organisational climate and organisation culture also make it difficult for researchers to collect and explain data (Dickson *et al.*, 2001).

A major critique of organisational studies is that they tend to focus on either psychological or organisational climate, ignoring the influence of individual outcomes (Schulte *et al.*, 2006). According to Schulte *et al.* (2006) although employee attitudes and behaviours are influenced by the work environment, the shared perceptions of co-workers and groups also influence individual perceptions. It will thus be more appropriate to include all levels of climate in research studies. A further critique is that the large number of studies focusing on

organisational climate has resulted in the identification of numerous dimensions, which has led to a lack of clarity that makes cross-study comparisons difficult (Carr *et al.*, 2003).

There is also some uncertainty regarding the level of analysis in terms of organisational climate. Organisational climate is currently seen as a psychological variable and is mainly studied on the individual level. It is thus difficult to broaden the analysis to all three levels (individual, team, organisational) of an organisation (Davidson, 2003). Most organisational climate research also suffers from methodological weakness as most studies contain poorly specified descriptions of climate dimensions and levels (Patterson *et al.*, 2005).

Organisational climate research studies tend to focus on a limited set of climate dimensions or a specific field of climate, such as service climate (Davidson, 2000; Schulte *et al.*, 2006). These studies thus ignore the broader context in which organisational climate operates. It may prove useful to examine all the dimensions and fields of organisational climate as a holistic system. It is likely that organisational characteristics reinforce one another and that the total effect is greater than just the sum of the individual dimensions (Schulte *et al.*, 2006).

A further critique of existing organisational climate studies is that they only focus on the local climate within the organisation. These studies thus ignore other factors that also play a role in organisational climate, such as the influence of government legislation, technological advances, competitors and society in general (Dickson *et al.*, 2001). For example, within the South African context government's affirmative action policies place a lot of pressure on organisations. Finally, studies of organisational climate have been critiqued because respondents completing climate questionnaires also often experience some ambiguity regarding the scope of questions and whether they are applicable to the whole organisation or only the specific department or unit (Patterson *et al.*, 2005).

2.9. CONCLUSION

Organisational climate is a well-known construct and has gradually been acknowledged as being of great importance within the workplace. Numerous studies have concentrated on various aspects of organisational climate. However, there is still major dissatisfaction concerning the dimensions of organisational climate that should be included in these studies and there is also some uncertainty regarding the measurement of organisational climate. The importance of organisational climate is undisputable and further research needs to be conducted in order to eliminate the inconsistencies throughout the research. Although

numerous measures for assessing organisational climate exist most of these measures were developed outside of South Africa and thus need to be validated before they can be used within South African organisations.

When climate is managed effectively managers and leaders can increase productivity, employee motivation, the effectiveness of the organisation, the quality of outputs, innovative thinking, effective organisational change processes, and employee commitment. Transforming the climate of an organisation into one that is supportive and encouraging and where employees are involved in company decisions is one of the core steps in creating a great workplace. Positive organisational climate also increases employee morale and organisational effectiveness (Greatworkplace, 2009).

CHAPTER 3: THE RELATIONSHIP BETWEEN ORGANISATIONAL CLIMATE AND OTHER BUSINESS SUCCESS FACTORS

3.1. INTRODUCTION

Organisational climate is strongly linked to other business success factors, thus emphasising the importance of having a positive climate in order to achieve organisational objectives (Carr *et al.*, 2003; Greatworkplace, 2009). Organisational climate has previously been linked to functions such as employee performance, customer satisfaction, organisational change, and innovation (Cooil *et al.*, 2009; Dickson *et al.*, 2001; Glisson & James, 2002; Greatworkplace, 2009). However, emerging evidence also suggests that specific climates are more predictive of specific outcomes (Carr *et al.*, 2003). For example, safety climate has a larger impact on safety behaviour outcomes than other organisational climate dimensions. When employees have a positive climate perception motivation, performance, satisfaction and innovation are increased and turnover is reduced (Cooil *et al.*, 2009; Hemmelgarn *et al.*, 2006).

Organisations that are able to effectively integrate climate with other success factors inevitably experience an improvement in overall organisational performance. This also helps organisations to stay competitive in the ever-changing global markets (Davidson, 2003). This chapter focuses on several business success factors that have been linked to organisational climate.

3.2. ORGANISATIONAL CLIMATE AND PERFORMANCE

Organisational performance has been the focus of much attention both in the public and the private sector (Johnson, 2000). This is related to the need to achieve greater employee satisfaction and improve profitability. Various research studies have shown that there are positive relationships between effective management practices, quality of work life and organisational productivity (Gelade & Gilbert, 2003; Johnson, 2000; Patterson *et al.*, 2004; Wilderom, Glunk, & Maslowski, 2000). One of the key components for achieving success in business is an organisation design that encourages continous improvement in business processes (Pool, 2000).

The work environment of an organisation has a definite influence on the cognitions, attitudes and behaviours of employees, which subsequently influence the employees' job satisfaction, organisational commitment and turnover (Kangis & Williams, 2000). When employees feel

that they are included in decision-making processes, have access to important information and have the support of their managers, the overall effectiveness of the organisation improves (Kangis & William, 2000). Organisational climate also helps to drive individuals to achieve work objectives and improve their knowledge and skills by means of training and developmental opportunities (Neal *et al.*, 2000).

A study conducted by Patterson *et al.* (2004) examined 17 aspects of organisational climate and found a definite link between climate and performance. In the study productivity was measured before and after measuring the organisational climate and eight of the 17 identified aspects of organisational climate were found to predict productivity. The study also found that organisations that focus on creating a positive organisational climate and pay special attention to employee well-being, flexibility and learning tend to be more productive (Patterson *et al.*, 2004). According to Patterson *et al.* (2004) there are four main types of performance, namely economic performance (profitability), technological performance (development of new products and services), commercial performance (market share), and social performance (effects on suppliers and customers). Patterson *et al.*'s (2004) study focused mainly on economic performance and the results suggest that a causal relationship exists between organisational climate and performance. The aspects of organisational climate that showed the strongest predictive element were those that could be correlated with overall job satisfaction.

Customer satisfaction is another important factor that influences the performance of an organisation (Greatworkplace, 2009). Organisational climate is more important in service organisations than in manufacturing organisations because service organisations work more closely with customers (Yagil & Gal, 2002). A strong service-oriented climate and a strong organisational climate provide employees with high levels of personal control and improve individual and task performance (Yagil & Gal, 2002). When customers are satisfied the employees' perceptions regarding the service climate improve, which leads to an overall positive attitude towards customers (Yagil & Gal, 2002). If the customers are satisfied with the products and services rendered by an organisation this will improve sales and serve as good marketing, ultimately leading to higher productivity and a competitive advantage in the market.

The work attitude and behaviour of employees act as mediators between climate perceptions and individual performance, and are an important influence on the overall performance of an organisation (D'Amato & Burke, 2008; Gould-Williams, 2007). The way in which employees perceive the characteristics of the work environment influences the quality of work they

deliver as well as the effectiveness of human resource practices (D'Amato & Burke, 2008). It is thus extremely important for managers to take the organisational climate into account when making decisions regarding effective personnel management. Employees feel more positive towards their work environment when they feel that the organisation values the contribution that they make, and that managers involve them when making important decisions (Gould-Williams, 2007).

Effective human resource practices and the climate in which these practices are introduced is also an important determinant of how much an organisation values its employees (Gould-Williams, 2007). Positive perceptions of human resource practices lead to high levels of job satisfaction (Neal, West, & Patterson, 2005). Through adopting a simple practice such as an open-door policy managers can enhance their relationship with employees. Research suggests that the traditional sources for obtaining a competitive advantage are becoming progressively less effective, while human capital is becoming more important (Neal *et al.*, 2005). Human capital is a resource that is difficult to imitate and companies are increasingly focusing on their recruitment, selection and retention programmes. When organisations make an effort to demonstrate that all employees are considered valued members of the organisation whose interests and well-being are of high importance, the employees will have a more positive work attitude, increased work devotion and be less likely to leave the organisation.

Organisations can invest in employees by implementing training programmes and helping employees undergo personal development. This is a win-win situation because employees feel valued while the organisation benefits from having employees with higher skill levels. Training can also be used to enforce correct or appropriate behaviour in employees (Gould-Williams, 2007). Additional important factors that influence employee perceptions regarding the organisational climate are receiving performance feedback and being rewarded fairly. Employee commitment can also be improved through human resource programmes such as employee involvement schemes, communication programmes and team working actions (Gould-Williams, 2007).

It is important to note that these human resource practises form part of some of the climate dimensions. Organisational climate can be described as the collective attitude of employees towards their organisation (Burton, Lauridsen, & Obel, 2004) and thus human resource management is closely linked to organisational climate. Organisational characteristics such as support, recognition, trust, fairness, equitable rewards, good leadership and high morale are extremely important in the creation of a positive climate (Gould-Williams, 2007).

In a study conducted by Johnson (2000) the perceptions of the quality of culture and organisational climate were investigated in terms of their implications for organisational effectiveness. The results showed that supervisors perceive aspects of culture and climate considerably more positively than non-supervisors. The study concluded that supervisors need to spread their positive attitudes top-down in the organisation to the lower levels and try to establish why the lower level employees are so negative. Potential problems may include ineffective leadership skills or a lack in communication. If managers are aware of the problems they can work on rectifying the situation.

Research has also demonstrated a strong link between organisational climate and individual and organisational performance. In this regard organisational climate assists with knowledge accumulation. Organisations with a positive organisational climate are more productive as employees have higher job satisfaction and are more committed to the organisation (Patterson *et al.*, 2004; Carr *et al.*, 2003). Organisational climate serves as an antecedent of knowledge management and therefore results in increased performance measures and outcomes (Davis & Mentzer, 2002). Knowledge management can also help employees to adapt to their work environment and learn the characteristics of the organisation. If managers want to improve knowledge management in the organisation, they need to recognise the importance of organisational climate, be supportive of their subordinates, and eliminate any communication gaps (Davis & Mentzer, 2002).

Carr *et al.* (2003) investigated the relationship between organisational climate and performance outcomes in order to determine whether organisational climate influences the job performance of individual employees. Figure 3.1 is a visual representation of the model used during the study, which was originally developed by Kopelman, Brief, and Guzzo (1990).

Figure 3.1: Conceptual model of the relationship between organisational climate, cognitive and affective states, and outcomes

Climate
- Affective
- Cognitive
- Instrumental

Cognitive and Affective States
- Job satisfaction
- Organisational commitment

Outcomes
- Job performance
- Psychological well-being
- Withdrawal
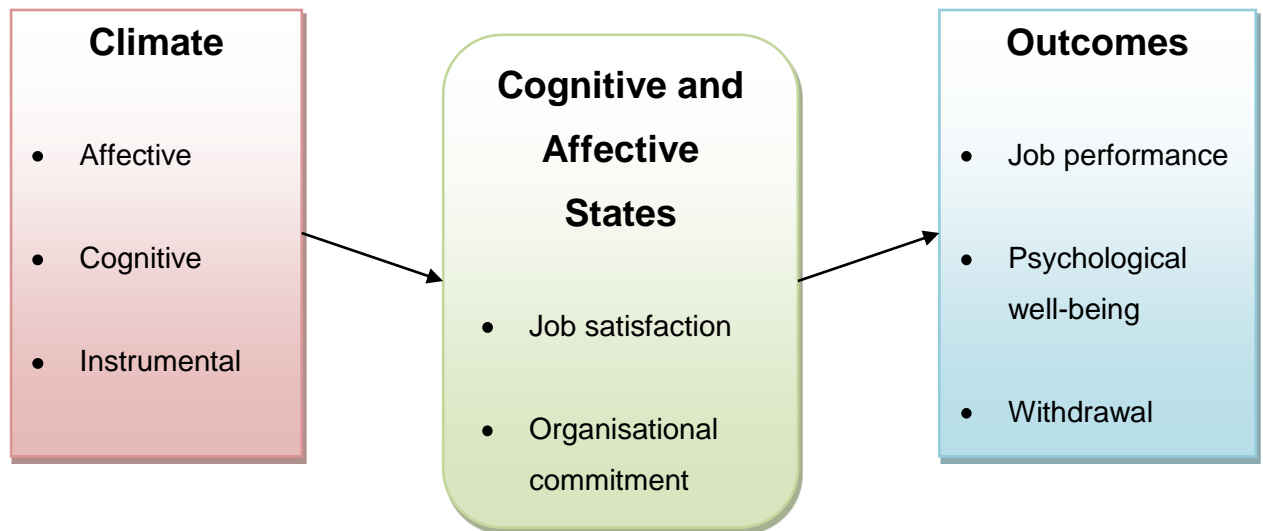
Source: Carr *et al.* (2003, p. 607). Climate perceptions matter: A meta-analytic path analysis relating molar climate, cognitive and affective states, and individual level work outcomes. Journal of Applied Psychology, 88(4), 605-619.

Figure 3.1 clearly shows that organisational climate, mediated by cognitive and affective states, influences job performance and psychological well-being and withdrawal. The model illustrates how organisational climate perceptions influence the behaviours and attitudes of employees and also how different organisational climate dimensions can be linked to different states and different outcomes (Carr *et al*., 2003).

3.3. ORGANISATIONAL CLIMATE, PROJECT SUCCESS AND JOB SATISFACTION

Various research studies have shown that organisational climate influences the level of project success and job satisfaction (Gray, 2001; Schulte *et al*., 2006). The results of some of these studies are discussed in this section.

Gray (2001) investigated the relationship between organisational climate and project success. The results of the study demonstrated a definite link between organisational climate and project success. Gray (2001) found that employees' perceptions were influenced by the following elements:
- The management styles of top management and project leaders;
- The level of threat, coercion or insecurities that employees involved in the project experience;

- Whether project team members feel free to express any ideas and concerns that they may have, thus promoting innovative thinking;
- The involvement of employees in goal setting and decision-making; and
- The level of environmental threats such as natural events, societal forces, macro-political causes or policies.

According to Gray (2001), environments that are stable and secure with good support and minimum threat to the individuals and teams in the organisation offer the greatest chance of project success. Current work environments are usually characterised by constant change, demanding deadlines and high levels of uncertainty, which impact negatively on the success of projects (Gray, 2001). It is thus particulary important that managers use organisational climate to lessen the negative influences that today's work life has on the well-being and happiness of employees. This will help to insure effective team functioning and project success.

Differences in individual job satisfaction have been strongly linked to the individual perceptions of organisational climate, as well as to work-related attitudes and behaviours. Organisational climate also influences the degree to which people are motivated to perform to their full potential and whether they are satisfied with their job tasks. According to Schulte *et al.* (2006), maintaining a positive relationship between departmental and organisational climate will lead to increased job satisfaction, commitment, performance and a decrease in accidents. The study by Schulte *et al.* (2006) investigated the impact of organisational climate on employee satisfaction. The results showed that employee satisfaction is influenced by individual employee perceptions and also by departmental or group level climate. The pattern of results suggests that social domains are important for understanding individual attitudes (Schulte *et al.*, 2006).

Job stress has a negative influence on both project success and job satisfaction. Organisational climate serves as an antecedent to stress because when employees make a favourable evaluation of the workplace it leads to lower levels of stress (Nasurdin *et al.*, 2006). Organisational climate dimensions that have specifically been linked to lower stress levels include good autonomy, supervisory support, manageable workloads and team cohesion. An organisational structure that is flexible, promotes good interpersonal communication and makes use of fair reward systems also helps to decrease employees' stress levels (Nasurdin *et al.*, 2006; Wong & Wong, 2002). Organisational climate can thus be regarded as an effective tool for achieving project success and increasing job satisfaction.

3.4. ORGANISATIONAL CLIMATE AND ORGANISATIONAL COMMITMENT

Research has shown that a positive relationship exists between organisational climate and organisational commitment (Noordin, Omar, Sehan, & Idrus, 2010; Symposium, 2000). Various dimensions of organisational climate have been proven to influence the level of commitment within organisations (Noordin *et al.,* 2010; Varona, 2002). Organisational climate fosters the commitment of members to the organisation. When an organisation is guided by its goals and values this assists in establishing a positive work climate (McMurray *et al.*, 2004). Commitment and climate are thus both forces that bind employees to the organisation. Organisational commitment is defined as the level of dedication and loyalty that employees have towards the organisation. If organisational commitment is high then the employees will be more motivated, performance will be better and the goals of the organisation will be reached more effectively.

Numerous studies have linked organisational commitment to various organisational climate dimensions including autonomy, supervisor support and cohesiveness. McMurray *et al.* (2004) found a statistically significant positive relationship between organisational commitment and organisational climate. This finding suggests that if the organisational climate is positive, the organisational commitment will also be higher and the employees will be more loyal and dedicated to the organisation. Organisational commitment can be divided into three dimensions (Noordin *et al.*, 2010). These dimensions are described below.

- Affective commitment: The level of employee involvement in and attachment to the organisation.
- Continuance commitment: The level of employee awareness with regard to the cost of leaving the organisation.
- Normative commitment: The level of obligation the employee feels towards the organisation.

According to McMurray *et al.* (2004), organisational climate and organisational commitment are both outcomes of organisational socialisation. Socialisation in turn influences the degree to which employees are committed to their jobs. Research shows that prospective employees already formulate perceptions regarding the organisation during their first encounter with the organisation (McMurray *et al.*, 2004). If the socialisation process is managed effectively the organisation will be better able to attract and retain employees who are committed to the overall goals of the organisation.

When employees are really committed to an organisation they are more prepared to exert effort on behalf of the organisation. Organisational climate not only affects the physical effort of employees but also their mental efforts. If the human capital of an organisation is not committed to reaching the goals of the organisation it loses its value. Given the current fast paced nature of society it is particularly important that human resource practitioners strive to create a positive organisational climate that promotes commitment to and from the organisation by ensuring that the employees' perceptions remain positive.

Management needs to be aware of the climate of the organisation in order to gain information regarding the perceptions of the employees and in order to identify and eliminate any obstacles standing in the way of a healthy climate. Insight regarding the organisational climate can be gained by making use of an organisational climate measure. However, supervisors and human resource practitioners should always access support from top management before implementing climate measures.

3.5.   ORGANISATIONAL CLIMATE AND ORGANISATIONAL CHANGE

Organisational climate develops over time as employees find meaning in their work. Organisational climate is also based on the significance of the work environment and whether the employees feel themselves to be valued members of the organisation (Neal *et al.*, 2000). Implementing changes in an organisation can be a difficult, time-consuming process. Fear of the unknown is part of human nature and employees can be very resistant to organisational change (Kangis & Williams, 2000). Any organisation's most valuable assest is its human capital and employee perceptions can be guided by the actions of managers and team leaders (Weeks, 2008). The leaders of an organisation play a significant role in the type of climate that evolves during organisational change. These leaders need to create a climate of innovation and support in order to utilise the full capacity of the human resources.

According to Schneider *et al.* (1996), the climate of an organisation is provided by the members of the organisation and is based on how the organisation operates and the main goals of the organisation. Organisational climate is thus rooted in the policies, practices and procedures of the organisation as well as in the expected behaviour and rewards. When any changes take place, whether they involve a restructuring of the entire organisation or only the implementation of a new process, these changes do have a significant influence on the

employees and how they view the organisation. Schneider *et al.* (1996, pp. 3-4) identifies four key organisational climate dimensions that influence organisational change:

- The nature of interpersonal relationships;
- The nature of the hierarchy;
- The nature of work; and
- The focus of support and rewards.

Thus in order for organisational change to be implemented effectively, the organisational climate and culture must also change. The perceptions of the employees will determine whether change is successful. It is only when the concerns of employees are addressed that change can take place (Schneider *et al.*, 1996). Employee involvement in the change process can be monitored and improved by conducting an organisational climate survey in order to determine how the employees feel about the change process. If employees are very negative they are more likely to be resistant to the change process.

A study by Brand and Wilson (2000) also concluded that organisational change has a huge impact on the organisational climate and the attitudes of employees, especially large-scale changes such as an organisational restructuring. In order to stay competitive organisations need to undergo constant development, which often involves redefining jobs and redesigning the overall structure of the organisation. According to Brand and Wilson (2000) organisational climate is affected by both internal and external aspects of the environment. Internal influences include factors such as leadership style and organisational policies and procedures. External influences include factors such as economic conditions and government legislation.

Organisational change is more likely to be successful if top management are able to create a climate that is open to change. Schneider *et al.* (1996, p. 13-14) identify six steps for achieving a change climate. These steps are listed below.

- Ensure that the organisation is capable of dealing with major organisational change by confirming that the employee morale is high and that management have the necessary skills and commitment.
- Analyse the proposed change in terms of identified climate dimensions and determine the effort that will be needed for the change process to be successful.
- Develop a detailed plan for implementing the organisational change with clear goals and strategies. The goals and strategies should be effectively communicated to the employees.

- Revise the reward system of the organisation to ensure that the right type of behaviour is promoted and encouraged.
- Allocate the right amount of resources for implementing and maintaining the change.
- Evaluate and monitor the effectiveness of the change process and take corrective action where needed.

Studies have shown that the organisational climate factors that have the biggest influence on change processes are goal clarity, cohesion, open communication and in particular openness to change (Lehman *et al.*, 2002). Lehman *et al.* (2002) state that openness to change can be improved by obtaining the support and resources needed as well as promoting a climate of flexibility and innovation. Effective communication and a good performance management system will also help to reassure employees and remove some of their worries and fears (Brand & Wilson, 2000). However, managers should refrain from implementing unnecessary changes as change for the sake of change can be counterproductive. Communicating the importance of change to employees and involving them in the decision-making process will make them less negative and less resistant.

3.6. ORGANISATIONAL CLIMATE AND INNOVATION

Innovation is a good tool for implementing organisational change and achieving a competitive advantage (Ruiz-Moreno *et al.*, 2008). The combination of organisational climate and innovation can help to both develop and maintain a competitive advantage (Ruiz-Moreno *et al.*, 2008). A study conducted by Bock, Zmud, Kim, and Lee (2005) found that organisational climate can be used to encourage innovation, affiliation and the sharing of knowledge. This in turn has a huge impact on the quality and frequency of knowledge sharing as well as the employees' willingness to engage in knowledge sharing behaviour.

Most organisations need to create new products and find new, improved ways of doing business in order to remain solvent. Organisations are fighting a continuous battle to remain competitive due to intense international competition, rapid technological advances and maturing customer expectations (Montes, Moreno, & Fernandez, 2004). Innovation allows organisations to perform effectively and stay competitive. Being innovative means being open to new ideas. Montes *et al.* (2004) identify two stages in the process of innovation, namely the initiation stage and the implementation stage.

During the initiation stage resistance is broken down and people start to become more open to change. The employee perceptions of support for innovation are reflective of their general openness to new ideas. During the implementation stage the change process is actively implemented in the organisation and systems and procedures are put in place to support the changes. Organisational climate influences the sharing of knowledge and innovation in an organisation. An organisational climate that is open and supportive and that allows people to express themselves, will promote new and innovative ideas and techniques (Bock *et al.*, 2005). If members of an organisation do not share the same perceptions with regard to openness to innovation they will become more committed to their own positions and there will be a delay in the innovation process. Having a well-planned reward system and lower levels of on-the-job pressures will also encourage the expected behaviours, thus shaping the desired organisational climate (Montes *et al.*, 2004).

Montes *et al.* (2004) studied the relationship between different organisational climate dimensions and innovation. The study confirmed the existence of a strong relationship between organisational climate and support of innovation. However, other studies have shown that employees do need to be involved if they are to assist in developing innovative ideas and decisions. The success of involving employees in companies is dependent upon situational factors but usually improves employee commitment and satisfaction. In order to achieve higher levels of employee involvement organisations should focus on organisational climate dimensions such as effective communication and teamwork (Shadur, Kienzle, & Rodwell, 1999).

A study by Ekvall (1996) investigated ten dimensions of organisational climate in relation to creativity and innovation. All the dimensions included in the study are supported by creativity literature (Ekvall, 1996). The study concluded that a causal relationship exists between climate and innovation. This relationship is depicted in figure 3.2.

Figure 3.2: Organisational climate as an intervening variable
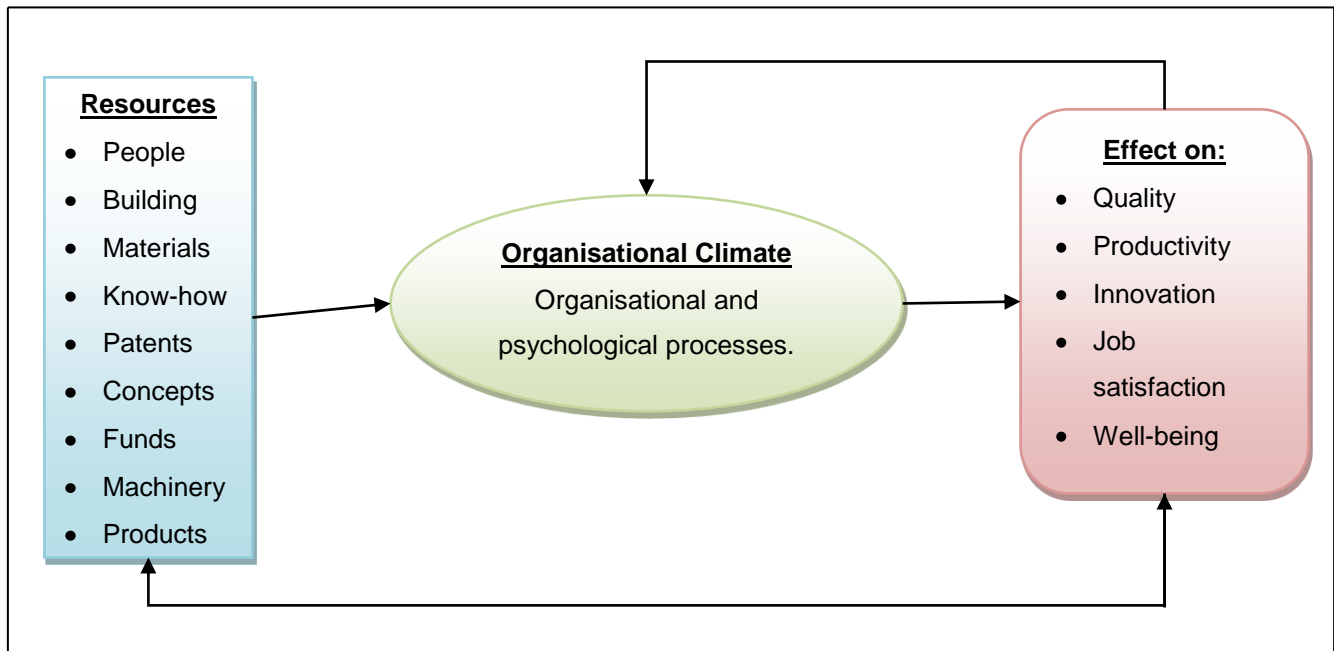
Source: Ekvall (1996, p. 106). Organizational climate for creativity and innovation. *European Journal of Work and Organizational Psychology*, 5(1), 101-123.

Some of the dimensions in figure 3.2 proved to be more predictive of innovation than others (Ekvall, 1996). However, the study concluded that organisational climate definitely influences the level of innovation in organisations. The study also found strong correlations between organisational climate and leadership styles. The strongest correlation was between organisational climate and the change-oriented leadership style and the weakest correlation was between organisational climate and the task-and-structured-oriented leadership style (Ekvall, 1996). Ruiz-Moreno *et al.* (2008) also investigated the relationship between organisational climate and innovation and concluded that the different dimensions of organisational climate are highly interconnected. In addition, organisational climate was found to be strongly correlated with perceptions of support for innovation (Ruiz-Moreno *et al.*, 2008).

The first step in the innovation process should involve obtaining support from top management. When employees perceive the managerial and reward systems to be supportive of cohesion they are more positive towards the process of innovation and change. Team cohesion is also important as innovation requires the integration of knowledge between all team members in order to make use of individual differences and unique background experiences. Finally, the reward system (especially intrinsic rewards) within the

organisation must be supportive of innovation by rewarding employees for developing unique ideas and contributions.

Innovation is influenced by four broad dimensions of climate, namely the nature of interpersonal relations, the nature of hierarchy, the nature of work, and management support (Ruiz-Moreno *et al.*, 2008). Studies focusing on the relationships between organisational climate dimensions and innovation have found that the climate dimensions of decision-making, training and development, management support, compensation systems, workloads that are challenging but not excessive, strong cohesion between members, effective communication and freedom to express opinions have the greatest impact on innovation (Ruiz-Moreno *et al.*, 2008).

3.7. ORGANISATIONAL CLIMATE AND LEADERSHIP

Over the last two decades studies focusing on leadership in organisations have increasingly added new dimensions to the leadership field. Leadership styles such as consideration (friendly and supportive) and initiating structure (formal structures with emphasis on role clarity for goal attainment) have made way for charismatic or transformational leadership (give guidance, motivate and be a role model) (Koene *et al.*, 2002). Leadership styles have a definite influence on organisational climate, especially charismatic leadership and consideration.

Charismatic leaders guide employees to make sense of their own work and use motivation to encourage commitment (Koene *et al.*, 2002). Charismatic leaders are also emotionally involved with employees, lead by example and have strong visionary qualities. Leaders making use of the charismatic leadership style try to give meaning to the employees' daily activities and share important information with subordinates by making use of effective communication. These actions help to motivate employees and increase their performance and commitment to the organisation (Koene *et al.*, 2002). Research has shown that managers have more positive perceptions of organisational climate than those of their subordinates (Gould-Williams, 2007). Through making use of the correct leadership style managers can improve the employees' organisational climate perceptions (Punia *et al.*, 2004).

Supportive leadership styles that encourage a climate of interaction between supervisor and subordinate are perceived positively by employees and contribute to the effectiveness of

communication systems in the organisation (Ruiz-Moreno *et al.*, 2008). Leaders making use of a more supportive leadership style also help employees to achieve their full potential, thus resulting in the empowerment of employees and higher levels of job satisfaction (Schyns *et al.*, 2009). Leadership initiatives should be aimed at all levels of an organisation, specifically the individual, team and organisational levels. Schyns *et al.* (2009) also state that when leaders interact with employees they should be aware of how individuals relate to other members in the organisation.

A study conducted by Punia *et al.* (2004) found that when managers are perceived as being warm and responsible individuals, who reward people fairly, resolve conflict quickly and are highly motivated, a more positive organisational climate is created. Punia *et al.* (2004) also concluded that organisational climate will be more positive when the organisational structure is more democratic than autocratic and when employees are encouraged to participate in setting both organisational and personal goals (Punia *et al.*, 2004). Managers should allow employees to take responsibility for their own work.

A good way of ensuring more effective leadership is to implement training and mentoring programmes, specifically aimed at helping leaders to identify issues before they arise and deal effectively with issues that cannot be avoided. According to Grojean *et al.* (2004) leaders can improve the climate of an organisation by making use of the following mechanisms:

- Making use of a supportive leadership style;
- Establishing good relationships with subordinates;
- Setting a good example and maintaining the norms of the organisation;
- Establishing clear expectations, letting employees know what is expected of them and eliminating any uncertainties that they may have;
- Providing feedback, coaching and support;
- Giving recognition where it is due and rewarding employees for behaving in the correct way;
- Being aware of individual differences and diversity; and
- Improving their skills by means of leadership training programmes.

3.8. ORGANISATIONAL CLIMATE AND HEALTH AND SAFETY

Over the last three decades numerous studies have focused on reducing the occurrence of accidents in the workplace (Silva *et al.*, 2004). Safety climate is a form of organisational

climate that influences the accident-rate in the workplace and can also be related to safety performance (Guldenmund, 2000; Silva *et al.*, 2004). While organisational climate focuses on employees' shared perceptions of values, norms, beliefs, practices and procedures in general, safety climate focuses specifically on the shared perceptions regarding safety related aspects in the workplace (Denison, 1996; Guldenmund 2000; Silva *et al.*, 2004). Organisational climate can thus be seen as a predictive variable of safety climate. Safety climate has been formally defined as the portrayal of employee perceptions with regard to health and safety in the workplace (Neal *et al.*, 2000). In organisations where safety is regarded as a core value, employees feel that managers are concerned with their safety and this leads to a more positive safety climate. However, in organisations where safety is not regarded as a priority the safety climate will be more negative.

Employees feel more valued when management takes all the necessary precautions and measures to ensure the safety of each individual throughout his or her daily tasks and responsibilities. Neal *et al.* (2000) identified four factors that influence the safety climate of an organisation:

- The level of concern that managers have for the well-being of each employee;
- The practices of the organisation, including delivering safety training, implementing effective safety systems, and providing all the necessary safety measures such as protective masks for painters;
- Effective communication with regard to important safety information; and
- The level of employee involvement in workplace safety decisions and problem-solving.

Organisations today are undergoing an increasing number of technological advancements in an attempt to stay competitive. However, in terms of safety technology alone is not sufficient and the culture and climate of the organisation need to be taken into consideration (Dodsworth, Connelly, Ellett, & Sharratt, 2007). For example, a study by D'Aunno, Vaughn, and McElroy (1999) found that organisational support played a key role in the implementation of HIV prevention practices and treatment programs.

Neal *et al.* (2000) specifically studied the effect of organisational climate on safety climate and safety performance. The results of the study indicated that organisational climate has an impact on overall safety in organisations. The results also suggested that focusing more on organisational level analysis and interventions can result in a change in the organisational climate and thus promote safety behaviour in employees (Neal *et al.*, 2000). When managers promote a climate of safety in the workplace it helps to increase the level of compliance with safety rules, regulations and procedures and employees tend to show more

safety conscious behaviour. Neal *et al.*'s (2000) study made use of the Organisational Climate Scale to test employee perceptions regarding various aspects of the work environment. Some of the aspects tested include role clarity, participative decision-making, individual growth, recognition and interaction in the workplace. The model in figure 3.3 explains how organisational climate, and more specifically safety climate, influences the safety behaviour of individual employees.

Figure 3.3: The influence of organisational climate on safety behaviour
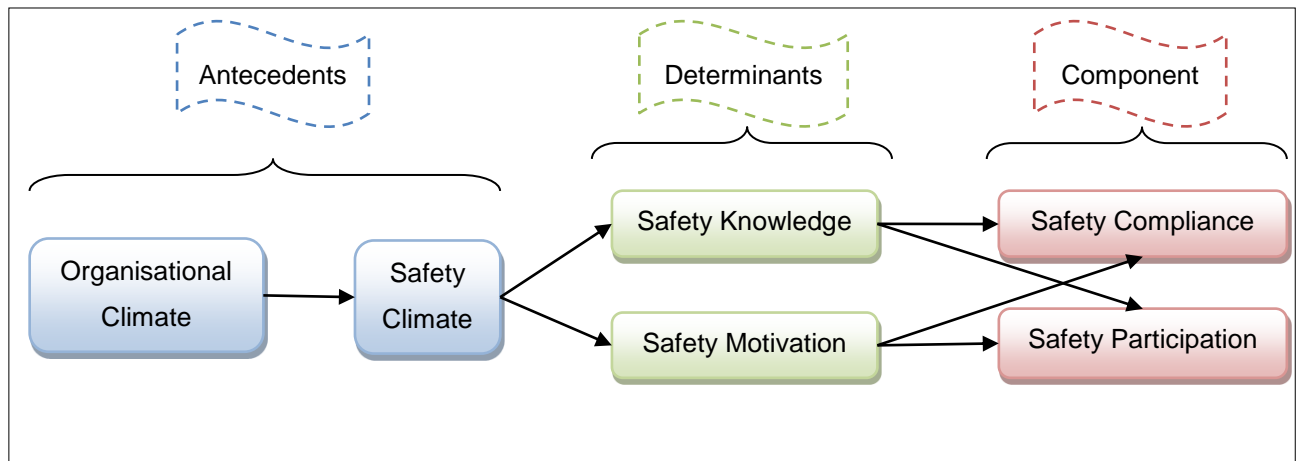
<u>Source</u>: Neal *et al.* (2000, p. 103). The impact of organizational climate on safety climate and individual behaviour. *Safety Science*, 34, 99-109.

Figure 3.3 indicates that safety climate influences safety compliance and safety participation by means of knowledge and motivation (Neal *et al.*, 2000). The effective management of safety climate can thus serve as a valuable tool for making sure that employees are informed of safety procedures, promoting compliance with safety regulations, and improving safety behaviour.

According to Kath, Magley, and Marmet (2010) management's attitude towards safety and the effectiveness of the upwards communication channels influence safety climate. Employees need to feel that their safety is important to the leaders of the organisation. An open-door policy that allows employees to approach their supervisors with regard to safety-related matters also assists in addressing uncertainties and avoiding unnecessary stress and accidents. Open communication, involvement in decision-making processes and the open sharing of information all help to improve the overall trust in the organisation. Through promoting a climate of safety within the organisation it can be expected that there will be fewer injuries in the workplace (Kath *et al.*, 2010).

A study by Dodsworth *et al.* (2007) found that over 50% of workplace accidents were the result of ineffective management and poor training. Dodsworth *et al.* (2007) identified seven dimensions of organisational climate that influence health and safety:

- The attitude management have towards safety;
- The influence of safe conduct on promotion;
- The influence of safety behaviour on social status;
- The status of the Safety Officer;
- The weight put on safety training;
- The level of risk in the workplace; and
- The promotion of safety in the workplace.

Organisational climate can thus help to predict health and safety issues, thereby enabling management to act proactively and avoid health and safety related problems. It is important to note that the implementation of safety measures will be more consequential to some departments than others. For example, the manufacturing department will require more safety measures than the finance department. It is thus clear that an organisational climate of safety decreases the occurrence of health and safety problems in the work environment. It is also clear that the safety climate can be directly linked to organisational outcomes, specifically safety motivation, job satisfaction, and turnover intention. The trust relationships between peers as well as between supervisors and subordinates also serve as an important mediator in the relationship between safety climate and organisational outcomes (Kath *et al.*, 2010).

3.9. ORGANISATIONAL CLIMATE AND ETHICS

The ethical values and behaviour of an organisation are shaped by the organisational climate (Schwepker, 2001). Organisational climates vary from extremely unethical to extremely ethical (Dickson *et al.*, 2001; Schwepker, 2001), and this influences the behaviour and decisions of employees (Goldman & Tabak, 2010). Ethical climate can be defined as "…shared perceptions of organizational practices related to ethical decision making and reflection, including issues of power, trust and human interactions within an organization…" (Goldman & Tabak, 2010, p. 233). The ethical climate defines what employees perceive as being ethically correct or incorrect and governs behaviour and actions within the organisation. The ethical climate of an organisation influences the individual-level performance outcomes as well as the cohesion and morale, subsequently affecting group outcomes (Dickson *et al.*, 2001).

Ethics is a difficult concept to determine since what constitutes ethical behaviour varies between organisations. This often leaves employees uncertain regarding the appropriate action to take when an ethical issue arises. Schwepker (2001) found that positive relationships exist between ethical climate, employee commitment, satisfaction and turnover. A strong ethical climate leads to higher commitment, increased levels of satisfaction and a decrease in turnover ratings. Ethical behaviour is also important for good customer relationships. Schwepker (2001) also states that when organisational values correspond to individual values, employees will be more committed to staying with the organisation and acting in the best interest of the organisation.

Managers and leaders are important role models in organisations and need to set an example for their subordinates. The decisions and actions of these individuals should always be ethical. Leaders can make use of certain mechanisms to convey the importance of ethical values, thus influencing the behaviour and expectations of employees and resulting in shared perceptions constituting the organisational climate (Grojean *et al.*, 2004). Leaders are responsible for institutionalising ethical standards and directing goal achievement. Leaders at all organisational levels continuously shape the ethical climate through the example they set and the policies and procedures they model. Supervisors can enforce correct behaviour by rewarding good ethical conduct and punishing unethical actions (Dickson *et al.*, 2001; Schwepker, 2001).

People are more willing to act in an unethical manner if a legitimate authority figure justifies the negative type of behaviour. Leaders can thus both suppress and promote ethical behaviour. If leaders want to promote ethical behaviour they need to establish clear goals, policies and practices and live by them every day (Grojean *et al.*, 2004). Policies and practices give direction and support to employees and help to eliminate any uncertainties with regard to ethical conduct. This promotes a climate of honesty and trust and makes it more pleasant for employees to work at the company. Managers should thus not only focus on the financial success of the organisation, but also on the ethical standards of the organisation, because these are linked to organisational outcomes (Dickson *et al.*, 2001).

However, policies and standards should not just be implemented, they should also be enforced. Organisations wishing to uphold high ethical standards and behaviour need to take corrective action when employees fail to adhere to the rules. If the employees do not perceive ethical values to be of high importance in the organisation they are unlikely to care about their own ethical behaviour (Schwepker, 2001). Unethical behaviour of employees can damage the image of the organisation and also lead to possible law suits. It is thus very

important for the overall effectiveness of an organisation to implement clear policies and strict regulations in an attempt to limit any unethical behaviour.

Managers frequently avoid giving orders in an attempt to protect themselves from being held responsible if things go wrong (Dickson *et al.*, 2001). This only happens in organisations where the ethical climate is weak due to a lack of structure and unclear rules and regulations. However, a strong organisational climate does not necessarily equate to good ethics. Instead the direction of the climate also plays a role. For example, in a climate of self-preservation employees may be more concerned with personal gain than with behaving in a way that is ethically correct. In this instance the organisational climate is strong but it has negative consequences for the ethical standards of the organisation. A strong ethical climate does not mean that the individuals are very ethical, but rather that the members of an organisation are in agreement regarding what is seen as ethically correct behaviour (Dickson *et al.*, 2001). Dickson *et al.* (2002) identify three main factors influencing the ethical climate of an organisation, namely social norms, organisational form, and firm-specific factors.

The term social norms refers to society's beliefs regarding ethical behaviour. Organisations are embedded in the social norms of the society within which they are situated, thus what is regarded as ethical in the society will also have an influence on what is seen as ethical within the organisation. The shared perceptions of employees regarding the working environment also become part of the social norms and guide employee behaviour. The values of society in general thus influence the way in which employees perceive the ethical climate of the organisation.

The form of the organisation refers to whether the organisation can be described as mechanistic or organic (Dickson *et al.*, 2001). A mechanistic organisation is a bureaucratic organisation with clearly defined goals and responsibilities, which is strongly governed by a set of rules and policies. An organic organisation is more flexible and has fluid roles and less defined responsibilities and rules. In mechanistic organisations members are in agreement regarding the rules and regulations and the expectations placed on individuals. In organic organisations the rules are less clear and members tend to solve problems as they see fit. In mechanistic organisations the focus is on rules and behaviours while in organic organisations the focus is on values and goals (Dickson *et al.*, 2001).

Firm-specific factors affecting the ethical climate of an organisation include the legal influences, organisational history and the profit margin of the organisation. Some industries are more influenced by legal aspects than others. For example, the medical industry has its

own code of conduct and guidelines for enforcing ethical business practices and regulating doctor and patient relationships. In addition, every organisation's history influences the way in which current ethical dilemmas are viewed and handled. Finally, the profitability of the organisation plays a role in terms of the compensation system that is in place, the shared prices and the strength of competitors.

Dickson *et al.* (2001) state that firm-specific factors have the strongest influence on the ethical climate. Other factors influencing ethical climate include the environmental conditions surrounding the organisation and the trust among members. If the environmental conditions are unstable, members may be unsure of what decision to make in the organisational context and instead depend on their own personal code of ethics (Dickson *et al.*, 2001). It is thus good for organisations if employees internalise the values of the organisation and make them their own, thus limiting the occurrence of decisions that are in conflict with the values of the organisation.

Trust plays an important role in organisational climate because it is a prerequisite for positive interactions and good relationships between employees. Trust forms the foundation of employee relationships where the individuals experience a degree of vulnerability (Gould-Williams, 2007). In organisations where employees are able to trust management and each other communication and cohesion is better and problems can be dealt with openly and honestly.

In summary, an organisation's ethical climate is a special type of organisational climate that incorporates the moral aspects of the organisation and its members. In order to promote a good ethical climate management should implement clear policies and regulations and provide training with regard to ethically correct behaviour and dealing with ethical dilemmas. When employees' have shared perceptions of the policies, practices and procedures relevant to ethics these will be adopted into the personal value-chain of the individual members. The ethical correct behaviour thus becomes a natural process of simply doing the right thing because it is right and not because it is expected. Managers can further promote ethical behaviour by providing employees with constructive feedback with regard to their ethical behaviour and rewarding employees for showing the correct behaviour (Grojean *et al.*, 2004).

3.10. CONCLUSION

Organisational climate is an important part of organisational functioning and can provide insight into other important business functions (Zeeman, 2005). Various research studies have linked climate to other business practices such as performance, leadership, project success, job satisfaction, organisational commitment, organisational change, innovation, health and safety, and ethics. Kangis and Williams (2000) found that organisational climate influences the cognitions, attitudes and behaviour of employees and is thus linked to job satisfaction, organisational commitment and turnover. If an organisation is able to effectively integrate climate with these functions it can result in an improvement in the overall performance of the organisation and help the organisation to stay competitive in the ever-changing global marketplace (Davidson, 2003).

Organisations need to undergo constant change in order to stay competitive and organisational climate can help to make that change process easier on employees and make them less resistant. When a positive organisational climate is maintained employee morale will be higher and employees will be more motivated to give their best to the organisation. Organisational climate can also serve as an effective management tool for predicting organisational problems and prevent them before they arise, such as preventing accidents by implementing safety measures. Good communication channels, employee involvement, effective leadership styles and appropriate reward systems are all tools managers can use to improve the climate of the organisation.

CHAPTER 4: DIMENSIONS OF ORGANISATIONAL CLIMATE

4.1.   INTRODUCTION

The Organisational Climate Measure (OCM) is a global multi-dimensional measure of organisational climate, designed to be theoretically grounded, consistent, specifying the appropriate frame of reference and making the questionnaire applicable to all levels of an organisation (Patterson, 2005). As previously discussed organisational climate is a very complex construct and can be divided into a number of subdivisions or dimensions. The dimensionality of organisational climate is one of the main problems influencing research results. As far back as 1985 researchers such as W. H. Glick have argued that the multiple dimensions have rendered the concept of climate virtually useless as it is too broad to be measured. The competing values model developed by Quinn and Rohrbaugh (1981, 1983) is based on a series of organisational climate studies conducted over the past few decades and provides a comprehensive framework of dimensions.

The competing values model is based on the assumption that organisational climate can be best described by combining the essential dimensions of organisational climate, namely internal versus external orientation as well as flexibility versus control (Quinn & Rohrbaugh, 1981). This model has been used in various research studies and provides a framework of values underlying organisational climate (Gifford, Zammuto, & Goodman, 2002). The model is based on the premise that managerial ideologies are institutionalised over time and form the basis for individual ideologies, thus influencing the decisions and actions of employees (Zammuto, Gifford, & Goodman, 2000). These ideologies can be transferred by means of education and training and form the foundation of the assumptions, values and beliefs on which the culture and climate of an organisation are based.

The model focuses on the organisational level of analysis in order to include a broad class of variables (Patterson *et al.,* 2005). The major advantage of this model is the fact that it is derived from organisational psychology and it is based on established management theories (Cooil *et al.,* 2009). It is also rooted in four major schools of study in relation to organisational effectiveness and summarises all the main approaches over the last 100 years into a single framework (Patterson *et al.,* 2005).

The Organisational Climate Measure (OCM) developed by Patterson *et al.* (2005) is based on the competing values model and is divided into four broadly conceptualised domains or

quadrants, namely the human relations quadrant, the internal processes quadrant, the open systems quadrant, and the rational goal quadrant (Patterson *et al.*, 2005, p. 385-386). Each of these quadrants contains certain climate scales and calls attention to the opposing values in organisations as well as the desired outcomes. Figure 4.1 provides a visual representation of the four quadrants with their underlying dimensions. The model proposes that organisations will be active in all four quadrants but with differing strengths depending on their effectiveness. The dimensions were identified based on earlier studies and the goal of the model was to include dimensions that can adequately represent each of the four quadrants. A total of 17 dimensions are included in the OCM, which is discussed in this chapter.

Figure 4.1: Competing values model

Internal

F O C U S

Human Relations

- Involvement
- Autonomy
- Welfare
- Training
- Integration
- Supervisory support

Internal Process

- Formalization
- Tradition

Open Systems

- Flexibility and Innovation
- Reflexivity
- Outward focus

Rational Goal

- Clarity of organisational goals
- Effort
- Efficiency
- Quality
- Pressure to produce
- Performance

External

Flexible ORIENTATION *Controlled*

Adapted from: Patterson *et al.* (2005, p. 385-386). Validating the organizational climate measure: Links to managerial practices, productivity and innovation. *Journal of Organizational Behavior*, 26, 379-408.

4.2. THE HUMAN RELATIONS QUADRANT

The human relations quadrant is internally focused with flexible orientations. This model thus proposes that trust and supportive relationships in the work environment can be obtained by means of developing human resources and empowering employees (Patterson *et al.*, 2005).

Patterson *et al.* (2005) identify six climate dimensions in the human relations quadrant namely involvement, autonomy, welfare, training, integration and supervisory support.

4.2.1. Involvement

Employee involvement focuses on the level of input that employees are allowed to make with regard to company decision-making and problem-solving, especially when it concerns them. When employees are encouraged to be involved in company procedures, they are more likely to be committed to achieving overall organisational success (Robbins, 2005).

4.2.2. Autonomy

Autonomy is related to job design. Autonomy is high when jobs allow employees to enjoy more freedom and independence with regard to the work that they do and the procedures that they use (Robbins, 2005). When employees feel that management trusts them to take the initiative and make their own work-related decisions they tend to be more motivated to do a good job and receive good feedback.

4.2.3. Supervisory support

Supervisory support refers to the extent to which employees perceive supervisors and managers to be supportive and understanding with regard to their needs (Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002). Making use of supportive leadership styles results in higher levels of performance and satisfaction (Robbins, 2005). Supervisory support is effective when employees perceive their supervisors to be approachable, friendly, confident, and view them as people that can be relied upon to give guidance and support.

4.2.4. Integration

Integration involves the level of trust and cooperation between different teams and departments within an organisation that need to work together in order to achieve individual and common goals (Patterson *et al.*, 2005; Nauta & Saunders, 2000). Good integration leads to improved communication and information sharing and lower levels of inter-departmental conflict.

4.2.5. Welfare

Welfare refers to the extent to which the organisation takes care of the employees and values their health and safety (Patterson *et al.*, 2005). Promoting safe working conditions and a healthy environment leads to a decrease in absenteeism and turnover and an increase in employee morale. When employees feel that the organisation looks after their interests and that everybody is treated fairly and equally they feel less negative towards their work environment.

4.2.6. Training

The training dimension of organisational climate has to do with the extent to which the organisation invests in the training and development of employees (Patterson *et al.,* 2005). Investing in the training of employees helps them feel like valued members of the organisation and enables them to undergo personal growth, thus leading to increased work performance. Training can also increase the self-efficacy of employees and reduce job stress and related health and performance issues (Robbins, 2005). Training is not only necessary when introducing new employees to the organisation or in the case of career advancement but also when implementing new processes or equipment, dealing with unsatisfactory job performance, preventing employee skills from becoming obsolete and for satisfying the personal growth needs of employees (Grobler, Wärnich, Carrel, Elbert, & Hatfield, 2009).

4.3. THE INTERNAL PROCESS QUADRANT

The internal process quadrant is mainly internally focused and shares the basic principles of the bureaucratic system in terms of its focus on a controlled orientation. Within this quadrant control and coordination are achieved by making and implementing strict rules and regulations to which employees must adhere. The influence of changes in the environment is reduced by maintaining a level of stability and control (Patterson *et al.*, 2005). Patterson *et al.* (2005) identify two climate dimensions in the internal process quadrant, namely formalisation and tradition.

4.3.1. Formalisation

Formalisation refers to the extent to which the organisation is concerned with implementing and upholding a system of strict rules and procedures (Patterson *et al.*, 2005). It also concerns the degree to which jobs in the organisation are standardised (Robbins, 2005). Formalisation is high in companies where everything is done strictly according to the book and the breaking of rules is not tolerated.

4.3.2. Tradition

Traditional organisations have a conventional approach to running the business and adhere to set long-established rituals (Patterson *et al.*, 2005). Managers will keep doing things the same way they have always done and be resistant to new ideas, methods and procedures. Interacting management styles are currently considered to be more effective than traditional management styles (Robbins, 2005).

4.4. THE OPEN SYSTEMS QUADRANT

The open systems quadrant is mainly externally focused and has a controlled orientation. The main idea behind this model is that trust and supportive relationships in the work environment can be achieved through developing human resources and empowering employees (Patterson *et al.*, 2005). Patterson *et al.* (2005) identified three climate dimensions in the open systems model, namely reflexivity, flexibility and innovation, and outward focus.

4.4.1. Reflexivity

Reflexivity involves collaboration between employees. This means ensuring that employees work well together and continually changing and improving methods and objectives in order to improve job performance. Reflexivity refers to how concerned an organisation is with reviewing objectives, strategies and work processes in order to assist employees in adapting to their surrounding environment (West, 2000). Through making the necessary improvements the organisation will be able to keep up with changes in the external environment and maintain a competitive advantage.

4.4.2. Flexibility and innovation

Flexibility relates to the degree of change in an organisation (Patterson *et al.*, 2005). Organisations are likely to lose their competitive advantage when they are not flexible enough to respond to changes in the internal and external environments. Organisations making use of more flexible work plans and benefit packages are more likely to achieve higher levels of employee satisfaction (Robbins, 2005).

Innovation refers to the extent to which employees are encouraged to help initiate new products, services and processes or come up with creative new ideas to improve existing products, services and processes (Robbins, 2005). In innovative organisations new ideas are readily available and accepted and people are always on the lookout for new ways of doing things and solving problems.

4.4.3. Outward focus

Outward focus concerns the organisations' sensitivity with regard to the needs of customers and customer satisfaction in general (Patterson *et al.*, 2005). An organisation that is outward focused will continually look for new opportunities in the external market and be quick to respond to the needs of customers.

4.5. THE RATIONAL GOAL QUADRANT

The rational goal quadrant is mainly externally focused with a controlled orientation. Within this model the belief is that norms and values can be associated with task-efficiency, employee productivity, performance feedback, and goal achievement. The emphasis is on maintaining well-defined goals and objectives. Patterson *et al.* (2005) identify six climate dimensions within the rational goal quadrant, namely pressure to produce, clarity of organisational goals, performance feedback, quality, efficiency and effort.

4.5.1. Pressure to produce

Pressure to produce refers to the extent to which managers and team leaders pressure employees to reach set targets (Patterson *et al.*, 2005). Although pressuring employees can be an effective tool to encourage them to put in the time and effort, too much pressure can

have negative consequences. High levels of pressure can lead to increased job stress, burnout and illness, which in turn lead to higher absenteeism and turnover percentages.

4.5.2. Clarity of organisational goals

Clarity of organisational goals refers to the extent to which the organisation is concerned with developing clear goals and objectives and communicating these to the employees (Patterson *et al.*, 2005). Goals that are clear and specific can help to eliminate any uncertainties employees may have, thus enabling them to create proper strategies and achieve superior performance outcomes (Robbins, 2005). When organisational goals are clear it means that all employees understand what the organisation is doing and where it is going.

4.5.3. Performance feedback

Performance feedback involves the extent to which managers and team leaders provide employees with clear feedback regarding their job performance (Patterson *et al.*, 2005). Providing employees with effective feedback ensures that employees are aware of the areas that they need to improve on and they are given the opportunity to increase their individual performance (Robbins, 2005). A well-structured performance feedback interview can also help to motivate employees and provide them with much needed direction and support.

4.5.4. Quality

Quality concerns superior product and service delivery and focuses on how important it is to the organisation to maintain high standards (Patterson *et al.*, 2005). In recent times increased market pressure, caused by too many competing organisations, has resulted in the need for lowered costs while still maintaining high quality products and services (Robbins, 2005). A focus on quality can thus be regarded as a measure for ensuring the financial success of an organisation. Managers can improve quality by implementing programs such as total quality management, which is driven by achieving customer satisfaction.

4.5.5. Efficiency

Efficiency involves the job performance of employees. In order to maintain high levels of productivity and efficiency organisations need all their employees to perform to the best of their abilities (Patterson *et al.*, 2005). Organisations striving to be efficient tend to conduct

thorough planning and scheduling and organise work to save time and money and meet targets.

4.5.6. Effort

Effort refers to employees' willingness to work hard in order to achieve their personal goals and targets, but also to achieve the overall goals and objectives of the organisation (Patterson *et al.*, 2005). The amount of effort that employees put into their work can be better understood through the use of the expectancy theory. According to the principles of the expectancy theory an employee will be more willing to act in a certain way if he or she expects that the act will be accompanied by an attractive outcome or reward (Robbins, 2005). Employees will thus put in the maximum effort when they believe that this effort will be recognised in their performance appraisals and lead to rewards that they consider to be meaningful and worth the effort. Rewards and recognition can thus be seen as effective management tools to increase employee commitment and enthusiasm.

4.6. CONCLUSION

The competing values model is a good representation of the multi-dimensionality of organisational climate. The dimensions discussed in this chapter clearly illustrate that climate can be strongly linked to other business functions and is an important contributor to the overall effective functioning of an organisation. If managers are aware of these dimensions they will be more equipped to ensure that employees are happy and that work is done effectively. This will contribute towards achieving the long-term objectives of the organisation and maintaining a competitive advantage. Each dimension is evaluated by the individual employees and the perceptions they form influence the interactions between members of the organisation and their attitudes towards the organisation (Neal *et al.*, 2000; Nwankwo *et al.*, 2004).

The competing values model cleary shows that regardless of the status or approach of the organisation, climate remains an important determinant of business success (Nwankwo *et al.*, 2004). It is also evident that the weight and importance of dimensions varies depending on the type of organisation and the nature of the circumstances.

CHAPTER 5: RESEARCH DESIGN AND DATA ANALYSIS

5.1. INTRODUCTION

When conducting research it is important to plan ahead in order to ensure that the research question is answered and the objectives are achieved. Research success depends on following a clear and structured process that will deliver sufficient results to shed light on the problem under investigation. It is therefore crucial to take the time to plan the research design and decide which methods will be most effective. The "research design is the plan according to which we obtain research participants and collect information from them" (Wellman, Kruger, & Mitchell, 2005, p. 52). Once clarity regarding the data collection procedures is obtained the next step is to decide on the best methods and measurements for analysing the data and presenting the results.

In this chapter the main research design and methods used during the study are discussed. The chapter focuses specifically on the research paradigm, the method of inquiry, the sampling technique, the data gathering methods and analysis, the quality and rigour of the study and the ethical considerations with regard to the study.

5.2. RESEARCH PARADIGM/PHILOSOPHY

The term paradigm refers to the basic set of beliefs that guide the actions and behaviour of individuals (Creswell, 2008). Every researcher has some basic assumptions about the nature of the world, the way in which knowledge is produced and the methods that will be most effective in uncovering certain truths. These assumptions influence the way in which data is collected and interpreted. The paradigm of the researcher thus influences the results of the study.

5.2.1. Main research paradigm

This study was guided by the positivist paradigm, which is strongly rooted in the natural sciences. Positivistic research is regarded as scientific and objective. The researcher is seen as impartial throughout the study and remains emotionally uninvolved. Positivistic research makes use of quantitative methods where the researcher is in control of the process and the variables can be carefully manipulated (Kotze, 2009).

5.2.2. The main Ontological, Epistemological and Axiological assumptions behind the paradigm

The main ontological, epistemological and axiological assumptions behind the positivistic paradigm are explained below (Kotze, 2009).

- Ontology: Ontology concerns a person's beliefs regarding both reality and truth. According to the positivistic approach reality is singular and can be identified and captured. Reality thus consists of constant pre-existing patterns that can be discovered and measured. Reality is not seen as being time-bound or context-bound, which means that the results of positivistic studies can be generalised.

- Epistemology: The term epistemology refers to a person's beliefs regarding knowledge and knowledge creation. In the positivistic approach the researcher and participants are seen as being independent and the researcher is able to study the participants without influencing them and without being influenced by them. Rigorous and standardised procedures should be followed to obtain the data. This means that the researcher is able to study the topic and participants objectively without bias. In positivistic research the values and opinions of the researcher should not influence the results of the study in any way and knowledge is created by verifying the hypotheses or facts. A study is considered true and verifiable if its findings can be replicated.

- Axiology: Axiology concerns a person's beliefs regarding the role that values play in research. The positivistic research approach does not incorporate the values of the researcher and the assumption is that the researcher must control his or her own emotions and opinions and not let them influence the results of the study.

5.2.3. Justification for use of the positivistic paradigm

The study made use of a quantitative approach and data was obtained by means of standardised questionnaires. The researcher remained objective throughout the research process and did not interact with the participants. A thorough literature review was conducted before the data was analysed in order to ensure a comprehensive understanding of the construct of organisational climate. The results were obtained through the use of proven statistical methods and the construct measured (organisational climate) is seen as consisting of pre-existing patterns that can be measured effectively.

5.3. DESCRIPTION OF INQUIRY STRATEGY AND BROAD RESEARCH DESIGN

The inquiry strategy and broad research design are discussed in this section in order to explain the general characteristics of the study. An inquiry strategy refers to the type of research that is used to solve a particular research problem (Kotze, 2009). In this study the research problem was addressed through the use of quantitative research methods.

5.3.1. The basic characteristics of quantitative research

In this study empirical data was collected and analysed through the use of a quantitative research approach. "Quantitative research is a process that is systematic and objective in its ways of using numerical data from only a selected subgroup of a universe to generalise the finding[s] to the universe that is being studied." (Maree, 2007, p. 145).

The basic characteristics of quantitative research include (Welman *et al.*, 2005, pp. 8-9):
- Evaluating objective data consisting of numbers;
- Analysis based on complex structured methods limiting flexibility;
- Dealing with an abstraction of reality rather than with everyday life;
- Understanding the facts by investigating from an outsider's perspective, and remaining detached and objective;
- Keeping the research process as stable as possible with a focus on causal aspects and the collection of facts;
- Controlling the structure and investigation in order to identify and isolate variables;
- Focusing on consistent and stable measurements; and
- Suitability for research studies with large populations.

5.3.2. Survey research as a form of quantitative research

The term survey research refers to any research that involves the gathering of information about the characteristics of individuals or groups by analysing their responses to a set of predetermined questions (Leedy & Ormrod, 2005). In this study data was collected through the use of a structured questionnaire, the OCM, which consists of close-ended questions. Survey research is an effective means of collecting empirical, numerical or primary data and provides a good overview of a representative sample from a large population. Survey research is also a good approach for studies rooted in the positivist paradigm (Mouton, 2001).

When analysing data obtained by means of surveys or questionnaires descriptive statistics (summary of data based on scientific calculations) and inferential statistics (assumptions with regard to the population) are used (Jargowsky & Yang, 2005). Typical techniques for analysing the data statistically include correlations, regression analysis, factor analysis and the use of tabulations and graphs (Mouton, 2001).

Some of the advantages of survey research include high measurement reliability, high construct validity, and a large amount of data based on real-world observations (Kelley, Clark, & Brown, 2003). Survey research enables a researcher to gather versatile information with accuracy and is a good method for making comparisons and developing explanations (Jordaan, 2008). Gathering information via surveys also has the ability to save the researcher a lot of time, money and resources due to the fact that travelling and the required face-time are limited.

Survey research also has several disadvantages. These include a lack of insiders' perspective and understanding with regard to the underlying reasons for the participants' decision to respond in a specific way (Kelly *et al.*, 2003). In addition, data gained through the use of survey research tends to be very sample and context specific. The main errors that occur during survey research include errors with regard to sampling, data capturing, fieldwork and the use of inappropriate techniques (Mouton, 2001). Survey research methods also suffer from high refusal rates from people who are unwilling to participate in the study and the gathering of incomplete data.

5.3.3. Classification of the study's overall research design

The following research descriptors best describe the research design of the study:

- Empirical research: The study is an empirical study, which consisted of the collection and analysis of new data rather than existing data (Babbie & Mouton, 2001).

- Basic research: The main purpose of the research study was to increase scientific knowledge. The research results will be used for academic purposes only and will not be used to solve problems, make important decisions or develop interventions.

- Descriptive research: The study provides an in-depth description of the characteristics of organisational climate based on quantitative techniques and observations. Data was

collected from a large sample of respondents by means of questionnaires and then analysed statistically.

- Cross-sectional research: The results of the study are only representative of a single point in time as the respondents were asked to complete the questionnaire only once.

- Primary data: The data collected can be described as primary data because it was specifically collected for this study.

- Quantitative data: The data analysed during this study was collected by means of a standardised questionnaire. During the study numerical and empirical data was collected and analysed statistically.

5.4. SAMPLING

In this section the main sampling methods and techniques are discussed. The section strives to explain how the participants were selected to partake in the study.

The construct of organisational climate is specifically connected to the working environment and this study focused explicitly on the workplace within the South African context. The population for the study thus included the entire South African workforce, resulting in the organisations being the entities of sources and the working individuals the units of analysis. Due to time and resource constraints it was impossible to include the entire population in the study, and a sample representative of the population was thus chosen.

A combination of non-probability sampling techniques was used to obtain data for the study. In non-probability sampling the likelihood of a unit of analysis being included in the study cannot be specified (Welman *et al.*, 2005). The researcher first made use of convenience sampling, where participants who were the easiest to access were selected to partake in the study and complete the questionnaire (Maree, 2007). During this first sampling phase a minimum of 100 people were selected.

The study then made use of the snowball sampling technique. The chosen participants were therefore asked to identify other relevant and willing members from the population who could partake in the study. The objective was to repeat these sampling methods until a minimum

of 250 completed questionnaires were obtained. However, due to time constraints only 200 completed questionnaires were obtained and included in the data analysis process.

Non-probability sampling techniques are limited in that the researcher has little control over the sample and the likelihood exists that the sample will not be representative of the population (Maree, 2007). However, these sampling methods are low cost and are useful when there is little variation between the units of analysis in the population (Welman *et al.*, 2005).

This study was based on the assumption that the relationship or co-variance between item responses would be reasonably consistent across different types of jobs and departments as well as between people who differ with regard to age, sex and race. The chosen methods were thus considered to be adequate for the study.

5.5.   DATA COLLECTION

This section describes the data gathering method used and the research process followed. Other considerations, including obstacles, advantages and limitations, are also discussed.

5.5.1. <u>The method for collecting data</u>

Data for the study was collected by means of the Organisational Climate Measure (OCM), a structured questionnaire. The OCM was developed, piloted and standardised in the United Kingdom. It was thus not necessary to pilot the instrument again. However, the instrument had not previously been validated for use in South African organisations. The OCM originally consisted of 19 climate dimensions. During the pilot study Patterson *et al.* (2005) tested the usefulness of all of the climate scales in terms of validity and measurement invariance and this resulted in the refinement of the OCM to include only 17 item scales (see chapter 4). These 17 scales or dimensions are divided into four main quadrants, namely the human relations quadrant, the open systems quadrant, the rational goal quadrant, and the internal process quadrant.

The OCM is a self-administered questionnaire. In this study the OCM was completed electronically via the internet. Participants received an email resquesting that they complete the questionnaire. The researcher was not present during the completion of the questionnaire.

The OCM makes use of a 4-point Likert scale response format. Respondents are expected to answer the questions by choosing only one of four possible answers namely:

- 1: Definitely false;
- 2: Mostly false;
- 3: Mostly true; and
- 4: Definitely true.

The use of a 4-point scale instead of the more commonly used 5-point scale forces the participants to choose a definite answer as the middle option of being 'unsure' or 'maybe' is eliminated. This results in richer data and more accurate results.

The OCM was initially developed to include people from all organisational levels and the language used in the questionnaire is thus very straightforward and the instructions are easy to understand. In this study the questionnaire was accompanied by a brief summary clearly stating the purpose and format of the questionnaire in order to ensure that the participants were informed. The participants were asked to answer all the questions honestly and openly. On average, it took the participants approximately 25 minutes to complete the questionnaire (Patterson *et al.*, 2005).

The data collected in this study can be seen as primary data because it was received first hand from the participants for the purpose of this specific study. The data was collected by means of a standardised questionnaire and is therefore mainly in numeric format. The key characteristic under investigation was employee perceptions regarding the 17 identified dimensions of organisational climate. The data was collected over a period of ten months, during which time regular email reminders were sent out to serve as encouragement. A copy of the questionnaire is included as appendix A.

5.5.2. <u>Obstacles</u>

Several factors hindered the collection of data during this study. The first obstacle involved gaining access to the target population. Due to the fact that the questionnaire needed to be completed electronically and online the participants needed access to a computer as well as access to the internet. However, in some instances hard copies of the questionnaire were handed out when access to a computer was limited. In these cases the results were subsequently added to the electronic database.

The research was also hampered by the participants' willingness and availability of time to complete the questionnaire. In an attempt to address the time aspects the questionnaires were sent out well before the results were needed and the original deadline was also extended by two months in order to obtain more responses. Participant unwillingness was addressed by making use of the convenience sampling method and by stressing the importance of the study to the participants. Another obstacle faced in this study involved attempting to limit the number of incomplete questionnaires. The fact that participants were able to resume the questionnaire at a later stage decreased the occurrence of incomplete questionnaires.

5.5.3. <u>The advantages and limitations of the data collection methods</u>

There are several advantages associated with making use of a web-based questionnaire. These advantages are listed below (Jordaan, 2008).

- The results are recorded in real-time. This means that as soon as the respondent submits his or her questionnaire the results are available to the researcher.
- Web-based questionnaires provide increased protection of the anonymity of respondents as the researcher has no way of identifying the respondents. The respondents in this study were not required to provide their names and were able to remain completely anonymous. This also makes participants more willing to answer the questions honestly.
- Visual stimuli can be used to create interest.
- The study and participants are not limited by means of time and geographical constraints. Participants from all over South Africa were able to partake in the study without any extra travelling expenses, and the questionnaire could also be completed at any time during the day, thus making it more convenient for the participants.
- The use of a web-based questionnaire saves time and resources that can be better allocated to other parts of the research process such as the analysis process.
- The data is already computed and does not have to be captured again, thus eliminating human error.
- The researcher is not physically involved in the research process, thus decreasing the influence of personal bias.
- The likelihood of the participants' answers being contaminated is very low.
- Web-based questionnaires make provision for large samples.

However, the use of a web-based questionnaire also has certain limitations and disadvantages. These are listed below (Jordaan, 2008).

- The use of an electronic questionnaire means that the process and data are prone to technological glitches, viruses and power outages.
- Self-administered questionnaires are prone to low response rates as well as content biases. In the case of electronic questionnaires the researcher is also not there to assist or supervise the participants. In this study the low response rates were addressed by sending out regular email reminders in order to motivate and encourage the participants to complete the questionnaire. In addition, the language of the questionnaire is simple and straightforward in order to decrease the influences of content biases. The researcher was also available via email to attend to any enquiries or troubleshooting.
- Converting a survey to the web format requires specific skills.
- Participants are expected to have access to a computer, email and the internet as well as having some basic computer skills. These expectations resulted in the exclusion of certain members of the South African workforce.

5.6.   DATA ANALYSIS

In this section the main methods used to analyse the data obtained are discussed. The focus is on the software programs that were used, the reliability and validity measures that were implemented, the use of a confirmatory factor analysis and the interpretation of fit indices.

5.6.1. <u>SPSS for Windows and EQS for Windows as the main methods of data analysis</u>

The most important techniques that were used to analyse the data were reliability measures, validity measures and confirmatory factor analysis. All of these statistical methods were conducted by making use of both the Statistical Software Package for the Social Sciences (SPSS) from IBM Company and the Structural Equation Modeling Software (EQS) from Multivariate Software.

The responses from the online questionnaire were recorded immediately after the participants submitted the questionnaires. Internet software was used to monitor the number of responses throughout the collection process. Once the deadline for questionnaire submissions expired the recorded data was exported to a Microsoft Office Excel spreadsheet

in order to clean up and organise the data. The data was then exported into SPSS where reliability tests were conducted. Finally, the data was exported to EQS where five separate confirmatory factor analysis were conducted. The factor analyses focused on the following aspects of the data:

- The human relations quadrant;
- The internal process quadrant;
- The open systems quadrant;
- The rational goal quadrant; and
- The sum of the 17 OCM dimensions (the complete 82 items).

The information on the questionnaires was converted to numbers for the data analysis process. The data will be stored electronically for a ten year time period in accordance with stipulations. Respondents who were not able to complete the questionnaire due to time constraints or interruptions were able to save the results of the questions already completed and were able to resume the process at a later stage without having to restart the questionnaire. This made it easy for employees to complete the questionnaire whenever they had some free time available to them. Only submitted questionnaires were included in the analysis; thus eliminating the occurrence of incomplete questionnaires and missing data values.

5.6.2. Reliability

A questionnaire is regarded as a reliable instrument when it delivers the same results when administered at different times or to different groups of people from the same population (Maree, 2007). The results should thus be repeatable and consistent. This study focused on internal reliability, which is also known as internal consistency.

In order to measure internal consistency the correlations between the items of a test or measurement instrument are calculated in order to determine the degree to which all the items measure the same construct (Maree, 2007; Wellman *et al.*, 2005). The internal consistency is determined by making use of Cronbach's alpha coefficient. If the Cronbach's alpha coefficient is close to 1.00 it means that the items are strongly correlated with each other and the internal consistency is high. However, if the Cronbach's alpha coefficient is close to 0.00 it means that the items are not strongly correlated and that the internal consistency is low (Maree, 2007). The interpretations of Cronbach's alpha coefficient for this study are summarised in table 5.1.

Table 5.1:   Interpreting Cronbach's alpha coefficient

Cronbach's alpha	Interpretation
0.60	Adequate for exploratory purposes
0.70 to 0.80	Adequate for confirmatory purposes

Source: Garson (2008a). *Reliability analysis, from Statnotes: Topics in Multivariate Analysis*. Retrieved 07/30/2011 from http://faculty.chass.ncsu.edu/garson/PA765/reli-ab.htm

According to Garson (2008a), a Cronbach's alpha coefficient of 0.70 or higher should be obtained for confirmatory studies such as this one in order for the internal consistency to be at the desired level.

5.6.3. Validity

Validity refers to the degree to which a questionnaire measures what it is supposed to measure, in this case organisational climate (Maree, 2007). Four types of validity were considered important for this study, namely face validity, content validity, statistical validity and construct validity.

Face validity refers to the degree to which the questionnaire appears to be valid and content validity refers to the extent to which the OCM appears to cover the complete field of organisational climate (Maree, 2007). The OCM was already scrutinised and tested by experts in the field prior to the current study. The OCM is based on previous findings and proper literature reviews and has already been standardised in the United Kingdom. It can thus be assumed that the face validity and content validity are relatively high. The statistical validity of the OCM can also be regarded as good as the results of the study are based on established statistical methods and procedures.

Construct validity refers to how well the construct is covered by the instrument and measures different groups of related items (Maree, 2007). The focus of construct validity is on the logic of the items used to measure a social concept and is a way of defining the concept of organisational climate as well as determining whether the OCM is in accordance with the existing literature (Garson, 2008a). This means that the greater the similarity between the results obtained on the OCM in South Africa and in the United Kingdom the greater the construct validity.

Construct validity consists of two distinct types of validity, namely convergent validity (high correlations with measures of the same construct) and discriminant validity (low correlations

with measures of different constructs) (Wellman *et al.*, 2005). The convergent validity can be determined by assessing the internal consistency (the correlations among the items making up the OCM). The discriminant validity can be determined by conducting a confirmatory factor analysis. If the goodness-of-fit measures obtained during the confirmatory factor analysis are high, one can conclude that the constructs in the model are different and the discriminant validity is high (Garson, 2008a).

5.6.4. <u>Confirmatory factor analysis</u>

Factor analysis helps the researcher to determine which items measure the same dimension and can be grouped together (Maree, 2007). According to Garson (2008b), a factor analysis can be used for several purposes including:

- To reduce a large number of variables into a smaller number of factors;
- To justify the use of fewer tests by establishing which multiple tests measure the same factors;
- To validate a scale by demonstrating that the basic items load on the same factor;
- To eliminate scale-items that cross-load on more than one factor;
- To identify outliers; and
- To identify the groups or people that can be clustered together.

Factor analysis can be either exploratory or confirmatory. An exploratory factor analysis assesses the number of factors underlying the set of measurements. It then takes variables that correlate with each other and groups them together in order to determine which factors should be included and which factors should be eliminated (Tabachnick & Fidell, 2007). In contrast, a confirmatory factor analysis evaluates the structure of the obtained data and determines how strongly the data relates to the construct under investigation, in this case organisational climate (Nasser & Takahashi, 2003).

This study made use of several confirmatory factor analyses. Conducting a confirmatory factor analysis allows researchers to determine which of the variables can be regarded as good indicators of the respective factors, which variables can be regarded as bad indicators, and which variables do not have any impact at all. The results of the confirmatory factor analyses thus provide an indication of which of the items in the OCM are good indicators of organisational climate and which items can be regarded as irrelevant. It also helps to determine whether the number of dimensions and loading of variables being measured for people in South Africa are similar to the results obtained for people in the United Kingdom.

In chapter 4 the theoretical model of the OCM was discussed and all the different factors and dimensions were explained. Clear predictions were also made in terms of how these factors relate to one another and to the different dimensions or variables. The confirmatory factor analysis was used to determine whether the measures created really belong together and also whether there is a good fit between the hypothesised model and the observed data (Garson, 2008b).

Confirmatory factor analyses can be conducted throught the use of two different approaches, namely the traditional method or structural equation modeling (SEM). The SEM approach was followed in this study and the model was tested by making use of SEM goodness-of-fit measures. A SEM takes into account the modeling of interaction, non-linearities, correlated independents, measurement error, correlated error terms, multiple latent independents and one or more latent dependents (Garson, 2008b). The SEM approach enables the researcher to model causal relationships among latent variables and also explore confirmatory factor analysis measurement models (Garson, 2008b).

The maximum likelihood estimation method was used during the SEM to evaluate the coefficients and select estimates with the best chance of replicating the observed data (Garson, 2008c). According to Yuan, Bentler, and Kano (1997, as cited in Nasser & Takahashi, 2003) the maximum likelihood method is one of the most frequently used methods for evaluating models statistically.

The SEM process begins by describing the theoretical factor model and explaining the nature of the relationships between the factors and variables. The second step involves determining whether the model should be accepted or rejected by making use of the goodness-of-fit indices. Research has shown that the results from the indices are influenced by sample size (Sclove, 1998; Smith & Langfield-Smith, 2004). For instance, the chi-square value has a good chance of being significant when the sample size is very large. When this happens the model must be rejected regardless of whether the model describes the data well. Researchers are therefore encouraged to use a variety of fit indices instead of basing results on a single index.

There are two methods for fitting the model, namely principal axis factoring and principal component analysis. Principal axis factoring identifies the minimum number of factors necessary to explain the common variance of the set of variables, whereas principal component analysis identifies factors that can explain all the general and unique variance in a set of variables (Garson, 2008b). The principal axis factoring method was used during this

study. The decision to use this method was based on the fact that it is the preferred method to use during a SEM and is effective for identifying the structure of data (Engelbrecht, 2009).

When interpreting the results from a correlations matrix (SEM model) it is necessary to examine the factor loadings (correlation coefficients) between the variables (Garson, 2008b). In order to do this it is important to first explain the different type of variables and their underlying meanings. Correlation matrices typically include exogenous variables and endogenous variables. Exogenous variables are the independent variables, which are also known as the predictor variables. In contrast, endogenous variables are the dependent variables and are also known as the outcome variables (Schreiber, Stage, King, Nora, & Barlow, 2006). An example of a correlations matrix or SEM model is presented in figure 5.1.

Figure 5.1: Example of a SEM model
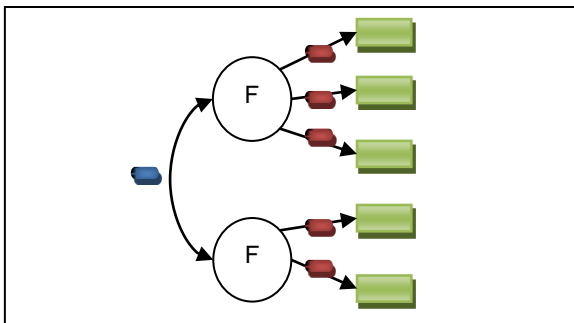
In figure 5.1 the exogenous variables (F1 and F2) are connected by curved arrows that represent the correlations between them. The exogenous variables are connected to the endogenous variables (green squares) by means of straight arrows representing the path of the casual relationship (Norman & Streiner, 2003; Sclove, 1998). The values next to the curved arrows (represented by the blue oval shape) give the strength of the correlations between the exogenous variables. The values next to the straight lines (represented by the red oval shapes) are called the standardised path coefficients and these values need to be positive. If these values are not positive it means that the casual relationship is moving in the wrong direction (from the predictor variable to the outcome variable).

The strength of the correlations between variables indicates how well the model fits the data. The percent of variance in all the variables accounted for by each factor can be calculated by taking the sum of the standardised path coefficients for the factor and dividing it by the number of variables (Garson, 2008b). In order to confirm that the factors are measuring the same construct, the correlations should be 0.70 or greater (Engelbrecht, 2009).

5.6.5. <u>Fit indices</u>

Goodness-of-fit indices provide an indication of how well a model fits the data from which it was generated (Field, 2005). According to Field (2005), a goodness-of-fit index is usually based on how well the data predicted by the model corresponds with the data that was actually collected. Goodness-of-fit indices can be categorised into two broad categories, namely absolute- and incremental fit indices. Researchers suggest reporting on indices from both categories (Nasser & Takahashi, 2003).

Most researchers recommend reporting on the chi-square and the root mean square error of approximation (both absolute fit indices) and then also on one or two of the baseline fit indices, such as the normed fit index and the comparative fit index (both incremental fit indices) (Garson, 2008c). Patterson *et al.* (2005) made use of three baseline indices, namely the normed fit index (NFI), the non-normed fit index (NNFI) and the comparative fit index (CFI). All three of these indices are expected to fit relatively well regardless of the size of the sample. According to Garson (2008c) the goodness-of-fit index (GFI) and the adjusted goodness-of-fit index (AGFI) have been found to yield meaningless negative values and are thus no longer in use. In Smith and Langfield-Smith's (2004) study the GFI and AGFI were also considered to be inappropriate for SEM studies. The fit indices used in this study are described below.

- <u>Chi-square (CMIN)</u>

    The chi-square test determines the discrepancies between the observed data and the anticipated model (Garson, 2008c). When the chi-square is significant it means that there is a poor model fit and when the chi-square is not significant it means there is a good model fit (Pallant, 2005). Chi-square values of 0.05 and lower are considered significant and indicate a poor model fit (Engelbrecht, 2009).

    The chi-square value is very susceptible to sample size. It is also influenced by model complexity, has no clear upper bound and does not vary from 0.00 to 1.00 (Hoyle & Panter, 1995). According to Engelbrecht (2009), the chi-square is also used under a null hypothesis and is more or less equivalent to its degrees of freedom. As a result of these disadvantages most researchers believe that when the sample size is 200 or higher and the other fit indices indicate a reasonable fit, the chi-square test can be disregarded (Garson, 2008c). Some of these disadvantages can be overcome by dividing the chi-square value by its degrees of freedom, also known as the relative chi-square value

(CMIN/df). The relative chi-square value should be between 1.00 and 3.00 for a satisfactory model fit (Garson, 2008c).

- Normed Fit Index (NFI)

The NFI is similar to the CFI but does not require any assumptions with regard to the chi-square (Garson, 2008c). The word 'normed' in the title of the index indicates that the index ratio falls between 0.00 and 1.00. In this index 1.00 is a perfect fit while values of 0.90 and higher can be regarded as satisfactory (Schumacker & Lomax, 2004). According to Ullman (2001) the NFI may be ineffective for small samples and when there are a high number of parameters included in the SEM model. It is therefore important to compare the results from the NFI with the results from the NNFI. The sample size in this study was not below 100 and was therefore regarded as satisfactory for a confirmatory factor analysis (Smith & Langfield-Smith, 2004). Although a very large number of parameters were included in the sum of the 17 OCM dimensions, separate confirmatory factor analyses were conducted for each of the four main quadrants, thus ensuring that those parameters were not too high.

- Non-normed fit index (NNFI)

The NNFI is similar to the NFI but unlike normed indices it does not always yield a value between 0.00 and 1.00. It is also somewhat susceptible to model complexity but is fairly independent of sample size (Garson, 2008c). Negative values indicate that the CMIN/df value for the null model is less than it is for the model of the researcher. A NNFI value of between 0.95 and 1.00 is indicative of a very good fit while values between 0.90 and 0.94 are still indicative of an acceptable fit (Schumacker & Lomax, 2004).

- Comparative Fit Index (CFI)

The CFI compares the existing model fit with a null model in order to determine the lack of fit caused by moving from the null model to the SEM model of the researcher. Although the CFI and the normed fit index (NFI) are very similar the CFI is less affected by sample size. According to Ullman (2001) the NFI is known to underestimate the fit for small samples.

- Standardise root mean square residual (SRMR)

The SRMR is based on standardised residuals and determines the average difference between predicted and observed variances. The SRMR is preferred over the standardise root mean square residual (RMR) (Garson, 2008c). A SRMR value of 0.00 indicates a perfect fit and values of less than 0.05 indicate a good model fit (Patterson *et al.*, 2005). According to Garson (2008c), values below 0.08 can still be regarded as a satisfactory model fit.

- Root mean square error of approximation (RMSEA)

The RMSEA does not require a comparison with a null model and is not particulary affected by sample size (Garson, 2008c). According to Schumacker and Lomax (2004), a RMSEA value of 0.05 or less is indicative of a good model fit while a value of between 0.06 and 0.08 can still be viewed as an adequate fit. The RMSEA value is reported with its confidence intervals. If the lower 90% confidence limit is close to 0.00 and the upper limit is less than 0.08 it is indicative of a good fit (Garson, 2008c).

Table 5.2 contains a summary of the cut-off values for each of the fit indices discussed.

Table 5.2: Summary of the cut-off values for the fit indices

Fit Index	Model fit	Value
1. Chi-Square value (Pallant, 2005).	Poor fit	</= 0.05
	Reasonable fit	0.06 – 0.08
	Good fit	> 0.08
2. Bentler-Bonett - Normed Fit Index (NFI) (Bentler & Bonnet, 1980). **3. Bentler-Bonett – Non-normed Fit Index (NNFI)** (Bentler & Bonnet, 1980). **4. Comparative Fit Index (CFI)** (Garson, 2008c).	Perfect fit	= 1
	Good fit	>0.95
	Reasonable fit	>0.90
5. SRMR (Patterson *et al.*, 2005).	Perfect fit	0.00
	Good fit	</= 0.05
	Reasonable fit	0.06 – 0.08
6. RMSEA (Raes, Dewulf, van Heeringin, & Williams, 2009).	Good fit	</= 0.05
	Reasonable fit	0.06 - 0.08
	Poor fit	> 0.08
The '<' stands for 'smaller than'	The '>' stands for 'greater than'	The '=' stand for 'equal to'

5.7. ASSESSING AND DEMONSTRATING THE QUALITY AND RIGOUR OF THE CHOSEN RESEARCH DESIGN

This section describes the relevant factors influencing the quality and rigour of the study as well as guidelines that were used to promote the quality of the obtained results.

5.7.1. Bias

Leedy and Ormrod (2005) define bias as any influence that may alter the data and lead to unreliable results such as the use of emotional language that can influence participants' answers. In this study special attention was paid to making the language and questions as easy to understand and as straightforward as possible, without asking leading questions. Participants were also able to complete the questionnaire at a time that was most convenient to them, thus lessening the influence of work-stress, interruptions, time constraints and the influence of other people.

5.7.2. Error

The two main errors of relevance to this study are sampling error and non-response error. Sampling error occurs when all of the units of analysis do not have the same probability of being selected for the study, while non-response error occurs when not all of the participants complete the questionnaire. However, the sampling methods that were used for this study can be regarded as sufficient and have been used previously by various researchers (Maree, 2007; Welman *et al.*, 2005). The influence of the non-response error was decreased by making use of snowball sampling and inviting more people to participate in the study.

5.7.3. Validity

There are a number of aspects that can negatively influence validity measures, namely (Maree, 2007, p. 218):

- Reliability: When the questionnaire is not reliable it is also not valid.
- Social desirability: This occurs when the participants answer in a way that is expected of them. However, as the OCM was self-administered and completely anonymous the influence of social desirability was decreased.

- Item bias: This occurs when external factors such as language differences influence the item scoring among groups. Special attention was given to the language of the questionnaire in an attempt to decrease item bias.
- Yes-response: This occurs when participants tend to answer 'yes' or 'no' to all of the questions. The influence of the yes-response was decreased by formulating the same questions in both a positive and negative manner in order to ensure that the answers are consistent.
- Bias in the process of generalising conclusions: There are currently no plans to repeat this study with a different sample, in another setting or at a later point in time. This may have a negative influence on the generalisation of results but is sufficient for the purpose of the study.
- Mono-method or mono-trait biases: The use of a single data gathering technique may result in bias. The purpose of this study was to standardise the OCM as a data gathering technique and this bias is thus not applicable.

5.7.4. **Other issues**

Additional issues that may have influenced the quality and rigour of the study are the fact that the OCM was completed electronically from different locations and computers all over South Africa. Although this method was convenient and saved time and money it also meant that the researcher had less control over the data gathering process as well as the circumstances in which the questionnaire was completed. The researcher was also not present to deal with any troubleshooting needs that may have arisen or addressed any questions that participants may have had. The use of an electronic questionnaire also means that all the respondents had to have access to a computer with internet access. In an attempt to address these issues the researcher was available via email to deal with any problems or questions. In addition hardcopy questionnaires were also made available to people who did not have access to a computer.

5.8.   **RESEARCH ETHICS**

The main ethical issues applicable to this study are discussed in this section. The focus is on ethical considerations with regard to access and permission, copyright, informed consent, anonymity, ethical data collection procedures and reporting, as well as obtaining the necessary ethical clearance.

5.8.1. <u>Issues regarding access and permission</u>

The researcher obtained the necessary access and permission to make use of the OCM within the South African context. No individual was forced or pressured to participate in the study and informed consent was obtained. The sample consisted only of adults and therefore it was not necessary to obtain parental permission. At no point in the research process were the participants subjected to any physical or psychological harm. The participants were also not forced to answer questions they did not want to or perform a task that may have caused them any distress.

5.8.2. <u>Issues regarding copyright</u>

A plagiarism form was completed and signed as confirmation that the content of this study is the author's original work. The necessary acknowledgement was provided where the work of other people was used.

5.8.3. <u>Informed consent</u>

All the individuals participating in the study did so freely and were able to withdraw at any point without suffering any negative consequences. The OCM version used in this study included a short disclaimer where the participant had to provide their consent to take part in the study. By clicking on the agree option the participants indicated that they understood their rights in terms of the study and that they participated willingly. They also gave permission for the results to be used for academic purposes. No incentives (financial/non-financial) were provided to participants.

5.8.4. <u>Anonymity</u>

The OCM does not require participants to provide any personal information such as names or contact details. The fact that the questionnaire was self-administered also promoted anonymity.

5.8.5. <u>Ethical data collection and report writing</u>

The research findings are presented fairly and accurately without any attempt to mislead. The information obtained during the study is stored in a safe place and only authorised people are able to access this information.

5.8.6. <u>The process for obtaining ethical approval</u>

The necessary approval to conduct the study and make use of human data was obtained from the Research Ethics Committee of the Faculty of Economic and Management Sciences at the University of Pretoria.

5.9. CONCLUSION

In this chapter the main research design and methods used during the study were explained as well as the underlying reasons for choosing these methods. The research process was described and any issues or problems that may influence the results were clarified and addressed as far as possible. The main method for data collection was the OCM and the main method for analysing the data was a confirmatory factor analysis. The results of the analyses are presented and discussed in the next chapter.

CHAPTER 6: RESEARCH FINDINGS

6.1. INTRODUCTION

In this chapter the results of the data analysis are presented and discussed. These data analysis methods include the internal consistency measures by means of Cronbach's alpha and the results from the confirmatory factor analyses and associated fit indices. The main objective of these analyses was to determine whether there is a good fit between the hypothesised model and the observed data. Five separate factor analyses were conducted, one on the sum of the 17 OCM dimensions and one for each of the four main quadrants of the OCM. The results of the confirmatory factor analysis also help to indicate which of the items in the OCM can be regarded as good indicators of organisational climate and which items can be regarded as bad indicators (Nasser & Takahashi, 2003).

The OCM consists of 82 items. These items are divided into 17 dimensions of organisational climate and each of these dimensions can be linked to one of the four quadrants associated with the competing values model (see chapter 4). Table 6.1 illustrates the distribution of the items and dimensions of the OCM into the four quadrants.

Table 6.1: **Distribution of items and dimensions of the OCM**

Human relations		Internal process		Open systems		Rational goal	
Dimensions	*Items*	*Dimensions*	*Items*	*Dimensions*	*Items*	*Dimensions*	*Items*
Autonomy	1-5	Formalisation	30-34	Innovation & Flexibility	39-44	Clarity of organisational goals	55-59
Integration	6-10	Tradition	35-38	Outward focus	45-49	Efficiency	60-63
Involvement	11-16			Reflexivity	50-54	Effort	64-68
Supervisory support	17-21					Performance Feedback	69-73
Training	22-24					Pressure to produce	74-78
Welfare	26-29					Quality	79-82

The results of the internal consistency measures are presented below, followed by the results of the confirmatory factor analyses which include the fit index measures and correlations matrixes.

6.2. INTERNAL CONSISTENCY

Internal consistency refers to the degree to which the items that make up a scale 'hang together' (Pallant, 2005). Field (2005) states that for a scale to be reliable it should consistently reflect the measuring construct. Internal consistency is thus very important in terms of the reliability and validity of a measurement instrument. One of the most commonly used methods for determining internal consistency is Cronbach's alpha coefficient (Wellman et al., 2007). The Cronbach's alpha coefficients for each of the 17 dimensions were computed using SPSS and are presented in table 6.2. Table 6.3 displays the Cronbach's alpha coefficient for each of the four main quadrants as well as for the sum of the 17 OCM dimensions (all 82 items). These values were computed using EQS.

Table 6.2: Summary of Cronbach's alpha for each of the 17 OCM dimensions

Dimension	Cronbach's Alpha (SA)	Cronbach's Alpha (UK)
Autonomy	0.915	0.67
Integration	0.968	0.86
Involvement	0.886	0.87
Supervisory Support	0.971	0.88
Training	0.978	0.83
Welfare	0.987	0.91
Formalisation	0.998	0.77
Tradition	0.997	0.73
Innovation & Flexibility	0.994	0.86
Outward Focus	0.993	0.83
Reflexivity	0.988	0.76
Clarity of Organisational goals	0.996	0.87
Efficiency	0.996	0.80
Effort	0.997	0.79
Performance Feedback	0.996	0.78
Pressure to Produce	0.994	0.79
Quality	0.997	0.80

Table 6.3: Summary of Cronbach's alpha for the sum of the 17 OCM dimensions as well as for each of the four main quadrants

Output	Cronbach's alpha
Human Relations	0.982
Internal Process	0.998
Open Systems	0.996
Rational Goal	0.998

Output	Cronbach's alpha
Sum of the 17 OCM dimensions	0.995

Values close to 1.00 mean that the items are strongly correlated and the internal consistency is high, while values close to 0.00 mean that the items do not correlate well and consequently the internal consistency is low (Maree, 2007). According to Garson (2008b) and Pallant (2005), values between 0.70 and 0.80 are satisfactorily for confirmative studies, while values higher than 0.80 mean that the internal consistency is very good. Although the results obtained in the United Kingdom provide evidence of good internal consistency for the OCM the results for the South African study are indicative of even better internal consistency.

Table 6.2 shows that with the exception of 'involvement', which has a Cronbach's alpha of 0.87 (indicative of a very good internal consistency), all of the climate dimensions have a Cronbach's alpha of over 0.90, which is indicative of a very good internal consistency. Table 6.3 shows that the internal consistencies for the sum of the 17 OCM dimensions as well as for each of the four main quadrants are also extremely good with values very close to 1.00. The high correlations indicate that the items of the OCM all measure the same construct, namely organisational climate (Wellman *et al.*, 2005).

6.3. CONFIRMATORY FACTOR ANALYSIS

The confirmatory factor analysis was conducted by following the SEM approach and making use of EQS software. The maximum likelihood estimation method was used during the SEM to evaluate the coefficients. The model fit was measured by making use of several goodness-of-fit indices namely the chi-square with its relative value (CMIN/df), the NFI, the NNFI, the CFI, the SRMR, and the RMSEA. The results of the fit indices allow for the determination of whether the model should be accepted or rejected.

6.3.1. The human relations quadrant

The following results were obtained from the confirmatory factor analysis conducted on the human relations quadrant.

Table 6.4: The chi-square value for the human relations quadrant

Chi-Square Output	CMIN	df	CMIN/df
Chi-square (default model)	698.773	362	1.93

Chi-Square Output	CMIN	df	CMIN/df
Chi-square (default model) for UK	7372.4	506	14.57
Probability value for the chi-square statistic (saturated model)	0.00000		

The results of the chi-square test provide an indication of the fit between the observed data and anticipated model (Garson, 2008c). Chi-square values of 0.05 and lower are significant. However, the chi-square model needs to be insignificant for a good model fit (Pallant, 2005). Table 6.4 shows that the chi-square value is 0.00000, which means that the test is significant and the model fit is unsatisfactory. Due to the influences of sample size the relative chi-square value (CMIN/df) as well as the results of other fit indices were also explored. Relative values between 1.00 and 3.00 are indicative of a satisfactory model fit (Garson, 2008c). The relative value is 1.93 and represents a satisfactory model fit.

Table 6.5: The baseline fit indices for the human relations quadrant

Output	Values SA	Values UK
Bentler-Bonett – Normed Fit Index (NFI)	0.92	0.88
Bentler-Bonett – Non-normed Fit Index (NNFI)	0.96	0.88
Comparative Fit Index (CFI)	0.96	0.89

For the NFI, NNFI and CFI values between 0.95 and 1.00 indicate a very good fit, but values between 0.90 and 0.94 are still satisfactory (Schumacker & Lomax, 2004). Table 6.5 shows that both the NNFI and the CFI values are above 0.95 and indicate a good model fit, while the NFI indicate a satisfactory model fit.

Table 6.6: The SRMR and RMSEA values for the human relations quadrant

Output	Values
Standardised RMR (SRMR)	0.033
Root Mean-Square Error of Approximation (RMSEA)	0.068
90% Confidence Interval of RMSEA	(0.060, 0.076)

The closer the SRMR value is to 0.00 the better the model fit. Values below 0.05 are indicative of a good model fit (Patterson, 2005). In table 6.6 the SRMR value is 0.033, which is below 0.05 and indicates a good model fit. RMSEA values of 0.05 or less are indicative of a good model fit while a value of between 0.06 and 0.08 can still be viewed as an adequate fit (Schumacker & Lomax, 2004). The RMSEA value for this quadrant is 0.068, which falls between 0.06 and 0.08 thus indicating an adequate fit. With regard to the confidence

intervals the lower limit should be close to 0.00 and the upper limit should be less than 0.08 in order to indicate a good fit (Garson, 2008c). In table 6.6 the lower limit is 0.06 and the upper limit is 0.076, which falls within the boundaries of an acceptable model fit.

Figure 6.1: Human Relations Model
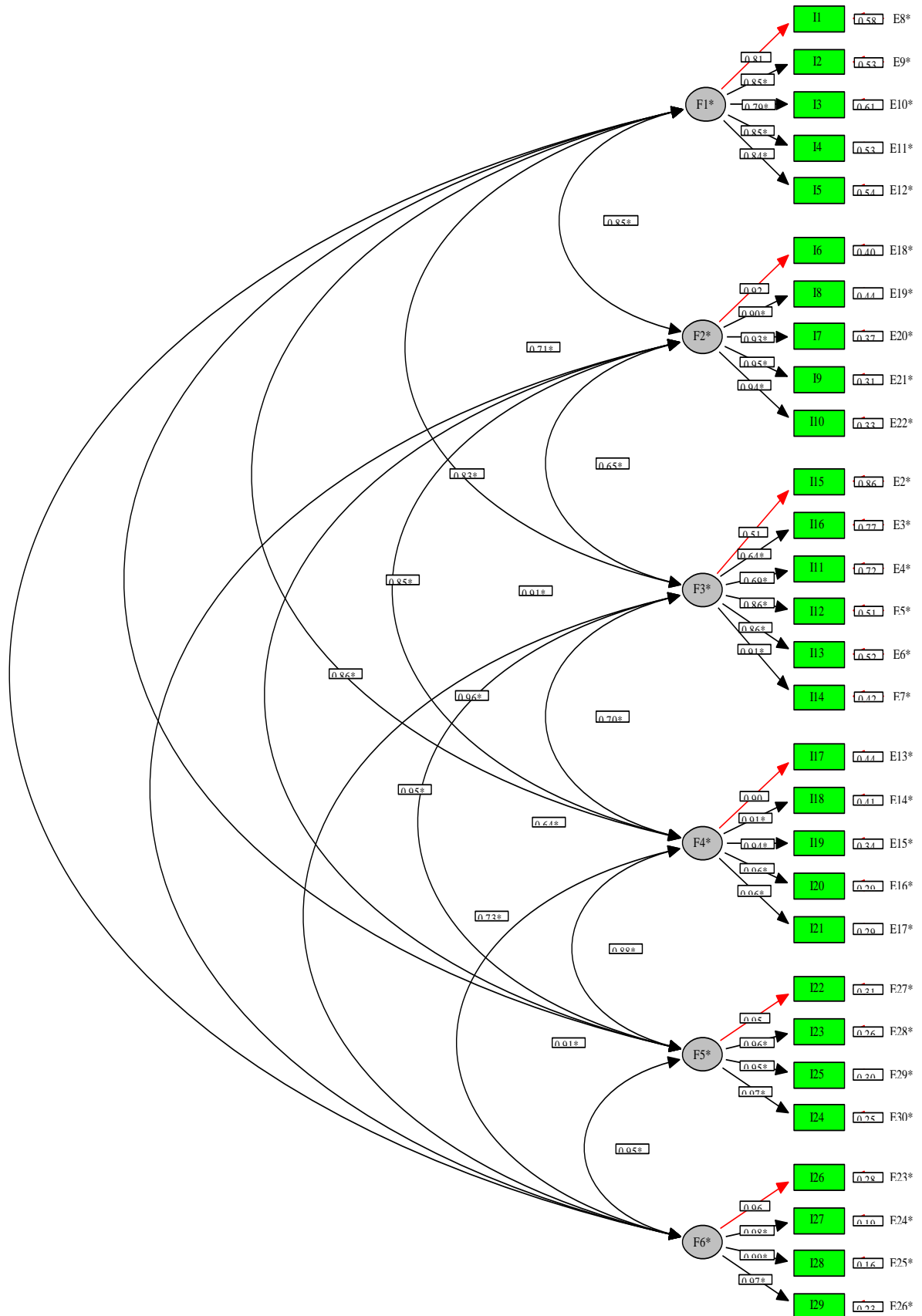
In order to interpret the results it is important to examine the factor loadings or correlations between the variables as depicted in a matrix (Garson, 2008b). There are two types of matrixes to choose from, namely the correlations matrix and the covariance matrix. All of the human relations variables are presented in figure 6.1. Factor one to six (the grey circles) represents the exogenous variables and the variables in the square green boxes are the endogenous variables. The variables can be described as follows:

- Factor 1: Autonomy
- Factor 2: Integration
- Factor 3: Involvement
- Factor 4: Supervisory Support
- Factor 5: Training
- Factor 6: Welfare

All the signs of the standardised path coefficients are positive which means that they are in the right direction. The values next to the curved arrows show the strength of the correlations between the OCM dimensions. The loadings in a confirmatory factor analysis should be 0.70 or higher in order to confirm that the factors are indeed measuring the same construct (Engelbrecht, 2009). In this quadrant the values between factors two and three (0.65) and between factors three and five (0.64) are below 0.70. This means that there are not strong correlations between integration and involvement and between involvement and training. All of the other correlations are above 0.70, which shows that the dimensions measure the same construct. Welfare is especially highly correlated with training and integration with values of 0.95.

Involvement has three items (I15, I16 and I11) with values lower than 0.70 and this may be the cause of the low correlations between involvement and integration and between involvement and training. The percent of variance in all the variables accounted for by each factor can be calculated by taking the sum of the standardised path coefficients for the factor and dividing it by the number of variables (Garson, 2002a). The sum of the standardised path coefficients for involvement is 0.75, which is still within the acceptable range. However, if these three items are eliminated the results are likely to be better and the correlations between involvement and integration and involvement and training may also be higher.

6.3.2. Internal process

The following results were obtained from the confirmatory factor analysis conducted on the internal process quadrant.

Table 6.7: The chi-square value for the internal process quadrant

Chi-Square Output	CMIN	df	CMIN/df
Chi-square (default model)	59.235	26	2.28
Chi-square (default model) for UK	645.2	26	24.82
Probability value for the chi-square statistic (saturated model)	0.00021		

Table 6.7 shows that the chi-square value for this quadrant is 0.00021. Although this value is higher than the value obtained for the human relations quadrant, it is still less than 0.05 thus indicating an unsatisfactory model fit. However, the relative value is 2.278 and represents a satisfactory model fit.

Table 6.8: The baseline fit indices for the internal process quadrant

Output	Values SA	Values UK
Bentler-Bonett – Normed Fit Index (NFI)	0.991	0.91
Bentler-Bonett – Non-normed Fit Index (NNFI)	0.993	0.88
Comparative Fit Index (CFI)	0.995	0.92

Table 6.8 shows that the NFI, NNFI and CFI values are all very close to 1.00 and indicate a very good model fit.

Table 6.9: The SRMR and RMSEA values for the internal process quadrant

Output	Values
Root Mean-Square Residual (RMR)	0.065
Standardised RMR (SRMR)	0.002
Root Mean-Square Error of Approximation (RMSEA)	0.080
90% Confidence Interval of RMSEA	(0.053, 0.107)

Table 6.9 shows that the SRMR value is 0.002, which is below 0.05 and indicates a good model fit. The RMSEA is 0.080 which is very close to the cut-off value but can still be regarded as an acceptable fit. With regard to the confidence intervals the lower limit is 0.053 and the upper limit is 0.107 which are not within the boundaries of an acceptable model fit.

Figure 6.2: Internal Process Model
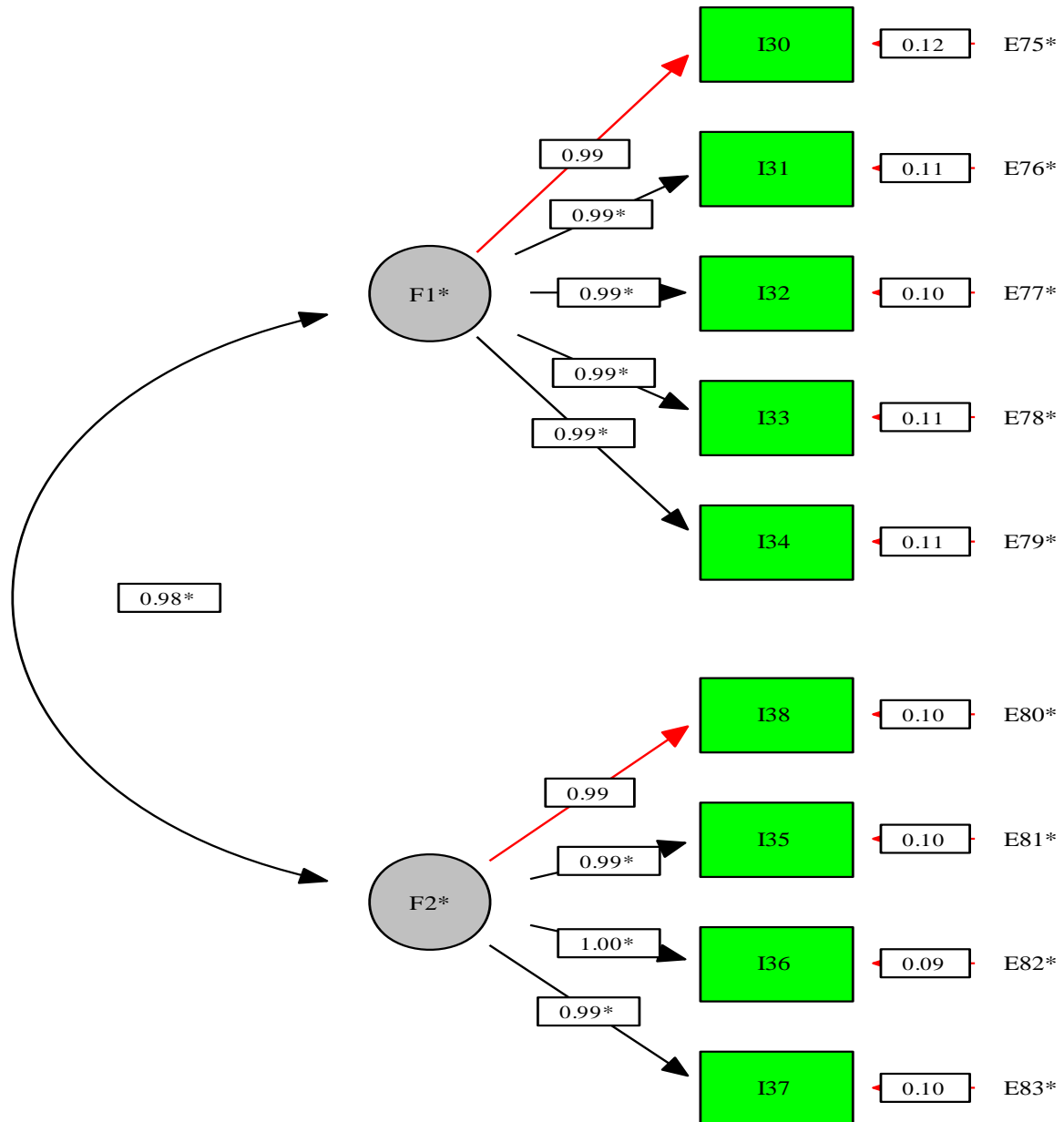
All of the internal process variables are presented in figure 6.2. The variables can be described as follows:

- Factor 1: Formalisation
- Factor 2: Tradition

The signs of the standardised path coefficients are all positive which means that they are in the right direction. The value between factor one and factor two is 0.98 which indicates a very strong correlation between formalisation and tradition. It can thus be assumed that both dimensions measure the same construct.

6.3.3. Open systems

The following results were obtained from the confirmatory factor analysis conducted on the open systems quadrant.

Table 6.10: The chi-square value for the open systems quadrant

Chi-Square Output	CMIN	df	CMIN/df
Chi-square (default model)	264.457	101	2.618
Chi-square (default model) for UK	1583.6	101	15.68
Probability value for the chi-square statistic (saturated model)	0.00000		

Table 6.10 shows that the chi-square value is 0.00000, which means that the test is significant and the model fit is unsatisfactory. However, the relative value does fall between 1.00 and 3.00, which is indicative of a satisfactory model fit (Garson, 2008c).

Table 6.11: The baseline fit indices for the open systems quadrant

| Output	Values SA	Values UK
Bentler-Bonett – Normed Fit Index (NFI)	0.97	0.93
Bentler-Bonett – Non-normed Fit Index (NNFI)	0.98	0.92
Comparative Fit Index (CFI)	0.98	0.93

Table 6.11 shows that the NFI, NNFI and the CFI all have values of over 0.95 and indicate a good model fit. According to these indices the model can thus be accepted.

Table 6.12: The SRMR and RMSEA values for the open systems quadrant

Output	Values
Standardised RMR (SRMR)	0.006
Root Mean-Square Error of Approximation (RMSEA)	0.090
90% Confidence Interval of RMSEA	(0.077, 0.103)

In table 6.12 it is evident that the SRMR value is 0.006, which is below 0.05 and indicates a good model fit. The RMSEA value is 0.09. This is not a satisfactory fit as it is higher than 0.08. However, Steiger (1995) suggests that an RMSEA value of less than 0.10 should still be considered acceptable. With regard to the confidence intervals the lower limit is 0.077 and the upper limit is 0.103, which also do not indicate a good model fit.

Figure 6.3: Open Systems Model
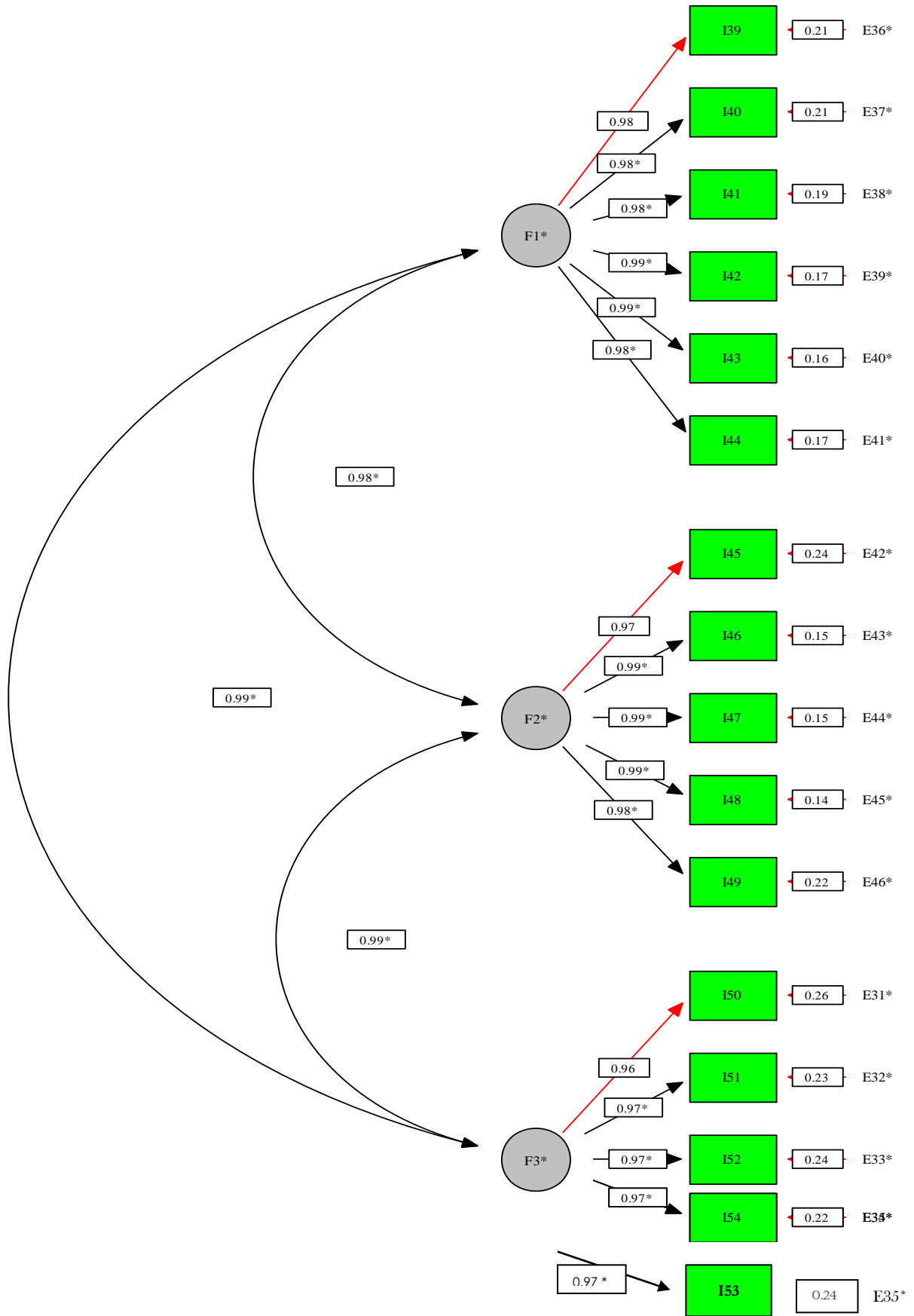
All of the open systems variables are presented in figure 6.3. The variables can be described as follows:

- Factor 1: Innovation and flexibility
- Factor 2: Outward focus
- Factor 3: Reflexivity

The signs of the standardised path coefficients are all positive which means that they are in the right direction. In figure 6.3 there is not a single value lower than 0.97, which indicates that the correlations between the dimensions of the open systems quadrant are very strong and the dimensions thus measure the same construct and fit together.

6.3.4. Rational goal

The following results were obtained from the confirmatory factor analysis conducted on the rational goal quadrant.

Table 6.13: The chi-square value for the rational goal quadrant

Chi-Square Output	CMIN	df	CMIN/df
Chi-square (default model)	733.264	3023	0.023
Chi-square (default model) for UK	3053.8	220	13.88
Probability value for the chi-square statistic (saturated model)	0.00000		

Table 6.13 clearly shows that the chi-square value is 0.00000, which means that the test is significant and the model fit is unsatisfactory. The relative value is 0.023, which is below 1.00 and is also indicative of an unsatisfactory model fit (Garson, 2008c).

Table 6.14: The baseline fit indices for the rational goal quadrant

| Output	Values SA	Value (UK)
Bentler-Bonett – Normed Fit Index	0.97	0.90
Bentler-Bonett – Non-normed Fit Index	0.98	0.89
Comparative Fit Index (CFI)	0.98	0.91

Table 6.14 shows that the NFI, NNFI and the CFI are above 0.95 and are indicative of a very good model fit. This suggests that the model should be accepted.

Table 6.15:   The SRMR and RMSEA for the rational goal quadrant

Output	Values
Standardised RMR (SRMR)	0.005
Root Mean-Square Error of Approximation (RMSEA)	0.077
90% Confidence Interval of RMSEA	(0.069, 0.084)

Table 6.15 shows that the SRMR value is 0.005, which is below 0.05 and indicates a good model fit. The RMSEA value of 0.077 is not ideal but can still be regarded as a satisfactory model fit. In terms of the confidence intervals the lower limit is 0.069 and the upper limit is 0.084, which fall just outside of the ratio for a good model fit.

Figure 6.4: Rational Goal Model
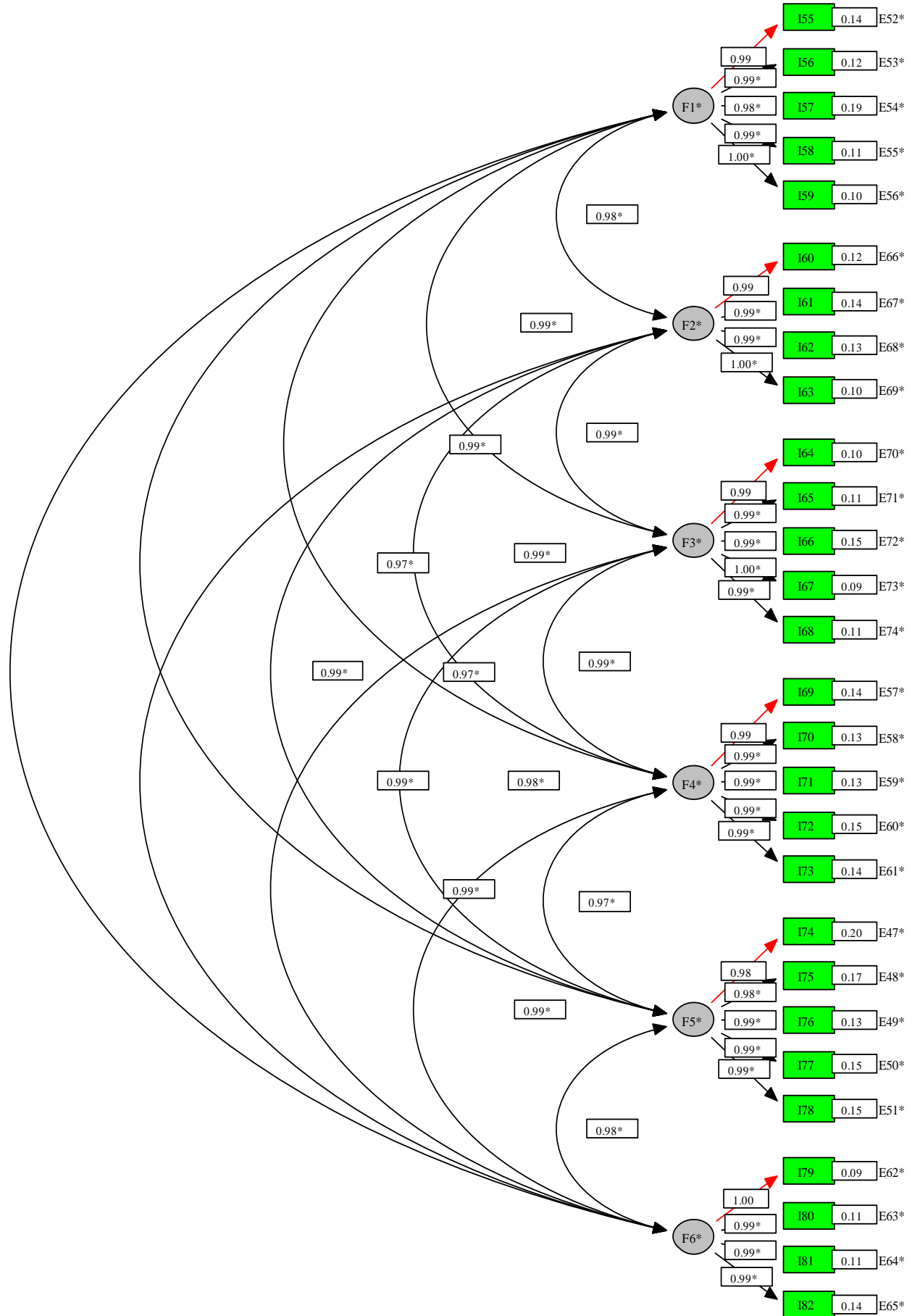
All of the rational goal variables are presented in figure 6.4. The variables can be described as follows:

- Factor 1: Clarity of organisational goals
- Factor 2: Efficiency
- Factor 3: Effort
- Factor 4: Performance feedback
- Factor 5: Pressure to produce
- Factor 6: Quality

All of the signs of the standardised path coefficients are positive which means that they are in the right direction. In figure 6.4 the values are all above 0.97, which indicates very good correlations between the rational goal dimensions.

6.3.5. The sum of the 17 OCM dimensions

A confirmatory factor analysis was conducted on the sum of the 17 OCM dimensions which included all 82 items of the OCM. The following results were obtained.

Table 6.16: The chi-square value for the sum of the 17 OCM dimensions

Chi-Square Output	CMIN	df	CMIN/df
Chi-square (default model)	5319.244	3023	1.76
Chi-square (default model) for UK	25195.9	3103	8.12
Probability value for the chi-square statistic (saturated model)	0.00000		

In table 6.16 it is evident that the chi-square value is 0.00000 which means that the test is significant and the model fit is unsatisfactory. The relative value for the data total is 1.76 and represents a satisfactory model fit.

Table 6.17: The baseline fit indices for the sum of the 17 OCM dimensions

Output	Values SA	Values UK
Bentler-Bonett – Normed Fit Index (NFI)	0.90	0.83
Bentler-Bonett – Non-normed Fit Index (NNFI)	0.95	0.84
Comparative Fit Index (CFI)	0.95	0.85

Table 6.17 shows that the NFI value is 0.90, which is on the cut-off line but is still within acceptable limits. The NNFI and the CFI are both 0.95 and are indicative of a good model fit. The baseline indices thus suggest that the model should be accepted.

Table 6.18:   The SRMR and RMSEA values for the sum of the 17 OCM dimensions

Output	Values SA	Values UK
Standardised RMR (SRMR)	0.030	0.042
Root Mean-Square Error of Approximation (RMSEA)	0.062	
90% Confidence Interval of RMSEA	(0.059, 0.064)	

Table 6.18 shows that the SRMR value is 0.03, which is below 0.05 and indicates a good model fit. The RMSEA is 0.062 which indicates an adequate fit. The lower limit of the confidence interval is 0.059 and the upper limit is 0.064, these values fall within the boundaries for an acceptable model fit.

Due to the large number of items (a total of 82) it was not possible to include a correlations matrix for the sum of the 17 OCM dimensions. The correlations between the dimensions are however summarised in table 6.19 below.

Table 6.19:   Summary of the correlations between the 17 OCM dimensions as depicted by the correlations matrix

Factor	Correlation		Factor	Correlation		Factor	Correlation
1 + 2	0.85		4 + 8	0.83		8 + 13	0.98
1 + 3	0.71		4 + 9	0.90		8 + 14	0.98
1 + 4	0.83		4 + 10	0.88		8 + 15	0.97
1 + 5	0.85		4 + 11	0.89		8 + 16	0.98
1 + 6	0.86		4 + 12	0.89		8 + 17	0.97
1 + 7	0.79		4 + 13	0.87			
1 + 8	0.77		4 + 14	0.88		9 + 10	0.98
1 + 9	0.85		4 + 15	0.89		9 + 11	0.99
1 + 10	0.83		4 + 16	0.84		9 + 12	0.99
1 + 11	0.83		4 + 17	0.88		9 + 13	0.97
1 + 12	0.84					9 + 14	0.98
1 + 13	0.82		5 + 6	0.95		9 + 15	0.98
1 + 14	0.83		5 + 7	0.96		9 + 16	0.95
1 + 15	0.83		5 + 8	0.93		9 + 17	0.98
1 + 16	0.75		5 + 9	0.97			
1 + 17	0.82		5 + 10	0.97		10 + 11	0.99
			5 + 11	0.98		10 + 12	0.99
2 + 3	0.65		5 + 12	0.98		10 + 13	0.98
2 + 4	0.91		5 + 13	0.97		10 + 14	0.99
2 + 5	0.96		5 + 14	0.97		10 + 15	0.98

Factor	Correlation	Factor	Correlation	Factor	Correlation
2 + 6	0.95	5 + 15	0.97	10 + 16	0.97
2 + 7	0.94	5 + 16	0.94	10 + 17	0.99
2 + 8	0.90	5 + 17	0.98		
2 + 9	0.97			11 + 12	0.99
2 + 10	0.96	6 + 7	0.91	11 + 13	0.98
2 + 11	0.97	6 + 8	0.86	11 + 14	0.99
2 + 12	0.96	6 + 9	0.96	11 + 15	0.99
2 + 13	0.95	6 + 10	0.94	11 + 16	0.96
2 + 14	0.95	6 + 11	0.95	11 + 17	0.99
2 + 15	0.95	6 + 12	0.94		
2 + 16	0.91	6 + 13	0.91	12 + 13	0.98
2 + 17	0.96	6 + 14	0.92	12 + 14	0.99
		6 + 15	0.92	12 + 15	0.99
3 + 4	0.70	6 + 16	0.87	12 + 16	0.97
3 + 5	0.64	6 + 17	0.93	12 + 17	0.99
3 + 6	0.73				
3 + 7	0.54	7 + 8	0.98	13 + 14	0.99
3 + 8	0.45	7 + 9	0.97	13 + 15	0.99
3 + 9	0.65	7 + 10	0.98	13 + 16	0.97
3 + 10	0.60	7 + 11	0.98	13 + 17	0.99
3 + 11	0.63	7 + 12	0.99		
3 + 12	0.62	7 + 13	0.99	14 + 15	0.99
3 + 13	0.57	7 + 14	0.99	14 + 16	0.98
3 + 14	0.57	7 + 15	0.99	14 + 17	0.99
3 + 15	0.58	7 + 16	0.99		
3 + 16	0.47	7 + 17	0.99	15 + 16	0.97
3 + 17	0.59			15 + 17	0.99
		8 + 9	0.94		
4 + 5	0.88	8 + 10	0.95	16 + 17	0.98
4 + 6	0.91	8 + 11	0.95		
4 + 7	0.87	8 + 12	0.96		

Table 6.19 clearly shows that all of the signs of the standardised path coefficients are positive, which means that they are in the right direction. The correlation between factor 2 (integration) and factor 3 (involvement) is slightly low with a value of 0.65. However, this value can be rounded up to 0.70, which is regarded as satisfactory. Table 6.19 also indicates that factor 3 (involvement) does not correlate well with most of the other dimensions. Supervisory support (0.70), welfare (0.73), and innovation and flexibility (0.65) are the only factors with satisfactory correlations in terms of their relationship with involvement. The correlations matrix for the human relations quadrant also depicted lower correlations for involvement. It can thus be concluded that the OCM scale for involvement may have to be adapted in order to ensure that all of the items included are relevant. However, if the three involvement items with the low correlations (I15, I16 and I11) identified in the human relations matrix are eliminated the results may be better.

6.4. CONCLUSION

In this chapter of the research study all the important results were presented in table and figure format. This form of presentation makes it easier to identify patterns and draw conclusions. The main results focused on the internal consistency measures and the fit indices. The SEM models of the four quadrants were also presented. In the following chapter these findings are discussed in more detail.

CHAPTER 7: DISCUSSION AND RECOMMENDATIONS

7.1. INTRODUCTION

The main purpose of this study was to validate the OCM for use within South African organisations. In order to meet this aim the construct validity and internal reliability, also known as internal consistency, of the OCM were tested by means of a confirmatory factor analysis. In this chapter all the important results from the study are discussed. In addition, the results obtained in this study are compared to the results obtained in the United Kingdom. The chapter concludes by linking the results to the research objectives discussed in chapter 1.

7.2. RESEARCH FINDINGS

In this section the results from the Cronbach's alpha coefficients, the various fit indices and the correlations matrixes presented in the previous chapter are summarised and discussed.

7.2.1. Internal consistency

Cronbach's alpha coefficient (the measurement of internal consistency) computed the correlations between each dimension of the OCM, in order to determine whether the different dimensions measure the same construct (Maree, 2007; Wellman *et al.*, 2005). Values close to 1.00 indicate strong correlations and values close to 0.00 indicate weak correlations (Maree, 2007). The 'involvement' climate dimension had the lowest Cronbach's alpha coefficient with a value of 0.89 which, according to Pallant (2005), is still very good. It can thus be concluded that the internal consistency for all 17 climate dimensions is extremely good.

The Cronbach's alpha coefficients for each of the four main quadrants were very close to 1.00 and are also indicative of very high internal consistency. The human relations quadrant had the lowest value which was 0.98 and is still considered very good. The Cronbach's alpha coefficient for the sum of the 17 OCM dimensions was 0.995, which rounds off to 1 which is a perfect fit. It can thus be concluded that all the dimensions of the OCM measure the same construct and the OCM can therefore be regarded as a reliable measurement instrument (Wellman *et al.*, 2005).

7.2.2. Confirmatory factor analysis

The main results computed during the confirmatory factor analyses are the results from the goodness-of-fit indices, namely the chi-square with its relative value (CMIN/df), the NFI, the NNFI, the CFI, the SRMR and the RMSEA. The chi-square value for all four of the quadrants and the sum of the 17 OCM dimensions was significant and indicates a poor model fit. However, the chi-square test is considered very conservative and is influenced by sample size and model complexity (Garson, 2008c). The relative values (CMIN/df) were therefore also taken into consideration. The relative values for the human relations, internal process and open systems quadrants indicated a satisfactory model fit. The relative value for the sum of the 17 OCM dimensions was also satisfactory with a value of 1.76. However, the relative value for the rational goal quadrant was under 1.00 and is unsatisfactory. Due to the susceptibility of the chi-square value it is usually combined with the results from other fit indices (Engelbrecht, 2009).

The NFI values for all four the quadrants were greater than 0.90, while the NNFI and CFI values were all greater than 0.95 and indicative of a very good model fit (Schumacker & Lomax, 2004). The NFI for the sum of the 17 OCM dimensions was just on the cut-off line for a satisfactory model fit, while the NNFI and CFI for the sum of the 17 OCM dimensions were both 0.95, and this is indicative of a very good model fit. These baseline indices suggest that the models can be accepted.

The SRMR values for all four quadrants and for the sum of the 17 OCM dimensions were below 0.05 and indicate a good model fit (Patterson *et al.*, 2005).

The RMSEA value for the human relations and rational goal quadrants were between 0.06 and 0.08, which indicates a satisfactory model fit (Schumacker & Lomax, 2004). The internal process quadrant's RMSEA value was 0.08 which is borderline but can still be regarded as satisfactory. The RMSEA value for the sum of the 17 OCM dimensions was 0.062 and is also satisfactory. However, the RMSEA value for the open systems quadrant was 0.09 and is not indicative of a good fit.

The upper limit of the RMSEA confidence interval should be close to 0.00 and the lower limit should be less than 0.08 for a satisfactory model fit (Garson, 2008c). In this study only the confidence intervals of the human relations quadrant and the sum of the 17 OCM dimensions were satisfactory. The RMSEA confidence interval of all three the other quadrants was slightly high and falls outside the acceptable ratio.

Table 7.1: **Summary of model fit as indicated by the fit indices**

Model / Fit Index	CMIN	CMIN/ df	NFI	NNFI	CFI	SRMR	RMSE A	90% CI
Human relations	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Internal process	No	Yes	Yes	Yes	Yes	Yes	Yes	No
Open systems	No	Yes	Yes	Yes	Yes	Yes	No	No
Rational goal	No	No	Yes	Yes	Yes	Yes	Yes	No
Data total	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 7.1 shows that the chi-square test (CMIN) was dissatisfactory for all of the models. However, the chi-square test is very susceptible to sample size and model complexity and researchers suggest that if the chi-square value is significant but the other fit indices are positive the chi-square test can be ignored (Garson, 2008c). All of the baseline indices (NFI, NNFI and CFI) as well as the SRMR indicated a good model fit. The RMSEA value for the open systems quadrant was 0.09, which is above the satisfactory model fit ratio. Steiger (1995) suggests that an RMSEA value of less than 0.10 is still acceptable. In general it was thus concluded that the results from the fit indices for each of the four quadrants as well as for the sum of the 17 OCM dimensions indicate a satisfactory model fit.

7.2.3. Correlations matrix

Four correlation matrixes were developed, one for each of the four quadrants. These quadrants are the human relations model, the internal process model, the open systems model and the rational goal model. The results obtained are discussed below.

The human relations correlations matrix depicted the strength of the relationships between six factors (exogenous variables) namely autonomy, integration, involvement, supervisory support, training, and welfare. Values of 0.70 and higher indicate a good correlation between factors (Engelbrecht, 2009). The results indicated that the correlations between integration and involvement and between involvement and training were weak as they were below 0.70.

Three of the involvement items (I15, I16 and I11) had values lower than 0.70 and this may be the cause of the low correlations between involvement and the other two factors (integration and training). The sum of the standardised path coefficient (the sum of the correlations between involvement and its outcome variables, divided by the number of variables) for involvement is 0.75, which is still acceptable. However, if these three items were eliminated

the results may be better and the correlations between involvement and integration and involvement and training may also be higher.

All of the other factors in the human relations quadrant have correlations greater than 0.70, with the correlations between welfare and training (0.95) and welfare and integration (0.95) being the highest. These high values indicate that all of the human relations factors show good correlations.

The internal process correlations matrix depicted the strength of the relationship between two factors, namely formalisation and tradition. The results indicated that the correlation between formalisation and tradition is 0.98, which is very strong.

The open systems correlations matrix depicted the strength of the relationships between three factors, namely innovation and flexibility, outward focus, and reflexivity. The results indicated that the correlations between all three these factors are greater than 0.97. These correlations are thus very high and indicate very strong correlations.

The rational goal correlations matrix depicted the strength of the relationships between six factors, namely clarity of organisational goals, efficiency, effort, performance feedback, pressure to produce, and quality. The results indicated that all the correlations are above 0.97, which is once again indicative of very strong correlations.

The correlations as summarised for the sum of the 17 OCM dimensions depicted the strength of the relationships between all 17 dimensions included in the OCM. The results indicated good correlations between all the dimensions with the exception of involvement. Supervisory support, welfare, and innovation and flexibility are the only factors with correlations above 0.70 in relation to involvement. However, some researchers feel that correlations greater than 0.50 should still be considered acceptable (Meng, Tepanon, & Uysal, 2008). If this criterion is used then the involvement scale can be retained in its current form. However, if the three involvement items with the poor correlations as identified within the human relations matrix are removed the results may improve.

With the exception of involvement, the results of all the correlations matrixes are very high and indicate very strong correlations. In fact, some of the correlations are so high that it is possible to speculate that they are actually measuring the same factor. However, in each of the models it is clear that the items only load on their respective factors with none of the items cross-loading on any of the other factors. In other words none of the predictor

variables were connected to the outcome variables from other predictor variables. It can thus be concluded that although the correlations are very high all of the factors do indeed measure different aspects of organisational climate (Schmidt, Clouth, Haggenmüller, Naber, & Reitberger, 2006).

7.3.   LIMITATIONS AND RECOMMENDATIONS

As is the case with all research studies there are some limitations with regard to the generalisation of the results of this study. Some of the main limitations in relation to the OCM are discussed in this section. However, this section also makes recommendations to address these limitations in future studies.

According to Patterson *et al.* (2005) the results from their study were influenced by the large number of items in the questionnaire and the large sample size. Only the first influencing factor is applicable to this study. Researchers suggest that sample size ratios should be large enough to include five observations for each parameter in the measurement instrument (Smith & Langfield-Smith, 2004). If this calculation is applied to the current research the sample size for this study should have included at least 410 respondents. However, studies also suggest that sample sizes lower than 100 and greater than 400 are at risk of yielding invalid goodness-of-fit measures and that the optimal sample size is 200 (Sclove, 1998; Smith & Langfield-Smith, 2004). The sample size for this study can thus be considered sufficient. Future studies on the OCM should make use of a sample size just under 400 in order to account for the large number of items in the OCM.

Chapter 4 demonstrated that the dimensions included in the OCM are based on a comprehensive literature review as well as the results from previous studies. However, this does not mean that other organisational climate dimensions are unimportant. According to Kilburn (2008) every single organisation has its own unique climate and it can thus be assumed that the expectations, behaviour, cognitions and emotions of the employees working for a specific organisation will differ from employees working at other organisations. Davidson (2003) and Fey and Beamish (2001) also state that organisational climate should be considered a snapshot of current organisational functioning. If the study was thus to be repeated on the same sample in a few years time the results may differ. This study was also limited to the South African context. The study was thus both time-bound and context-bound, which limits the generalisation of the results.

Another limitation in terms of the OCM is that researchers normally focus on a specific aspect of organisational climate, such as the influence of organisational climate on innovation (Patterson *et al.*, 2005). This may result in researchers not wishing to use the OCM as a whole but instead choosing to focus on one of the scales/quadrants. The results from the confirmatory factor analysis conducted on each of the four main quadrants were positive, thus suggesting that it is possible to use the scales of a single quadrant independently. However, this can not be supported or encouraged before the use of the OCM in this manner is validated.

According to Patterson *et al.* (2005) it is important to validate organisational climate measures in order to ensure that they can be regarded as theoretically grounded, using the correct frame of reference, targeting employees from all levels of the organisation and relevant across all work settings. Thus another recommendation for future studies is to include more questions in relation to the geographical information of respondents. This will ensure that the sample is more representative of the population and improve the generalisation of the results (Wilderom *et al.*, 2000). The researcher will then also be able to draw conclusions based on the influences of secondary aspects such as age, race, gender and departmental ranking. Given the high degree of diversity in the South African workforce (Zeeman, 2005) it may also be good to explore the influence of differences in culture.

7.4. CONCLUSION

The success of an organisation is dependent upon the effective management of organisational climate (Finestone & Snyman, 2005). There is a need for more up-to-date research regarding organisational climate (Guldenmund, 2000; Kilburn, 2008; Schyns *et al.*, 2009; Zeeman, 2005). A single climate measure that can be used universally does not exist. Although numerous measures of organisational climate do exist, very few of these measures have been tested for validity and reliability (Patterson *et al.*, 2005). The main purpose of this study was to validate the OCM for use in South African organisations as it was previously only validated in the United Kingdom. The main research objectives were as follows:

- To review the most important literature with regard to organisational climate.
- To evaluate the reliability (internal consistency) and construct validity (convergent and discriminant validity) of the OCM within the South African context by performing a confirmatory factor analysis.

- To compare the results obtained in the United Kingdom with the results obtained in South Africa.

A comprehensive literature review was conducted that included the work from various researchers who conducted studies on organisational climate. The internal reliability (internal consistency) and convergent validity were measured by means of Cronbach's alpha coefficient. The results suggest that the OCM has high correlations with measures of the same construct and thus measures what it is supposed to measure. The OCM can thus be regarded as a valid and reliable instrument for measuring organisational climate within the South African context. The discriminant validity was assessed by conducting various confirmatory factor analyses. The results of these analyses showed that the correlations between factors are extremely high and the goodness-of-fit measures in general indicated a good model fit. According to Garson (2008a), if the goodness-of-fit measures obtained during the confirmatory factor analysis are high it is possible to conclude that the constructs in the model are different and the discriminant validity is high.

When the results obtained in the South African study were compared to those obtained in the United Kingdom it became evident that although the results from the United Kingdom were very good, the South African results were even better. The results from the internal consistency measures as well as from the fit indices were higher for South Africa than they were for the United Kingdom. The OCM is thus a valid and reliable instrument for measuring organisational climate in both South Africa and the United Kingdom. The differences in results (although small in this case) highlight the importance of validating internationally developed measurement instruments before using them in different settings.

LIST OF REFERENCES

Allen, D. K. (2003). Organisational climate and strategic change in higher education: Organisational insecurity. *Higher Education*, 46, 61-92.

Alvesson, M., & Berg, P. O. (1992). *Corporate culture and organizational symbolism: An overview*. Berlin: Walter de Gruyter.

Anderson, N., & West, M. A. (1998). Measuring climate for work group innovation: Development and validation of the Team Climate Inventory. *Journal of Organizational Behavior*, 19, 235-258.

Arabaci, I. B. (2010). Academic and administration personnel's perceptions of organizational climate. *Procedia Social and Behavioral Sciences*, 2, 4445-4450.

Ashkanasy, N. M., Wilderom, C. P. M., & Peterson, M. (Eds.). (2000). *Handbook of organisational culture and climate*. Thousand Oaks, CA: Sage Publications.

Asif, F. (2010). Estimating the impact of Denison's (1996), "What is the difference between organizational culture and organizational climate? A native's point of view on a decade of paradigm wars". *Journal of Business Research.* doi:10.1016/j.jbusres.2010.03.004

Babbie, E., & Mouton, J. (2001). *The practice of social research (South African ed.)*. Cape Town, SA: Oxford University Press.

Bentler, P. M., & Bonnet, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88, 588-606.

Bock, G. W., Zamud, R. W., Kim, Y. G., & Lee, J. N. (2005). Behavioral intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social-psychological forces, and organizational climate. *MIS Quarterly*, 29(1), 87-111.

Brand, H. E., & Wilson, J. (2000). The impact of organisational restructuring on organisation climate and employee attitudes. *SAJEMS NS*, 3(1), 97-108.

Burton, R. M., Lauridsen, J., & Obel, B. (1999). *Tension and resistance to change in organisational climate: Managerial implications for a fast-paced world.* Retrieved February 24, 2010, from www.lok.cbs.dk/images/publ/Burton%20og%20Obel%20-og%20Lauridsen%20tensi-on%202000.pdf

Burton, R. M., Lauridsen, J. & Obel, B. (2004). The Impact of organizational climate and strategic fit on firm performance. *Human Resource Management*, 43(1), 67-82.

Carr, J. Z., Schmidt, A. M., Ford, J. K., & DeShon, R. P. (2003). Climate perceptions matter: A meta-analytic path analysis relating molar climate, cognitive and affective states, and individual level work outcomes. *Journal of Applied Psychology*, 88(4), 605-619.

Cooil, B., Aksoy, L., Keiningham, T. L., & Maryott, K. M. (2009). The relationship of employee perceptions of organizational climate to business-unit outcomes an MPLS approach. *Journal of Service Research*, 11(3), 277-294.

Cotton, P. (2004). *Developing an optimal organisational climate*. Canberra, Australia: Towards Australia's Safest Workplaces II.

Creswell, J. W. (2008). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks: Sage.

Croucher, R., Kabst, R., Kellermann, R., & Matiaske, W. (Eds.). (2004). Management review: The international review of management studies. *Management Revue*, 15(4), 407-536.

D'Amato, A., & Burke, M. J. (2008). Psychological and organizational climate research: Contrasting perspectives and research traditions. *European Journal of Work and Organizational Psychology*, 17(1), 1-4.

D'Aunno, T., Vaughn, T., & McElroy, P. (1999). An institutional analysis of HIV prevention efforts by the nation's outpatient drug abuse treatment units. *Journal of Health and Social Behavior*, 40, 175-192.

Davidson, M. C. G. (2003). Does organizational climate add to service quality in hotels? *International Journal of Contemporary Hospitality Management*, 15(4) 206-213.

Davidson, M. C. G. (2000). *Organisational climate and its influence on performance: A study of Australian hotels in South East Queensland*. Australia: Griffith University.

Davis, D. F., & Mentzer, J. T. (2002). Organizational climate, knowledge management, and performance: An integrative framework. *Conference Proceedings*, 13, 298-299. America: America Marketing Association.

Denison, R. (1996). What is the difference between organisational culture and organisational climate? A native's point of view on a decade of paradigm wars. *Academy of Management Review* 21, 619-654. Retrieved February 24, 2010, from www.denisonculture.com/articles/para-digm_wars.pdf

Dickson, M. W., Hanges, P. J., & Resick, C. J. (2006). When organizational climate is unambiguous, it is also strong. *Journal of Applied Psychology*, 91(2), 351-364.

Dickson, M. W., Smith, D. B., Grojean, M. W., & Ehrhart, M. (2001). An organizational climate regarding ethics: The outcome of leader values and the practices that reflect them. *The Leadership Quarterly,* 12, 197-217.

Dodsworth, M., Connelly, K. E., Ellett, C. J., & Sharratt, P. (2007). Organizational climate metrics as safety, health and environment performance indicators and an aid to relative risk ranking within industry. *Trans IChemE, Part B, Process Safety and Environmental Protection*, 85(B1), 59–69.

Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I., & Rhoades, L. (2002). Perceived supervisor support: contributions to perceive organizational support and employee retention. *Journal of Applied Psychology*, 87, 565-573.

Ekvall, G. (1996). Organizational climate for creativity and innovation. *European Journal of Work and Organizational Psychology,* 5(1), 101-123.

Ekvall, G. (1997). Organizational conditions and levels of creativity. *Creativity and Innovation Management*, 6(4), 195-205.

Engelbrecht, C. (2009). *Construct validity of the locus of control questionnaire*. Unpublished master's thesis, Department of Human Resource Management, University of Pretoria, Pretoria, South Africa.

Fey C. F., & Beamish, P. W. (2001). Organisational climate similarity and performance: International joint ventures in Russia. *Organisation Studies.* Retrieved February 24, 2010, from http://articles.findarticles.com/p/articles/mi_m4339/is_5_22/ai_8249316-1/pg_1

Field, A. (2005). *Discovering statistics using SPSS (2ⁿᵈ ed.*). London: SAGE Publications Ltd.

Finestone, N., & Snyman, R. (2005). Corporate South Africa: Making multicultural knowledge sharing work. *Journal of Knowledge Management*, 9(3), 128-141.

Flora, D. B., & Curran, P. J. (2004). An empirical evaluation of alternative methods of estimation for confirmatory factor analysis with ordinal data. *Psychological Methods*, 9(4), 466-491.

Garson, G. D. (2008a). Reliability analysis: *Statnotes: Topics in Multivariate Analysis.* Retrieved July 30, 2011, from http://faculty.chass.ncsu.edu/garson/PA765/reli-ab.htm

Garson, G. D. (2008b). Factor analysis: *Statnotes: Topics in Multivariate Analysis.* Retrieved July 30, 2011, from http://faculty.chass.ncsu.edu/garson/PA765/fac-tor.htm

Garson, G. D. (2008c). Structural equation modeling: *Statnotes: Topics in Multivariate Analysis.* Retrieved July 30, 2011, from http://faculty.chass.ncsu.edu/garson/PA-765/structur.htm

Gelade, G., & Gilbert, P. (2003). Organizational research work climate and organizational effectiveness: The application of data envelopment analysis in organizational research. *Organization Research Methods*, 6, 482.

Gifford, B. D., Zammuto, R. F., & Goodman, E. A. (2002). The relationship between hospital unit culture and nurses quality of life. *Journal of Healthcare Management*, 47, 13-26.

Glick, W. H. (1985). Conceptualizing and measuring organizational and psychological climate: Pitfalls in multilevel research. *The Academy of Management Review*, 10(3), 601-616.

Glisson, C., & James, L. R. (2002). The cross-level effects of culture and climate in human service teams. *Journal of Organizational Behavior*, 23, 767-794.

Goldman, A., & Tabak, N. (2010). Perception of ethical climate and its relationship to nurses' demographic characteristics and job satisfaction. *Nursing Ethics*, 17(2), 233-246.

Gould-Williams, J. (2007). HR practices, organizational climate and employee outcomes: evaluating social exchange relationships in local government. *International Journal of Human Resources Management,* 18(9), 1627-1647.

Gray, R. J. (2001). Organisational climate and project success. *International Journal of Project Management*, 19, 103-109.

Greatworkplace. (2009). *What is organizational climate and why should you warm up to it? Retrieved February 23, 2010, from* http://greatworkplace.wordpress.com/2009/-09/01/what-is-organi-zational-climate-and-why-should-you-warm-up-to-it/

Grobler, P. A., Wärnich, S., Carrel, M. R., Elbert, N. F., & Hatfield, R. D. (2009). *Human Resource Management in South Africa (2nd ed.).* London, UK: Thomson Learning.

Grojean, M. W., Resick, C. J., Dickson, M. W., & Smith, D. B. (2004). Leaders, values, and organizational climate: Examining leadership strategies for establishing an organizational climate regarding ethics. *Journal of Business Ethics*, 55, 223-241.

Guldenmund, F. W. (2000). The nature of safety culture: A review of theory and research. *Safety Science*, 34, 215–257.

Hellriegel, D., Slocum, J. W., & Woodman, R. W. (2001). *Organizational Behavior, (9th ed.*). Cincinnati, Ohio: South-Western College Publishing.

Hemmelgarn, A. L., Glisson, C., & James, L. R. (2006). Organizational culture and climate: Implications for services and interventions research. *Clinical Psychology Science and Practice*, 13(1), 73-89.

Hoyle, R. H., & Panter, A. T. (1995). *Writing about structural equation models: Structural equation modelling*. Thousend Oaks, CA: Sage.

Hsu, L. L. (2004). Impacts or ERP systems on the integrated-interaction performance of manufacturing and marketing. *National Koahsiung First University of Science and*

Technology. Retrieved February 21, 2010, from http://mason.gmu.edu/~mchen/-web/papers/ERP-IMDS_final_version.doc

Jargowsky, P. A., & Yang, R. (2005, March 31). Descriptive and Inferential Statistics. In K. Kempf-Leonard (Ed.), *Encyclopedia of Social Measurement.* Retrieved from Science Direct database.

Johnson, J. J. (2000, Spring). Differences in supervisor and non-supervisor perceptions of quality culture and organizational climate. *Public Personnel Management*, 29(1), 119-128. Retrieved from ABI/INFORM Global database.

Jordaan, Y. (2008). *The influence of internal marketing on employee satisfaction: A survey among front-line employees in distribution organisation's in South Africa.* Unpublished master's thesis, Department of Marketing Management, University of Pretoria, Pretoria, South Africa.

Kangis, P., & Williams, D. G. S. (2000). Organisational climate and corporate performance: An empirical investigation. *Management Decision*, 38(8), 531-540.

Kath, L. M., Magley, V. J., & Marmet, M. (2010). The role of organizational trust in safety climate's influence on organizational outcomes. *Accident Analysis & Prevention*, 42(5), 1488-1497.

Kazama, S., Foster, J., Hebl, M., West, M., & Dawson, J. (2002). Impacting Climate for Innovation: Can CEOs make a difference? *17th Annual Conference*. Toronto, Canada: Society for Industrial and Organizational Psychology.

Kelley, K., Clark, B., & Brown, V. (2003). Good practice in the conduct and reporting of survey research. *International Journal for Quality in Health Care*, 15(3), 261-266.

Kilburn, B. (2008). Strength of organizational climate: A moderating role on organizational culture's impact on employee behaviour. *Allied Academies International Conference*, 13(2), p. 9.

Kitching, J. (2005). *The measurement outcome equivalence of the career path appreciation (CPA) for employees from diverse cultural backgrounds.* Unpublished master's thesis,

Department of Human Resource Management, University of Pretoria, Pretoria, South Africa.

Klein, K. J., Conn, A. B., Smith, D., & Sorra, J. S. (2001). Is everyone in agreement? An exploration of within-group agreement in employee perceptions of the work environment. *Journal of Applied Psychology*, 86, 3–16.

Koene, B. A. S., Vogelaar, A. L. W., & Soeters, J. L. (2002). Leadership effects on organizational climate and financial performance: Local leadership effect in chain organizations. *The Leadership Quarterly*, 13, 193-215.

Kopelman, R. E., Brief, A. P., & Guzzo, R. A. (1990). The role of climate and culture in productivity. In B. Schneider (Ed.), *Organizational climate and culture* (pp. 282–318). San Francisco: Jossey-Bass.

Kotze, T. G. (2009). *Study notes for EBW 801: Theme 8: Choosing an appropriate research design*. Pretoria, SA: Department of Marketing, University of Pretoria.

Leedy, P. D., & Ormrod, J. E. (2005). *Practical research: Planning and design*. (8th ed.). Upper Saddle River, NJ: Pearson.

Lehman, W. E. K., Greener, J. M., & Simpson, D. D. (2002). Assessing organizational readiness for change. *Journal of Substance Abuse Treatment*, 22, 197-209.

Lewin, K. (1951). *Field theory in social science*. New York: Harper and Row.

Lindell, M. K., & Brandt, C. J. (2000). Climate quality and climate consensus as mediators of the relationship between organizational antecedents and outcomes. *Journal of Applied Psychology*, 85, 331-348.

Litwin, G. H., & Stringer, R. A. (1968). Motivation and Organizational Climate. Cambridge MA: Harvard University.

Loewen, P., & Loo, R. (2004). Assessing team climate by qualitative and quantitative approaches: Building the learning organization. *The Learning Organization*, 11(3), 260-272.

Maree, K. (2007). *First steps in research*. Pretoria: Van Schaik Publishers.

Mastrangelo, P. M., & Popovich, P. M. (2000). Employees' attitude toward drug testing, perceptions of organizational climate, and withdrawal from the employer. *Journal of Business and Psychology*, 15(1), 3-18.

McMurray, A. J. (2003). The relationship between organizational climate and organizational culture. *Journal of American Academy of Business*, 3(1/2), 1-8.

McMurray, A. J., Scott, D. R., & Pace, R. W. (2004). The relationship between organizational commitment and organizational climate in manufacturing. *Human Resource Development Quarterly*, 15(4), 473-488.

Meng, F., Tepanon, Y., & Uysal, M. (2008). Measuring tourist satisfaction by attribute and motivation: The case of a nature-based resort. *Journal of Vacation Marketing*, 14(1), 41-56.

Merkys, G., Kalinauskaite, R., & Eitutyte, D. (2007). New test for organizational climate assessment: Validation and test-retest analysis. *OrganizacijoVadyba: SisteminiaiTyrimai*, 42, 57-68. Retrieved from ABI/INFORM Global database.

Michie, S., & West, M. A. (2003). *Measuring staff management and human resource performance in the NHS*. London: University College. Retrieved, February 24, 2010, from www.chi.nhs.uk/eng/surveys/nss2003/michie_and_west_paper.pdf

Milton, C. M. (1981). *Human behaviour in organisations: Three levels of behaviour* (1st ed.). Prentice Hall Inc.

Montes, F. J. L., Moreno, A. R., & Fernandez, L. M. M. (2004). Assessing the organizational climate and contractual relationship for perceptions of support for innovation. *International Journal of Manpower*, 25(2), 167-180.

Moran, E. T., & Volkwein, J. F. (1992). The cultural approach to the formation of organisational climate. *Human Relations*, 45, 19-47.

Mouton. J. (2001). *How to succeed in your master's and doctoral studies*. Pretoria, SA: Van Schaik Publishers.

Nasser, F., & Takahashi, T. (2003). The effect of using item parcels on ad hoc goodness-of-fit indexes in confirmatory factor analysis: an example using Sarason's Reactions to tests. *Applied Measurement in Education*, 16(1), 75-97.

Nasurdin, A. M., Ramayah, T., & Beng, Y. C. (2006). Organizational structure and organizational climate as potential predictors of job stress: Evidence from Malaysia. *International Journal of Commerce & Management*, 16(2), 116-129.

Nauta, A., & Sanders, K. (2000). Interdepartmental negotiation behaviour in manufacturing organizations. *International Journal of Conflict Management*, 11, 135-161.

Neal, A., Griffin, M. A., & Hart, P. M. (2000). The impact of organizational climate on safety climate and individual behaviour. *Safety Science*, 34, 99-109.

Neal, A., West, M. A., & Patterson, M. G. (2004). *Do organisational climate and strategic orientation moderate the relationship between human resources practices and productivity?* Retrieved February 24, 2010, from http://cep.lse.ac.uk/pubs/download/dp0624.pdf

Neal, A., West, M. A., & Patterson, M. G. (2005). Do organizational climate and competitive strategy moderate the relationship between human resource management and productivity? *Journal of Management*, 31, 492.

Netter, J. M. & Poulsen, A. B. (2003). Operational risk in financial service providers and the proposed Basel capital accord: An overview. *Advances in Financial Economics*, 8(8), 147-171. Retrieved from Emerald Group Publishing Limited database.

Noordin, F., Omar, S., Sehan, S., & Idrus, S. (2010). Organizational climate and its influence on organizational commitment. *International Business & Economics Research Journal*, 9(2), 1-9.

Norman, G. R., & Streiner, D. L. (2003). *PDQ Statistics: Chapter 17: Path Analysis and Structural Equation Modeling.* Retrieved May 15, 2011, from http://www.bcdecker.com/SampleOfChapter/1-55009-207-3.pdf

Nwankwo, S., Owusu-Frimpong, N., & Ekwulugo. (2004). The effects of organisational climate on market orientation: evidence from the facilities management industry. *The Journal of Services Marketing*, 18(2/3), 122-132.

Pallant, J. (2005). *SPSS survival manual: A step by step guide to data analysis using SPSS version 12.* Chicago: Open university.

Parker, C. P., Baltes, B. B., Young, S. A., Huff, J. W., Altmann, R. A. Lacost, H. A., & Roberts, J. E. (2003). Relationships between psychological climate perceptions and work outcomes: A meta-analytic review. *Journal of Organizational Behavior*, 24, 389-416.

Patterson, M., Warr, P., & West, M. (2004, April). Organizational climate and company productivity: The role of employee affect and employee level. *CEP Discussion Paper, 626. London:* Centre for Economic Performance.

Patterson, M. G., West, M. A., Shackleton, V. J., Dawson, J. F., Lawthom, R., Maitlis, S., Robinson, D. L., & Wallace, A. M. (2005). Validating the organizational climate measure: links to managerial practices, productivity and innovation. *Journal of Organizational Behavior*, 26, 379-408.

Payne, R. L., & Pheysey, D. (1971). G. D. Stern's organizational climate index: Or reconceptualization and application to business organizations. *Organizational Behavior and Human Performance*, 6, 77-98.

Perryer, C. (2009). Construct validation of the customer orientation (organizational climate) scale in a public sector service organization. *Public Administration & Management*, 14(2), 238-253. Australia: University of Western Australia.

Pool, S. W. (2000). The learning organization: motivating employees by integrating TQM philosophy in a supportive organizational culture. *Leadership & Organization Development Journal*, 21(8), 373-378.

Punia, V., Punia, B. K., & Dhull, I. (2004). An exploration of managerial skills and organizational climate in the educational services. *Journal of Services Research*, April-September, 4(1), 141-160. Institute for International Management and Technology.

Quinn, R. E., & Rohrbaugh, J. (1981). A competing values approach to organizational effectiveness. *Public Productivity Review*, 5, 122-140.

Quinn, R. E., & Rohrbaugh, J. (1983). A spatial model of effectiveness criteria: Toward a competing values approach to organizational analysis. *Management Sciences*, 29, 363-377.

Raes, F., Dewulf, D., Van Heeringen, C., & Williams, J. M. G. (2009). Mindfulness and reduced cognitive reactivity to sad mood: Evidence from a correlational study and a non-randomized waiting list controlled study. *Behaviour Research and Therapy*, 47, 623-627.

Robbins, S. P. (2005). *Organizational Behavior (11th ed.).* Upper Saddle River, New Jersey: Pearson Education, Inc.

Ruiz-Moreno, A., Garcia-Morales, V. J., & Llorens-Montes, F. J. (2008). The moderating effect of organizational slack on the relation between perceptions of support for innovation and organizational climate. *Personnel Review*, 37(5), 509-525.

Schmidt, P., Clouth, J., Haggenmüller, L., Naber, D., & Reitberger, U. (2006). Constructing an index for the subjective well-being under neuroleptics scale (SWn), short form: Applying structural equation modeling for testing reliability and validity of the index. *Quality of Life Research*, 15(7), 1191-1202.

Sclove, S. L. (1998). *IDS 470: Multivariate analysis: Notes on chapter 11: Structural equation modeling (SEM) summary*. Department of Information & Decision Sciences, College of Business Administration, University of Illinois.

Schein, E. H. (2011). What is culture? In M. Godwyn, & J. H. Gittell (Eds.), *Sociology of organizations: Structures and relationships* (pp. 311-314). Thousand Oaks, California: Pine Forge Press.

Schneider, B. (2000). The psychological life of organizations. In N. M. Ashkanasy, C. P. M. Wilderon, & M. F. Peerson (Eds.), *Handbook of organizational culture and climate* (pp. Xvii-xxi). Thousand Oaks, CA: Sage.

Schneider, B., Brief, A. P., & Guzzo, R. A. (1996). Creating a climate and culture for sustainable organizational change. *Organizational Dynamics*, 24, 7-19.

Schneider, B., Salvaggio, A. N., & Subirats, M. (2002). Climate strength: A new direction for climate research. *Journal of Applied Psychology, 87,* 220–229.

Schreiber, J. B., Stage, F. K., King, J., Nora, A., & Barlow, E. A. (2006). Reporting structural equation modeling and confirmatory factor analysis results: A review. *The Journal of Educational Research*, 99 (6), 323-337.

Schulte, M., Ostroff, C., & Kinicki, A. J. (2006). Organizational climate systems and psychological climate perceptions: A cross-level study of climate-satisfaction relationship. *Journal of Occupational and Organizational Psychology*, 79, 645-671.

Schumacker, R. E., & Lomax, R. G. (2004). *A beginner's guide to structural equation modeling (2nd ed.).* Mahwah, NJ: Lawrence Erlbaum Associates.

Schwepker, C. H. (2001). Ethical climate's relationship to job satisfaction, organizational commitment, and turnover intention in the salesforce. *Journal of Business Research,* 54, 39-52.

Schyns, B., Van Veldhoven, M., & Wood, S. (2009). Organizational climate, relative psychological climate and job satisfaction: The example of supportive leadership climate. *Leadership & Organization Development Journal*, 30(7), 649-663.

Seel, R. (2000). Culture and complexity: New insights on organisational change. *Organisations & People*, 7(2), 2-9.

Shadur, M. A., Kienzle, R., & Rodwell, J. J. (1999). The relationship between organizational climate and employee perceptions of involvement: The importance of support. *Group Organization Management*, 24, 479.

Silva, S., Lima, M. L., & Baptista, C. (2004). OSCI: An organisational and safety climate inventory. *Safety Science*, 42, 205-220.

Smith, D., & Langfield-Smith, K. (2004). *Structural equation modeling in management accounting research: Critical analysis and opportunities*. ProQuest Information and

Learning Company, University of Florida Accounting Research Center. Retrieved August 2, 2011, from http://www.findarticles.com/p/articles/mi_qa3706/is_2004-01/ai_n13602082

Steiger, J. H. (1995). *Manual to Statistica-sepath*. Tulsa, Oklahoma, USA: Statsoft Inc.

Stern, C. G. (1970). *People in context*. New York: John Wiley & Sons.

Symposium. (2000, March 8-12). Organizational Culture and Climate. Concurrent Symposium Session at AHRD Annual Conference, 24. Raleigh-Durham, NC: AHRD Annual Conference, Collected Works.

Tabachnick, B. G., & Fidell, L. S. (2007). Using multivariate statistics (5th ed.). Boston, USA: Pearson Education, Inc.

Tosti, D. T. (2007). Aligning the strategy and culture for success. *Performance improvement*, 46(1), 21-25.

Ullman, J. B. (2001). Structural equation modeling. In Tabachnick, B.G., & Fidell, L.S. (2001). *Using Multivariate Statistics (4th ed.)*. Needham Heights, MA: Allyn & Bacon.

Ullman, J. B. (2006). Statistical developments and applications: Structural equation modeling: Reviewing the basics and moving forward. *Journal of Personality Assessment*, 87(1), 35-50.

Van den Berg, P. T., & Wilderom, C. P. M. (2004). Defining, measuring, and comparing organisational cultures. *Applied Psychology: An International Review*, 53(4), 570-582.

Varona, F. (2002). Conceptualization and management of communication satisfaction and organizational commitment in three Guatemalan organizations. *American Communication Journal*, 5(3).

Verbeke, W., Volgering, M., & Hessels, M. (1998). Exploring the conceptual expansion within the field of organizational behaviour: organizational climate and organizational culture. *Journal of Management Studies* 25(3), 303-329.

Verbeke, W., Volgering, M., & Hessels, M. (2004). *Exploring the conceptual expansion within the field of organisational behaviour: Organisational climate and organisational culture.* Rotterdam: Erasmus University. Retrieved February 24, 2010, from http://www.tinbergen.nl/-discussionpapers/96150.pdf

Watkin, C., & Hubbard, B. (2003). Leadership motivation and the drivers of share price: The business case for measuring organisational climate. *Organisation Development Journal*, 24(7), 380-386.

Weeks, R. (2008). Nurturing a culture and climate of resilience to navigate the whitewaters of the South African dual economy. *Journal of Contemporary Management*, 5, 123-136.

Welman, C., Kruger, F., & Mitchell, B. (2005). *Research Methodology (3rd ed.).* South Africa: Oxford University Press.

West, M. A. (2000). Reflexivity, revolution, and innovation in work teams. In M. M. Beverley, D. A. Johnson, & S. T. Beyerlein (Eds.), *Product development teams* (pp. 1-29). Stamford, CT: JAI Press.

Wienand, U., Cinotti, R., Nicoli, A., & Bisagni, M. (2007). Evaluating the organisational climate in Italian public healthcare institutions by means of a questionnaire. *BMC Health Services Research*, 7, 73-86.

Wilderom, C. P. M., Glunk, U., & Maslowski, R. (2000). Organizational culture as apredictor of organizational performance. In N. M. Ashkanasy, C. P. M. Wilderom & M. Peterson (Eds.), *Handbook of organizational culture and climate* (pp. 193-209). Thousand Oaks, CA: Sage.

Wong, P. K., & He, Z. L. (2001). The moderating effect of a firm's internal climate for innovation on the impact of public rand programs. *Nelson and Winter Conference*. Aalborg, Denmark: Aalborg University.

Wong, M. F., & Wong, M. P. (2002). Workplace stress: Causes, consequences, and why it concerns managers. *AkauntanNasional*, 11, 24-28.

Yagil, D., & Gal, I. (2002). The role of organizational service climate in generating control and empowerment among workers and customers. *Journal of Retailing and Consumer Services*, 9, 216-226.

Yuan, K. H., Bentler, P. M., & Kano, Y. (1997). On averaging variables in a confirmatory factor analysis model. *Behaviormetrika*, 24, 71-83.

Zammuto, R. F., Gifford, B., & Goodman, E. A. (2000). Managerial ideologies, organization culture, and the outcomes of innovation: a competing values perspective. In N. M. Ashkanasy, C. P. M. Wilderon, & M. F. Peterson (Eds.), *Handbook of organizational culture and climate* (pp. 261-278). Thousand Oakes, CA: Sage.

Zeeman, A. P. (2005). *The construct validity of Litwin and Stringer's organisational climate questionnaire.* Unpublished master's thesis, Department of Human Resource Management, University of Pretoria, Pretoria, South Africa.

APPENDIX A: ORGANISATIONAL CLIMATE MEASURE (OCM) RSA

The purpose of this inventory is to permit you to assess certain characteristics of the organisation where you are working. There are no "right" or "wrong" responses; the inventory will reflect your own perceptions of the organisation. Do not spend too much time on any one item; generally, your first reaction is the most accurate.

The Organisational Climate Measure consists of several statements. You have to respond to each one by indicating the extent to which you regard the statement as true or false for your organisation. To register your response you must use one of the following options: "Definitely false", "Mostly false", "Mostly true", "Definitely true".

Die doel van hierdie vraelys is om u geleentheid te gee om sekere eienskappe van die organisasie waar u werk te evalueer. Daar is geen "regte" of "verkeerde" antwoorde nie; die opname sal u eie persepsies van die organisasie weergee. Moenie te veel tyd aan enige enkele item bestee nie; oor die algemeen is u eerste reaksie die mees akkurate een.

Die Organisatoriese Klimaat Meetinstrument bestaan uit verskeie stellings. U moet op elkeen daarvan reageer deur aan te dui tot welke mate u die stelling as waar of onwaar beskou. Om u antwoord te registreer kies een van die volgende opsies "Heeltemal onwaar", "Grootliks onwaar", "Grootliks waar", "Heeltemal waar"

There are 86 questions in this survey.
Daar is 86 vrae in hierdie vraelys.

Consent

1. I hereby give my informed consent to take part in the research project
   Hiermee betuig ek instemming om aan die navorsingsprojek deel te neem*

   Please choose **only one** of the following:
   ⚪ Yes, I give my consent / Ja, ek gee toestemming
   ⚪ No, I do not give my consent / Nee, ek gee nie toestemming nie

Biographical

2. How many years have you been employed by your present organisation?
   Hoe lank is u reeds in diens van u huidige organisasie?*

   Please choose **only one** of the following:
   ⚪ Less than 1 year / *Minder as 1 jaar*
   ⚪ 1 year / 1 jaar
   ⚪ 2 to 5 years / *2 tot 5 jaar*
   ⚪ 6 to 10 years / *6 tot 10 jaar*
   ⚪ More than 10 years / *Meer as 10 jaar*

3. Please indicate your home language by typing it into the space below
   Asseblief dui u huistaal aan deur dit in te tik in die spasie hieronder*

   Please write your answer here / Asseblief skryf u antwoord hier: _____

4. Please indicate your ethnic group
Dui asseblief u etniese groep aan*

Please choose **only one** of the following:
○ Black / Swart
○ Coloured / Kleurling
○ Indian / Indiër
○ White / Blank
○ Other / Ander

OCM Statements

For each of the statements in this section, respond by indicating the extent to which you regard the statement as true of false, for the organisation where you are working:

5. Information is widely shared
Inligting word vrylik gedeel*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

6. There are often breakdowns in communication here
Hier word daar dikwels 'n dooiepunt in kommunikasie bereik*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

7. Management involve people when decisions are made that affect them
Die bestuur betrek werknemers wanneer besluite geneem word wat die werknemers raak*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

8. Changes are made without talking to the people involved in them
Veranderings word gemaak sonder om met die werknemers wat daardeur geraak word te praat*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

9. People don't have any say in decisions which affect their work
    *Werknemers het geen seggenskap aangaande besluite wat hulle werk raak nie**

    Please choose **only one** of the following:
    ○ Definitely false / *Heeltemal onwaar*
    ○ Mostly false / *Grootliks onwaar*
    ○ Mostly true / Grootliks waar
    ○ Definitely true / *Heeltemal waar*

10. People feel decisions are frequently made over their heads
    *Werknemers voel dat besluite dikwels sonder hulle medewete geneem word**

    Please choose **only one** of the following:
    ○ Definitely false / *Heeltemal onwaar*
    ○ Mostly false / *Grootliks onwaar*
    ○ Mostly true / Grootliks waar
    ○ Definitely true / *Heeltemal waar*

11. Management let people make their own decisions much of the time
    *Die bestuur laat toe dat werknemers heelwat van die tyd hulle eie besluite neem**

    Please choose **only one** of the following:
    ○ Definitely false / *Heeltemal onwaar*
    ○ Mostly false / *Grootliks onwaar*
    ○ Mostly true / Grootliks waar
    ○ Definitely true / *Heeltemal waar*

12. Management trust people to take work-related decisions without getting permission first
    *Die bestuur vertrou werknemers om werksverwante besluite te neem sonder om eers toestemming te vra**

    Please choose **only one** of the following:
    ○ Definitely false / *Heeltemal onwaar*
    ○ Mostly false / *Grootliks onwaar*
    ○ Mostly true / Grootliks waar
    ○ Definitely true / *Heeltemal waar*

13. People at the top tightly control the work of those below them
    *Werknemers in hoër posisies pas streng beheer toe oor die werk van die mense wat onder hulle werk**

    Please choose **only one** of the following:
    ○ Definitely false / *Heeltemal onwaar*
    ○ Mostly false / *Grootliks onwaar*
    ○ Mostly true / Grootliks waar
    ○ Definitely true / *Heeltemal waar*

14. Management keep too tight a reign on the way things are done around here
*Hier pas die bestuur te streng beheer toe oor die manier waarop dinge gedoen word**

Please choose **only one** of the following:
◯ Definitely false / *Heeltemal onwaar*
◯ Mostly false / *Grootliks onwaar*
◯ Mostly true / Grootliks waar
◯ Definitely true / *Heeltemal waar*

15. It's important to check things with the boss before taking a decision
*Dit is belangrik om eers die baas te raadpleeg voordat besluite geneem word**

Please choose **only one** of the following:
◯ Definitely false / *Heeltemal onwaar*
◯ Mostly false / *Grootliks onwaar*
◯ Mostly true / Grootliks waar
◯ Definitely true / *Heeltemal waar*

16. Supervisors here are really good at understanding people's problems
*Hier het toesighouers werklik 'n goeie begrip aangaande werknemers se probleme**

Please choose **only one** of the following:
◯ Definitely false / *Heeltemal onwaar*
◯ Mostly false / *Grootliks onwaar*
◯ Mostly true / Grootliks waar
◯ Definitely true / *Heeltemal waar*

17. Supervisors show that they have confidence in those they manage
Toesighouers *toon dat hulle vertroue het in die werknemers wat hulle bestuur**

Please choose **only one** of the following:
◯ Definitely false / *Heeltemal onwaar*
◯ Mostly false / *Grootliks onwaar*
◯ Mostly true / Grootliks waar
◯ Definitely true / *Heeltemal waar*

18. Supervisors here are friendly and easy to approach
*Hier is toesighouers vriendelik en toeganklik**

Please choose **only one** of the following:
◯ Definitely false / *Heeltemal onwaar*
◯ Mostly false / *Grootliks onwaar*
◯ Mostly true / Grootliks waar
◯ Definitely true / *Heeltemal waar*

19. Supervisors can be relied upon to give good guidance to people
*Daar kan op toesighouers staatgemaak word om goeie leiding aan werknemers te verskaf**

Please choose **only one** of the following:
◯ Definitely false / *Heeltemal onwaar*

○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

20. Supervisors show an understanding of the people who work for them
    Toesighouers toon begrip vir die werknemers wat onder hulle werk*

    Please choose **only one** of the following:
    ○ Definitely false / *Heeltemal onwaar*
    ○ Mostly false / *Grootliks onwaar*
    ○ Mostly true / Grootliks waar
    ○ Definitely true / *Heeltemal waar*

21. People are suspicious of other departments
    Werknemers is agterdogtig teenoor ander departemente*

    Please choose **only one** of the following:
    ○ Definitely false / *Heeltemal onwaar*
    ○ Mostly false / *Grootliks onwaar*
    ○ Mostly true / Grootliks waar
    ○ Definitely true / *Heeltemal waar*

22. People in different departments are prepared to share information
    Werknemers van verskillende departemente is bereid om inligting met mekaar te deel*

    Please choose **only one** of the following:
    ○ Definitely false / *Heeltemal onwaar*
    ○ Mostly false / *Grootliks onwaar*
    ○ Mostly true / Grootliks waar
    ○ Definitely true / *Heeltemal waar*

23. There is very little conflict between departments here
    Hier is daar baie min konflik tussen departemente*

    Please choose **only one** of the following:
    ○ Definitely false / *Heeltemal onwaar*
    ○ Mostly false / *Grootliks onwaar*
    ○ Mostly true / Grootliks waar
    ○ Definitely true / *Heeltemal waar*

24. Collaboration between departments is very effective
    Samewerking tussen departemente is baie effektief*

    Please choose **only one** of the following:
    ○ Definitely false / *Heeltemal onwaar*
    ○ Mostly false / *Grootliks onwaar*
    ○ Mostly true / Grootliks waar
    ○ Definitely true / *Heeltemal waar*

25. There is very little respect between some of the departments here
*Hier is daar baie min respek tussen sommige van die departemente**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

26. This company pays little attention to the interests of employees
*Hierdie maatskappy toon min belangstelling in the belange van werknemers**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

27. This company tries to look after its employees
*Hierdie maatskappy probeer om vir sy werknemers te sorg**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

28. This company cares about its employees
*Hierdie maatskappy gee om vir sy werknemers**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

29. This company tries to be fair in its actions towards employees
*Hierdie maatskappy probeer om regverdig teenoor werknemers op te tree**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

30. People are not properly trained when there is a new machine or bit of equipment
*Werknemers word nie behoorlik opgelei wanneer 'n nuwe masjien of nuwe toerusting in gebruik geneem word nie**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*

○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

31. People receive enough training when it comes to using new equipment
    Werknemers kry voldoende opleiding wanneer dit kom by die gebruik van nuwe toerusting*

    Please choose **only one** of the following:
    ○ Definitely false / *Heeltemal onwaar*
    ○ Mostly false / *Grootliks onwaar*
    ○ Mostly true / Grootliks waar
    ○ Definitely true / *Heeltemal waar*

32. People are strongly encouraged to develop their skills
    Werknemers word sterk aangemoedig om hulle vaardighede te ontwikkel*

    Please choose **only one** of the following:
    ○ Definitely false / *Heeltemal onwaar*
    ○ Mostly false / *Grootliks onwaar*
    ○ Mostly true / Grootliks waar
    ○ Definitely true / *Heeltemal waar*

33. The company only gives people the minimum amount of training they need to do their job
    Die maatskappy gee werknemers slegs die minimum hoeveelheid opleiding wat hulle benodig om hulle werk te kan doen*

    Please choose **only one** of the following:
    ○ Definitely false / *Heeltemal onwaar*
    ○ Mostly false / *Grootliks onwaar*
    ○ Mostly true / Grootliks waar
    ○ Definitely true / *Heeltemal waar*

34. In this organisation, the way people work together is readily changed in order to improve performance
    In hierdie organisasie word die manier waarop werknemers saamwerk geredelik verander om prestasie te verbeter*

    Please choose **only one** of the following:
    ○ Definitely false / *Heeltemal onwaar*
    ○ Mostly false / *Grootliks onwaar*
    ○ Mostly true / Grootliks waar
    ○ Definitely true / *Heeltemal waar*

35. The methods used by this organisation to get the job done are often discussed
    Die metodes wat hiedie organisasie gebruik om die werk gedoen te kry, word dikwels bespreek*

    Please choose **only one** of the following:
    ○ Definitely false / *Heeltemal onwaar*
    ○ Mostly false / *Grootliks onwaar*
    ○ Mostly true / Grootliks waar

○ Definitely true / *Heeltemal waar*

36. There are regular discussions as to whether people in the organisation are working effectively together
Daar is gereelde besprekings aangaande die vraag of die werknemers in die organisasie effektief saamwerk*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

37. In this organisation objectives are modified in light of changing circumstances
In hierdie organisasie word doelwitte aangepas in die lig van veranderde omstandighede*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

38. In this organisation, time is taken to review organisational objectives
In hierdie organisasie word daar tyd bestee aan die hersiening van organisatoriese doelwitte*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

39. New ideas are readily accepted here
Hier word nuwe idees geredelik aanvaar*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

40. This company is quick to respond when changes need to be made
Hierdie maatskappy reageer vinnig wanneer veranderinge gemaak moet word*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

41. Management here are quick to spot the need to do things differently
Hier sien die bestuur die noodsaaklikheid daarvan om dinge anders te doen vinnig raak*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

42. This organisation is very flexible; it can quickly change procedures to meet new conditions & solve problems as they arise
Hierdie organisasie is baie aanpasbaar; prosedures kan vinnig verander word om by nuwe omstandighede aan te pas en probleme word opgelos sodra hulle ontstaan*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

43. Assistance in developing new ideas is readily available
Hulp in die ontwikkeling van nuwe idees is geredelik beskikbaar*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

44. People in this organisation are always searching for new ways of looking at problems
Werknemers in hierdie organisasie is altyd op soek na nuwe maniere om na probleme te kyk*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

45. This organisation is quite inward looking; it does not concern itself with what is happening in the market place
Hierdie organisasie is geneig om na binne te fokus; hul steur hulself nie aan wat in die mark gebeur nie*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

46. Ways of improving service to the customer are not given much thought
   Daar word nie veel aandag geskenk aan maniere waarop klientediens verbeter kan word nie*

   Please choose **only one** of the following:
   ○ Definitely false / *Heeltemal onwaar*
   ○ Mostly false / *Grootliks onwaar*
   ○ Mostly true / Grootliks waar
   ○ Definitely true / *Heeltemal waar*

47. Customer needs are not considered top priority here
   Hier word die behoeftes van kliënte nie as topprioriteit beskou nie*

   Please choose **only one** of the following:
   ○ Definitely false / *Heeltemal onwaar*
   ○ Mostly false / *Grootliks onwaar*
   ○ Mostly true / Grootliks waar
   ○ Definitely true / *Heeltemal waar*

48. This company is slow to respond to the needs of the customer
   Hierdie maatskappy reageer stadig op die behoeftes van kliënte*

   Please choose **only one** of the following:
   ○ Definitely false / *Heeltemal onwaar*
   ○ Mostly false / *Grootliks onwaar*
   ○ Mostly true / Grootliks waar
   ○ Definitely true / *Heeltemal waar*

49. This organisation is continually looking for new opportunities in the market place
   Hierdie organisasie is voortdurend op soek na nuwe geleenthede in die mark*

   Please choose **only one** of the following:
   ○ Definitely false / *Heeltemal onwaar*
   ○ Mostly false / *Grootliks onwaar*
   ○ Mostly true / Grootliks waar
   ○ Definitely true / *Heeltemal waar*

50. People are expected to do too much in a day
   Daar word van werknemers verwag om te veel in 'n dag te doen*

   Please choose **only one** of the following:
   ○ Definitely false / *Heeltemal onwaar*
   ○ Mostly false / *Grootliks onwaar*
   ○ Mostly true / Grootliks waar
   ○ Definitely true / *Heeltemal waar*

51. In general, people's workloads are not particularly demanding
   Oor die algemeen is werknemers se werkslading nie besonder veeleisend nie*

   Please choose **only one** of the following:
   ○ Definitely false / *Heeltemal onwaar*

○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

52. Management require people to work extremely hard
*Die bestuur vereis dat werknemers uitermatig hard moet werk**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

53. People here are under pressure to meet targets
*Hier is werknemers onder druk om teikens te bereik**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

54. The pace of work here is pretty relaxed
*Die werkstempo hier is taamlik ontspanne**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

55. People have a good understanding of what the organisation is trying to do
*Werknemers het 'n goeie begrip van dit wat die organisasie probeer bereik**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

56. The future direction of the company is clearly communicated to everyone
*Die toekomstige rigting waarin die maatskappy beweeg word duidelik aan almal oorgedra**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

57. People aren't clear about the aims of the company
*Werknemers het nie duidelikheid oor die doelwitte van die maatskappy nie**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

58. Everyone who works here is well aware of the long term plans and direction of this company
*Almal wat hier werk is deeglik bewus van die langtermyn planne en rigting van hierdie maatskappy**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

59. There is a strong sense of where the company is going
Werknemers het 'n duidelike begrip van *waarheen die maatskappy op pad is* *

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

60. People usually receive feedback on the quality of work they have done
*Werknemers kry gewoonlik terugvoer oor die gehalte werk wat hulle verrig**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

61. People don't have any idea of how well they are doing their job
*Werknemers het geen idee van hoe goed hulle hul werk doen nie**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

62. In general, it is hard for someone to measure the quality of their performance
*Oor die algemeen is dit moeilik vir werknemers om die gehalte van hulle prestasie te meet**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*

○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

63. People's performance is measured on a regular basis
Werknemers se prestasie word op 'n gereelde basis gemeet*
Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

64. The way people do their jobs is rarely assessed
Die manier waarop werknemers hulle werk doen word selde geevalueer*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

65. This company is always working to achieve the highest standards of quality
Hierdie maatskappy werk altyd hard om die hoogste standaarde van gehalte te bereik*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

66. Quality is taken very seriously here
Gehalte word hier baie ernstig opgeneem*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

67. People believe the company's success depends on high quality work
Werknemers glo dat die sukses van die maatskappy afhangend is van hoë gehalte werk*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

68. This company does not have much of a reputation for top quality products
*Hierdie maatskappy het nie veel van 'n reputasie vir topgehalte produkte nie**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

69. Time and money could be saved if work were better organised
*Tyd en geld kan bespaar word indien werk beter georganiseer word**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

70. Things could be done much more efficiently if people stopped to think
Dinge kan baie meer doeltreffend gedoen word as mense stop en besin voor hulle iets doen*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

71. Poor scheduling and planning often result in targets not being met
Swak skedulering en beplanning lei telkens tot teikens wat nie bereik word nie*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

72. Productivity could be improved if jobs were organised and planned better
*Produktiwiteit kan verbeter word indien take beter georganiseer en beplan word**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

73. People here always want to perform to the best of their ability
Hier wil die werknemers *altyd tot die beste van hulle vermoë presteer**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*

○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

74. People are enthusiastic about their work
    *Werknemers is entoesiasties oor hulle werk**

    Please choose **only one** of the following:
    ○ Definitely false / *Heeltemal onwaar*
    ○ Mostly false / *Grootliks onwaar*
    ○ Mostly true / Grootliks waar
    ○ Definitely true / *Heeltemal waar*

75. People here get by with doing as little as possible
    *Hier kom werknemers daarmee weg om so min as moontllik te doen**

    Please choose **only one** of the following:
    ○ Definitely false / *Heeltemal onwaar*
    ○ Mostly false / *Grootliks onwaar*
    ○ Mostly true / Grootliks waar
    ○ Definitely true / *Heeltemal waar*

76. People are prepared to make a special effort to do a good job
    *Werknemers is bereid om 'n spesiale poging aan te wend om goeie werk te verrig**

    Please choose **only one** of the following:
    ○ Definitely false / *Heeltemal onwaar*
    ○ Mostly false / *Grootliks onwaar*
    ○ Mostly true / Grootliks waar
    ○ Definitely true / *Heeltemal waar*

77. People here don't put more effort into their work than they have to
    *Werknemers hier doen nie meer moeite om hulle werk te verrig as wat nodig is nie**

    Please choose **only one** of the following:
    ○ Definitely false / *Heeltemal onwaar*
    ○ Mostly false / *Grootliks onwaar*
    ○ Mostly true / Grootliks waar
    ○ Definitely true / *Heeltemal waar*

78. It is considered extremely important here to follow the rules
    *Hier word dit as uiters belangrik beskou om die reëls na te kom**

    Please choose **only one** of the following:
    ○ Definitely false / *Heeltemal onwaar*
    ○ Mostly false / *Grootliks onwaar*
    ○ Mostly true / Grootliks waar
    ○ Definitely true / *Heeltemal waar*

79. People can ignore formal procedures and rules if it helps get the job done
Werknemers kan formele prosedures en reëls verontagsaam indien dit sou help om die werk afgehandel te kry*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

80. Everything has to be done by the book
Alles moet streng volgens die reëls gedoen word*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

81. It's not necessary to follow procedures to the letter around here
Dit is onnodig *om prosedures streng volgens die reels na te kom nie**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

82. Nobody gets too upset if people break the rules around here
Niemand word te omgekrap as mense die reëls verbreek nie*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

83. Changes in the way things are done here happen very slowly
Hier geskied verandering aan die manier waarop dinge gedoen word baie stadig*

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

84. Senior management like to keep to established, traditional ways of doing things
Top*bestuur hou daarvan om te hou by die gevestigde, tradisionele manier van dinge doen**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*

○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

85. The way this organisation does things has never changed very much
*Die manier waarop hierdie organisasie dinge doen het nog nooit veel verander nie**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

86. Management are not interested in trying out new ideas
*Die bestuur stel nie daarin belang om nuwe idees uit te probeer nie**

Please choose **only one** of the following:
○ Definitely false / *Heeltemal onwaar*
○ Mostly false / *Grootliks onwaar*
○ Mostly true / Grootliks waar
○ Definitely true / *Heeltemal waar*

Please submit your survey