

**THE RELATIONSHIP BETWEEN ORGANISATIONAL CLIMATE AND EMPLOYEE  
SATISFACTION IN A SOUTH AFRICAN INFORMATION AND TECHNOLOGY  
ORGANISATION**

by

**MONIA LOLA CASTRO**

Submitted in part fulfilment of the requirements for the degree of

**MASTERS OF ARTS**

in the subject

**INDUSTRIAL AND ORGANISATIONAL PSYCHOLOGY**

at the

**UNIVERSITY OF SOUTH AFRICA**

**SUPERVISOR: PROF N MARTINS**

**NOVEMBER 2008**

	Page
Acknowledgements	iii
Declaration	iv
Table of Contents	v
List of Tables	xiv
List of Figures	xvi
List of Appendices	xvii
Summary	xviii

## ACKNOWLEDGEMENTS

There are so many people who encouraged and supported me on this journey. I would like to thank the following individuals:

My mother, Lola, for always believing in me and reminding me that I can do anything. Your unwavering love, support and encouragement now and throughout my studies are greatly appreciated. Words are not enough to express how grateful I am to you for all you have done and all the sacrifices you have made. This is for you. I love you.

My family: my dad, Robert, in so many ways, you have made this possible. Thank you for your patience, love and support over the years. It means everything. My sisters: Sandra and Sonia, for always being there, cheering me on; for your constant belief and support.

My friends, Bridget, Bronwyn, Gwynn, Josie, Kate, Lindsey, Lisa, Michelle, Nicole and Tanya: thank you for listening and being there; for your support and reminding me that I am not alone in this and that a cup of tea or glass of wine is just a phone call away.

Grant, for your support and encouragement. Thank you for believing in me, when at times, I did not believe in myself.

Prof Nico Martins, my supervisor, for your knowledge and guidance throughout this process.

Angela Murphy: thank you not only for the statistical knowledge and expertise you imparted, but also your time and patience helping me work with all the statistics. I am truly grateful. This research would not have been possible without you.

Moya Joubert, for your professional editing and prompt feedback.

To the organisation, for affording me the opportunity to conduct this research.

.

## DECLARATION

Student Number: **4118-085-2**

I hereby declare that “The relationship between organisational climate and employee satisfaction in a South African Information and Technology (ICT) organization” is my own work and that all sources that I have used or quoted have been indicated and acknowledged by means of complete references.

---

SIGNATURE

(Miss ML Castro)

---

DATE

## TABLE OF CONTENTS

	Page
<b>CHAPTER 1</b>	
<b>OVERVIEW OF THE RESEARCH</b>	
<b>1.1 BACKGROUND TO AND RATIONAL FOR THE RESEARCH</b>	<b>1</b>
<b>1.2 PROBLEM STATEMENT</b>	<b>3</b>
1.2.1 General research question	3
1.2.2 Specific research questions	4
<b>1.3 GENERAL STUDY OBJECTIVES</b>	<b>5</b>
1.3.1 General aim	5
1.3.2 Specific aims	5
<b>1.4 RESEARCH MODEL</b>	<b>6</b>
1.4.1 The intellectual climate	7
1.4.2 The market of intellectual resources	7
1.4.2.1 <i>Theoretical beliefs</i>	7
1.4.2.2 <i>Methodological beliefs</i>	7
1.4.3 The research process	8
<b>1.5 THE PARADIGM PERSPECTIVE</b>	<b>8</b>
1.5.1 The relevant paradigms	9
1.5.1.1 <i>The humanistic paradigm</i>	9
1.5.1.2 <i>The functionalist paradigm</i>	10
1.5.2 Applicable metathoretical concepts	11
1.5.2.1 <i>Industrial psychology</i>	11
1.5.2.2 <i>Organisational behaviour</i>	11
1.5.3 Applicable behaviour models and theories	12
1.5.3.1 <i>Organisational climate</i>	12
1.5.3.2 <i>Job satisfaction</i>	13
1.5.4 Applicable concepts and constructs	13

1.5.4.1	<i>Organisational climate</i>	13
1.5.4.2	<i>Job satisfaction</i>	13
1.5.4.3	<i>Organisational culture</i>	13
1.5.4.4	<i>Perceptions</i>	14
<b>1.5.5</b>	<b>The central hypothesis</b>	<b>14</b>
<b>1.5.6</b>	<b>Methodological convictions</b>	<b>14</b>
1.5.6.1	<i>The sociological dimension</i>	14
1.5.6.2	<i>The ontological dimension</i>	15
1.5.6.3	<i>The teleological dimension</i>	15
1.5.6.4	<i>The epistemological dimension</i>	15
1.5.6.5	<i>The methodological dimension</i>	15
<b>1.6</b>	<b>RESEARCH DESIGN</b>	<b>16</b>
<b>1.6.1</b>	<b>Research variables</b>	<b>16</b>
<b>1.6.2</b>	<b>Type of research</b>	<b>16</b>
<b>1.6.3</b>	<b>Unit of analysis</b>	<b>17</b>
<b>1.6.4</b>	<b>Methods to ensure reliability and validity</b>	<b>17</b>
1.6.4.1	<i>Validity</i>	17
1.6.4.2	<i>Reliability</i>	18
<b>1.7</b>	<b>Research Method</b>	<b>19</b>
<b>1.7.1</b>	<b>Phase 1: the literature review</b>	<b>20</b>
1.7.1.1	<i>Step 1: organisational climate</i>	20
1.7.1.2	<i>Step 2: job satisfaction</i>	21
1.7.1.3	<i>Step 3: integration of organisational climate and job satisfaction</i>	21
<b>1.7.2</b>	<b>Phase 2: the empirical study</b>	<b>22</b>
1.7.2.1	<i>Step 1: population and sample</i>	22
1.7.2.2	<i>Step 2: measuring instruments</i>	22
1.7.2.3	<i>Step 3: data collection</i>	22
1.7.2.4	<i>Step 4: data processing</i>	22
1.7.2.5	<i>Step 5: formulation of the hypothesis</i>	23
1.7.2.6	<i>Step 6: reporting and interpreting the results</i>	24
1.7.2.7	<i>Step 7: conclusion</i>	24

1.7.2.8	<i>Step 8: limitations</i>	24
1.7.2.9	<i>Step 9: recommendations</i>	24
<b>1.8</b>	<b>Chapter Layout</b>	<b>25</b>
<b>1.9</b>	<b>Chapter Summary</b>	<b>26</b>

## CHAPTER 2

### ORGANISATIONAL CLIMATE

<b>2.1</b>	<b>INTRODUCTION TO AND RATIONALE FOR STUDYING ORGANISATIONAL CLIMATE</b>	<b>27</b>
<b>2.2</b>	<b>CONCEPTUALISATION OF ORGANISATIONAL CLIMATE</b>	<b>28</b>
<b>2.2.1</b>	<b>Defining organisational climate</b>	<b>30</b>
<b>2.2.2</b>	<b>The development of organisational climate</b>	<b>35</b>
<b>2.2.3</b>	<b>The etiology of organisational climate</b>	<b>37</b>
2.2.3.1	<i>The structural approach</i>	37
2.2.3.2	<i>The perceptual approach</i>	39
2.2.3.3	<i>The interactive approach</i>	40
2.2.3.4	<i>The cultural approach</i>	42
<b>2.3</b>	<b>THE DISTINCTION BETWEEN ORGANISATIONAL CLIMATE AND ORGANISATIONAL CULTURE</b>	<b>44</b>
<b>2.4</b>	<b>ASPECTS OF ORGANISATIONAL CLIMATE</b>	<b>50</b>
<b>2.4.1</b>	<b>Dimensions of organisational climate</b>	<b>50</b>
<b>2.4.2</b>	<b>Levels of climate</b>	<b>61</b>
2.4.2.1	<i>Organisational climate</i>	61
2.4.2.2	<i>Group climate</i>	61
2.4.2.3	<i>Psychological climate</i>	62
<b>2.4.3</b>	<b>Organisational climate model</b>	<b>62</b>
2.4.3.1	<i>A model of organisational climate</i>	62
<b>2.4.4</b>	<b>The importance of organisational climate</b>	<b>66</b>
<b>2.5</b>	<b>MEASURING ORGANISATIONAL CLIMATE</b>	<b>68</b>

2.6	<b>CHAPTER SUMMARY</b>	<b>70</b>
-----	------------------------	-----------

## **CHAPTER 3**

### **JOB SATISFACTION**

<b>3.1</b>	<b>INTRODUCTION TO AND RATIONALE FOR STUDYING JOB SATISFACTION</b>	<b>71</b>
<b>3.2</b>	<b>CONCEPTUALISATION OF JOB SATISFACTION</b>	<b>72</b>
<b>3.2.1</b>	<b>Defining job satisfaction</b>	<b>73</b>
<b>3.3</b>	<b>ASPECTS OF JOB SATISFACTION</b>	<b>76</b>
<b>3.3.1</b>	<b>Influences of job satisfaction</b>	<b>76</b>
3.3.1.1	<i>The job or work itself</i>	77
3.3.1.2	<i>Pay</i>	78
3.3.1.3	<i>Promotion opportunities</i>	79
3.3.1.4	<i>Working conditions</i>	79
3.3.1.5	<i>Supervision</i>	80
3.3.1.6	<i>Co-workers or work group</i>	81
<b>3.3.2</b>	<b>Models of job satisfaction</b>	<b>81</b>
3.3.2.1	<i>Content theories</i>	82
3.3.2.2	<i>Process Theories</i>	86
<b>3.3.3</b>	<b>The influence personal attributes on job satisfaction</b>	<b>92</b>
3.3.3.1	<i>Gender</i>	92
3.3.3.2	<i>Tenure</i>	94
3.3.3.3	<i>Race</i>	96
3.3.3.4	<i>Job Level</i>	97
3.3.3.5	<i>Employee status</i>	99
3.3.3.6	<i>Age</i>	99
<b>3.4</b>	<b>JOB DISSATISFACTION</b>	<b>101</b>
<b>3.5</b>	<b>CONSEQUENCES OF JOB SATISFACTION</b>	<b>103</b>
<b>3.5.1</b>	<b>Job satisfaction and performance</b>	<b>103</b>



3.5.2	Job satisfaction and absenteeism	104
3.5.3	Job satisfaction and turnover	105
3.6	MEASURING JOB SATISFACTION	105
3.6.1	Attitudinal measurement of job satisfaction	107
3.7	CHAPTER SUMMARY	108
3.8	INTEGRATION OF ORGANISATIONAL CLIMATE AND JOB SATISFACTION	110

## CHAPTER 4

### THE EMPIRICAL RESEARCH

4.1	POPULATION AND SAMPLE	114
4.2	DESCRIPTION OF THE ORGANISATIONAL CLIMATE SURVEY	115
4.2.1	Description and scoring of the organisational climate questionnaire	116
4.2.2	Sociodemographic components of the questionnaire	117
4.2.3	Attendance of diversity management training	118
4.3	SELECTING AND JUSTIFYING THE USE OF THE MEASURING INSTRUMENT	119
4.3.1	Administration of the questionnaire	121
4.4	DATA COLLECTION	121
4.5	DATA PROCESS AND ANALYSIS	122
4.5.1	Reliability and validity of the questionnaire	123
4.5.1.1	<i>Reliability of the questionnaire</i>	123
4.5.1.2	<i>Validity of the questionnaire</i>	124
4.5.2	The relationship between organisational climate questionnaire and job satisfaction	125
4.5.2.1	<i>Pearson's product-moment correlation coefficient</i>	125
4.5.2.2	<i>Multiple regression analysis</i>	126
4.5.3	Differences in groups for organisational climate and job satisfaction	127
4.5.3.1	<i>Independent group t-test</i>	127

4.5.3.2	<i>Analysis of Variance (ANOVA)</i>	127
4.5.4	<b>Influence of attendance of diversity management workshops on organisational climate and job satisfaction</b>	128
4.6	<b>FORUMULATION OF HYPOTHESES</b>	128
4.6.1	<b>Hypothesis 1</b>	128
4.6.2	<b>Hypothesis 2</b>	128
4.6.3	<b>Hypothesis 3</b>	128
4.6.4	<b>Hypothesis 4</b>	129
4.7	<b>CHAPTER SUMMARY</b>	129

## CHAPTER 5

### RESULTS OF THE RESEARCH

5.1	<b>DESCRIPTIVE STATISTICS</b>	130
5.1.1	<b>Biographical profile of the sample</b>	130
5.2	<b>RESULTS OF THE ORGANISATIONAL CLIMATE QUESTIONNAIRE</b>	136
5.2.1	<b>Skewness</b>	137
5.2.2	<b>Kurtosis</b>	138
5.2.3	<b>Describing the organisational climate</b>	139
5.3	<b>RELIABILITY OF THE ORGANISATIONAL CLIMATE QUESTIONNAIRE</b>	141
5.4	<b>VALIDITY OF THE ORGANISATIONAL CLIMATE QUESTIONNAIRE</b>	143
5.4.1	<b>Confirmatory analysis of the original 12 dimensions</b>	143
5.4.2	<b>Exploratory factor analysis</b>	144
5.4.2.1	<i>Suitability of the data</i>	144
5.4.2.2	<i>Factor extraction</i>	147
5.4.2.3	<i>Factor rotation</i>	154
5.4.3	<b>Interpretation of the 12-factor (11 dimensions) and three-factor</b>	

	<b>models</b>	<b>163</b>
5.4.3.1	<i>Interpretation of the 12-factor model</i>	163
5.4.3.2	<i>Interpretation of the three-factor model</i>	165
<b>5.4.4</b>	<b>CFA of the revised 12-factor (11 dimensions) and three-factor Models</b>	<b>166</b>
<b>5.5</b>	<b>RELIABILITY OF THE REVISED 12-FACTOR (11 DIMENSIONS) AND THREE-FACTOR MODELS</b>	<b>174</b>
<b>5.5.1</b>	<b>The 12-factor model (11 dimensions)</b>	<b>174</b>
<b>5.5.2</b>	<b>The three-factor model</b>	<b>176</b>
<b>5.6</b>	<b>TESTING THE STUDY HUPOTHESES</b>	<b>177</b>
<b>5.6.1</b>	<b>Effect size</b>	<b>177</b>
<b>5.6.2</b>	<b>Hypotheses relating to the relationship between organisational climate and job satisfaction</b>	<b>178</b>
<b>5.6.3</b>	<b>Hypothesis relating to the influence of organisational climate on job satisfaction</b>	<b>184</b>
<b>5.6.4</b>	<b>Hypothesis relating to biographical and organisational variables with regard to organisational climate and job satisfaction</b>	<b>187</b>
5.6.4.1	<i>Gender</i>	187
5.6.4.2	<i>Age</i>	188
5.6.4.3	<i>Tenure</i>	190
5.6.4.4	<i>Job level</i>	193
5.6.4.5	<i>Employee status</i>	196
5.6.4.6	<i>Region</i>	197
5.6.4.7	<i>Diversity awareness training</i>	199
<b>5.6.5</b>	<b>SUMMARY OF RESEARCH HYPOTHESES</b>	<b>200</b>

## CHAPTER 6

### CONCLUSION, LIMITATION AND RECOMMENDATIONS

<b>6.1</b>	<b>CONCLUSIONS</b>	<b>202</b>
------------	--------------------	------------

<b>6.1.1</b>	<b>Conclusions relating to the literature review</b>	<b>202</b>
6.1.1.1	<i>Aim 1: conceptualise organisational climate and determine its key components</i>	202
6.1.1.2	<i>Aim 2: determine how organisational climate can be measured</i>	204
6.1.1.3	<i>Aim 3: conceptualise job satisfaction and determine its key components</i>	204
6.1.1.4	<i>Aim 4: determine how job satisfaction can be measured</i>	206
6.1.1.5	<i>Aim 5: integrate the concepts of organisational climate and job satisfaction</i>	206
<b>6.1.2</b>	<b>Conclusions relating to the empirical study</b>	<b>207</b>
6.1.2.1	<i>Aim 1: investigate the organisational climate in an ICT organisation in South Africa</i>	207
6.1.2.2	<i>Aim 2: investigate job satisfaction in an ICT organisation in South Africa</i>	208
6.1.2.3	<i>Aim 3: investigate whether a relationship exists between organisational climate and job satisfaction in an ICT organisation in South Africa</i>	208
6.1.2.4	<i>Aim 4: investigate whether organisational climate dimensions that are perceived as personal to the individual have a greater influence on job satisfaction than climate factors that are perceived as external.</i>	208
6.1.2.5	<i>Aim 5: investigate whether organisational climate and job satisfaction varies across biographical and organisational variables</i>	209
<b>6.2</b>	<b>LIMITATIONS OF THE RESEARCH</b>	<b>211</b>
<b>6.2.1</b>	<b>Limitations of the literature review</b>	<b>211</b>
<b>6.2.2</b>	<b>Limitation of the empirical investigation</b>	<b>212</b>
6.2.2.1	<i>Sample</i>	212
6.2.2.2	<i>Questionnaire</i>	212
6.2.2.3	<i>Use of current organisational and job satisfaction information</i>	212
<b>6.3</b>	<b>RECOMMENDATIONS</b>	<b>213</b>
<b>6.3.1</b>	<b>Recommendations for industrial psychologists working in the field of organisational climate</b>	<b>213</b>
<b>6.3.2</b>	<b>Recommendations for further research</b>	<b>213</b>
<b>6.3.3</b>	<b>Recommendations for the organisation</b>	<b>214</b>

<b>6.4</b>	<b>INTEGRATION OF THE RESEARCH</b>	<b>215</b>
<b>6.5</b>	<b>CHAPTER SUMMARY</b>	<b>216</b>
	<b>REFERENCES</b>	<b>217</b>

## LIST OF TABLES

<b>Table 1.1:</b>	<b>Internal Validity</b>	<b>17</b>
<b>Table 2.1:</b>	<b>Summary of the difference between organisational climate and organisational culture</b>	<b>46</b>
<b>Table 2.2:</b>	<b>Studies researching specific climates</b>	<b>56</b>
<b>Table 2.3:</b>	<b>A comparison of organisational climate dimensions</b>	<b>57</b>
<b>Table 5.1:</b>	<b>Descriptive statistics for the dimensions of the organisational climate questionnaire</b>	<b>137</b>
<b>Table 5.2:</b>	<b>Scale reliabilities of the total scales and subscales for the organisational climate questionnaire</b>	<b>142</b>
<b>Table 5.3:</b>	<b>Correlation matrix</b>	<b>146</b>
<b>Table 5.4:</b>	<b>Kaiser-Mayer Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity</b>	<b>147</b>
<b>Table 5.5:</b>	<b>Total variance explained for the overall scale of the organisational climate questionnaire before extraction</b>	<b>148</b>
<b>Table 5.6:</b>	<b>Factor matrix for the 12-factor model</b>	<b>150</b>
<b>Table 5.7:</b>	<b>Factor matrix for the three-factor model</b>	<b>153</b>
<b>Table 5.8:</b>	<b>Total variance explained for the 12-factor (11 dimensions) model after extraction</b>	<b>156</b>
<b>Table 5.9:</b>	<b>Pattern matrix for the 12-factor model (11 dimensions)</b>	<b>157</b>
<b>Table 5.10:</b>	<b>Total variance explained for the three-factor model after extraction</b>	<b>160</b>
<b>Table 5.11:</b>	<b>Pattern matrix for the three-factor model</b>	<b>161</b>
<b>Table 5.12:</b>	<b>Model specifications and item numbers for each of the organisational climate models under examination</b>	<b>167</b>
<b>Table 5.13:</b>	<b>Fit indices for the comparative models of the organisational climate questionnaire identified in the present study</b>	<b>170</b>
<b>Table 5.14:</b>	<b>Scale reliabilities of the total scale and subscales for the 12-factor model (11 dimensions)</b>	<b>175</b>
<b>Table 5.15:</b>	<b>Scale reliabilities of the total scale and subscales for the three-factor model</b>	<b>176</b>

<b>Table 5.16:</b>	<b>Correlation between total organisation climate and job satisfaction</b>	<b>179</b>
<b>Table 5.17:</b>	<b>Correlation between organisational climate dimension and job satisfaction</b>	<b>182</b>
<b>Table 5.18:</b>	<b>Model summary of expected variance in job satisfaction</b>	<b>185</b>
<b>Table 5.19:</b>	<b>Coefficients for the independent variable of model 9</b>	<b>186</b>
<b>Table 5.20:</b>	<b>T-test comparison of gender differences</b>	<b>188</b>
<b>Table 5.21:</b>	<b>Analysis of variance: comparing organisational climate and job satisfaction of race groups</b>	<b>189</b>
<b>Table 5.22:</b>	<b>Analysis of variance: comparing organisation climate and job satisfaction of tenure groups</b>	<b>191</b>
<b>Table 5.23:</b>	<b>Analysis of variance: comparing organisation climate and job satisfaction of job level groups</b>	<b>194</b>
<b>Table 5.24:</b>	<b>T-test comparison of employee status</b>	<b>196</b>
<b>Table 5.25:</b>	<b>Analysis of variance: comparing organisation climate and job satisfaction of region</b>	<b>198</b>
<b>Table 5.26:</b>	<b>T-test comparison of attendance of diversity awareness training</b>	<b>199</b>
<b>Table 5.27:</b>	<b>Summary of hypotheses</b>	<b>201</b>

## LIST OF FIGURES

<b>Figure 1.1:</b>	<b>Flow diagram of the research model</b>	<b>19</b>
<b>Figure 2.1:</b>	<b>A visual representation of the structural approach</b>	<b>38</b>
<b>Figure 2.2:</b>	<b>A visual representation of how the individual perceives organisation conditions creating a representation of organisational climate</b>	<b>39</b>
<b>Figure 2.3:</b>	<b>A visual representation of the interactive approach</b>	<b>41</b>
<b>Figure 2.4:</b>	<b>The cultural approach to organisational climate</b>	<b>43</b>
<b>Figure 2.5:</b>	<b>A model of organisational climate</b>	<b>63</b>
<b>Figure 3.1:</b>	<b>Integration of content theories</b>	<b>86</b>
<b>Figure 3.2:</b>	<b>Characteristics model of Hackman and Oldham</b>	<b>91</b>
<b>Figure 3.3:</b>	<b>The exit-voice-loyalty-neglect framework of job dissatisfaction</b>	<b>102</b>
<b>Figure 4.1:</b>	<b>Dimensions of organisational climate</b>	<b>117</b>
<b>Figure 5.1:</b>	<b>Sample split by gender</b>	<b>131</b>
<b>Figure 5.2:</b>	<b>Sample split by race</b>	<b>132</b>
<b>Figure 5.3:</b>	<b>Sample split by tenure</b>	<b>133</b>
<b>Figure 5.4:</b>	<b>Sample split by job level</b>	<b>134</b>
<b>Figure 5.5:</b>	<b>Sample split by employee status</b>	<b>134</b>
<b>Figure 5.6:</b>	<b>Sample split by region</b>	<b>135</b>
<b>Figure 5.7:</b>	<b>Sample split by diversity awareness training</b>	<b>136</b>
<b>Figure 5.8:</b>	<b>Dispersion of organisational climate</b>	<b>139</b>
<b>Figure 5.9:</b>	<b>Scree plot for the overall scale of the organisational climate questionnaire</b>	<b>149</b>
<b>Figure 5.10:</b>	<b>Original 12-factor model</b>	<b>171</b>
<b>Figure 5.11:</b>	<b>The revised 12-factor model (11 dimensions)</b>	<b>172</b>
<b>Figure 5.12:</b>	<b>The three-factor model</b>	<b>173</b>



**LIST OF APPENDICES**

<b>A: Organisational climate questionnaire</b>	<b>243</b>
<b>B: Factors and items as interpreted for the 12-factor model (11 dimensions)</b>	<b>251</b>
<b>C: Factors and items as interpreted for the three-factor model</b>	<b>254</b>
<b>D: Post-hoc tests</b>	<b>258</b>

## SUMMARY

This research explores the relationship between organisational climate and job satisfaction in an Information and Communication Technology (ICT) organisation within South Africa by means of quantitative research. An organisational climate questionnaire was developed to measure the organisational climate and job satisfaction of the organisation and was administered to a sample of 696 employees across three regions. The results indicate that there was a strong positive correlation (0.813 at the 0.01 level) between organisational climate and job satisfaction, therefore supporting the research hypothesis. A stepwise regression was conducted and nine dimensions of organisational climate were found to predict 71% variance in job satisfaction. The interaction of biographical and organisational variables on organisational climate and job satisfaction was studied by means of t-tests and ANOVA. Although statistically significant differences were found, in terms of practical significance, the effect sizes were generally found to be small.

**Key words:**

Organisational climate, job satisfaction, organisational culture, Confirmatory Factor Analysis (CFA).

## **CHAPTER 1**

### **OVERVIEW OF THE RESEARCH**

This dissertation focuses on the relationship between organisational climate and job satisfaction. The aim of this chapter is to provide the background to and the rationale for this research. The problem statement will be discussed, the research aims specified and the research model explained. The paradigm perspectives will be presented, including the relevant paradigms, metatheoretical statements and theoretical models. The chapter will also discuss the research design and methodology and indicate the chapter layout.

#### **1.1 BACKGROUND TO AND RATIONALE FOR THE RESEARCH**

Organisations in the 21<sup>st</sup> century are faced with more challenges than ever before. These challenges are not unique to any specific organisation or industry, but affect all organisations, regardless of their structure and size. An organisational climate in a particular organisation is constantly challenged by the increasing number of changes impacting on organisations today (Nair, 2006). These changes relate to restructures, mergers and acquisitions, technological trends, political and international trends, increased competition as well as the local and international economy. If these changes are not managed appropriately by the organisation, they could result in a change in the behaviour and perception of individuals employed in the organisation, which could lead to, inter alia, decreased motivation and employee satisfaction, increased turnover and absenteeism and hence a decline in organisational performance (Gray, 2007).

To survive and out do their competitors, organisations constantly seek to improve their performance. The organisational climate in organisations is becoming more important than ever before because organisations need to ensure that those individuals who add value to their bottom line want to stay in the organisation and want to continue pouring their effort into their work to the benefit of the organisation (Brown & Leigh, 1996).

According to Ahmed (1998), the term “climate” traditionally originates from organisational theorists such as Kurt Lewin and Douglas McGregor, who used the term to refer to social climate and organisational climate respectively. The climate of the organisation is based upon its employees’ feelings and perceptions of the organisation’s practices, procedures and reward systems. Organisational climate can be defined in a number of ways. One of the most widely accepted definitions is that of Litwin and Stringer (1968) who define organisational climate as a set of measurable properties of the work environment that is directly or indirectly perceived by the people who live and work in a particular environment and is assumed to influence their motivation and behaviour.

Several studies have been conducted to examine the theoretical link between climate and performance. The results indicate that where perception of employees was positive in terms of increased participation in decision making, greater information sharing and management support, there was increased corporate effectiveness (Kangis & Williams, 2000). In the empirical studies conducted by these authors, in industries ranging from manufacturing to hosiery and knitwear, the results indicated that there is indeed a statistical link between organisational climate and performance.

In a study by Al-rahimi on employee work outcomes and climate (Suliman & Abdullah, 2005), Al-rahimi emphasised the creation of work environments that enable employees to reach their full potential because this enhances employee satisfaction and commitment and increases their performance.

Suliman and Abdullah (2005) highlight the instability and unpredictability of organisational environments. They also emphasise the increasingly vital role of the manager in ensuring that the required work is done in a climate conducive to performance. The climate in organisations plays an integral role in how amenable (or hostile) organisations are to change, be it internal or external, and how easily the organisation can adapt to these changes or developments (Brown & Brooks, 2002).

Organisational climate can be seen as a descriptive concept that reflects the common view and agreement of all members regarding the various elements of the organisation such as structure, systems and practices (McMurray, 2003). One could thus say that, organisational climate essentially refers to the experience of employees in the organisation. The concept of organisational climate centres around perceptions. Brown and Brooks (2002, p. 330) define climate as the “feeling in the air” and the “atmosphere that employees perceive is created in their organisations due to practices, procedures and rewards.” From this definition, it is clear that the individual perceptions of employees in the organisation have an impact on the climate. Even though individuals differ in the way they perceive, analyse and interpret information, the climate present in the organisation is a collective view or perception (Dormeyer, 2003). Since climate is the psychological or perceptual description of individuals, the climate in an organisation can be seen as the collective perception of employees (Al-Shammari, 1992). According to Neher (1996), organisational climate is similar to the moods of individuals, which are subject to change at any given time. The climate in an organisation is affected by events and characteristics relevant to the organisation, which in turn exert a strong influence on the behaviour of the organisation’s members. Organisational climate and the way in which individuals respond to it continually interact. Over time, the organisational climate is said to have the capacity to convey the general psychological atmosphere of an organisation, and consequently, may affect the satisfaction, motivation and behaviour patterns of individuals in the workplace (Lawler, 1992).

## **1.2 PROBLEM STATEMENT**

Because organisational climate plays such a critical role in organisations and influences employees’ perceptions, which impacts on their behaviours, the purpose of this study is to contribute to the current literature in attempting to understand whether a relationship exists between organisational climate and job satisfaction in a South African information and communication technology organisation.

### **1.2.1 General research question**

The general research question which requires further research is as follows:

Is there a relationship between organisational climate and job satisfaction in a South African information and communication technology organisation?

### **1.2.2 Specific Research Questions**

In terms of the literature study, the following specific research questions are addressed in the research:

- How can organisational climate be conceptualised and what are its key components?
- How can organisational climate be measured?
- How can job satisfaction be conceptualised and what are its key components?
- How can job satisfaction be measured?
- How can the concepts of organisational climate and job satisfaction be integrated?

In terms of the empirical study, the following specific research questions will be addressed in this research project:

- What is the organisational climate in a South African information and communication technology organisation?
- What is the level of job satisfaction in a South African information and communication technology organisation?
- Does a relationship exist between organisational climate and job satisfaction in a South African information and communication technology organisation?

- What recommendations can be made for industrial psychology on the basis of the findings of this research?

### **1.3 GENERAL STUDY OBJECTIVES**

Given the specific problem that will be investigated, the aims of this research project are listed below:

#### **1.3.1 General aim**

The general aim of this research is to determine whether there is a relationship between organisational climate and job satisfaction in a South African information and communication technology organisation.

#### **1.3.2 Specific aims**

In terms of the literature study, the specific aims of this research are to

- conceptualise organisational climate and determine its key components
- determine how organisational climate can be measured
- conceptualise job satisfaction and determine its key components
- determine how job satisfaction can be measured
- integrate the concepts of organisational climate and job satisfaction

In terms of the empirical study, the specific aims of this research are to

- investigate the organisational climate in a South African information and communication technology organisation
- investigate job satisfaction in a South African information and communication technology organisation
- investigate whether a relationship exists between organisational climate and job satisfaction in a South African information and communication technology organisation
- make recommendations for industrial psychology and further research on the basis of the findings of this research

#### **1.4 RESEARCH MODEL**

The research model provided by Mouton and Marais (1996) will be applied as the framework in which this research will take place. According to these authors, social sciences research can be defined as a collaborative human activity in which social reality is studied objectively in order to gain a valid understanding of it. This definition highlights five dimensions sociological, ontological, teleological, epistemological and methodological, all of which are organised in the research model.

The authors postulate that this integrated model of social science embodies a particular approach to the interpretation of the process of social sciences. The model can be described as a systems theoretical model that differentiates between three subsystems, namely the intellectual climate, the market of intellectual resources and the research process itself, all of which interact with one another and with the research domain, as defined in the specific discipline (Mouton & Marais, 1996). The relevant discipline in this research is industrial psychology.



### **1.4.1 The intellectual climate**

The intellectual climate is the context in which the research takes place. According to Mouton and Marais (1996), the intellectual climate refers to the variety of metatheoretical values or beliefs held by those practising in a discipline at any given stage. These sets of beliefs, values and assumptions can be traced to nonscientific contexts and are not directly related to the theoretical goals of scientific research. For the purposes of this research, the assumptions will be formulated in the paradigms relating to industrial psychology and organisational psychology as well as organisational behaviour.

### **1.4.2 The market of intellectual resources**

The market of intellectual resources refers to the collection of beliefs that is directly linked to the epistemological status of scientific research. Two major types can be distinguished, namely theoretical beliefs about the nature and structure of the phenomena and methodological beliefs concerning the nature and structure of the research process (Mouton & Marais, 1996).

#### *1.4.2.1 Theoretical Beliefs*

Theoretical beliefs can be regarded as assertions about the “what” (descriptive) and “why” (interpretive) aspects of human behaviour (Kerlinger, 1986). This includes all statements that form part of hypotheses, models and theories. The central hypothesis and conceptual descriptions of organisational climate and job satisfaction are elucidated in this study.

#### *1.4.2.2 Methodological Beliefs*

Methodological beliefs are statements about the nature of social science and scientific research (Kerlinger, 1986). The research method used in this study is quantitative.

### **1.4.3 The research process**

The research process consists of the determinants of research decisions, which refer to the theoretical and methodological choices of the researcher, based on specific paradigm(s) selections and research decisions taken by him/her (Mouton & Marais, 1996). The research process applicable to this study will be discussed in detail in chapter 4.

## **1.5 THE PARADIGM PERSPECTIVE**

With reference to the paradigm perspective of this research, the relevant paradigms, metatheoretical concepts, applicable concepts and constructs as well as the methodological convictions will be discussed.

The research will be conducted within the framework of behavioural science and of industrial psychology, more specifically in the subdiscipline of organisational psychology. Industrial psychology focuses on the study of people in the work environment and encompasses personnel, organisational and career psychology. Organisational psychology is the study of the behaviour of individuals and/or groups in the workplace, uses of psychological knowledge and methods to aid individuals and organisations.

The literature study will focus on the variables that constitute organisational climate and job satisfaction. The empirical study will focus on psychometrics and the statistical analysis of the data within and between the paradigms.

Kuhn (1970) postulates that a paradigm is a model that can be used to conduct research. It can be defined as a set of rules and regulations that clarify boundaries for the researcher in terms of what should be researched as well as how the research should be conducted. In addition, paradigms also determine what would be regarded as valid and acceptable solutions to the research problem. In the social sciences, unlike the natural sciences, there is no dominant paradigm, and because it is not considered to be an exact science, paradigmatic predictions are

made with the notion of probability or levels of acceptance, which is usually determined through statistical analysis.

### **1.5.1 The relevant paradigms**

The overall approach to this research will be from a systems perspective. Skyttner (1996, p. 16) formulates the following definition: “a system is a set of interacting units or elements that form an integrated whole intended to perform some function”. Meyer, Moore and Viljoen (1997) consider the individual to be a subsystem within a hierarchy of larger systems. The individual himself/herself is also made up of various subsystems. The basic assumptions of this paradigm are as follows (Skyttner, 1996):

- The systems approach emphasises relation and relatedness.
- Systems are entities that function through the interaction of their parts.

Open systems are complex, nonlinear and adaptive that are interconnected and interwoven and exchange information with their environment. In open systems, the parts are interdependent and no one thing is separate from the other. An organisation can be viewed as open system because it consists of input, throughput and output.

#### *1.5.1.1 The humanistic paradigm*

According to Meyer et al. (1997), the assumptions underlying the humanistic paradigm are as follows:

- Individuals should be studied as unique, dignified and integrated wholes.
- People are responsible beings and are free to make choices from the options available to them.

- Individuals actively and consciously strive towards achieving their potential and to be their true selves.
- Human nature is positive - individuals determine their own behaviour.
- Human existence is intentional.

#### *1.5.1.2 The functionalist paradigm*

The empirical study will be conducted from the functionalist paradigm. According to Burrell and Morgan (1979), the functionalist paradigm is the dominant paradigm in organisational study and one can understand organisational behaviour through hypothesis testing. The assumptions underlying this paradigm are highlighted below:

- It is primarily regulative and pragmatic in its basic orientation.
- It is concerned with understanding society in a way that generates useful empirical knowledge.
- The focus is on understanding the role of human beings in society.
- Society has a concrete real existence and a systematic character to produce an ordered and regulated state of affairs.
- The subject is approached in objectively.
- Behaviour is always seen as being contextually bound in a real world of concrete and tangible social relationships.

### **1.5.2 Applicable metatheoretical concepts**

According to Mouton and Marais (1996), the researcher is compelled to make assumptions justifying specific theories and methodological strategies that are not tested in a specific study. One significant category of such assumptions refers to the metatheoretical assumptions underlying the theories, models and paradigms of a study. The metatheoretical statements relevant to this study are presented below.

#### *1.5.2.1 Industrial Psychology*

This research project is undertaken in the context of industrial and organisational psychology, which can be described as the application of the methods, facts and principles of psychology to people at work in order to improve productivity and quality of life.

According to Landy and Conte (cited in Augustyn & Cillie, 2008), the role of the industrial/organisational psychologist is to facilitate responses to issues and problems that individuals have in the workplace by serving as advisors and catalysts for business, industry, labour, public, academic and health organisations. The discipline can be described as a field of enquiry, domain of practice and profession that focuses on the world of work from a psycho-social perspective in order to understand and enhance the environment by generating and utilising its theoretical knowledge objects (Veldsman, 2001).

The relevant subfield of industrial and organisational psychology that will be included in this research is organisational behaviour.

#### *1.5.2.2 Organisational Behaviour*

Greenberg and Baron (1997) define organisational behaviour as the field that seeks knowledge of the behaviour in organisations by systematically studying the individual, group and organisational process in order to enhance the organisation's effectiveness and individuals' well-being. Organisational behaviour is studied at three levels - the individual level in which

perceptions, motives and attitudes play a role; the group level, where interaction with others is studied; and at an organisational level, where the emphasis is on the organisational structure and its effects on individuals and groups.

Greenberg and Baron (1997) characterise organisational behaviour as follows:

- Organisational behaviour seeks to improve individuals' quality of life at work.
- Organisational behaviour recognises the dynamic nature of organisations.
- There is no one best approach to use in organisations.
- Organisational behaviour confronts the challenges in the ever - changing world of work.

### **1.5.3 Applicable behavioural models and theories**

The theoretical models relevant to this study will be based on the theory of organisational climate and job satisfaction.

#### *1.5.3.1 Organisational climate*

Theories of how climates are formed in organisations will be explored by discussing the structural, perceptual, integrative and cultural approaches as presented by Moran and Volkwein (1992). Organisational climate is considered as the “feeling of the organisation”, which is made up of a various components. The organisational climate model of Gerber (2003) will be discussed, and provides a visual representation of how these components are interlinked and result in an organisational climate.

#### *1.5.3.2 Job satisfaction*

The literature review on job satisfaction will be presented from the humanistic paradigm. The theories and models reviewed in this section will include the content theories of Maslow's needs hierarchy (1943), Alderfer's ERG theory (Fincham & Rhodes, 2005), Herzberg's two-factor theory (Gruneberg, 1979) and McClelland's theory of needs (McClelland, 1962) as well as the process theories of Adams' equity theory (1963), Locke and Latham's goal-setting theory (2002) and Hackman and Oldham's job characteristic model (1975).

### **1.5.4 Applicable concepts and constructs**

The concepts and constructs relevant to this research are discussed below.

#### *1.5.4.1 Organisational climate*

One of the most widely accepted definitions is that of Litwin and Stringer (1968) who define organisational climate as a set of measurable properties of the work environment that is directly or indirectly perceived by the people who live and work in said environment and is assumed to influence their motivation and behaviour.

#### *1.5.4.2 Job satisfaction*

Job satisfaction can be defined as the "individuals' cognitive, affective and evaluative reactions towards their jobs" (Greenberg & Baron, 1997).

#### *1.5.4.3 Organisational culture*

Organisational culture refers to the expected behaviour patterns that are generally exhibited in the organisation and involves assumptions, values, expectations, and the core characteristics that are valued by members in the organisation (Greenberg & Baron, 1997). Culture refers more specifically to the organisational structure that is rooted in the values, beliefs and assumptions

held by individuals in the organisation (Denison, 1996). Once the beliefs, values and expectations have been established, they are generally stable and have a strong influence on the organisation.

#### *1.5.4.4 Perceptions*

Perceptions can be defined as the process whereby an individual gives meaning to the environment by selecting, organising, storing and interpreting the various stimuli into a psychological experience (Gibson, Ivancevich & Donnelly, 1997).

### **1.5.5 The central hypothesis**

There is a relationship between organisational climate and job satisfaction in a South African information and communication technology (ICT) organisation.

### **1.5.6 Methodological convictions**

Methodological convictions refer to the beliefs about the nature of social sciences and scientific research. Methodological convictions are often no more than methodological preferences, assumptions and presuppositions about what ought to constitute acceptable research. There is a direct link between methodological beliefs and the epistemic status of research findings (Mouton & Marais, 1996). The methodological convictions applicable to this research are outlined below.

#### *1.5.6.1 The sociological dimension*

The sociological dimension emphasises that scientists operate within a clearly defined community linked in research networks that form the basis for further research. According to Mouton and Marais (1996), research is classified as experimental, scientific and exact. This research focuses on the quantitative analysis of variables and examination of a range of psychology journals and publications.



#### *1.5.6.2 The ontological dimension*

The ontological dimension refers to the reality or research domain that is investigated, for example, human activities, institutions and behaviour (Mouton & Marais, 1996). This research will focus on the measurement of the organisational climate and job satisfaction of employees in a South African information and communication technology organisation. Even though the research will focus on the individual level, the data gathered can be aggregated to the organisational level.

#### *1.5.6.3 The teleological dimension*

This dimension suggests that the research should be systematic and goal directed. It is therefore essential to state the problem being investigated and relate it to the goals. The goals of this research are explicit, namely to determine whether the organisational climate profile influences the job satisfaction levels of employees. In addition, practically, the teleological dimension aims to contribute to the field of industrial psychology by providing information on the organisational climate and job satisfaction relationship.

#### *1.5.6.4 The epistemological dimension*

This dimension relates to the quest for truth (Mouton & Marais, 1996). The primary aim of research in the social sciences is to generate valid findings that are as close to the truth as possible. This research will attempt to achieve this through an effective research design and the achievement of reliable and valid results.

#### *1.5.6.5 The methodological dimension*

The methodological dimension is concerned with the “how” of social sciences research and can be described as the logic of implementing scientific methods in the study of reality (Mouton & Marais, 1996). The methodological approach used in this study is quantitative. The research process will be discussed in detail in chapter 4. The research methods chosen are data collection

through questionnaires, data analysis through statistical techniques and inference through inductive reasoning.

## **1.6 RESEARCH DESIGN**

According to Mouton and Marais (1996), the primary objective of a research design is to plan and structure the project in such a way that the ultimate validity of the research findings is maximised. The next section will consider the research design of this research project. The research variables, the types of research and the methods used to ensure reliability and validity will be discussed.

### **1.6.1 Research variables**

The dependent variable in the research is job satisfaction and the independent variable organisational climate. The aim of the research is to determine whether organisational climate (independent variable) has an influence on job satisfaction (dependent variable).

### **1.6.2 Type of research**

This research will be conducted by means of a quantitative research approach. The hypothesis will be explicitly stated, formulated beforehand and measurable through the use of a measuring instrument. The research will be conducted with a view to testing the hypothesis and, ultimately, either accepting or rejecting the formulated hypothesis.

The study can be defined as descriptive because the relationship between organisational climate and job satisfaction will be described. According to Mouton and Marais (1996), the process of descriptive research is to investigate certain domains in depth with the overriding aim of describing issues as accurately as possible. Regarding the literature review, the descriptive research is applicable to the conceptualisation of organisational climate and job satisfaction in order to determine the relationship between these two variables.

Explanatory research not only indicates that a relationship exists between variables, but also indicates the direction of the relationship in a casual relationship (Mouton & Marais, 1996). This form of research is applicable to the empirical study of this research because organisational climate is hypothesised to influence job satisfaction.

### **1.6.3 Unit of analysis**

For the purpose of this study, the unit of analysis will be individuals. The individuals will be employees currently employed on a permanent as well as on a consultant basis in three regions of the information and communication technology organisation involved in the study.

### **1.6.4 Methods to ensure reliability and validity**

This research project will be designed in such a way that it ensures the reliability and validity of the study.

#### *1.6.4.1 Validity*

Research needs to be both internally and externally valid. Internal validity refers to the fact that a study generates accurate and valid findings of the phenomena being studied (Mouton & Marais, 1996). According to these authors, research is internally valid if the constructs are measured in a valid manner, the data that are collected are accurate and reliable, the analysis conducted is relevant to the type of data and the final conclusions support the data. External validity is synonymous with generalisability. Mouton and Marais (1996) postulate that the findings of a particular study should be generalised to similar cases. Validity can be illustrated as follows:

**TABLE 1.1**  
**INTERNAL VALIDITY**

Conceptualisation	Theoretical validity
Constructs	Construct validity
Operationalisation	Measurement validity
Data-collection	Reliability
Analysis and interpretation	Inferential validity

Source: Mouton & Marais (1996, p 51)

The theoretical validity of this research is ensured by making use of literature relating to the nature, problems and aims of the research. Theoretical validity will be addressed in chapters 2 and 3 and will involve detailed conceptualisation of the terms “organisational climate” and “job satisfaction” to ensure that the concepts are clear and well defined. These conceptualisations will be extracted from the relevant literature to ensure that subjective choice of constructs, concepts and dimensions is removed from the research. Every attempt has been made to review the most recent literature. However, a number of classical resources will be referred to because of their relevance to the concepts and to provide a historical perspective on the emergence of the concepts.

In the empirical research, validity will be ensured through the use of appropriate measuring instruments. The measuring instruments will be critically examined for their criterion-related validity, content validity and construct validity.

#### *1.6.4.2 Reliability*

Reliability in the literature review will be ensured through the use of existing literature sources, models and theories that are available to other interested academics.

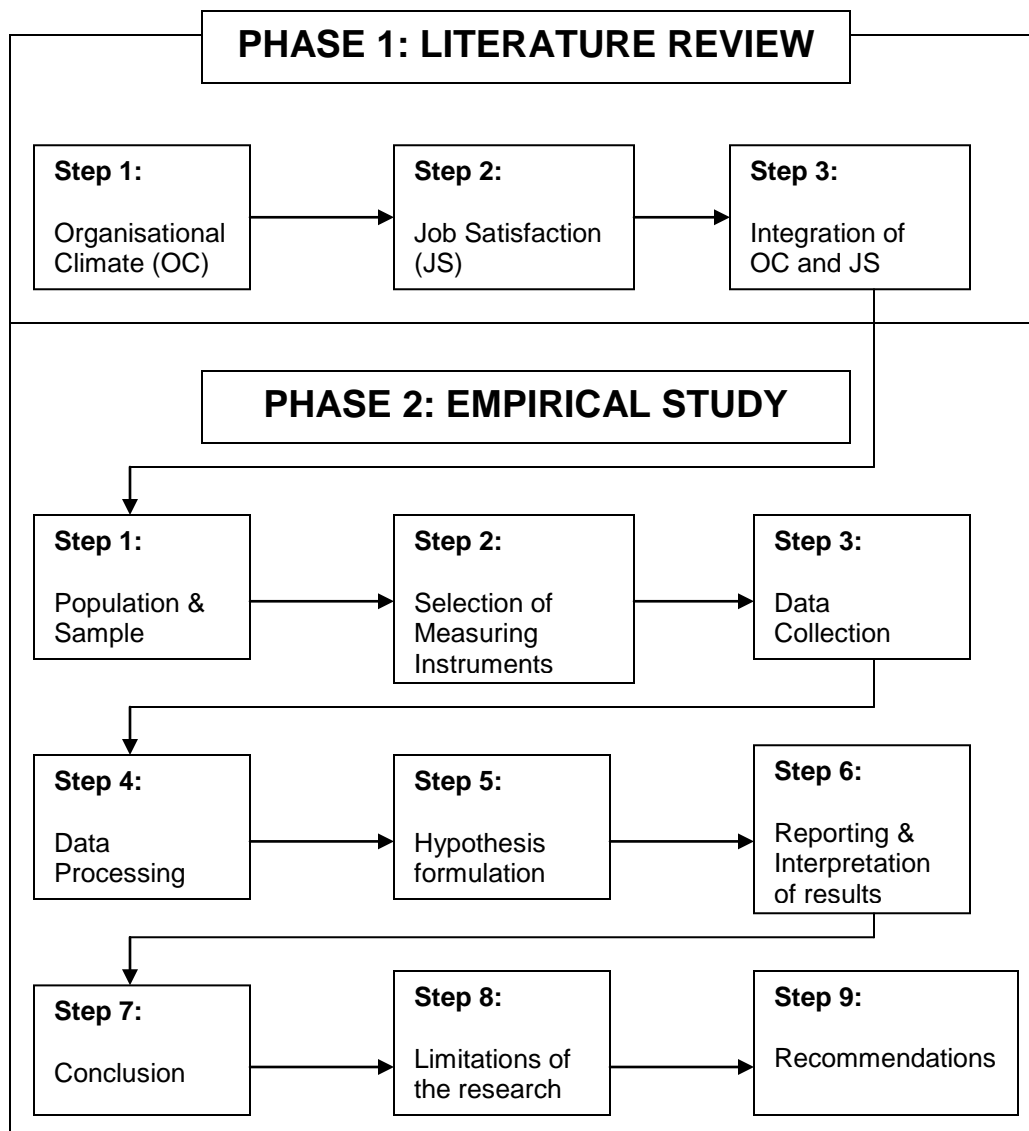
In the empirical study, reliability is ensured through the use of a representative sample. In addition, the data-gathering techniques used will ensure the anonymity of participants. This will

be achieved by creating a web link whereby participants can access, complete and submit the questionnaire anonymously on-line. The names of participants will not be a requirement to complete the questionnaire. The data gathered will be used to test the reliability of the instrument selected.

## 1.7 RESEARCH METHOD

The research method consists of two phases - the literature review and the empirical study. The flow of the research process is illustrated in figure 1.1 below:

**FIGURE 1.1**  
**FLOW DIAGRAM OF THE RESEARCH MODEL**



### **1.7.1 Phase 1: The literature review**

The literature review will consist of a review of organisational climate and job satisfaction.

#### *1.7.1.1 Step 1: organisational climate*

The first specific aim of the research is to conceptualise organisational climate and determine its key components. A number of accredited sources on organisational climate will be examined for the purposes of

- conceptualising and defining organisational climate clearly
- examining various aspects of organisational climate, including
  - the dimensions of organisational climate
  - a model of organisational climate
  - the importance of organisational climate
- determining the ways in which organisational climate can be measured
- selecting an organisational climate model and measurement technique on which to base this research

The evaluation of the above will be in the context of recent and classical literature, with a view to determining the most appropriate organisational climate model and measurement technique for the purposes of this research.

### *1.7.1.2 Step 2: job satisfaction*

The second specific aim of the research is to conceptualise job satisfaction and determine its key components. A number of accredited sources on organisational climate will be examined for the purposes of

- conceptualising and defining job satisfaction clearly
- examining various aspects of job satisfaction, including
  - the influences of job satisfaction
  - the various models of job satisfaction
  - the role of personal attributes in job satisfaction
  - job dissatisfaction
  - the consequences of job satisfaction
- determining the ways in which job satisfaction can be measured
- selecting a measurement technique on which to base this research

The evaluation of the above will be in the context of the recent and classical literature, with the view to determining the most appropriate job satisfaction measurement technique for the purpose of this research.

### *1.7.1.3 Step 3: integration of organisational climate and job satisfaction*

A theoretical integration of the two variables will be attempted once the literature on organisational climate and job satisfaction has been examined and the concepts and their components clearly defined. The primary aim of this step of the research is to establish links between organisational climate and job satisfaction.

### **1.7.2 Phase 2: the empirical study**

The empirical study will be conducted in a South African information and communication technology (ICT) organisation.

#### *1.7.2.1 Step 1: population and sample*

The population for this study will be 1 453 employees in three regions of an ICT organisation. All employees in the three regions will be eligible to participate in the research. However, the sample will be dependent on the number of respondents who complete the questionnaire.

#### *1.7.2.2 Step 2: measuring instruments*

A questionnaire measuring the independent variable of organisational climate and the dependent variable of job satisfaction will be selected for this research.

#### *1.7.2.3 Step 3: data collection*

Organisational climate data and job satisfaction data will be collected from individuals. These individuals will be required to complete a questionnaire that will be electronically available. An email will be sent to all employees detailing what needs to be done and will include a web link which will give employees access to the questionnaire. Employees who are unable to access the web link will receive the questionnaire via the company's internal mailing system.

#### *1.7.2.4 Step 4: data processing*

Each questionnaire response will be captured in a survey analysis software programme for the purpose of analysis and control. The SPSS statistical package and AMOS will be used to calculate and conduct the statistical analysis.



The statistical procedures relevant to this research will include the following:

- Cronbach's coefficient alpha
- confirmatory factor analysis
- exploratory factor analysis
- Pearson's correlation coefficient
- analysis of variance (ANOVA)
- t-test
- level of significance
- mean
- standard deviation
- frequency

#### *1.7.2.5 Step 5: formulation of the hypothesis*

In order to operationalise the research, empirical hypotheses will be formulated from the central hypothesis to test whether a relationship exists between organisational climate and job satisfaction.

#### *1.7.2.6 Step 6: reporting and interpretation the results*

The statistical data will be analysed and conclusions drawn from the analysis using inductive reasoning. More detailed information on the statistical techniques applied in this research will be provided in chapter 4. The results of the research will be reported in tables and figures and interpreted in the light of the existing literature on organisational climate and job satisfaction.

#### *1.7.2.7 Step 7: conclusion*

The research findings will be completed at the end of phase 2 of the research project. The results will report the extent to which the general and specific aims of the study were met.

#### *1.7.2.8 Step 8: limitations*

The limitations of the research with regard to phase 1 (literature review) and phase 2 (empirical study) will be discussed.

#### *1.7.2.9 Step 9: recommendations*

The recommendations section of the research report will involve answering the research questions and solving the research problem. The following will be addressed:

- recommendations for industrial psychologists when working in the field of organisational climate
- recommendations for further research, based on the limitations and conclusions of the research
- recommendations for the organisation

## **1.8 CHAPTER LAYOUT**

Based on the flow of research reflected in figure 1.1, the sequence of the remainder of the chapters is as follows:

### **Chapter 2: Organisational climate**

The aim of this chapter will be to conduct a literature review to understand and define the concept of organisational climate, describe its key components and its measurement. On the basis of the literature review, the chapter will also identify an appropriate organisational climate model and measurement technique for the purpose of this research.

### **Chapter 3: Job satisfaction**

This chapter will review the literature on the concept of job satisfaction, its key components and measurement. The impact of demographic variables on satisfaction will also be investigated and the importance of job satisfaction in an organisation considered. The chapter will conclude with the integration of the concepts of organisational climate and job satisfaction.

### **Chapter 4: The empirical study**

The purpose of this chapter will be to describe the empirical research. The chapter will begin by highlighting the aims of the empirical research and then explain the research population and sample, the measuring instruments used, the administration of the questionnaire, data processing, statistical methods and strategies and the formulation of the research hypotheses.

### **Chapter 5: Results and findings of the study**

This chapter will test the research hypotheses and present the results of the empirical study.

## **Chapter 6: Conclusions, limitations and recommendations**

The final chapter of the research will integrate the results and draw conclusions. The limitations of the study will be explained and recommendations will be made for the field of industrial psychology, further research and the organisation concerned. The chapter will close with concluding remarks in order to integrate the research.

### **1.9 CHAPTER SUMMARY**

Chapter 1 provided the scientific background to the research. The purpose of this study is to investigate whether a relationship exists between organisational climate and job satisfaction in an ICT organisation in South Africa. This chapter began by describing the background to and rationale for the research. The aim of the research study and the appropriate research model were discussed. The paradigm perspective, the research design, the research method and the logical flow of the research were then explained. The chapter concluded with an outline of the chapters to follow.

Chapter 2 presents the first step in the literature study, which conceptualises organisational climate.

## **CHAPTER 2**

### **ORGANISATIONAL CLIMATE**

The aim of this chapter is to review the literature on the concept of organisational climate and its measurement. It will also address key concepts relating to organisational climate, its definition and dimensions and models and theories. The role that climate plays in an organisation and how it is measured will also be explored.

#### **2.1 INTRODUCTION TO AND RATIONALE FOR STUDYING ORGANISATIONAL CLIMATE**

High-performing organisations have climates with particular measurable characteristics (Watkin & Hubbard, 2003, p. 380). They go on to say that “research has also shown how organisational climate can directly account for up to 30 per cent of the variance in key business performance measures”. This is supported by research that examined “the relationship between how employees describe their work environments and the relative performance success of those work environments” (Wiley & Brooks, 2000, p. 177). This research found that employees were more “energised and productive” in work environments in which particular organisational and leadership practices were present (Wiley & Brooks, 2000, p 177). According to these authors, the more energised and productive the employees were, the greater customer satisfaction was and the stronger the long-term business performance of the organisation. Watkin and Hubbard (2003, p. 380) hold that climate does make a difference to an organisation’s performance because “it indicates how energising the work environment is for employees”. There is clearly more to an organisation’s performance than an “energised employee” or the presence of certain “organisational and leadership” characteristics. However, “productivity ... also depends on the morale which governs discretionary effort – the willingness to ‘go the extra mile’. This is unforthcoming if workers feel insecure (Culkin, cited in Gray, 2007).

Organisational climate as a concept, its role and value in organisations and its impact on various organisational outcomes have been studied for over 50 years. Organisations that are able to

create environments that employees perceive to be benign and in which they are able to achieve their full potential are regarded as a key source of competitive advantage (Brown & Leigh, 1996). Organisational climate can therefore be considered a key variable in successful organisations.

## **2.2 CONCEPTUALISATION OF ORGANISATIONAL CLIMATE**

For over 50 years, a great deal of research has been conducted and published on organisational climate. Allen (2003), Al-Shammari (1992), Ashforth (1985), Cotton (2004), Glisson and James (2002), Tustin (1993) and Woodman and King, (1978) concur that organisational climate is a meaningful concept with significant implications for understanding human behaviour in organisations. This is made clear through the numerous studies and research on organisational climate (Campbell, Dunnette, Lawler & Weick, 1970; Forehand & Gilmer, 1974; Glick, 1985; Hellriegel & Slocum, 1974; James & Jones, 1974; Joyce & Slocum, 1979; Litwin & Stringer, 1968; Naylor, Pritchard & Ilgen, 1980; Payne & Pugh, 1976; Schneider & Reichers, 1983; Tagiuri, 1968; Woodman & King, 1978;).

A number of definitions of organisational climate have been presented in various studies on the concept. However these definitions provide no consensus on the concept and fail to set out clear guidelines on measurement and theory building for organisational climate (Glick, 1985). Reichers and Schneider (1990) provide a possible explanation for this in stating that during organisational climate's introductory years, researchers were more concerned with gathering data and assessing the validity of the concept, rather than devoting time to quibbling over definitions and elaborating on the possible nuances of climate. Lawthom, Patterson, West, Staniforth and Maitlis (2005) reviewed numerous definitions of climate and came to the conclusion that a precise and unitary definition of climate simply does not exist. However, these authors postulate that two qualities are evident in most if not all definitions of climate - it is perceptual and descriptive.

Conceptualising organisational climate is fraught with controversy, with little consensus among researchers on a definition of organisational climate, how it should be observed and measured

and the etiology of climates. Organisational climate has been used differently by various researchers who have formulated an array of definitions of the term. Complex matters relate to questions on the distinctiveness of organisational climate, in contrast to other organisational concepts such as job satisfaction, leadership style and organisational culture (Al-Shammari, 1992). The importance of the concept of organisational climate is not in doubt and is central to most models of organisational behaviour. However, according to Guion (1973, p. 121) it is most certainly “one of the fuzziest concepts to come along in some time”. James, James and Ashe (1990, p. 69) appear to agree with this statement, commenting some 17 years later that “climate is hardly less fuzzy than culture”.

Even though there appears to be a lack of consensus among researchers on the definition of climate (Woodman & King, 1978) and conflicting or confusing definitions and inconsistencies in the operationalisation of the construct (Moran & Volkwein, 1992; Tustin, 1993; Dippenaar & Roodt, 1996; Patterson, West, Shackleton, Dawson, Lawthom, Maitlis, Robinson & Wallace, 2005), most definitions include some of the following common characteristics of the organisational climate construct (Woodman & King, 1978; Reichers & Schneider, 1990; James, et al., 1990; Moran & Volkwein, 1992; Patterson et al., 2005):

- Organisational climate is generally considered to be a molar concept.
- Organisational climate, although ever changing, exhibits some form of continuity over time.
- Organisational climate is phenomenologically external to the individual, but cognitively, climate is internal to the individual because it is affected by individual perceptions.
- Organisational climate is based on reality and can be shared by the participants in the sense that there is consensus on the climate of the organisation, resulting in a “commonality of perceptions”.

- Organisational climate has the potential to influence the behaviour of individuals in the organisation.

### **2.2.1 Defining organisational climate**

The term “climate” is most commonly associated with the study of meteorology, and more specifically aims to observe, describe and measure the various physical characteristics of the atmosphere such as rainfall, temperature, changes in season and so on (Gelfand, 1972; Gray, 2007; Matulovich, 1978). When the term “climate” is transplanted into the context of the organisation, it becomes more complex because it is not so easy to observe and measure and is constantly changing and as such is not necessarily enduring (Gelfand, 1972). Various researchers define organisational climate on the basis of their viewpoint on how climates are formed. There is a clear distinction between those who highlight objective characteristics and those who emphasise subjective elements.

According to Johannessson (1973), researchers with an objective frame of reference approach the definition and measurement of organisational climate in terms of actual, objective indices such as levels of authority, organisational rules and employee ratios, whilst the majority of researchers operationalise the concept in terms of participant perceptions, where participants indicate the extent to which specific items characterise their work situation. According to James and Jones (1974), defining organisational climate will guide the way the concept is examined and measured. Definitions of organisational climate from these varied approaches will now be discussed.

One of the earliest and most widely accepted definitions (based on citations) of organisational climate (James & Jones, 1974; Johannessson, 1973; Moran & Volkwein, 1992; Woodman & King, 1978) is that of Forehand and Gilmer (1964) who explain organisational climate as a set of characteristics that describes an organisation, distinguishes it from other organisations, is relatively enduring over time and can influence the behaviour of people in it.



Gregopoulos (cited in Campbell et al., 1970) defines organisational climate as a normative structure of attitudes and behavioural standards which provide a basis for interpreting the situation and act as a source of pressure for directing activity.

According to Litwin and Stringer (1968), the concept of organisational climate developed through the application of motivation theories to behaviour in organisations. The purpose was to describe the effects of organisations and organisational life on the motivation of individuals in organisations in order to ultimately describe and explain behaviour. What is significant in the motivation of individuals is the perceptions of the individual's expectancy to achieve the goal and the incentive attached to the achievement of the goal. According to Litwin and Stringer (1968), the previous definitions do not consider the role of individuals' perceptions of these properties and define organisational climate as a set of measurable properties of the work environment that is perceived directly or indirectly by the people who influence their motivation and behaviour.

Tagiuri and Litwin (1968, p. 8) build on this and emphasise the importance of perceptions in defining organisational climate, because according to them, organisational climate is interpreted by members of the organisation and impacts on their attitudes and motivation. They have defined the concept as follows: "Organisational climate is a relatively enduring quality of the internal environment of an organisation that (1) is experienced by its members, (2) influences their behaviour, and (3) can be described in terms of the values of a particular set of characteristics (or attributes) of the organisation."

Friedlander and Margulies (1969) describe organisational climate as a dynamic phenomenon that may release, channel, facilitate or constrain the organisation's technical or human resources. This dynamic phenomenon can be defined as being primarily social and interpersonal, which has an effect on the employee's sense of involvement with the technical task at hand.

In order to gain a better understanding of organisational climate and to move towards a definition of the concept, Campbell et al. (1970) suggest considering certain properties of organisational climate. They indicate that organisational climate refers to a set of attributes that is specific to an

organisation, and may be induced from the way the organisation deals with its members and environment. For them, climate describes the organisation in terms of static and behaviour-outcome contingencies.

Schneider and Hall (1972) state that organisational climate exists in individuals' perceptions of their organisational environment. These perceptions are formed by the individual using inputs of objective events in and characteristics of the organisation, as well as characteristics of the individual.

Integrating various definitions of organisational climate of previous authors, Pritchard and Karasick (1973) define organisational climate as a relatively enduring quality of an organisation's internal environment, distinguishable from other organisations, which results from the behaviour and policies of members of the organisation, especially top management, which is perceived by the members, serves as a basis for interpreting situations and acts as a source of pressure for directing activity.

Hellriegel and Slocum's (1974) definition of organisational climate is representative of the combination of concepts of various authors. According to this definition, organisational climate refers to a set of attributes that is perceived about a particular organisation and/or its subsystems, and that may be induced from the way in which the organisation and/or its subsystems deals with its members and environment. From this definition, the following themes emerge:

- Perceptual responses are primarily descriptive rather than evaluative.
- Items, scales and constructs relate to the macro as opposed to the micro level.
- Units of analysis refer to the organisation and/or subsystem and not the individual.
- Perceptions have potential behavioural consequences.

In line with the above, Schneider and Snyder (1975) define organisational climate as the summary or global perception that people have about an organisation. According to them, individuals perceive the organisation in various ways, depending on their specific situation and the information available to them. Along these lines, organisational climate can be described as personalistic (Schneider, 1975) whereby what is important to the individual is the way in which he/she perceive the organisation and not how others describe it.

Ash (1983) defines the concept as an organisational phenomenon. Every organisation has a unique climate which constitutes more than just the collection of individuals' perceptions.

Schein (1990) and Reichers and Schneider (1990) believe that organisational climate is a surface manifestation of culture, and it is only through delving deeper and exploring other concepts that one will be able to understand and explain variations in organisational climates. In the same vein, Moran and Volkwein (1992) state that the above definitions omit the role that organisational culture plays in influencing individuals' perceptions and interactions.

Moran and Volkwein (1992, p. 20), incorporating definitions of Forehard and Gilmer (1964) and Pritchard and Karasick (1973) provide the following definition of organisational climate:

Organisational climate is the relatively enduring characteristic of an organisation which distinguishes it from other organisations: and (1) embodies members collective perceptions about their organisations 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 the prevalent norms, values and attitudes of the organisation's culture; and (e) acts as a source of influence for shaping behaviour.

According to West, Smith, Lu Feng and Lawthom (1998), shared perceptions of the fundamental elements of individuals' particular organisation are regarded as the organisational climate.

Wallace, Hunt and Richards (1999), also emphasise collective perceptions of organisational members and define climate as the summary perception of how an organisation deals with its members and environment.

Boeyens and Hutchinson (cited in Sempane, Rieger & Roodt, 2002) define organisational climate as the employees' description of organisational variables such as size, structure, policies and leadership styles.

Coetsee (cited in Gerber, 2003) postulates that organisational climate is representative of organisational members' collective perceptions and/or feelings (attitudes) about the organisation. Coetsee (cited in Gerber, 2003) goes on to say that the organisation's climate reflects members' subjective attitudes and perceptions, regardless of whether it is an accurate description of reality in the organisation.

Gerber (2003) defines organisational climate as the surface manifestation of organisational culture that consists of the conscious behaviour, such as the feelings or perceptions and attitudes, that is shared by individuals in an organisation at a particular time regarding the fundamental elements of the organisation and that can positively or negatively influence the behaviour of organisational members in terms of organisational effectiveness.

According to McMurray (2003), organisational climate is a descriptive construct that reflects consensual agreement among members regarding the key elements of the organisation in terms of its systems, practices and leadership style.

Garg and Rastogi (2006) define the concept as a "feeling" that is the result of the physical layout of the organisation, the way in which participants interact with one another and how they conduct themselves with other organisational members or outsiders.

According to Haakonsson, Burton, Obel and Lauridsen (2008), organisational climate refers to affective events that influences employees' emotions and consequent information-processing behaviours.

The definitions of Moran and Volkwein (1992) and Gerber (2003) were integrated for the purposes of this research. Organisational climate is defined as the shared perceptions, feelings and attitudes organisational members have about the fundamental elements of the organisation which reflect the established norms, values and attitudes of the organisation's culture and influence individuals' behaviour either positively or negatively.

### **2.2.2 The development of organisational climate**

Organisational climate has a long history in industrial and organisational psychology and organisational behaviour. Its roots lie in the work of Kurt Lewin, in the late 1930s, in which the concept of psychological climate was initially addressed. In order to explain the concept of psychological climate, Lewin identified certain elements that had to be taken into account. These included goals, stimuli, needs, social relations, a friendly or hostile environment or the amount of freedom in an organisation (Litwin & Stringer, 1968). According to Lewin, the climate acts as *an essential functional link* between the person and the environment. This view was demonstrated in a study by Lewin, Lippitt and White, in which climate exhibited a more powerful influence on individuals than previously acquired behaviour tendencies, and in addition, was able to change the observed behaviour patterns of group members (Litwin & Stringer, 1968).

Subsequent to Lewin's study, several authors attempted to build on the climate theory in an effort to understand the concept of climate in organisations. Most notable of these was the work of Kahn and his so-called "role-set theory", which represented an alternative to the climate model. This theory posits that managers can influence the perceptions that worker's have of their roles by either changing group membership or directly influencing expectations through training (Litwin & Stringer, 1968).

In 1968, the study of organisational climate in the field of organisational psychology gathered momentum with the publication of two works: *Organisational climate: explorations of a concept* by Tagiuri and Litwin (1968) and *Motivation and organisational climate* by Litwin and Stringer (1968). The former cited a collection of essays that presented a variety of approaches to studying climate, while the latter focused on the consequences of organisational climate, supporting the

idea that climate encompasses both organisational conditions and individual reaction (Denison, 1996). Several authors contributed to this growing field by defining sets of dimensions, which, according to them represented the most significant aspects of organisational climate (Denison, 1996).

It became necessary to integrate the climate research into the broader field of organisational studies, and as such, the literature focused on distinguishing climate from similar topics such as satisfaction (Guion, 1973; Johannesson, 1973; La Follette & Sims, 1975) and organisational structure (Drexler, 1977; Payne & Pugh, 1976). In addition, researchers reached consensus about the approaches to studying organisational climate (Hellriegel & Slocum, 1974; James & Jones, 1974; Payne & Pugh, 1976) distinguishing between psychological climate and organisational climate. According to Denison (1996), a key issue in the climate literature is the whether climate is considered a “shared perception” or “shared set of conditions”. However, owing to the growing influence of the culture perspective in the early 1980s, climate researchers became preoccupied with understanding how climates are formed and addressing questions of “Where do climates come from?” and “What effect does climate have on organisational outcomes?” (Denison, 1996)

At this stage, the dynamics of climate formation were portrayed in terms of membership changes together with socialisation processes (Denison, 1996). This was the result of the work of Schneider and Reichers (1983), Schneider (1987) and Reichers (1987) on the “attraction-selection-retention” process. In addition, researchers such as Ashforth (1985) postulated that climate perceptions are socially constructed and can be regarded as the result of the value systems of an organisation. The more recent literature on climate focuses more on meaning and sense making as the core of climate. Hence, organisational members perceive and make sense of organisational policies, practices and procedures in psychologically meaningful terms and thereby have greater understanding of their work environments (Rentsch, 1990).

### 2.2.3 The etiology of organisational climate

According to Moran and Volkwein (1992), there is a lack of understanding of how climates emerge or are formed in an organisation. Schneider and Reichers (1983) contend that an explanation of how climates are formed will provide a deeper understanding of the concept, but will in addition, lead to further conceptual and methodological progress. A key question posed by Schneider and Reichers (1983) is how it happens that individuals who are presented with numerous stimuli at work develop relatively homogenous perceptions of these stimuli, and in addition, attach similar meanings to aspects of organisational life.

In order to answer this question, four approaches to the formation of climate will be discussed. These include

1. the structural approach
2. the perceptual approach
3. the interactive approach
4. the cultural approach

#### 2.2.3.1 *The structural approach*

This approach views organisational climate as a characteristic or attribute of the organisation. These attributes are considered to be owned by the organisation and existing independently of the perceptions of the individual members (Moran & Volkwein, 1992).

In their comprehensive analysis, Payne and Pugh (1976) postulate that it is the actual conditions in the organisation that play a primary role in determining the people's attitudes, values and perceptions of organisational events. Hence, organisational climate is the result of the objective aspects of the work environment, namely the organisation's size, a centralised or decentralised

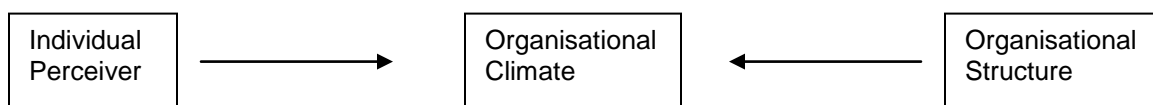
authority structure, number of hierarchical levels, advancement of technology as well as the extent to which organisational rules and policies influence members' behaviour.

This approach is equivalent to the *perceptual measurement-organisational attribute approach* proposed by James and Jones (1974) and to what Schneider and Reicher's (1983) refer as the *structural argument*.

As reflected in figure 2.1, Moran and Volkwein (1992) offer a visual representation of the above-mentioned approach. From the figure, it is evident that the organisation's structure gives rise to the organisational climate, which is then perceived by the members of the organisation. Hence, organisational climate is formed as a result of the common perceptions members have of exposure to common organisational structure.

However, certain dilemmas are innate in this approach (Moran & Volkwein, 1992). Firstly, the structural approach does not take into account why studies have found different work group climates in one organisation where the structural factors are common throughout the organisation. A second criticism of the structural approach relates to an organisation's climate demonstrating a significant and consistent relationship with its structural characteristic. However, studies conducted in this area show a high level of inconsistency between the factors. The third and final criticism suggests that there is a lack of consideration of the subjective role that structural variables have on an individual's reaction to a situation, and disregards the interpretive processes involved between individuals in groups.

**FIGURE 2.1**  
**A VISUAL REPRESENTATION OF THE STRUCTURAL APPROACH**



**Source:** Moran & Volkwein (1992, p. 24)

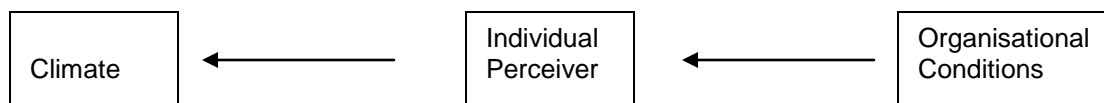


### 2.2.3.2 *The perceptual approach*

The perceptual approach is similar to the *perceptual measurement-individual attribute approach* of James and Jones (1974). This approach postulates that organisational climate originates in the individual, which is in direct contrast to the aforementioned approach which views organisational structure as the basis of organisational climate (Moran & Volkwein, 1992). According to this approach, the individual interprets and responds to the situation in a way that is psychologically meaningful to him/her.

Figure 2.2 illustrates how, in this approach, the individual perceives the organisational conditions and then creates a psychological representation of the climate. The term “organisational conditions” refers to the structural characteristics highlighted in the previous approach but is more encompassing in the sense that it includes organisational processes such as communication, influence, leadership and decision-making patterns (Moran & Volkwein, 1992). This is similar to what Schneider and Hall (1972) refer to as summary or global perceptions. According to them, global perceptions of an organisation emerge as the result of activities, interactions, reactions and a range of daily encounters the person has with the organisation. Hence, climate is reflective of personal and organisational interaction.

**FIGURE 2.2**  
**A VISUAL REPRESENTATION OF HOW THE INDIVIDUAL PERCEIVES**  
**ORGANISATIONAL CONDITIONS CREATING A REPRESENTATION OF CLIMATE**



**Source:** Moran & Volkwein (1992, p. 25)

The perceptual approach can yield aggregate climates in two ways. In both instances, psychological traits form the basis of climate.

The first way in which aggregate climates can develop is referred to as the selection-attraction-attribution (SAA) approach of Schneider and Reichers (1983). According to this perspective, the authors postulate that the combination of organisational selection processes and individual processes of attraction to the organisation and attrition from the organisation leads to the development of a relatively homogenous membership in the organisation. This similarity in membership results in similar climate perceptions.

The second way in which the perceptual approach can be used to produce aggregate climate, termed “collective climate” was proposed by Joyce & Slocum (1984). “Collective climates” are created by grouping together organisational members on the basis of their agreement of psychological climate perceptions. These groupings are made *post hoc*, and include members from the total organisation, but do not take into account the formal subunits in the organisation.

Moran and Volkwein (1992) identify two key criticisms of the perceptual approach:

1. By placing the source of climate mainly in individuals, the perceptual approach denounces the possibility of a composition theory, and as such, cannot be regarded as an organisational attribute.
2. It assumes that meaning is something that individuals bring to and force on organisational processes and events rather than as a result of the interaction of organisational members.

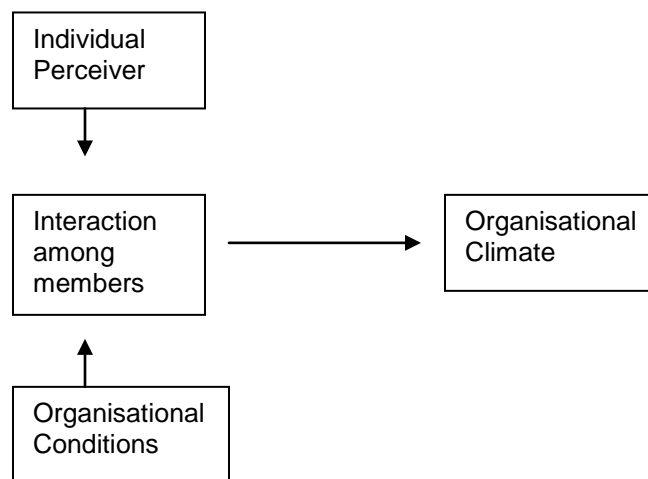
#### 2.2.3.3 *The interactive approach*

This approach builds on the aforementioned approaches and combines the objectivism of the structural approach and the subjectivism of the perceptual approach (Ashforth, 1985). The underlying assumption of the interactive approach is that organisational climate is the result of the interaction of individuals in response to their situation which results in the shared agreement of organisational members (Moran & Volkwein, 1992).

This approach identifies communication as a key contributor of organisational climate. Empirical studies conducted by O'Driscoll and Evans (cited in Moran & Volkwein, 1992) and Coetsee and Pottas Zyl (cited in Gerber, 2003) verify communication as a central element contributing to climate.

Figure 2.3 depicts the relationship between organisational conditions, the individual perceiver, the interactions of the group members and organisational climate. From this diagram it is evident that organisational climate is the result of the members' interaction. This approach provides a link between the structural and the perceptual approaches because it acknowledges that meaning is generated by the individual intentionally interacting with objects and people because it provides meaning for them.

**FIGURE 2.3**  
**A VISUAL REPRESENTATION OF THE INTERACTIVE APPROACH**



**Source:** Moran & Volkwein (1992, p. 28)

Two sources explain the interactive approach to climate, namely intersubjectivity which is derived from the phenomenology of German philosopher Edmund Husserl and symbolic

interactionism which is based on the work of an American philosopher, George Mead (Moran & Volkwein, 1992).

Intersubjectivity refers to the process whereby organisational members' perceptions, interpretations, values, beliefs and so on are mutually interlinked and in concurrence. Individuals become aware of others with similar experiences and then use these people as role models to establish themselves. Through awareness of others and by incorporating themselves into the "self", the experiences of others become part of the individual's consciousness.

Symbolic interactionism stresses that meaning arises from interactions between people (Schneider & Reichers, 1983). According to this view, primary importance is placed on the interactions that take place during the new comer's socialisation period and the vital role that group membership plays as a determinant of climate is highlighted. It is clear from this approach that the climate emerges through the social interactions of individuals in a specific work context and the exposure to the same processes.

A criticism of the interactive approach is that it does not explain the role that the social context or organisational culture plays in shaping interaction and only takes cognisance of the interactions of individuals.

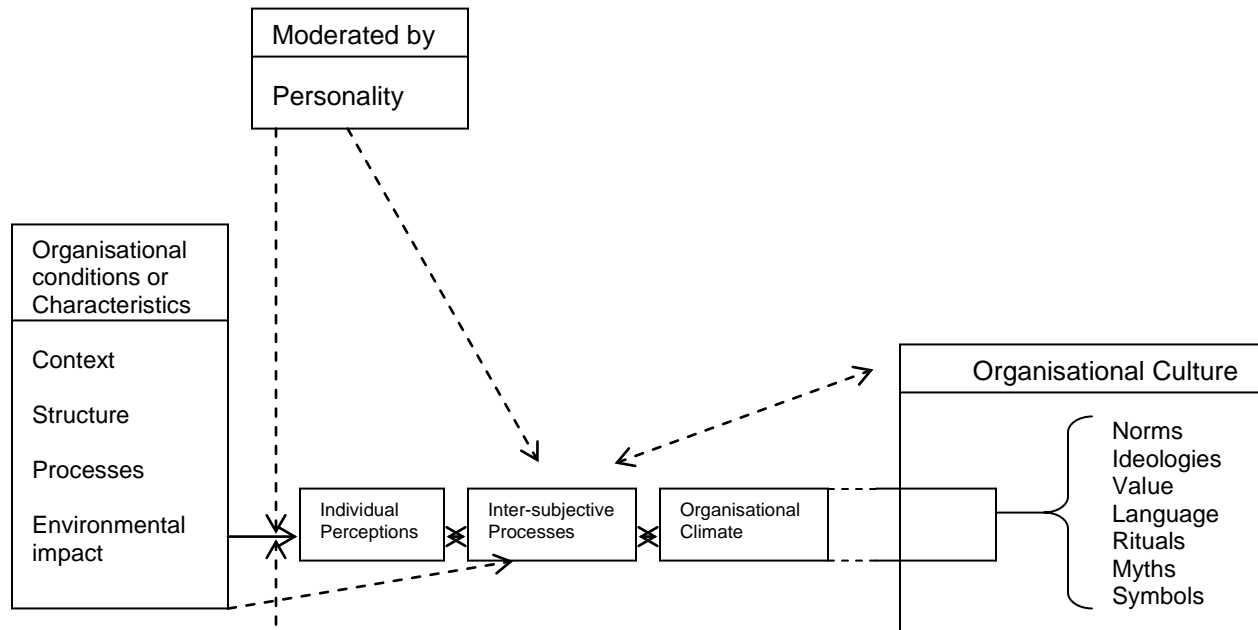
#### *2.2.3.4 The cultural approach*

The approaches discussed in the previous section do not take into consideration the influence organisational culture has on individuals' perceptions and on exactly how they interact.

The cultural approach does not focus on the formal properties of organisations or concern itself with the subjective psychological characteristics of individuals, nor with how individuals combine these two approaches. According to the cultural approach, organisational climate is shaped by individuals in a group who interact and who share the same abstract frame of reference, organisational culture, as they learn to deal with the organisation's demands (Moran & Volkwein, 1992). This approach emphasises the interaction of individuals as a source of climate,

a view it shares with the interactive approach above. However, the cultural approach includes the role of organisational culture as a key factor in the development of organisational climate.

**FIGURE 2.4**  
**THE CULTURAL APPROACH TO ORGANISATIONAL CLIMATE**



**Source:** Moran & Volkwein (1992, p. 32)

From the above model, it is clear that organisational climate forms part of organisational culture. The model illustrates how the individual perceives organisational conditions, which is moderated by his/her personality, cognition and inter-subjectivity owing to interactions with other individuals. This impacts on organisational climate. Organisational climate, in turn, is influenced by the culture in the organisation, which influences the perceptions of individuals and inter-subjective processes. Hence, while climate has an influence on the interaction in an organisation, the interaction shapes the organisation's climate and can influence its culture (Moran & Volkwein, 1992). The cultural approach moves away from the structural approach of linking climate to formal organisational properties as well as the perceptual and interactive

approaches that examine the subjective psychological processes. Instead, it emphasises the social arrangements in which cultural features become meaningful.

In a nutshell, stemming from the cultural approach, organisational climate is the result of the interaction of individuals who have a common frame of reference (culture) based on their exposure to similar environmental situations (organisational conditions). Emphasis is no longer placed on the perceptions of individuals but on the interactions of members as well as on the role organisational culture plays in the formation of organisational climate.

McMurray (2003) echoes Moran and Volkwein's (1992) view on the role of culture in shaping an organisation's climate, stating that recognition should be given to culture's role in influencing climate, and vice versa. A study exploring the relationship between organisational climate and organisational culture in a new and emerging university yielded new insights into how culture and climate intersect, particularly at the subunit level (McMurray, 2003). The focus of the study was to examine the extent to which organisational culture can be inferred from the behavioural feature in an organisation as manifested in the organisational climate. Quantitative (climate questionnaires) and qualitative (semi-structured interviews) methodologies were combined to investigate the climate and culture in this university. The study found that where the shared values, attitudes and beliefs of a subunit were aligned to the host culture, the subunit's climate was likely to be positive. Subunits poorly accorded to the host culture, tended to display less favourable perceptions of climate. It is therefore evident that culture informs the climate and assists members to decide what is important in their experience (McMurray, 2003).

### **2.3 THE DISTINCTION BETWEEN ORGANISATIONAL CLIMATE AND ORGANISATIONAL CULTURE**

The concepts of organisational climate and organisational culture are often used interchangeably with researchers in organisational studies treating the concepts as if they are identical. Both culture and climate have been studied for a number of decades and have received a great deal of attention both academically and in the private and public sectors (Glission & James, 2002). In the literature, it is clear that organisational climate and organisational culture are two distinct

concepts, with Hughes, Ginnett and Curphy (2002) postulating that the concepts are a function of or reaction to each other. To ensure that organisational climate is clearly understood and does not become an ignored concept, it is essential to distinguish between the two.

According to Patterson et al. (2005) and Schneider (2000), organisational climate and organisational culture are similar concepts in that both describe the experiences of employees and assist us in understanding psychological phenomena in particular organisations, and to provide explanations on how organisations influence behaviour, attitudes and the well-being of individuals; why some organisations are more able to adapt to environmental changes and why some organisations are more successful than others (Glission & James, 2002).

The concept of organisational culture, like that of organisational climate has many definitions because numerous authors study the phenomenon. In a study conducted by Verbeke, Volgering and Hessels (1998) on the culture and climate literature, 32 definitions and 54 definitions were identified for organisational climate and organisational culture respectively.

According to Lindahl (2006), the reason for the lack of consensus on a definition of organisational culture stems from understanding whether culture is the organisation or something the organisation has. According to Moran and Volkwein (1992) and Allen (2003), there are two primary reasons why there is confusion about these two constructs. The first refers to the lack of adequate definitions and the second is because of researchers failing to recognise that these constructs originate from disciplines that are polar opposites. Climate research has its roots in Gestalt and Social psychology, while culture studies stem from symbolic interactionism and anthropology. Hence, climate studies emanate from a realist perspective and are measured according to quantitative, positivistic methods. Culture's dominant paradigm is idealism with the focus on using qualitative methodologies to understand the concept.

In the literature, a common and simplistic way to describe culture is "the way things are done around here". Denison (1990, p. 2) provides the following formal definition of organisational culture:

Organisational culture provides the underlying values, beliefs and principles that serve as a foundation for an organisation's management system, as well as the set of management practices and behaviours that both exemplify and reinforce those basic principles. These principles and practices endure because they have meaning to the members of an organisation.

Schneider (2000) succinctly summarises the differences between these two concepts by highlighting that organisational climate describes events and experiences and represents the patterns of behaviour of employees whereas culture is explored when individuals are asked why these patterns of shared values, common assumptions and beliefs exist. In the literature culture is viewed as being more deeply rooted within the organisation and is based on employees' values, beliefs and assumptions. This is in contrast to organisational climate, which is a 'snapshot' of a particular time within an organisation and that is measured by a range of dimensions.

Moran and Volkwein (1992) list several differences between organisational climate and organisational culture. These differences are summarised in Table 2.1 below.

**TABLE 2.1**

**SUMMARY OF THE DIFFERENCES BETWEEN ORGANISATIONAL CLIMATE AND ORGANISATIONAL CULTURE**

<b>ORGANISATIONAL CLIMATE</b>	<b>ORGANISATIONAL CULTURE</b>
Has its roots in social psychology discipline	Originates in the anthropology domain
Focus is on the individual's perceptions and cognitions which are used to comprehend and discriminate attributes of the organisation's internal environment	Focus is on analysing the underlying structure of symbols, myths and rituals which lead to shared values, norms and meanings in groups
Relatively enduring characteristic of the organisation	Highly enduring characteristic of the organisation
More shallow with regard to penetrating	Occurs at the level of attitudes and values, but



individuals' consciousness and organisational realities. Is more visible and operates at the level of attitudes and values	also at a deeper level of assumptions. Is relatively invisible and is preconscious in individuals
Evolves more quickly and changes rapidly	Evolves slowly and is not easy to change
Unique characteristics of individuals are evident	Collective characteristics are exhibited
Quantitative methodology is used	Qualitative methodology is used

---

**Source:** Denison (1996), Gerber (2003) & Moran & Volkwein (1992)

Organisational climate and organisational culture are distinct, yet related concepts. Moran and Volkwein (1992) and Denison, (1996) highlight two key areas:

- Both are components of the expressive, communicative, socially constructed dimensions of organisations, with climate being more observable, and culture referring to the unspoken, hidden component of organisations.
- Organisational culture influences the attitudes and practices that make up organisational climate.

Denison (1996) and Gerber (2003) highlight further similarities between the two constructs. These are discussed below.

- In both climate and culture literatures, the concepts are broad and inclusive and vary greatly between researchers which make them difficult to define.
- Organisational climate and organisational culture are concerned with the internal psychological environments in organisations as well as the relationships between these environments, individual meaning and adapting to the organisation.

- Both concepts take into account the shared, holistic and collective social context of organisations that occurs over a period of time, the durability of these social contexts and their origins in an organisation's system of beliefs, values and assumptions.
- Both concepts address social contexts as being the product of individual interaction and influencing individual interaction.
- Culture and climate have multiple levels. Regarding culture, mention is made of the explicit, surface appearance (symbols and rituals) and the underlying assumptions these manifestations display, while in climate, reference is made to objective conditions of organisations and individuals' subjective perceptions of these conditions.
- The literature refers to the relationship between the unitary whole and its components in both concepts. Authors have highlighted the role of subcultures or subunit climates and their relationship with the organisational whole.
- The content of traditional climate research is comparable to the content of recent culture research. For example, there is an overlap between dimensions of earlier climate research and quantitative culture research (McMurray, 2003). In addition, the recent overlapping in research methods has led to qualitative climate studies and quantitative culture studies (Davidson, 2000). Lastly, recent research has seen the overlapping and combination of social constructionalism of culture and the field theory of Lewin, making differentiation difficult.

Additional evidence of the similarity of climate and culture stems from the work of Hofstede, Neugien, Ohayr and Sanders (1990) and Rousseau (1990). These authors refer to the various layers (similar to that of an onion), where the external layers can be seen as the daily practices and the visible, objective activities that reflect the core of the organisation's culture, represented by the inner layers of fundamental assumptions. The layers in-between are the attitudes, values and beliefs. Similarly, in Payne's three-dimensional framework of culture, consensus between organisational members regarding the strength of culture in an organisation is measured by

individuals' perception of organisational climate (2001). Hence, climate can be seen as a surface manifestation of culture (Reichers & Schneider, 1990).

In 1998, Verbeke et al. conducted an extensive content analysis of organisational culture and climate and the findings disclosed that there is a core concept in the concepts of culture and climate. The empirical data on climate revealed the core concepts to be perceptions and characteristics. The emphasis here is that organisational climate refers to the way members perceive and describe their organisation and explain organisational culture as something that is learnt and shapes the way things are done. Hence, an important distinction is made between these concepts. On the basis of the above, climate can be defined as a property of the individual, whilst organisational culture can be defined as the property of the organisation.

Glission and James (2002) report similar findings in their research conducted in a human service team. From the data, the empirical evidence confirms that culture and climate are distinct constructs with core concepts. In addition, relationships were found linking climate to culture to individual attitudes, perceptions and behaviour. Constructive team cultures were associated with positive work attitudes, higher service quality and less turnover, and positive team climates were associated with positive individual work attitudes. The findings support the core concepts of climate as the ways in which members perceive their work environment and culture as the behavioural expectations and normative beliefs in the organisational unit.

Both of the above-mentioned studies support the view put forward by James, et al. (1990, p. 78) that "climate reflects a personal orientation, being a function of personal values, whereas culture reflects an organisational orientation, being a product of system values and norms"

From this discussion, it is clear that even though these two constructs are distinct, they are more closely related than previously thought. Organisational climate is observed via the perceptions, attitudes and feelings of organisational members, whereas organisational culture is considered to be the shared, underlying assumptions and fundamental beliefs and values of organisational members.

## **2.4 ASPECTS OF ORGANISATIONAL CLIMATE**

In order to understand the concept of organisational climate more clearly, dimensions and a model of organisational climate will now be discussed.

### **2.4.1 Dimensions of organisational climate**

The components of the climate construct can be seen as the characteristics that define an organisation and differentiate it from other organisations (Steers, 1977), and which, according to Litwin and Stringer (1968), can be measured and controlled. From the above discussion, it is clear that definitions and approaches to organisational climate are diverse. In the literature it is evident that the same applies to the dimensions and measurement of organisational climate because a wide variety of dimensions are used by various researchers to assess organisational climate (Davidson, 2000).

Steers (1977) postulates that despite general agreement on the definition of organisational climate, there is disagreement among researchers about which dimensions constitute the concept. According to the author, the following reasons explain why this is the case:

- Organisational climate has been researched in diverse situations, such as businesses, laboratories, schools and government, making it difficult to determine which key dimensions are relevant to all of the above environments.
- New scales are constantly being developed without consideration of how these compare to existing scales of organisational climate, resulting in an increase in scales claiming to measure organisational climate. In addition, validity and reliability do not receive the required attention.

According to Patterson et al. (2005) and Jones and James (1979), one of the basic assumptions of the study of organisational climate is that social environments can generally be described by a limited number of dimensions. For example, one of the most commonly referred to set of

dimensions measuring organisational climate is that of Litwin and Stringer (1968). They identified the dimensions based on organisations that are mainly task orientated and that will describe a particular situation. According to Litwin and Stringer (1968), the nine dimensions of organisational climate are as follows:

- (1) Structure. This dimension refers to how employees feel about various organisational constraints and rules. For example, can the organisation be seen as having set processes and procedures that must be followed or can it be characterised by a more relaxed approach to getting things done?
- (2) Responsibility. This dimension is concerned with how employees feel about being able to make their own decisions without having to constantly “check in” with a boss. This involves knowing what one’s role entails and making sure the work gets done.
- (3) Reward. This dimension focuses on how employees perceive being rewarded for the work they do. The emphasis is on positive reinforcement and the perception of fairness regarding payment and promotion policies.
- (4) Risk. This dimension seeks to describe the risk or challenge associated with a particular job as well as the organisation’s general approach to taking risks or its inclination to adopt a more stable view.
- (5) Warmth. The focus of this dimension is on the group’s or organisation’s general feeling of friendliness.
- (6) Support. The aim of this dimension is to gauge how employees perceive their manager’s and colleagues’ willingness to help and provide support.
- (7) Standards. This dimension refers to the emphasis that is placed on achieving set goals and meeting the standard and doing outstanding work.

- (8) Conflict. This represents the extent to which managers and employees wish to openly discuss issues or concerns rather than ignoring them as well as wanting to explore varying views.
- (9) Identity. This dimension measures the extent to which employees feel valued in the group and feel part of the organisation.

However, Dippenaar and Roodt (1996) investigated the applicability of Litwin and Stringer's questionnaire in the South African environment and found that only two factors of organisational climate were evident, namely motivational – relationship considerations, and uncertainty – job ownership considerations. It is therefore advisable not to make use of this questionnaire in the South African environment.

Campbell et al. (1970) reviewed the work of various authors. In their review, they revealed four factors that were common to the above mentioned studies. These dimensions are listed as follows:

- (1) Individual autonomy. Central to this dimension is the extent to which the employee has freedom to be his/her own boss and has the power to make decisions without constantly having to obtain managerial approval.
- (2) The degree of structure imposed upon the position. The key to this dimension lies in the extent to which managers establish the job's objectives and methods as well as how these are communicated.
- (3) Reward orientation. Even though the factors in this dimension do not sit together as well as the others, it generally refers to reward associations that are evident in all of the studies.
- (4) Consideration, warmth and support. This dimension refers to the human relations evident between organisational members.

According to Steers (1977) the climate dimension research conducted by Campbell and Beaty to develop a range of independent climate scales applicable across organisations, can be regarded as one of the most impressive studies to date. The authors identified the following 10 dimensions:

- (1) Task Structure. This refers to the extent to which the organisation directs employees on how to complete tasks.
- (2) The reward-punishment relationship. This dimension refers to the granting of rewards (promotions and salary increases) based on performance and merit and not seniority and favouritism.
- (3) Decision centralisation. This relates to the degree to which key decisions are reserved for senior managers.
- (4) Achievement emphasis. This dimension measures the employee's desire to add value to the company and to do good work.
- (5) Training and development emphasis. This dimension is concerned with the organisation's commitment to "up-skill" employees in order to assist them in achieving tasks.
- (6) Security versus risk. This dimension assess the impact of organisational pressure on employees feeling anxious and insecure.
- (7) Openness versus defensiveness. This dimension measures employees being open and communicating freely versus covering up errors to avoid looking ineffective.
- (8) Status and morale. This dimension measures whether or not employees perceive the organisation to be a pleasant place to work in.
- (9) Recognition and feedback. This refers to the extent to which managers support their subordinates and inform employees about what they think of their work.

- (10) General organisational competence and flexibility. This dimension refers the extent to which organisations are clear about their goals and know how to achieve them. Included in this dimension is the extent to which the organisations are flexible and innovative and develop employees to cope with changing situations.

In a large study conducted on US Navy personnel by Jones and James (1979) and subsequently on two other samples (health managers and firemen) to explore whether the measures that were used could be generalised across various situations, the following six components or dimensions were initially identified:

- (1) Conflict and Ambiguity. This dimension reflects how employees perceive conflict in organisational goals and objectives. In addition, attention to uncertainty of organisational structure and roles, together with a lack of interdepartmental cooperation and poor management communication, is also indicated in this dimension. Finally, poor planning, inefficient job design, a lack of awareness of employees' problems and needs and a lack of fairness and objectivity regarding the reward process are considered.
- (2) Job challenge, importance and variety. This dimension measures the degree of importance a job has, how challenging it is and the variety of tasks relating to the job. Autonomy and feedback, together with standard of quality and performance, are also relevant to this dimension.
- (3) Leader facilitation and support. In this dimension, the perceived behaviours of leaders were reflected, for example, the degree to which leaders help members accomplish work goals through planning as well as the degree to which the manager is seen to encourage interpersonal relationships and lend support.
- (4) Workgroup cooperation, friendliness and warmth. This dimension describes the relationship between individuals and their pride in their workgroup.



- (5) Professional and organisational esprit. Perceptions of external image and growth potential are described as well as individual's perceptions of the environment and the ability to openly express feelings and thoughts. Included in this dimension is confidence in the leader, consistency of application of organisational policies, nonconflicting role expectations and reduced job pressure.
- (6) Job Standards. This dimension is not as easily generalised as the previous five. This dimension reflects the extent to which the job has rigid standards of quality and accuracy, the lack of time, resources and training needed to get the job done as well as the perceived lack of trust and confidence in managers and supervisors.

After reviewing their results, Jones and James (1979) compared their findings to those of similar research and found that the dimensions identified in their studies generally reflected the dimensions found in the literature. From the aforementioned discussion it appears that there is commonality among organisational dimensions that can be used to measure organisational climate across various work environments.

This viewpoint is not a shared one. Schneider (1975, pp. 471-472) holds that the term "organisational climate" should be discarded and reference should be made to a "climate for something" referring to an area of research rather than a number of dimensions used in the hope to "finding something". Schneider (1990) believes that a strategic focus of interest has implicitly driven research on the climate construct. Early climate studies highlight specific components of the organisation which are of interest to them, instead of utilising a broad omnibus measure. Examples of these studies are listed in table 2.2 below.

**TABLE 2.2****STUDIES RESEARCHING SPECIFIC CLIMATES**

<b>RESEARCHERS</b>	<b>SPECIFIC CLIMATE</b>
Lewin, Lippit & White (1939)	Leadership style and social climates
Fleishman (1953)	Leadership
Argyris (1958)	Right type
McGregor (1960)	Managerial
Litwin & Stringer (1968) Coetsee (1996)	Motivational
Schneider and Bartlett (1968)	New employees
Taylor (1972)	Creativity
Renwick (1975)	Conflict resolution
Zohar (1980)	Safety
Banas (1988)	Quality
Delbecq & Mills (1985)	Innovation
Burke, Borucki & Hurley (1992)	Well-being
Johnson (1996)	Client services
Fitzgerald, Drasgow, Hulin, Gelfand & Magley (1997)	Sexual harassment
Anderson & West (1998)	Group innovation
Babin, Boles & Robin (2000)	Ethical
Isaksen & Lauer (2002)	Creativity and change
Mor Barak, Cherin & Berkman (1998) Tjale (2005)	Diversity

**Source:** Adapted from Gerber (2003), Schneider (1975; 1990), Schneider, Bowen, Ehrhart & Holcombe (2000), Isaksen & Lauer (2002) and Tjale (2005).

Jones and James's (1979) comment on Schneider's view stating that criterion-focused studies do not exclude the possibility that a relatively small set of dimensions could describe various

environments in which a specific dimension could be related to some criteria, negatively related to others and not at all related to others.

The benefit of utilising generic scales to measure organisational climate is that it is not limited to a specific focus of study, and organisations will be able to discover exactly what their focus is and will also be able to gauge the general climate in the particular organisation.

The dimensions utilised in this study were developed by an external consulting company specialising in organisational climate surveys. These dimensions, together with dimensions identified by Wiley and Brooks (2000) in their research on high-performing organisations across three distinct industries, namely banking, women's speciality retail and business services as well as the dimensions of Tustin (1993) and Coetsee (cited in Gerber, 2003), both conducted in the South African context, are summarised in the table below.

**TABLE 2.3**

**A COMPARISON OF GENERIC ORGANISATIONAL CLIMATE DIMENSIONS**

<b>Dimensions of current study</b>	<b>Dimensions of Coetsee (Gerber, 2003)</b>	<b>Dimensions of Wiley &amp; Brooks (2000)</b>	<b>Dimensions of Tustin (1993)</b>
<b>Trust</b> Refers to trust between employee and manager. Managers are honest and open.			

<b>Dimensions of current study</b>	<b>Dimensions of Coetsee (Gerber, 2003)</b>	<b>Dimensions of Wiley &amp; Brooks (2000)</b>	<b>Dimensions of Tustin (1993)</b>
<b>Training and development</b> Refers to training initiatives received, satisfaction thereof and availability of training plans. Aware of mentoring and coaching programmes, promotion criteria and opportunities.	<b>Organisational climate</b> Refers to the work environment in which the individual/group functions. Refers to decision-making practices, communication, general motivational situations, quality of the work environment, clarity of goals, interest in well-being of employees and coordination.	<b>Employee training</b> Refers to personal training plans, opportunities and satisfaction in attending training and type of training received.	<b>Training and development</b> The feeling that training and development take place and that results are achieved.
<b>Transformation &amp; diversity</b> Refers to equal treatment and management of employees. Refers to understanding, acceptance and support of the transformation strategy and initiatives.			
<b>Job satisfaction</b> Employees feel positive about their future, work is challenging and interesting. The organisation cares for its employees and retains good employees.	<b>Satisfaction</b> Satisfaction refers to satisfaction with work, remuneration and the administration thereof, as well as the degree to which work stress is experienced.	<b>Overall satisfaction</b> Intrinsic reward is gained from work and skills and abilities are utilised. Satisfied, proud and confident of the organisation. Feeling of accomplishment. <b>Employee retention</b> Employees attach value to the organisation and do not intend leaving it.	<b>Risk and challenge</b> The feeling that risks and challenges exist and that knowledge and abilities are utilised and developed.
<b>Leadership</b> Refers to the ability of managers to manage and lead employees, how they behave and treat employees and their knowledge.	<b>Management and leadership</b> Refers to supervisors helping or hindering employees in performing their duties.		

<b>Dimensions of current study</b>	<b>Dimensions of Coetsee (Gerber, 2003)</b>	<b>Dimensions of Wiley &amp; Brooks (2000)</b>	<b>Dimensions of Tustin (1993)</b>
<b>Employee wellness</b> Refers to the support given to employees to balance work and family life and the pace of the work and level of stress.	<b>Organisational climate</b> Concern for employee well-being is applicable.		<b>Warmth and support</b> The feeling that good camaraderie and respect for each other prevails in the work group.
<b>Communication</b> Refers to communication issues in the company, the manager's ability to listen to staff, share information, and clarify misunderstandings.	<b>Organisational climate</b> Communication Clarity of goals	<b>Information and knowledge</b> Refers to provision of clear direction, vision and understanding of goals. Employees are informed about decisions/changes and information is shared.	<b>Interpersonal communication</b> Reference is made to the clearness of upward and downward communication and the relationship between subordinate and supervisor.
<b>Performance management</b> Refers to the receipt of information and feedback about the employee's job, responsibilities and goals. Refers to satisfaction with job evaluation and recognition received.			<b>Standards</b> Perceived importance of implicit goals and performance standards and the emphasis placed on doing a good job.  <b>Recognition and reward</b> The feeling that recognition and rewards are given in return for good performance.
<b>Remuneration and rewards</b> Fairness of salary package in relation to the market and in comparison with similar jobs in the organisation.	<b>Satisfaction</b> Refers to satisfaction with work, remuneration and the administration thereof and the degree to which work stress is experienced.		<b>Promotion and remuneration</b> The feeling that promotion depends on good performance and the fairness of the remuneration policy
<b>Teamwork</b> Refers to belonging and fit to the team and organisation. Refers to team dynamics and decision making.	<b>Teamwork</b> Refers to effective team functioning, achievement of goals and dynamics.	<b>Teamwork/Co-operation</b> Employees work together within and across teams to serve clients. Team work is supported by managers.	<b>Identification</b> The feeling that an employee belongs to an organisation and is loyal.  <b>Participation</b> Subordinates' ability to participate in decision making.

<b>Dimensions of current study</b>	<b>Dimensions of Coetsee (Gerber, 2003)</b>	<b>Dimensions of Wiley &amp; Brooks (2000)</b>	<b>Dimensions of Tustin (1993)</b>
<b>Work environment</b> Quality of equipment and technology. Physical work environment.	<b>Organisational climate</b> Quality of work environment		
<b>Image of the organisation</b> Proud to be associated with the organisation. Is an employer of choice, well known in the market and highly rated.			
		<b>Involvement</b> Employees have the authority and are encouraged to make decisions and provide inputs, affecting their work.	<b>Responsibility</b> The feeling of being one's own boss and not having to have one's decisions double-checked.
		<b>Customer service</b> Strong emphasis on customer service, timeous delivery to client and problems resolved quickly.	
		<b>Quality</b> Quality is a priority and commitment important.. Continuous improvement.	

From the above discussion, it is clear that the range of organisational climate dimensions is huge. However, the above table illustrates that there is a great deal of overlapping between the models. The dimensions of this study compare well with the other models and provide an encompassing construct of organisational climate. In addition, the model includes additional dimensions, such as diversity management, which are applicable to the South African environment – hence the use of this model in this research.

## **2.4.2 Levels of climate**

The definitions of climate by various researchers, as discussed in section 2.2.1, put forward the idea that climate exists at three different levels. According to Field and Abelson (1982), empirical evidence supports the notion that three levels of climate can be identified - organisational climate, group climate and psychological climate.

### *2.4.2.1 Organisational climate*

Field and Abelson (1982) postulate that organisational climate can be created through experimental manipulation. They believe that climate created in this manner is an attribute of the organisation because it is the result of a manipulation of organisational conditions. Organisational members perceive the climate created which, in turn, affects their motivation and behaviour.

### *2.4.2.2 Group climate*

According to Field and Abelson (1982), subclimates exist for different organisational groups because of differences relating to task relationships and job functions. They also postulate that a number of studies in the literature support the concept of group climate. Drexler's (1977) research found that climates differed across groups in the same organisation. Howe (cited in Field & Abelson, 1982) reports that climate responses can be seen as more of a group function than being caused by personal characteristics.

Schneider and Snyder (1975) hold that group climate is a function of organisational hierarchy.

The results of the above and other studies support the construct validity of organisational and group climate (Field & Abelson, 1982). The results also show that different climates correspond to different subgroups in an organisation. Organisational climate is used to describe climate differences between organisations, but it should be borne in mind that various subclimates may exist in one organisation as a result of the different practices and procedures relevant to the group's situation.

#### *2.4.2.3 Psychological climate*

The third level of climate is defined as psychological climate (Field & Abelson, 1982). James and Jones (1974) postulate that it is necessary to differentiate between climate that is regarded as an organisational attribute and climate that is considered an individual attribute. When it is regarded as an organisational attribute, it should be referred to as organisational climate and when it is as an individual attribute, as psychological climate.

### **2.4.3 Organisational climate model**

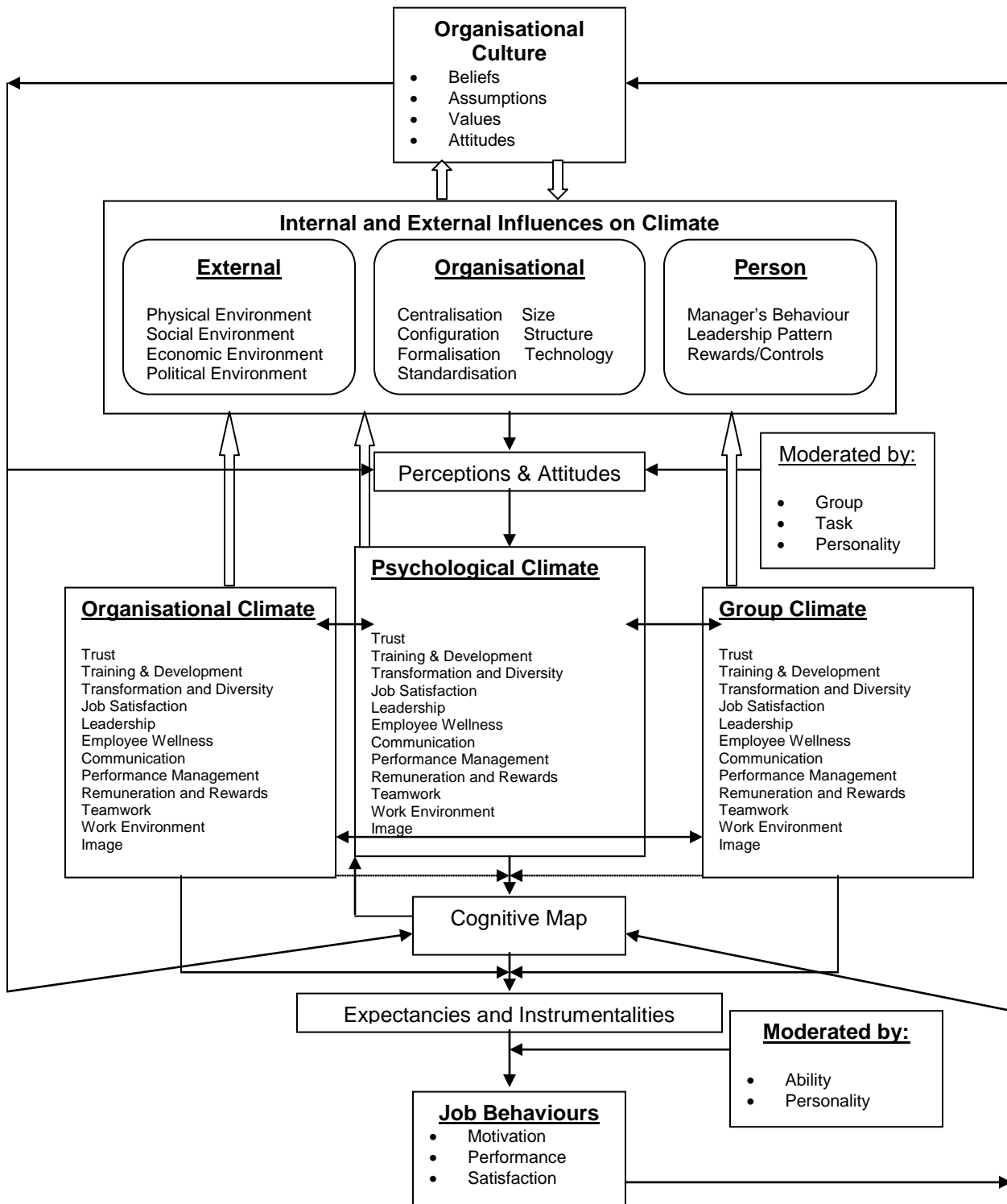
Organisational climate was conceptualised and defined in the above sections. In order to gain a deeper understanding of how these concepts are integrated, a model of organisational climate will now be explored.

#### *2.4.3.1 A model of organisational climate*

Figure 2.5 illustrates Gerber's (2003) model of organisational climate.



**FIGURE 2.5**  
**A MODEL OF ORGANISATIONAL CLIMATE**



**Source:** Adapted from Gerber (2003, P. 82)

This model is suitable for the current research because it explains the relationship between organisational climate and important variables. In addition, it takes into account the various influences on climate, differentiates between the three levels of climate (organisational, group and psychological) and considers the variables and the moderating factors in order to better describe the impact of climate on job-related attitudes and work behaviour. The model is relevant to this study because it involves both constructs of organisational climate and job satisfaction takes and their relationship into account.

Gerber's (2003) model accommodates the concept of organisational culture and highlights its role in the culture and climate relationship as well as its influence on organisational climate.

Gerber's (2003) model depicts several influences on climate. These include both internal and external influences, which can be divided into three categories, namely external, organisational and person influences. The way in which individuals observe these influences (perceptions) and form feelings about them (feelings and attitudes) are moderated by the group of which the individual is a member, and the individual's task personality. The quasi-physical, quasi-social and quasi-conceptual facts that individuals perceive are a function of the external, organisational and person variables. Intersubjectivity, the process whereby organisational members' perceptions, interpretations, values and beliefs are bound together, occurs, and plays an integral role in the subjective observations of the individual (Field & Abelson, 1982).

The individual's perceptions are represented cognitively by the climate dimensions. For the purposes of this research, the dimensions of the organisational climate questionnaire (see table 2.3) will be applicable. Organisational climate, group climate and psychological climate (individual's perceptions) interact with the external, organisational and person variables and therefore have an influence.

Psychological climate fulfils a prominent role in this model because it has a direct influence on the individual's cognitive map. Organisational and group climate also have

an effect, but to a lesser degree, and is evident in the degree to which perceptual consensus exists at that particular level (Gerber, 2003). Psychological, group and organisational climate influence each other because interactions between individuals and groups. Together, all three play a key role in influencing job behaviours such as job satisfaction.

Although the individual's cognitive map is developed through the process discussed above, it can still change and have an impact on subsequent psychological perceptions (Field & Abelson, 1982). Because organisational culture is shared and accepted by organisational members, its influence on the individual's cognitive map is acknowledged (Gerber, 2003). In its simplest form, psychological climate perceptions and organisational culture will result in the development of expectancies and instrumentalities. The individual's personality and abilities will moderate job behaviours such as job satisfaction and motivation. These outcome behaviours will always be influenced by psychological climate and not necessarily by organisational or group climate (Field & Abelson, 1982).

Group climate occurs when there is consensus between group members about the interactions of quasi-facts and intersubjectivity. The psychological climate of each group member influences the group's climate perceptions to the extent of consensus. Certain individuals may or may not have an impact on determining consensual groups' climate perceptions (Field & Abelson, 1982). The same applies at the organisational level - the difference being in consensus that has to be achieved at organisational level.

According to Field and Abelson (1982), the three types of climate (psychological, group and organisational) can exist simultaneously and have an integrated impact on expectancies and instrumentalities. The extent to which group and organisational climate interact with psychological climate to jointly influence expectancies and instrumentalities depends on the degree of consensus. The greater the consensus is, the greater the predictive power of the climate factors will be.

In the absence of group and organisational climate, psychological climate will be solely used for predictive purposes. The accuracy of predicting job behaviours should increase as climate consensus in the organisation increases from psychological climate to situations in which group and organisational climate are present (Field & Abelson, 1982).

This model acknowledges that organisational culture (underlying beliefs, values and assumptions), which develops over time, influences the external, organisational and person variables, which affect individuals' perceptions and attitudes (climate) (Gerber, 2003). Hence, there is a reciprocal relationship between culture and climate.

Lastly, Field and Abelson (1982) state that job behaviours (performance, motivation and satisfaction) have implications for climate (psychological, group and organisational) as they influence the individual's cognitive map. These work behaviours are fed back into and influence the organisation's culture, which can change the underlying values, beliefs and assumptions, in order to fit the culture of the organisation (Gerber, 2003).

#### **2.4.4 The importance of organisational climate**

The modern work environment is vastly different from the work environment in the previous three decades. The reason for this difference is the overwhelming challenges organisations have to face. These challenges include increased competition, high degrees of technological innovation, changes in the nature and structure of organisations and the challenges facing employees such as redefining the employment contract, getting to grips with new business processes, flexible work patterns and work/life balance (Kangis & Williams, 2000; Nair, 2006).

From a South African perspective, these challenges are compounded by the implementation of legislation impacting on the employer-employee relationship, organisational restructures (downsizing and mergers) in order to stay competitive in a global market, diversity and transformation practices and the outsourcing of noncore departments. According to Martins and Von der Ohe (2003), all of the above changes can

affect the climate in an organisation and impact on employees' motivation levels, which in turn, influences the organisation's profitability. One of the primary challenges facing managers today is to manage work teams in these ever-changing environments and to create a work environment or climate in which employees can thrive and apply their expertise (Suliman & Abdullah, 2005). Hence an organisation's ability to develop and maintain conditions conducive to the creation of a high-performing climate is of critical importance. This is illustrated in Wiley and Brook's (2000) linkage research, where in a study conducted by Thompson (cited in Wiley & Brooks, 2000), organisation work units with progressive human resource practices were the work units that had higher customer commitment, customer satisfaction and profit contribution margin.

According to Gray (2007), a supportive work environment is related to employees' performance. He argues that a positive environment will result in motivated employees who enjoy their work. It therefore comes as no surprise that work climate is an excellent predictor of organisational and employee performance.

IBM recognises the importance of workplace climate and the role it plays in the success or failure of organisations. A recent study at IBM showed that 25% variance in business results was directly attributable to variance in climate (Nair, 2006). Results from various surveys conducted at IBM reveal that there is a relationship between climate and the attraction and retention of employees, productivity and effectiveness which, when translated into results, shows growth in sales and earnings, return on sales and lower employee turnover. IBM views climate as the key to business results, stating that motivated employees will be more productive, more passionate and more engaged, thus resulting in significant and cost-effective output.

In an extensive study of manufacturing companies conducted by Williams in the UK, the relationship between climate and performance was investigated. The results showed that the majority of the dimensions were positively and significantly related to each other as well as to organisational performance with positive correlations on nearly all climate and performance measures (Gray, 2007). In similar research, Watkin (cited in Gray, 2007)

found in his study of bottling plants, that the manufacturing plants with the most favourable working environments were in fact, the most profitable. Patterson, Warr and West (cited in Gray, 2007) found positive correlations of productivity with dimensions of organisational climate in their research on manufacturing companies.

According to Litwin and Stringer (1968), climate assists managers to understand the relationship between the processes and practices of the organisation and the needs of employees. By understanding how different practices and initiatives stimulate employees, managers will be able to understand what motivates employees to behave in a manner that leads to a positive climate and results in the organisation's success.

## **2.5 MEASURING ORGANISATIONAL CLIMATE**

Managers need to have a clear understanding of the organisation's climate, so that practices developed for and implemented by the organisation are in line with the organisation's goals. To gain this understanding, the climate must be measured.

The methods used to measure organisational climate fall into four categories, namely field studies, experimental variation of organisational properties, observations of objective organisation properties and perceptions of organisational members. The last two approaches, perceptual or subjective and objective methods, represent the primary methods used to measure organisational climate (Forehand & Gilmer, 1964).

Field studies involve the researcher observing the daily activities in the organisation and gathering information through various sources such as observing presentations and conferences, conducting interviews with participants, reviewing diaries, memos, emails and other correspondence, to name a few. Two approaches are followed in observing variation of climate, namely comparative studies and longitudinal studies. The high cost, skill and sensitivity of the observer, issues relating to sample size and the inherent subjectivity of the classifications are criticisms of these approaches (Forehand & Gilmer, 1964).

Experimental variation of organisational properties involves the researcher identifying appropriate dimensions of climate and then systematically manipulating them (Forehand & Gilmer, 1964). An example of possibly one of the most relevant studies of this approach is that of Lewin, et al. (1939) in which leadership styles were varied in order to investigate the effects of different leadership styles on the behaviour of group members.

The majority of tools used to measure climate can be categorised into perceptual (subjective) or objective categories. According to Hellriegel and Slocum (1974), the main difference between these two methods is that the objective method does not depend on the individual's perception of the dimensions in the organisation, subsystems and/or the external environment. Researchers who focus on objective measures of organisational climate examine the objective properties of organisations such as organisational size, levels of authority, decision-making authority, degree of centralisation and rules and policies (Forehand & Gilmer, 1964). According to Hellriegel and Slocum (1974), even though objective methods tend to be more accurate and reliable, they have at least three limitations. Firstly, there is an abundance of variables that may be extremely specific, making interpretation difficult. Secondly, these methods do not consider how organisational properties are related to each other and to organisational functioning. The third limitation relates to the assumption that objective properties affect organisational members indirectly.

Researchers who prefer perceptual measures of organisational climate contend that the perceptions of organisational members should be measured because they provide a more encompassing description of the concept (Schnake, cited in Gerber 2003). The focus is on the active role the individual plays in perceiving organisational characteristics (Forehand & Gilmer, 1964). It is important to note that dimensions are descriptive and not affective or evaluative, which measures attitudes (Jones & James, 1979).

## **2.6 CHAPTER SUMMARY**

This chapter introduced the concept of organisational climate and gave the rationale for the research. It conceptualised and defined organisational climate, discussed the development of the concept and provided an overview of how climates are formed in organisations. In an attempt to gain further clarity on the topic, the components of climate, including its dimensions, levels and an organisational model, were discussed. The differences and similarities between organisational climate and organisational culture were elucidated and the conclusion drawn that the two constructs, even though more closely related than previously thought, are actually two distinct constructs. The importance of organisational climate in the organisation was also reviewed. The chapter concluded with a discussion of the ways in which organisational climate can be measured.



## **CHAPTER 3**

### **JOB SATISFACTION**

The aim of this chapter is to review the literature on the concept of job satisfaction. The chapter will address key concepts relating to job satisfaction, its definition and dimensions, theories and models. The role of demographic variables in satisfaction will also be investigated, together with the role that job satisfaction plays in an organisation. Finally, the chapter will explore how job satisfaction can be measured.

#### **3.1 INTRODUCTION TO AND RATIONALE FOR STUDYING JOB SATISFACTION**

According to Gruneberg (1979) and Staples and Higgins (1998), the popularity of job satisfaction stems from the fact that it affects so many people as most of their time is spent at work. These authors postulate that understanding the factors involved in job satisfaction can possibly improve the well-being of a large part of society. Another reason for organisations to research job satisfaction is the belief that an increase in job satisfaction will result in an increase in productivity (Gruneberg, 1979). For most people, a job is not only a source of income - it is a source of social standing, helps define who they are and fulfils a role in their physical and mental health (Smith, 2007).

According to Rad and Yarmohammadian (2006) job satisfaction is vital if organisations are to attract and retain qualified individuals. Organisations need employees to achieve their goals and to succeed. Organisational challenges such as the talent shortage, diverse workforce and productivity issues, to name a few, influence the work climate, impacting on employee perceptions and morale (Hofmeyr cited in Balgobind, 2002; Nair, 2006). A survey conducted by Deloitte and Touche (2001) found that 25 % of the workforce leave their employment before completing three years with the organisation. According to the survey the reasons for this relate to employee dissatisfaction. Pors and Johannsen (2002), state that the past decade has seen organisations review the work situation in order to

create jobs and working conditions to satisfy their employees. Employee satisfaction and staff retention are vital for organisations. Costs relating to staff absenteeism and turnover, in addition to the costs incurred in recruiting and retraining new staff, have serious financial implications for companies. Research suggests that satisfied employees are more committed, productive and happier and organisations therefore benefit from focusing on this.

Gavin and Mason (2004) postulate that focusing solely on improving an organisation's productivity is no longer enough. The key to the survival of organisations in today's world is creating work environments that promote job satisfaction (Nair, 2006).

Alavi and Askaripur (2003) believe that managers should focus on employees' job satisfaction for the following three reasons:

- (1) According to research, unsatisfied individuals leave organisations.
- (2) Employees who are satisfied tend to be healthier and have a longer life expectancy.
- (3) Job satisfaction is also known to impact employees' private lives, which can influence work-related outcomes such as absenteeism.

### **3.2 CONCEPTUALISATION OF JOB SATISFACTION**

The domain of job satisfaction is a widely researched topic in disciplines such as industrial organisational psychology, social psychology, organisational behaviour and personnel and human resource management (Snipes, Oswald, La Tour & Armenakis, 2004; Staples & Higgins, 1998; Cranny, Smith & Stone, 1992; Gruneberg, 1979). According to Locke (1976), the estimated number of articles and dissertations on job satisfaction amounted to over 3000, and 25 years later, Spinelli and Canavos (2000) estimated the number of articles and book contributions to be in excess of 5 000.

In the literature it is evident that there is no agreed definition of job satisfaction. According to Locke (1976) and Blum and Naylor (1968), this is partly because researchers develop operational definitions of the concept and define job satisfaction as whatever the researcher's measurement measures. The concept of job satisfaction has been confused with other concepts, and in order to clearly understand it, it needs to be clarified.

Although job satisfaction is related to job morale in that both concepts refer to the positive emotional states that employees experience, they are not the same (Gruneberg, 1979; Locke, 1976). Viteles (1953) defines morale as an attitude of satisfaction with a desire and willingness to strive for group and organisational goals. Gruneberg (1979) defines morale as group well-being, whereas job satisfaction refers to the employee's emotional reaction to a job. Blum and Naylor (1968) define morale as the feeling an employee has by belonging and being accepted by a group and adhering to the achievement of common goals. From the above, two distinctions are evident, morale is future orientated and job satisfaction is more present and past orientated; morale refers more to the group, while satisfaction places emphasis on the individual.

Job involvement should also be distinguished from job satisfaction (Locke, 1976). According to him, job involvement refers to the degree to which an employee is absorbed or occupied by his/her job. Employee attitude refers to how ready an employee is to act in a particular way in respect of a specific job-related factor (Blum & Naylor, 1968). The concept of "motivation" has also been used interchangeably with "job satisfaction". However, the former refers to the persistent effort towards attaining a goal (Wealleans, cited in Hlungwani, 2006).

### **3.2.1 Defining job satisfaction**

A review of the literature pertaining to job satisfaction suggests numerous definitions of the concept, with no one agreed upon definition. Conceptual and operational definitions

of job satisfaction include general or overall job satisfaction (JS) and aspects of job satisfaction facets (JSF) such as pay, supervision and promotion (Cranny et al., 1992). Wanous and Lawler (1972) provide nine different operational definitions of job satisfaction, all based on different theoretical orientations and resulting in different measures. The difference between these definitions stems from the aspects or facets of job satisfaction included in the definition as well as the different ways these aspects are combined to measure overall job satisfaction.

Even though job satisfaction is defined in various ways, Cranny et al. (1992) suggest that there is general consensus on the definition of job satisfaction as an emotional reaction. They define job satisfaction as one's affective or emotional reaction to a job that is the result of one's comparison of actual outcomes with expected or deserved outcomes. Several authors define job satisfaction along the same lines.

Lofquist and Dawis (1969), for example, define the concept as the function of the interaction between the reinforcement system in the work environment and the individuals' needs. Smith, Kendall and Hulin (1969) consider job satisfaction as the feeling or affective response one has to aspects of the work situation. In his paper on job satisfaction, Locke (1969) defines the concept as the pleasurable emotional state that results from the evaluation of one's job as achieving or facilitating one's job values.

According to Porter, Lawler and Hackman (1975) people evaluate most things on the basis of whether or not they like or dislike them. They characterise the concept by stating that it is a feeling one has about a job that is determined by the disparity between the amount of a valued outcome the person receives and the amount of the outcome that the he/she feels should be received. The greater the discrepancy, the more dissatisfied the individual will be. Locke (1976) states that job satisfaction refers to the pleasurable or emotional state that results from the evaluation of one's job or experiences relating to one's job. Locke and Henne (1986) define job satisfaction as the pleasurable emotional state an individual feels when achieving his/her job values at work.

Although Cranny et al. (1992) regard job satisfaction as an affective or emotional response; Weiss (2002) highlights the prevalence of job satisfaction as an attitude. It has also been defined in terms of attitudes that individuals have about their jobs.

Schneider and Snyder (1975) define job satisfaction as a personal evaluation of the current conditions of the job or the outcomes that arise as a result of having a job. Sempane et al. (2002) seem to agree with this definition, stating that job satisfaction refers to the individual's perception and evaluation of the job. According to them, the individual's perception is influenced by his/her unique circumstances such as needs, values and expectations. People therefore evaluate their jobs on the basis of the factors that are important to them.

According to Brief (1998), job satisfaction can be defined as the internal state that is expressed by affectively and/or cognitively evaluating an experienced job with a degree of favour or disfavour.

Langton and Robbins (2007) define the concepts as the general attitude that people have towards their jobs. They go on to say that people who enjoy a high level of job satisfaction have positive attitudes about their jobs, whereas those who are dissatisfied tend to be negative.

According to the definition formulated by McKenna (2000), job satisfaction refers to how well personal expectations at work are in line with outcomes. To illustrate this point, an individual who expects that hard work will lead to fair rewards; will be satisfied if this is indeed the case. However, in the event that individuals feel that they worked hard, but did not receive a fair reward, job dissatisfaction may result.

Weiss (2002) defines job satisfaction as a positive or negative evaluative judgement that one makes about one's job or the job situation.

Ivancevich and Matteson (2005) postulate that job satisfaction is the attitude individuals have towards their jobs, which results from the perception of the job and the extent to which there is a good fit between the individual and the organisation.

Robbins and Judge (2007) believe that job satisfaction represents an attitude and not behaviour. They define job satisfaction as a positive feeling that an individual has about his/her job, based on the evaluation of the characteristics of the job.

Robbins and DeCenzo (2008) consider job satisfaction to be an attitude - an outcome that many managers concern themselves with because it has possible links to productivity, absenteeism and turnover. They define job satisfaction as the general attitude that an employee has towards his/her job.

From the definitions above, job satisfaction can be defined as the attitude or feeling that one has about one's job that is either positive or negative. Hence someone who has a high level of job satisfaction will have a positive feeling about his/her job, while someone who is dissatisfied will have negative feelings.

### **3.3 ASPECTS OF JOB SATISFACTION**

Certain aspects that are necessary to understanding the concept of job satisfaction are discussed in the subsections below.

#### **3.3.1 Influences of job satisfaction**

Locke (1976) postulates that a job is a complex phenomenon that consists of the interrelationship of various dimensions such as tasks, roles, responsibilities, interactions, incentives and rewards. It is important for researchers to have a clear understanding of job attitudes if the job is to be analysed in terms of its constituent elements. According to Locke (1976), typical dimensions that have been included in studies by previous researchers include work, pay, promotion, recognition, benefits, working conditions,

supervision, co-workers and company and management. Research indicates that these various factors of the job can be divided into two distinct dimensions, namely extrinsic and intrinsic factors (Buitendach & De Witte, 2005).

Extrinsic factors form part of the job situation and are influenced by others (Lawler, 1976). According to him, these dimensions are external to the individual and are likely to satisfy lower-order needs. Extrinsic dimensions of job satisfaction are therefore beyond the employees' control and include factors such as the work itself, pay, promotion opportunities, working conditions, supervision and co-workers.

Intrinsic rewards, however, are those rewards that an individual receives as a direct result of his/her performance. These rewards are self-regulated because the person does not rely on someone else to present them, which is in direct contrast to extrinsic rewards, which are externally controlled (Snipes et al., 2005). According to Lawler (1976), intrinsic rewards satisfy higher-order needs such as feelings of accomplishment and achievement and satisfaction of utilising one's skills and abilities. According to Robbins, Odendaal and Roodt (2003), intrinsic factors, such as advancement, recognition, responsibility and achievement appear to be related to job satisfaction.

#### *3.3.1.1 The job or work itself*

Research indicates that this dimension is the one facet that correlates most highly with overall job satisfaction (Cranny et al., 1992; Luthans, 1995; Robbins & Judge, 2007) and that feedback from the job itself and autonomy are two of the major job-related motivational factors (Luthans, 2002). Locke (1976) postulates that this dimension includes intrinsic interest, variety, opportunities to learn, difficulty of tasks, amount, chances of success, control over pace and methods. Of these, role ambiguity and skill variety or complexity are identified as the strongest predictors of satisfaction (Glission & Durick, 1988).

According to Herzberg (1968) and Lawler (1976), the content of the work performed by the individual is a vital determinant of whether employees believe that satisfactory performance will result in feelings of accomplishment, growth and self-esteem, which are likely to lead to job satisfaction. From the literature it is evident that people prefer jobs that afford them opportunities to utilise their skills and abilities, offer a variety of tasks, allow them freedom to do things in their own way and at their own pace and give them feedback on how they are performing (Robbins, 1998).

The above characteristics of a job make the work mentally challenging. In the absence of these, feelings of frustration and failure and boredom may set in, resulting in job dissatisfaction (Robbins, 1998).

#### *3.3.1.2 Pay*

Brockner (cited in Cranny et al., 1992) postulates that pay can be regarded as a key source of satisfaction because it not only provides employees with a salary to buy whatever they want, but it is also a source of self-esteem. Luthans (2005; 2002) agrees with this by highlighting the significance of pay in predicting job satisfaction. However, he does mention that it is a complex and multidimensional predictor.

Berkowitz (1987) and Spector (1997) claim that there is a small correlation between pay and job satisfaction, which suggests that pay, does not have a strong influence on job satisfaction. Johns (1992) supports this and states that even though there is a positive relationship between pay and job satisfaction, not everyone places a high value on money, and in certain instances, he/she is willing to accept less money in exchange for other more important factors, such as working closer to home, a less demanding job, shorter working hours and less responsibility (Robbins, 1998; Spector, 1997).

Robbins and Judge (2007) add to this by stating that pay correlates to job satisfaction as well as overall happiness for people living below the poverty line or residing in poor



countries. However, once individuals earn relatively well and live comfortably, the relationship between pay and satisfaction disappears.

Locke (1976) considers the amount of pay, fairness and the method of payment to be relevant to this dimension of job satisfaction. Robbins (1998) states that it is the perception of fairness rather than the amount of pay that is important in the pay-satisfaction relationship. He goes on to say that if employees perceive the pay system to be fair, unambiguous and in line with their expectations, which are based on job demands, satisfaction is more likely to occur.

#### *3.3.1.3 Promotion opportunities*

This dimension is concerned with opportunities that exist in organisations, the fairness of the process associated with promotions as well as the basis on which promotions are given (Locke, 1976). Cranny et al. (1992) list studies that show that when employees perceive few opportunities for advancement, they tend to be negative about their job and organisation.

According to Robbins (1998), employees want promotion policies and practices that are equitable. Promotions do not necessarily only refer to hierarchical movement, but also include lateral opportunities (Robbins et al., 2003). Promotions afford employees opportunities for personal growth, more responsibility and an increase in social status.

#### *3.3.1.4 Working conditions*

Working conditions refer to elements such as temperature, lighting, noise and ventilation. Locke (1975) includes additional elements such as working hours, lunch and tea breaks, the equipment used and the location and physical layout of the office. According to Robbins (1998), employees prefer work environments that facilitate opportunities to do a good job and where they can perform well, as well as environments that offer personal comfort. In addition, studies have shown that employees prefer physical conditions that

are safe, clean and comfortable, with few distractions. Preference is also shown for modern facilities, adequate tools and equipment and working closer to home (Robbins, 1998). The working environment does not only refer to the physical facilities of the organisation, but also to the psychological conditions in an organisation (Robbins et al., 2003).

Luthans (2005) offers an alternate viewpoint in stating that people are more likely to show dissatisfaction if their working conditions are exceptionally poor.

#### *3.3.1.5 Supervision*

Factors such as supervisory style and influence, human relations and administrative skill are analysed in this dimension (Locke, 1976). The behaviour of an employee's supervisor is a major determinant of job satisfaction (Luthans, 2005; Robbins, 1998).

Gruneberg (1979) highlights the distinction between employee-oriented and task-oriented supervisors. Employee-oriented or employee-centred supervisors (Luthans, 2005) are likely to build personal and supportive relationships with their staff, take an interest in them, provide advice and help them to achieve their goals. Task-oriented supervisors, on the other hand, consider their primary function to initiate and organise work and consider employees as instrumental in achieving organisational targets. One finds that although supervisors may be high in task orientation, they are usually low in employee orientation and vice versa. However this is not always the case. Luthans (2005) mentions participation or influence as a dimension of supervisory style that affects job satisfaction. This refers to the manager allowing employees to participate in decisions that affect their jobs. A work environment characterised by employee participation has a higher substantial effect on worker's satisfaction than participation in a specific decision (Luthans, 2005).

Job satisfaction of employees tends to increase when the supervisor is seen to be understanding and friendly, acknowledges satisfactory performance, encourages input

from subordinates and shows personal and genuine interest in employees (Alexander, 2000; Robbins, 1998). In addition, supervisors who offer technical support, job-related assistance and guidance and problem-solving skills and make time for their employees are likely to have more satisfied subordinates (Spector, 1997). However, supervisors who are considered to be insensitive, incompetent and uncaring have the most negative effect on employee job satisfaction (George, cited in Hlungwani, 2006).

#### *3.3.1.6 Co-workers or work group*

The competence, helpfulness and friendliness of peers also influence job satisfaction (Locke, 1976). For many people, work not only provides monetary value and personal achievement, but also fulfils a social need. Interaction with colleagues and working with friendly supportive peers will more than likely lead to job satisfaction as members of the group offer support, advice and help (Robbins, 1998). Research suggests that employees who work with supportive colleagues will be more satisfied than those who do not (Robbins, 1998). The converse is also true - if the people in the work group are difficult to get along with, this can have a negative impact on job satisfaction (Luthans, 2005).

Numerous factors influence job satisfaction and, as illustrated by the vast range of definitions of the construct, different dimensions have been identified. The factors discussed above are considered to be the primary dimensions influencing job satisfaction (Luthans, 2005; Robbins et al., 2003; Robbins & Judge, 2007) and have therefore been included. Spector (1997) conducted a review of the most popular job satisfaction instruments and summarised other factors that may influence job satisfaction. These include appreciation, communication, fringe benefits, security, the organisation's policies and procedures as well as the organisation itself.

### **3.3.2 Models of job satisfaction**

Locke (1975) postulates that models of job satisfaction endeavour to identify the types of variables such as needs, values and expectancies that are relevant to job satisfaction and

how these variables are combined in order to determine overall job satisfaction. There is agreement among researchers that an individual's affective reaction is dependent on the interaction between the individual and the environment. However, there is disagreement about the mental process that determines these reactions.

Campbell et al. (1970) distinguish between process theories and content theories. Process theories are concerned with describing the process of *how* behaviour is energised, directed, sustained and stopped. Content theories, on the other hand, focus on *what* it is in individuals or the environment that energises and sustains people.

### 3.3.2.1 *Content theories*

Content theories assume that all individuals have the same set of needs and stipulate the characteristics that should be evident in jobs. These theories identify factors that lead to job satisfaction or dissatisfaction (Gruneberg, 1979; Staples & Higgins, 1998). The content theories that will be discussed below include Maslow's needs hierarchy, Herzberg's two-factor theory, Alderfer's ERG theory and McClelland's needs theory.

#### *a      Maslow's needs hierarchy*

Maslow (1943) postulates that individuals are satisfied when certain needs are met. These needs are arranged hierarchically and divided into lower- and higher-order needs. He holds that before the higher-order needs can be satisfied, the lower-order needs first have to be met. The first three needs are considered to be lower-order needs, while the fourth and fifth are higher-order needs (Gruneberg, 1979). The five major needs are as follows, starting from the lowest-order needs:

- (1) *Basic physiological needs.* This theory postulates that individuals are primarily concerned with satisfying needs such as food, water, air and shelter.

- (2) Safety needs. According to Maslow (1943), once the physiological needs have been satisfied, the need for safety becomes evident. These needs refer to freedom from physical, economic and emotional harm (Locke, 1975; Robbins et al., 2003).
- (3) Social Needs. Once the physiological and safety needs have been satisfied, the need for love, affection and belongingness emerge (Maslow, 1943). According to Aamodt (cited in Josias, 2005), organisations see to these social needs through the establishment of office canteens and social programmes.
- (4) Esteem needs. Maslow (1943) states that esteem needs can be divided into two types, namely mastery and achievement (self) and recognition and approval (others). Organisations are able to satisfy their employees' esteem needs through recognition and award programmes and promotion and salary increases (Aamodt, cited in Josias, 2005).
- (5) Self-actualisation needs. According to Maslow (1943, p. 382), "what a man can be, he must be". This refers to the concept of self-actualisation, the fifth and final level of the hierarchy, which includes the need for growth, achieving one's potential and self-fulfilment.

Based on the above theory, an individual's ideal job environment will be one that best meets his/her current needs as per the hierarchy of needs postulated by Maslow (Locke, 1975). Maslow's hierarchy of needs was not intended to be applied to the world of work. It was McGregor who popularised Maslow's theory for the work environment.

#### b Alderfer's ERG Theory

According to Alderfer's theory, the individuals' needs can be classified into three groups, namely existence, relatedness and growth (Fincham & Rhodes, 2005).

- (1) Existence needs. These are basic needs such as nutritional and material requirements. From a work perspective, this refers to issues such as pay and working conditions.
- (2) Relatedness needs. These needs are fulfilled through interacting and building relationships with family and friends, and in the work context, with peers and colleagues.
- (3) Growth needs. These refer to the individuals' personal psychological needs.

These needs are represented in a continuum, along which individuals can move in either direction. This theory, in contrast to that of Maslow, states that even though lower order needs have been met, they are still important and will continue to satisfy individuals, and are not superseded by the higher-order needs (Fincham & Rhodes, 2005).

#### c      McClelland's theory of needs

According to this theory, all individuals acquire needs over time and these are learnt and shaped by the individual's personal experiences (McClelland, 1962). He postulates that these needs are present in all individuals, although one of the three needs will be more dominant. This theory, unlike that of Maslow, does not specify transition between needs.

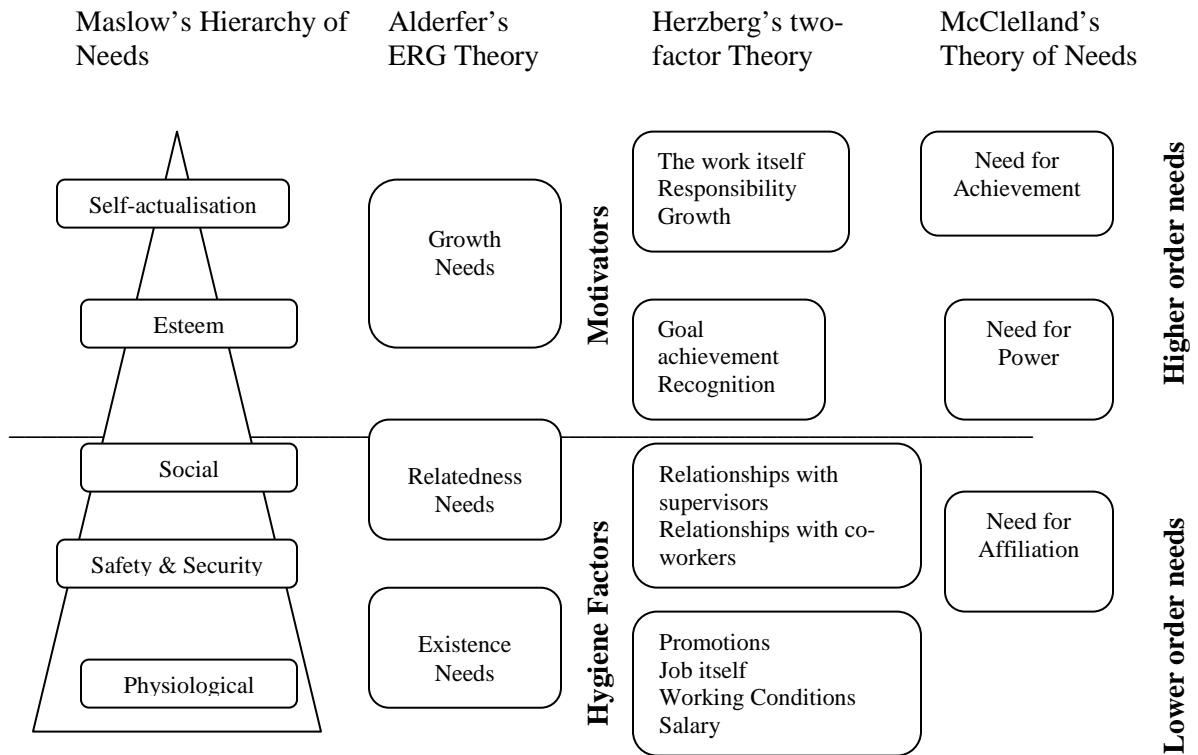
The three needs associated with this theory are the need for achievement, for power and for affiliation (Robbins et al., 2003). Employees who have a preference for one of the above needs will be satisfied in positions in which these needs are met. For example, someone who has a dominant affiliation need, will probably be satisfied in a position that requires close interaction with his/her work colleagues.

*d      Herzberg's two-factor theory*

According to this theory, satisfaction and dissatisfaction are two separate concepts resulting from different causes and are not interrelated (Campbell et al., 1970). Herzberg (1968) identifies two groups of factors that are involved in job satisfaction. The first group, motivators, are intrinsic to the job and refer to factors such as the work itself, achievement, promotion, recognition and responsibility (Locke, 1975; Gruneberg, 1979). When present in the work situation, these factors result in job satisfaction and have no influence on job dissatisfaction (Campbell et al., 1970). The second group, referred to as hygiene factors, do not result in job satisfaction, but if they are inadequate, may cause job dissatisfaction (Herzberg, 1968). Examples of factors include pay, security and working conditions. These factors are necessary for employees to be satisfied but do not cause job satisfaction.

The diagram below provides an integrated view of the content theories discussed above.

**FIGURE 3.1**  
**INTEGRATION OF CONTENT THEORIES**



**Source:** Adapted from Ivancevich & Matteson (2002)

### 3.3.2.2 *Process Theories*

Process theories highlight the differences in people's needs and are concerned with the cognitive processes involved in these differences. According to Campbell et al. (1970), process theorists postulate that job satisfaction is not only a function of the job and its related environment, but also determined by individuals' needs, values and expectations. Equity theory, goal-setting theory and expectancy theory will be reviewed in the subsections below.

#### a Equity theory



The equity theory, developed by Adams (1963), acknowledges that variable factors affect an employee's evaluation and perception of his/her relationship with his/her work and employer. Campbell et al. (1970) state that although this theory has predominantly been applied to compensation issues it can be used more widely to include a variety of inputs and outputs relevant in an organisational setting.

Equity theory, which is regarded as a discrepancy theory, considers the ratio of an individual's job inputs to job outputs to that of another's job inputs and job outputs (Campbell et al., 1970). Individuals will be satisfied if there is a positive relationship between what they put into their work (inputs) and what they get out of it (outputs) (Robbins, 2005). Hence, the theory is built on the belief that employees become demotivated if they feel that their inputs are greater than their outputs. Adams (1963) holds that when individuals experience inequity, tension arises which they attempt to eliminate in various ways. Examples include changing their own inputs and/or outputs, changing the inputs and/or outputs of the comparison person, cognitively distorting their inputs and/or outputs, leaving the situation or changing their comparison person (Gruneberg, 1979; Robbins, 1998; Steers, 1977).

According to Gruneberg (1979), central to this theory, is the comparison of what an individual receives for doing a certain task in relation to what others receive. Satisfaction exists only when the rewards and efforts are considered reasonable in relation to the rewards of others.

#### b      *Goal-Setting Theory*

Locke and Latham's (2002) goal-setting theory explores the correlation between the goals an employee sets and the performance he/she deliver. According to this theory, when a goal is set at a difficult level, a person is required to put more effort into meeting it, meaning that the most difficult goals will result in the highest levels of performance. Satisfaction is experienced when a goal is met.

Goals influence performance in four ways. First, the attention and effort of the worker are focused on actions specific to the goal. Second, the individual increases his/her effort towards achieving the goal (the higher the goal, the larger the effort). Third, a goal will increase persistence of goal attainment when the participant is in control of the time devoted to achieving the goal. Lastly, arousal, discovery, and the use of task-relevant knowledge are affected through the goals introduced, which have an effect on performance. To summarise, on the basis of at least 400 research studies, goal-setting theory states that a positive relationship exists between high goal difficulty and higher level of performance (Locke & Latham, 2006).

Locke and Latham's goal-setting theory can be used to predict job satisfaction (Locke & Latham, 2002). These authors state that a worker's productivity is significantly increased by a high goal, thus establishing a base relationship for an application to job satisfaction. Goals are a product to strive for and a means of judging satisfaction. When a person makes the effort to achieve a goal, he/she will not be satisfied until it has been attained. One may infer that, when a subject achieves a higher performance level than is required for a goal to be attained, satisfaction will be increased relative to the amount of performance. Likewise, the further a subject is from realising the goal, the more dissatisfaction he/she will experience. These relationships show that there is a link between goal difficulty and job satisfaction.

In addition, the clarity of a goal also contributes to performance (Locke & Latham, 2002). The authors reason that workers, who do not understand what goal they are trying to achieve, will not deliver optimum performance. Hence, the clearer the goal, the greater the likelihood of the person's performance reaching their full potential.

#### c      *Job characteristics model*

Hackman and Oldham's job characteristics model (JCM) can be used to explain how certain characteristics of jobs can intrinsically motivate employees and increase their level of job satisfaction and job performance (Lee-Ross, 1998; Friday & Friday, 2003).

According to theory, positive personal and work outcomes are achieved when the employee experiences three psychological states created by the presence of five job dimensions (Hackman & Oldham, 1975). The model also purports that when individuals know they have performed well on a task that has meaning for them, they will feel intrinsically rewarded (Friday & Friday, 2003).

The JCM consists of three sets of variables. It further proposes that the above mentioned core job dimensions (CJDs) influence the critical psychological states (CPSs) which, in turn, affect job-related outcomes such as job satisfaction, growth satisfaction, internal work motivation and other job-related outcomes or affective outcomes (AOs) (Friday & Friday, 2003).

The five CJDs identified by Hackman and Oldham (1975) are highlighted and discussed below:

- (1) *Skill Variety*. This dimension is concerned with the various activities associated with a particular job which involved a range of the employees skills and abilities.
- (2) *Task Identity*. This refers to the degree to which the job requires completing a task, from start to finish, with an identifiable outcome.
- (3) *Task Significance*. This dimension refers to how important the job is and its impact on the organisation and/or to the external environment.
- (4) *Autonomy*. In this dimension, issues such as independence, freedom and discretion are highlighted. This refers to the degree to which an employee is able to make decisions regarding how they prioritise and schedule the work for completion.
- (5) *Feedback*. This refers to the degree to which the employee receives direct and clear feedback regarding their performance and work outcomes.

Two additional dimensions are included, which although are not considered to be characteristics of jobs, do help to understand jobs and employee reactions (Hackman & Oldham, 1975). These two dimensions are as follows:

- (1) Feedback from agents. This refers to the clear feedback the individual receives from supervisors and peers regarding their work performance.
- (2) Dealing with others. This dimension refers to the degree to which job requires the employee to work closely with others in completing work tasks.

The following three CPSs, mediate between the job dimensions and outcomes (Hackman & Oldham, 1975):

- (1) Experienced meaningfulness. The degree to which the employee experiences the job as meaningful, valuable and worthwhile.
- (2) Experienced responsibility. The degree to which the employee feels accountable and responsible for the work outcomes.
- (3) Knowledge of results. The degree to which the employee knows and understands how they are performing on a continuous basis.

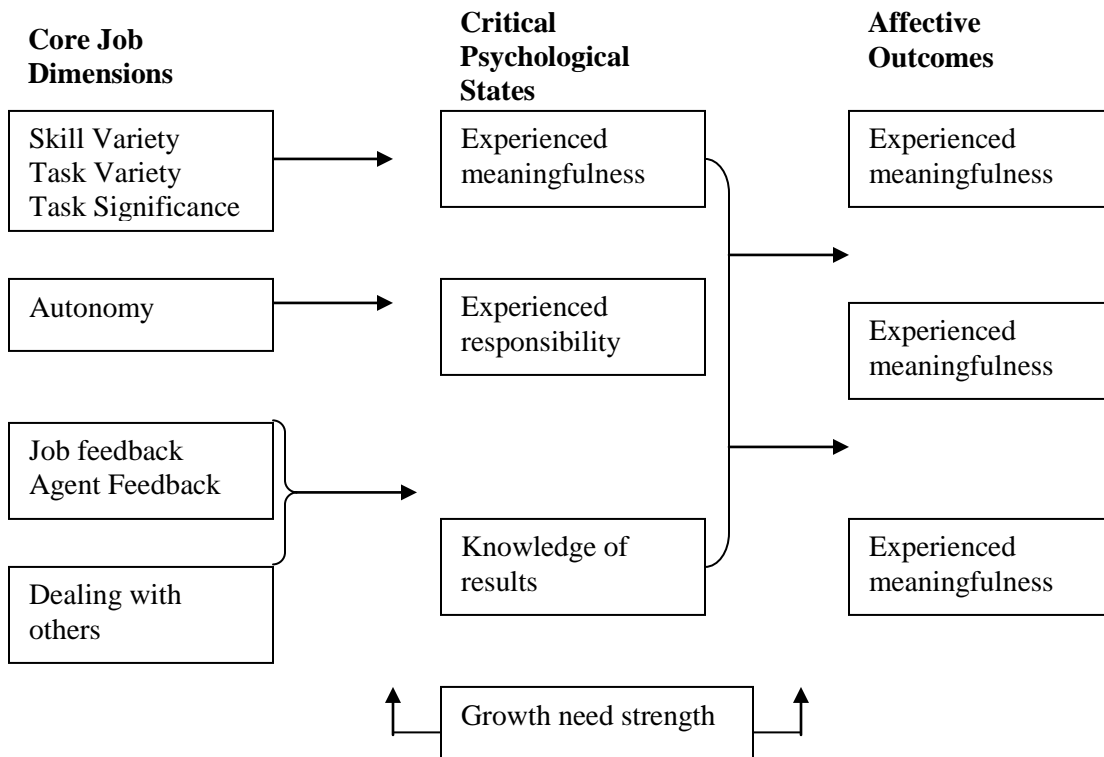
Positive personal and work outcomes are the function of the three psychological states that are produced in the employee. However, the personal attributes of the employee will determine how positively he/she responds to difficult and complex jobs, referred to as “growth need strength” (Hackman & Oldham, 1975; Lee-Ross, 1998). Work motivation, general satisfaction and growth satisfaction are identified as the affective outcomes and are discussed below (Lee-Ross, 1998).

- (1) High internal work motivation. This refers to the extent to which the employee is self-motivated to effectively perform the tasks associated with the job.

- (2) High general satisfaction. This outcome is concerned with the employee's overall satisfaction with his/her work environment.
- (3) High growth satisfaction. This refers to the employee's growth satisfaction.

Hackman and Oldham's job characteristic model, illustrating the core job dimensions, critical psychological states and affective outcomes, moderated by growth need strength, is depicted in figure 3.2 below.

**FIGURE 3.2**  
**JOB CHARACTERISTICS MODEL OF HACKMAN AND OLDHAM**



**Source:** Lee-Ross (1998, p. 69)

### **3.3.3 The influence of personal attributes on job satisfaction**

Research suggests that certain personal or demographic variables have an influence on job satisfaction in one way or another. The results of studies on work-related attitudes and/or behaviours and job satisfaction indicated that personal variables influence job satisfaction (Bilgic, 1998; Okpara, 2004).

Personal or background factors include variables such as gender, age, race, marital status, tenure, job level and qualification.

#### *3.3.3.1 Gender*

Today's work environment is characterised by diverse workforce, with increasingly more women entering the labour market. Hence, for organisations to effectively manage this diversity to ensure the optimal efficiency and performance of their employees, they need to identify how men and women differ in their attitudes to work. The literature on the gender-job satisfaction relationship is inconsistent - some studies indicate that males are more satisfied than females; others find the converse to be true with women being more satisfied than men, while others again find no difference in job satisfaction based on gender.

According to Spector (2005), most studies have found only a few differences in job satisfaction levels among males and females. Long (2005), however, postulates that there is a consistent positive and significant difference between the levels of happiness relating to work as reported by women relative to men.

In Loscocco's (1990) studies of job satisfaction and gender, female employees were reported as demonstrating higher levels of job satisfaction than their male counterparts. According to Loscocco's (1990) findings, women experience higher levels of job satisfaction because they value rewards that are readily available, for example, relationships with co-workers. These values are in contrast to what men value - they

desire autonomy and financial rewards, which are not as readily available, resulting in lower levels of job satisfaction.

This point of view is in contrast to that of Clark (1997) who made use of a large-scale British data set to investigate the relationship between gender and job satisfaction. He found that women reported significantly higher levels of most kinds of job satisfaction than men, even when individual variables such as values, which are important predictors of job satisfaction, were controlled. This difference in job satisfaction is attributed not to women describing their jobs as better than men's jobs but rather to the fact that they have lower expectations. It should be noted that this gender differential disappears for younger and more highly educated workers, those in professional positions and/or who had mothers in professional positions as well as those working in male-dominated work environments.

Other studies, however, have reported no significant difference in job satisfaction among male and female employees. To illustrate this point, in a study conducted by Pors (2003) on Danish and British library managers, no significant difference was found between males' and females' levels of job satisfaction. Alavi and Askaripur's (2003) finding in their research of Iranian government personnel was that there was no significant difference between the male and female employees.

Studies conducted in South Africa report similar findings to those in international studies. Carr and Human (1988) conducted a study in a textile plant in the Western Cape and reported no significant relationship between gender and job satisfaction. Similarly, Josias (2005) conducted research in an electricity utility in the Western Cape and found the relationship between gender and job satisfaction to be insignificant. Hlungwani's (2006) research in a pharmaceutical company on medical sales representatives also reported no significant relationship between job satisfaction and gender. Martin (2007) found no significant differences in the mean scores between the different gender categories for job satisfaction in his study on employee's perceptions of job satisfaction in a tertiary institution.

A South African study on quantity surveyors reported findings that are inconsistent with those in previous research in South Africa. Bowen and Cattell (2008) found the relationship between job satisfaction and gender to be significant, with a larger number of females reporting higher levels of job satisfaction than their male colleagues.

#### 3.3.3.2 *Tenure*

It is postulated that length of service in a job may be an indication of employees' levels of job satisfaction (Oshagbemi, 2000). The rationale is simply that those employees who are less satisfied with their jobs are likely to resign, whereas employees who are satisfied with their jobs will remain in these positions. This is consistent with studies indicating a negative relationship between job satisfaction and turnover and job satisfaction and absenteeism, thereby indicating a higher average level of satisfaction by employees with longer tenure in a particular organisation.

Some authors consider the relationship between tenure and job satisfaction to be u-shaped (Shields & Ward, 2001), in that changes in job satisfaction are the result of intrinsic satisfaction towards one's job over time (Ronen, 1978). Hence, tenure is related to satisfaction and dissatisfaction.

Oshagbemi (2000) conducted a study of university teachers in the UK, focusing on length of service in their present university as well as length of service in higher education as a whole. He found a positive correlation between overall job satisfaction and tenure among teachers who remained with their present university. When considering overall job satisfaction and tenure for teachers in higher education as a whole, job satisfaction scores are similar for the first two decades, with progressive increases over the next two decades. The conclusion that can be drawn from this study is that job satisfaction and tenure have a positive relationship. However, overall job satisfaction for those who remained in one institution was significantly higher than for those who "job-hopped".



Bilgic (1998) conducted a study on public and private sector workers in Turkey. Two time-related variables namely tenure with the present job and years of work experience were among the personal characteristics included in the study. He found a negative relationship between tenure and job satisfaction. He postulates that employees who work longer in an organisation possibly become disheartened with what is possibly perceived as inadequate rewards for the number of years they have been with the organisation. However, the other time-related variable, years of work experience, contributed positively to job satisfaction. The reason for this could be that people with more work experience feel that they can apply knowledge that they have acquired over the years and have more respect for their jobs (Bilgic, 1998).

Sarker, Crossman and Chinmeteepituk (2003) conducted a study on hotel employees in Thailand and found a positive relationship between tenure and job satisfaction. Overall, job satisfaction increases with an employee's length of service. They also found that job satisfaction is constant in the first 10 years of employment, but increases with each passing year. In his study on IT managers in Nigeria, Okpara (2004), found that the number of years of experience in the organisation has a positive impact on areas of job satisfaction as well as on overall job satisfaction. According to him, as managers settle into their jobs, their organisational commitment increases and they seem to like their job more.

In a study conducted in South Africa, Josias (2005) found an inverse relationship between tenure and job satisfaction, which is inconsistent to the above findings, but in line with findings of research conducted by Lambert, Hogan, Barton and Lubbock (2001). They found that employees who had been with the organisation for a long time were less satisfied than employees who had been with it for only a short period.

Some studies have also found that there to be no significant relationship between tenure and job satisfaction (Alavi & Askaripur, 2003). Studies conducted in South Africa by Hlungwane (2006), Martin (2007) and Bowen and Cattell (2008) report similar findings

to those of Alavi and Askaripur (2003), with no significant relationship being reported between tenure and job satisfaction.

Possible reasons for the various findings in studies on tenure and job satisfaction could be linked to employees' career stage, organisational hierarchy and acculturation. As employees reach the end of their careers, they have achieved their professional goals and start to disengage as they prepare for retirement and focus on personal rather than work goals. As personal goals become more important to these individuals, professional achievements and recognition becomes less significant. Modern organisations are characterised by flat structures that present few opportunities for managerial advancement (Kavanaugh, Duffy & Lilly, 2006). This leads to employees plateauing, reaching a point in their careers where there is a low likelihood of upward hierarchical movement, which, according to Kavanaugh et al. (2006) is associated with low levels of job satisfaction.

Okpara (2004) holds that the longer employees remain with an organisation, the more settled and committed they are to their jobs and the more they like their jobs.

#### 3.3.3.3 *Race*

According to Friday and Friday (2003), race plays a role in employees' degree of job satisfaction. Organisations would therefore benefit from understanding what the differences are in the attitudes, beliefs, values and behaviours of their workforce, because these are likely to influence motivation and productivity levels.

From the literature it is clear that the results of studies investigating the relationship between race and job satisfaction are inconsistent (Friday & Friday, 2003), with some studies stating that white workers are more satisfied than black workers (Davis, 1985; Gold, Webb & Smith, 1982; Greenhaus, Parasuaman, & Wormly, 1990; Tuch & Martin, 1991) and others reporting a higher degree of job satisfaction of black workers over their

white colleagues (Brenner & Fernsten, 1984; Gavin & Ewen, 1974, Jones, James, Bruni & Sell, 1977).

In their study on law enforcement officers, Friday and Friday (2003) hypothesised that there would be a difference in job satisfaction between the racioethnic employees. The hypothesis was supported, with significant differences reported on satisfaction with co-workers, promotion and the work itself.

In South Africa, race is a crucial variable increasingly more black (African, Coloured and Indian) individuals are entering the workforce, resulting in organisations having to manage a diverse group of employees. Bowen and Cattell (2008) reported a significant difference in the race and job satisfaction relationship, with white employees reporting higher levels of job satisfaction than their “non-white” counterparts. In addition, Luddy’s (2005) study on employees in a public health institution in the Western Cape found a significant relationship between race and job satisfaction.

Not all studies revealed a significant relationship between race and job satisfaction. In a study on healthcare personnel in the USA, race did not have a significant influence on job satisfaction (Kavanaugh et al., 2006).

Studies conducted in South Africa by Hlungwane (2006) and Martin (2007) reported similar findings to those of Kavanaugh et al. (2006) and found no relationship between job satisfaction and race.

#### *3.3.3.4 Job level*

There are hardly any studies investigating whether job satisfaction increases with upward hierarchical mobility (Oshagbemi, 1997; Oshagbemi, 2003).

According to Ronen (1978), job satisfaction increases with job level. Similarly, Near, Rice and Hunt (1978) found that occupational level was the strongest predictor of job

satisfaction. Studies conducted by Mowday, Porter and Steers (1982) and Saal and Knight (1988) also found that employees at higher levels in the organisation report higher job satisfaction than employees in the lower hierarchical positions.

More recent studies support previous research findings that there is a positive relationship between job level and job satisfaction. Kline and Boyd (1991) postulate that employees at the higher levels of the organisation report higher levels of job satisfaction. Miles, Patrick and King (1996) present similar findings, reporting job level to be a significant predictor of employees' level of job satisfaction. In addition, these authors postulate that job level moderates the communication-job satisfaction relationship.

However, research conducted by Herman and Hulin (1973) found that there were only certain dimensions of the job where higher level employees reported higher levels of job satisfaction. Frances (1986), however, found that higher-level employees reported less satisfaction than lower level employees.

Kollarik and Mullner (1975) conducted a study in a Czechoslovakian plant to investigate the relationship between organisational variables and managerial levels and found that levels of job satisfaction were influenced by decision making and jurisdiction for upper-level employees and that self-actualisation and feelings of contentment influenced the job satisfaction levels of lower-level employees. In Kline and Boyd's (1991) study of private sector managers, the research on the relationship between job level and job satisfaction had mixed findings. These authors found that the higher one is in the organisation, the more satisfied one will be with the company and with pay, but less satisfied with promotional opportunities.

Saal and Knight (1988) suggest the following reasons for the positive job level-job satisfaction relationship:

- Higher-level positions are generally more challenging and more complex.

- Higher-level positions offer better pay, fringe benefits and promotion opportunities.
- Higher-level positions allow employees to exercise more autonomy and decision making and offer increased responsibility.

It is clear from the literature that job level is a reliable predictor of job satisfaction, with workers at the higher levels of the organisation generally reporting higher levels of job satisfaction than employees at the lower levels (Oshagbemi, 2003).

#### 3.3.3.5 *Employee status*

According to Ang and Slaughter (2001), organisations have significantly increased their use of employing contract workers in information systems companies. Understanding how employment status influences employees' attitudes and behaviours for organisational success is critical because of the key role they play in service delivery (Cho & Johanson, 2008).

In a study conducted by Movashi and Terborg (2002) in a call centre environment, no differences were found between permanent and contract employees. Cho and Johanson's (2008) study involving restaurant employees and contractors found that employee commitment and organisational commitment on organisational citizenship behaviour among contractors was higher than that of permanent employees. Similarly, contractors in an information systems organisation perceive their work environment to be more favourable than permanent employees (Ang & Slaughter, 2001).

#### 3.3.3.6 *Age*

Even though this variable is not included in this study, it is worthwhile discussing the age-job satisfaction relationship, especially from a South African perspective. According

to Robbins et al. (2003) there are three reasons why the age-job satisfaction relationship is important. These are as follows:

- (1) There is a belief that job satisfaction declines with age. Although this is not necessarily true, those who believe it, will act on it.
- (2) The workforce is aging in Japan, Europe and the USA. However, with the impact of HIV/AIDS in South Africa, there is a possibility that there will be a shortage of skilled entry-level and middle management employees thereby forcing organisations to train older workers.
- (3) Legislation prohibits mandatory retirement and unfair discrimination say, on the basis of age. The result is that organisations should start to consider the role of older workers in the company.

Research on the relationship between age and job satisfaction has produced mixed and generally inconclusive results (Okpara, 2004). However, most studies seem to postulate a positive correlation between job satisfaction and an increase in age. Older workers tend to be more satisfied than their younger colleagues (Okpara, 2004; Clark, Oswald & Warr, 1996; Rhodes, 1983). In an extensive review of the literature, Rhodes (1983) analysed the results of eight studies that investigated the relationship between age and job satisfaction. He concluded that there is a positive relationship between age and overall job satisfaction.

According to Clark et al. (1996), earlier research suggested that the relationship between age and job satisfaction was linear - younger employees were less satisfied with their jobs, but this increased with age (Doering, Rhodes & Schuster, 1983; Janson & Martin, 1982; Kalleberg & Loscocco, 1983; O'Brien & Dowling, 1981; Quinn & Staines, 1979; Weaver, 1980; Wright & Hamilton, 1978).

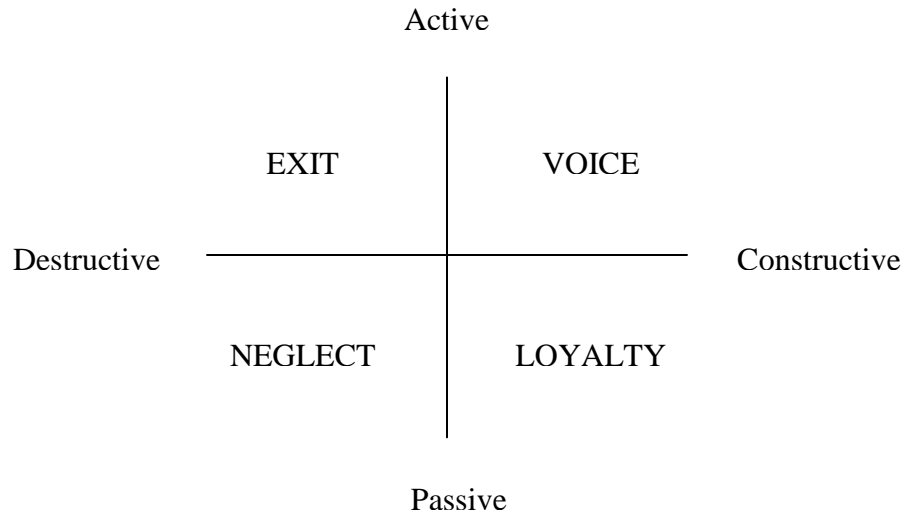
This is consistent to Al-Ajmi's (2001) study on male managers in the oil industry in Kuwait. He found that age did influence overall job satisfaction, with managers between 31 and 45 years of age reporting higher levels of overall satisfaction than managers 30 years and younger. A study by Cimete, Gencalp and Keskin (2003), reported that nurses in the age group of 40 years and older were more satisfied with their jobs overall and that younger nurses were the least satisfied. However, Clark et al. (1996) postulate that the relationship between age and job satisfaction is u-shaped, declining from a moderate level during the initial employment years and then steadily increasing up to retirement.

Not all studies are consistent with the above views and have found that age does not significantly explain the variance in job satisfaction levels (Alavi & Askaripur, 2003; Siu, 2002). South African studies seem to support this view, reporting no significant relationship between age and job satisfaction (Carr & Human, 1988; Hlungwane, 2006; Josias, 2005; Martin, 2007).

### **3.4 JOB DISSATISFACTION**

When employees are dissatisfied, they tend to express their dissatisfaction in a number of ways (Robbins & Judge, 2007). Employees' responses to dissatisfaction may differ along two dimensions - constructive/destructive and active/passive as represented in the figure below.

**FIGURE 3.3**  
**THE EXIT-VOICE-LOYALTY-NEGLECT FRAMEWORK OF JOB**  
**DISSATISFACTION**



**Source:** Robbins & Judge (2007, p. 90)

- Exit. This refers to the employee leaving the organisation, either by finding a new job or resigning.
- Voice. This involves employees trying to improve the situation actively and constructively through discussions with superiors or other relevant parties.
- Loyalty. This involves employees hoping that the situation will improve and includes them speaking well of the organisation and trusting that management will make positive changes.
- Neglect. Employees will tend to let the situation worsen through absenteeism or lateness, reduced effort and an increase in mistakes in the workplace.



### **3.5 CONSEQUENCES OF JOB SATISFACTION**

Job satisfaction is a desired outcome, not only for individuals, but also for society as a whole (Luthans, 2005). Organisations will also benefit from understanding if there is any relationship between employee levels of job satisfaction and outcome variables, such as employee and organisational performance.

A number of studies have investigated the relationship between job satisfaction and performance, job satisfaction and absenteeism and job satisfaction and turnover (Robbins et al., 2003).

#### **3.5.1 Job satisfaction and performance**

Even though most people assume that there is a positive relationship between job satisfaction and performance, empirical findings do not support this notion (Luthans, 2005). It is believed that this view is based on conclusions drawn by the researchers in the Hawthorne studies, which reported that employees tend to be productive if they are happy. To this end, paternalistic initiatives such as bowling, company picnics and the like were implemented (Langton & Robbins, 2007; Robbins et al., 2003).

Extensive research has been conducted on the influence of job satisfaction on performance or productivity, but it remains a controversial issue (Ivancevich & Matteson, 2005). A vast number of studies reported a positive relationship between job satisfaction and performance (Caldwell & O'Reilly, 1990; Cranny et al., 1992; Kreitner & Kinicki, 2001; Spector, 1997), but the correlation is weak (Iaffaldano & Muchinsky, 1985; Petty, McGee & Cavender, 1984). According to Robbins et al. (2003), only 2 % of the variance in output can be accounted for by employee satisfaction.

Organisational variables are believed to have a moderating influence on the satisfaction-performance relationship, the most important being rewards. If individuals receive rewards for good performance and these rewards are considered equitable for the work

done, the individual is likely to be satisfied, which is likely to result in improved performance (Luthans, 2005).

It should be noted, however, that when the job satisfaction-job performance relationship is considered from an organisational perspective, it appears that those organisations with more satisfied employees are generally more effective than those with less satisfied employees (Luthans, 2005; Robbins, et al., 2003). According to these authors, the reason for this is that studies have focused on the individual and not the organisation and as a result, complex work processes and interactions have not been taken into account.

### **3.5.2 Job satisfaction and absenteeism**

A number of studies have investigated the relationship between job satisfaction and absenteeism because staying away from work may be regarded as a method of withdrawing from a stressful work environment (Josias, 2005).

Research indicates that there is an inverse correlated relationship between job satisfaction and absenteeism. This means that when satisfaction is high, absenteeism is low, and when satisfaction is low, absenteeism is high (Luthans, 2005; Ivancevich & Matteson, 2005; Robbins et al., 2003). Although evidence suggests a weak relationship between satisfaction and absenteeism, it can be assumed that absence from work is the result of dissatisfaction with one's job (Anderson, 2004; Hardy, Woods & Wall, 2003; Luthans, 2005; Robbins, 1998).

However, even though it does make sense that employees, who are dissatisfied at work, are more likely to miss work, absenteeism is a complex variable and other factors influence this relationship (Ivancevich & Matteson, 2005; Robbins, 1998; Robbins et al., 2003). Hence, employees may be absent from work for reasons not necessarily related to satisfaction. Variables may include family responsibility, genuine illness, interest in activities outside work, perception of job importance, sick pay versus well pay and liberal leave policies in organisations.

### **3.5.3 Job satisfaction and turnover**

According to Cascio (cited in Josias, 2005), turnover is the first way in which employees withdraw from organisations. Turnover has a significant impact on organisations, because it disrupts continuity in teams, departments and organisations and also has cost implications for the organisation (Saal & Knight, 1988).

Research on the relationship between job satisfaction and turnover revealed that there is a moderate negative relationship (Robbins, 1998). According to Luthans (2005), high levels of job satisfaction do not mean that turnover will be low, but suggest that it will help. As with absenteeism, other variables such as an employee's age, labour market conditions, alternative job opportunities and tenure with the organisation play a role in his/her decision to leave his/her current job (Luthans, 2005; Robbins, 1998; Robbins et al., 2003). Interestingly enough, an employee's level of performance seems to have a moderating influence on the satisfaction-turnover relationship, with satisfaction levels being less important for superior performers (Robbins, 1998). It is evident because these top performers receive pay increases, promotions and recognition and are praised by the organisation in order to retain them; they tend to stay regardless of their satisfaction levels (Robbins et al., 2003).

## **3.6 MEASURING JOB SATISFACTION**

The concept of job satisfaction is extremely broad because it includes all the characteristics of the job as well as the characteristics of the work environment which employees find rewarding, fulfilling and satisfying or which they find frustrating or unsatisfying (Churchill, Ford & Walker, 1974; Snipes et al., 2005). Robbins (1998) concurs with the above, stating that an individual's job involves more than only the obvious activities associated with the particular job. It includes factors such as interacting with colleagues, adhering to organisational policies and rules and achieving performance goals. Hence an employee's assessment of his/her level of satisfaction or dissatisfaction is a multifarious summation of various job elements.

Snipes et al (2005) share the above view and postulate that operationally job satisfaction consists of a number of facets such as satisfaction with the supervisor, work, pay, advancement opportunities, co-workers and customers.

Saura, Contri, Taulet and Velazquez (2005), hold that measuring job satisfaction is significant for organisations for two reasons. Firstly, job satisfaction can explain a range of employee behaviours relevant to the work environment such as loyalty or motivation. Secondly, these authors believe that job satisfaction relates to company variables including quality, efficiency, productivity and consumer evaluation of the service.

According to McKenna (2000) and Khandelwal (2003), there are three ways to measure job satisfaction; paper-and-pencil tests, critical incidents and interviews. The paper-and-pencil test is the most commonly used method and involves scales that are standardised and tested using norms. These norms are useful for providing information on groups and industries and for comparison purposes (Khandelwal, 2003). The critical incident method requires participants to recall incidents that were particularly satisfying and dissatisfying to them. Their responses are then examined and underlying themes identified (Khandelwal, 2003). This method is extremely time-consuming with the likelihood of respondent bias (McKenna, 2000). Interviews allow for in-depth questioning in order to understand the causes and nature of job satisfaction and also offer respondents wider scope regarding their responses, and they afford the interviewer the opportunity to probe further (Khandelwal 2003; McKenna, 2000).

Individuals can express feelings about certain aspects or facets of their job (Fincham & Rhodes, 2005). This approach to measuring job satisfaction is referred to as the facet approach, its aim of being to individually assess how employees feel about various aspects of the general job satisfaction domain such as rewards (pay or fringe benefits), job conditions, people on the job (supervisors and co-workers), communication, security, promotion opportunities and the work itself (Robbins, 1998; Spector, 2005; Snipes et al., 2005). Each facet is relatively homogenous and discriminately different from the other.

Another approach that Robbins (1998), Khandelwal (2003) and Snipes et al (2005) suggest to measuring job satisfaction is directly asking individuals how they feel about their jobs overall. This global approach explains job satisfaction as a single, overall feeling an individual has about his/her job (Fincham & Rhodes, 2005; Robbins et al., 2003; Spector, 2005). Statements that directly measure job satisfaction are presented to the respondents and they are required to rate their responses on a Likert-scale (Khandelwal, 2003). Examples of statements that could be asked include the following: “I am satisfied with my job” or “I find my job interesting”. According to Robbins (1998), individuals can also be asked to combine their reactions to various aspects of the job in a single integrated response. For example, employees could be asked: “All things considered, how satisfied are you with your job?”

It is obvious that by investigating the various facets of job satisfaction and adding the responses of each dimension will provide a more accurate evaluation of job satisfaction. However, research has shown that when comparing the one-question global rating with the longer job-facet method, the global rating method appears to be more accurate (Robbins, 1998). A possible reason for this is that because job satisfaction is such a broad concept, a single question encompasses all facets.

### **3.6.1 Attitudinal measurement of job satisfaction**

As mentioned earlier in this chapter, job satisfaction is an attitude that an individual has about his/her job. This may be positive or negative. Attitudes such as job satisfaction are learnt and may change (Khandelwal, 2003). Attitudes have three components, namely cognitive, affective and behavioural. The cognitive component refers to the opinion or belief segment of an attitude. The affective component is the emotional or feeling segment of an attitude, while the behavioural component refers to the intention to behave in a particular way (Robbins & Judge, 2007).

This study defines job satisfaction as the feeling an individual has about his/her job, and therefore is concerned with measuring the affective aspect of job satisfaction. This was

done by including a number of statements in a questionnaire measuring job satisfaction. The respondents were required to answer these statements by indicating the degree to which they agreed or disagreed with them using a five-point Likert scale. The statements included in the job satisfaction dimension are listed below:

- I feel positive about my future in the organisation.
- I find my work interesting.
- I find my work challenging.
- I feel that the organisation cares for its employees.
- The organisation retains its best employees.

It is often believed that cognition causes affect, which causes behaviour. However, these components are closely related and difficult to separate (Robbins & Judge, 2007). Understanding employees' attitudes towards work outcomes such as job satisfaction is vital for organisations because it gives them insight into how employees might behave. For example, if an employee has a negative feeling (affect) about his/her job, this could result in him/her looking for alternative employment (behaviour). This attitude may lead to increased turnover and decrease the organisation's retention rate. Although the cognitive and behavioural components are important in understanding attitudes such as job satisfaction, this research study did not include these key components.

### **3.7 CHAPTER SUMMARY**

This chapter began with the rationale and motivation for studying job satisfaction and an overview of the conceptualisation of the construct. The chapter discussed various aspects of job satisfaction such as how to define it, what influences it as well as the various models associated with job satisfaction. The role of personal attributes such as gender,

race and tenure were discussed as well as job dissatisfaction. The consequences of job satisfaction were then explained and the chapter concluded with the measurement of job satisfaction.

### **3.8 INTEGRATION OF ORGANISATIONAL CLIMATE AND JOB SATISFACTION**

Chapter 2 and this chapter conceptualised the constructs of organisational climate and job satisfaction. The aim of this section to investigate the theoretical relationship between these two constructs in order to formulate the empirical hypotheses and provide a framework in which to interpret the results of the empirical research.

On the strength of numerous studies in the literature on organisational climate and job satisfaction, it is clear that these are popular concepts and research subjects in the various psychology disciplines.

Johannesson (1973) and Guion (1973) questioned the independence of climate and satisfaction, suggesting that organisational climate was redundant, in their opinion indistinct from the concept of job satisfaction. According to them, climate researchers borrowed items from established job satisfaction measures and used similar job satisfaction methods to measure organisational climate. A number of other researchers, however, view organisational climate and job satisfaction as related but distinct constructs (Al-Shammari, 1992; Keuter, Byrne, Voell & Larson, 2000). Organisational climate focuses on organisational/institutional attributes as perceived by organisational members, while job satisfaction addresses perceptions and attitudes that people have towards and exhibit in their work. A number of research studies support this view. In their field experiments, Litwin and Stringer (1968) created different climates, and discovered that these contributed to different levels of employee satisfaction. As such, climate was viewed as a determinant of job satisfaction rather than being made redundant by the construct.

The results of a study by Friedlander and Margulies (1969) showed that organisational climate is a significant determinant of job satisfaction, reporting that individuals with different work values were more satisfied in different work climates and that individuals' satisfaction with various aspects of their work depended on certain combinations of



climate components. In a study by Taylor and Bowers on 284 workgroups across 15 organisations, they found evidence suggesting that climate can be regarded as more a cause of than a result of satisfaction (cited in LaFollette & Sims, 1975). The large sample size provides evidence to support the climate-satisfaction relationship. Another study conducted by Hand, Richards and Slocum (cited in LaFollette & Sims, 1975) also underscores the climate-satisfaction relationship. These authors reported that managers with positive perceptions of organisation climate had greater acceptance of self and others than managers with less positive climate perceptions.

LaFollette and Sims (1975) found that although climate and satisfaction are related, the relationship between climate and performance was different to the satisfaction/performance relationship, thereby supporting previous research that climate and satisfaction are indeed distinct. Schneider and Snyder's (1975) study also provides support for the distinction between climate and job satisfaction, with one of the main findings of the research being that employees reported a higher level of agreement on the organisation's climate than the level of job satisfaction. Other studies also demonstrated the consistent and impressive relationship between climate and satisfaction (Batlis, 1980; Lawler, Hall & Oldham, 1974; Pritchard & Karasick, 1973; Waters, Roach & Batlis, 1974).

According to McGregor (1960), organisational characteristics such as its purpose, structure, the tasks to be performed, opportunities for promotion and the political nature of the work environment impacted on how people felt about their jobs. This is because people come to the work environment with specific attitudes, needs and aspirations, which are influenced, positively or negatively by the organisational climate. The work environment can be seen as a social activity, which affects quality of life which is determined by experiences on the job. According to Gini (cited in Peek, 2003), the general climate in an organisation, regardless of where one works, the job one does or how one works, will have an impact on one's life. The degree to which the work environment affects people is obvious.

Researchers have been interested in understanding how employee's perceptions of the work environment influence their level of job satisfaction since Mayo's (1933) studies at Western Electric. These studies found that environmental factors influence worker productivity and morale. Bisconti and Solomon (cited in Peek, 2003) reported that organisational climates that allowed a high degree of autonomy and nurtured relationships between peers, supervisors and subordinates result in more satisfied workers. Hackman and Suttle (cited in Peek, 2003) also reported that organisational climates that showed an interest in their employees, provided opportunities for them and recognised their accomplishments, resulted in their employees being more satisfied. In Ford's (cited in Peek, 2003) study of industrial engineers, organisational climate characteristics such as concern for the feelings of others impacted on job satisfaction. Similar results were found in a study conducted by Hopkins (cited in Peek, 2003), where a high regard for the feelings of others increased satisfaction.

Opportunities for employee advancement and development appear to be organisational characteristics that have an influence on job satisfaction. According to Schlesinger (cited in Peek, 2003), a work environment that encourages continuous learning and provides new opportunities influences job satisfaction. Similarly, Brief (1998) found that salary, benefits and advancement opportunities were components of organisational climate that had a direct influence on job satisfaction, while Freeman and Rodgers (cited in Peek, 2003) found that people desire plenty of opportunities for advancement in addition to an environment that is not political and encourages open communication. All of these studies support earlier research by Barbash (cited in Peek, 2003) on the influence of individual development opportunities on job satisfaction.

Recent studies have also found similar results for the climate/satisfaction relationship, where various organisational climate characteristics can lead to the satisfaction of organisational members (Aarons & Sawitzky, 2006; Fisher, Milner & Chandraprakash, 2007; Gratto, 2001; Lephoko, Bezuidenhout & Roos, 2006; Peek, 2003).

The results of the above studies indicate that many positive correlations have been found between organisational climate and job satisfaction. Despite the diverse and competing needs of organisational members, these studies highlight that successful organisations try to find ways to nurture a climate in which individuals can succeed.

## **CHAPTER 4**

### **THE EMPIRICAL RESEARCH**

The aim of this chapter is to discuss the empirical research with the focus on steps 1 to 5 as described in chapter 1. The measuring instrument and the statistical processes used will be discussed. In addition, the population and sample will be presented and the research hypotheses formulated. The chapter will conclude with a chapter summary.

#### **4.1 POPULATION AND SAMPLE**

The population of a study involves all the elements or individuals represented in a research project. A sample, however, is any number of individuals in the population that contains essentially the same variations present in the population (Kerlinger, 1986). The main aim of sampling is to select a set of individuals from a population in a way that accurately describes the population from which the sample was drawn. Two types of sampling methods can be identified namely probability and nonprobability sampling. According to Kerlinger (1986), probability sampling increases the likelihood of achieving the primary aim of sampling because every participant has an equal chance of being selected. Random sampling is regarded as the simplest form of probability sampling. In nonprobability sampling however, individuals selected do not necessarily represent the population. It is imperative that the sampling method used realises the goals of the research being conducted.

This research was conducted in three regions of a South African ICT organisation. The population for the present study was defined as the total number of permanent employees and project consultants in these three regions and included all levels of staff. This represented a population of 1 453 employees and consultants.

All the employees and consultants were invited to complete the questionnaire. Business meetings, scheduled training dates, annual and sick leave could have resulted in some

employees and consultants not having the opportunity to complete the questionnaire. With the business operational requirements in mind, it was decided that the questionnaires would be accessible on-line for a period of one month to give all individuals an equal chance of completing the questionnaire. On the basis of this, it can be stated that a convenience (nonprobability) sampling approach was utilised in this study.

According to Cresswell (2003), 30% is deemed an acceptable sample size for most research studies because it allows generalising to the population. In this research, a sample of 696 permanent employees and project consultants completed the questionnaires. This represented a sample of 47,9% of the total population.

## **4.2 DESCRIPTION OF THE ORGANISATIONAL CLIMATE SURVEY**

The organisational climate questionnaire used in this study was developed by an external consulting company that was contracted to conduct the climate survey in the organisation. The basic questionnaire provided by the consulting company was adapted (by adding dimensions and statements) in order to meet the requirements of the organisation concerned. This was done by conducting focus groups and holding interviews with key stakeholders. In addition the human resource executive, in conjunction with the regional human resource managers in the company reviewed the questionnaire and made final amendments. The final questionnaire consisted of 12 dimensions and 70 items with two open-ended questions as well as biographical information.

The aim of the questionnaire was to measure organisational climate on a total level as well as the different components of organisational climate which could impact on job satisfaction. Organisational climate components assessed by the questionnaire included facets such as the leadership and trust of the organisation, employees' perception of the image of the organisation and the degree of employee wellness.

#### **4.2.1 Description and scoring of the organisational climate questionnaire**

The organisational climate questionnaire consisted of 70 items used to measure 12 dimensions of organisational climate. Each of the dimensions comprised a number of statements combined to provide a total score for each dimension. In addition, a total organisational climate score was calculated to provide an overall assessment of the organisational climate.

The questionnaire utilised a Likert-type scale, which was designed to elicit information about a specific attitude or perception. The individual was presented with five alternative responses for each statement. The final score for each dimension was obtained by acquiring a mean score for each of the dimensions.

The numbers of the scale are defined as follows:

1 = Strongly disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly agree

The organisational climate questionnaire (see appendix A) used in this research consisted of 12 dimensions, of which 11 examined satisfaction with various components of organisational climate and one dimension that specifically measured job satisfaction (see table 2.3). The research analysis was based on the proposition that satisfaction with the different components of organisational climate would contribute to overall job satisfaction. Figure 4.1 provides a visual representation of the relationship between organisational climate and job satisfaction.

**FIGURE 4.1**  
**DIMENSIONS OF ORGANISATIONAL CLIMATE**



#### **4.2.2 Sociodemographic components of the questionnaire**

The questionnaire used in this research consisted of two sections – section 1 included biographical information, while section 2 consisted of dimensions and statements (see appendix A). The biographical section of the questionnaire required participants to supply the following personal information:

- Years of service
- Gender

- Race
- Job level
- Employee status

The purpose of including biographical information in the questionnaire was to determine whether biographical variables had an influence on organisational climate and job satisfaction.

#### **4.2.3 Attendance of diversity management training**

In modern organisations, diversity is vital in order to maximise organisational effectiveness (Kang & Newell, 2008). In addition, the “talent war” has shifted organisations’ focus to retaining their talented employees and ensuring that these key individuals are satisfied in the work environment. In Skuturna’s (2006) paper on employee engagement and diversity satisfaction, he quotes HR Solutions CEO, Kevin Sheridan, who states that organisations can no longer afford to brush off the importance of diversity.

A study by LaBeaume (cited in Skuturna, 2006) supports the significance of diversity in organisations and found a significant relationship between overall satisfaction and satisfaction with diversity. In Kang and Newell’s (2008) study on assessing the importance of two diversity constructs (diversity attitude and diversity climate perceptions) on job satisfaction and turnover intentions, the results indicated that both diversity constructs had a positive relationship with job satisfaction. The study also found that job satisfaction had a negative relationship with turnover intentions.

In South African organisations, the workforce is becoming more diverse with increasingly more women and African individuals entering the labour market. Hence,



diversity management initiatives are imperative to enable these organisations to recruit and retain key talent as well as manage them to ensure future organisational growth.

One of the three regions that formed the basis of the research sample was offered the opportunity of attending a diversity management training workshop. Of a total of 258 respondents, 155 respondents attended the workshop and 103 respondents did not.

The influence of diversity management training on job satisfaction and organisational climate will be assessed as an additional component of the analysis.

#### **4.3 SELECTING AND JUSTIFYING THE USE OF THE MEASURING INSTRUMENT**

For the purposes of this study, questionnaires were deemed appropriate data gathering instruments. According to Weiers (as cited in Josias, 2005), utilising questionnaires has the following benefits:

- The cost of administering questionnaires is relatively low.
- The way the questionnaire is structured makes it relatively easy to analyse the information obtained via the questionnaire.
- The questionnaire allows respondents sufficient time to provide accurate answers.

With the growth of the internet, electronic questionnaires have become increasingly popular. According to Truell (2003), there are various approaches to conducting surveys online; embedding the survey in email, using the internet or combining the two approaches. This research employed the email contact-web response approach (Carbonaro, Bainbridge & Wolodko, 2002), where the subjects are initially contacted by email, and then directed to a URL where they locate the web questionnaire that is to be

completed. This option is unobtrusive and does not require the researcher to target his/her respondents individually.

A major concern with using web form questionnaires is the technical difficulties which could arise as a result of respondents having different hardware platforms and web browsers. Technical problems aside, there are clearly a number of advantages to using web form questionnaires in survey research (Carbonaro et al., 2002):

- Security methods can be put in place to help prevent multiple responses and support anonymity.
- Data can generally be processed immediately with less technical intervention.
- The submitted data can be routed directly into a database where one record represents one respondent's questionnaire data.
- Questions can be filtered to ensure data integrity, such as missing data or failure to complete subsections of the survey instrument.

Organisational climate is something that individuals perceive in an organisation. The measuring instrument used in this research therefore had to be structured in such a way that data on individuals' perceptions were gathered. The measuring instrument can be described as a self-report questionnaire. This means that the participants had to indicate the degree to which they agreed or disagreed with each statement in every dimension in the questionnaire. A major criticism of self-report measures relates to whether respondents answer the survey questions honestly. In this study, the participants may have been inclined to answer the statements on organisational climate and job satisfaction more positively for fear of being exposed by their managers or group members.

To control for this, the survey process was structured in such a way to encourage openness and honesty. The organisational climate survey was open to all employees, but

was optional. No employee was forced or coerced to participate in the survey. If participants in a survey remain anonymous, they are likely to provide honest responses. The participants in this study were assured of their anonymity and confidentiality in order to encourage honest responses. Finally, the respondents' data were aggregated and feedback given to the organisation.

#### **4.3.1 Administration of the questionnaire**

The questionnaire was a self-report inventory and could be administered electronically or paper-and-pencil format. Owing to the various geographical locations in which the employees and consultants were based, it was decided that the questionnaire would be made available to the respondents electronically via a web link, which could be accessed on their personal computers. In the event of someone not being able to connect to the web link, a hardcopy of the questionnaire was sent to them and returned via the organisation's internal mailing system.

Each respondent was required to complete the biographical information by ticking the relevant boxes and also required answering each of the 70, five-point Likert scale items in the questionnaire. All the items were formulated positively and then added and divided by the number of items to obtain the total organisational climate score. High scores indicated a positive organisational climate and high degree of job satisfaction.

### **4.4 DATA COLLECTION**

The decision to conduct organisational climate surveys in the organisation emanated from the human resources executive. Each region and competency had the responsibility of implementing and managing the survey if the business unit required it. The process was driven by the change management practitioner and the relevant human resource manager. The regional human resource manager was required to obtain permission from the relevant business executive to conduct the organisational climate survey in his/her designated area. Two weeks prior to the start of the study, the human resource manager

responsible together with the business leader, had to send out a communication about the survey and invite all staff (permanent employees and project consultants) to participate in it.

For operational reasons, group sessions were out of the question – hence the researcher’s decision to make the questionnaires available to participants via a web link. The web link was sent to all employees via email together with a covering letter detailing the purpose of the survey, the process that would be followed, confidentiality and anonymity issues as well as the fact that participation was completely voluntary. Employees and project consultants who were not able to connect to the web link could request an MS Word version of the questionnaire from their regional human resource manager. This version was sent to them via the organisation’s internal mailing system. Once the questionnaire had been completed, it could be faxed directly to the external consultant. The participants were not required to include their names on the completed questionnaire.

To assist data collection, departmental managers were requested to follow up with their respective employees and remind them to complete the questionnaire if they were willing to participate. Follow-up emails were sent to all participants as a reminder. The research was conducted over a period of one month to give all employees and project consultants’ sufficient time to complete the questionnaire.

Once the participants had completed the questionnaire, it was automatically sent to a data file, which was set up specifically for this purpose. On the last day of the survey, the data file with all the electronic responses and the manually completed questionnaires were forwarded to the external consultant.

#### **4.5 DATA PROCESSING AND ANALYSIS**

The responses of the participants in each region were captured on an Excel spreadsheet. The second step involved reviewing the questionnaires of the three participating regions and ensuring that only identical items were included prior to the analysis of the data. One

of the regions included additional biographical information and items on the questionnaire, which were omitted to ensure that the data used in the analysis were equal across regions. The responses of the 696 participants on the 70-item organisational climate questionnaire, together with the biographical data, were captured from the data file into a survey analysis software programme and verified.

The results were then imported into Statistical Package for the Social Sciences (SPSS) computer program for Windows version 15.0 to determine the findings of the study. A number of statistical methods were utilised in this research and can be divided into two broad categories - descriptive statistics and inferential statistics.

The sample demographics were obtained using analysis of the frequencies of respondents in each of the demographic categories of years of service, gender, race, job level and employment status. Total scores on each of the composite scores on the 12 dimensions of the survey questionnaire were examined using measures of central tendency, and the dimensions were assessed for normality using measures of skewness and kurtosis. A visual representation of the data will be provided by means of graphs and tables.

#### **4.5.1 Reliability and Validity of the Questionnaire**

Owing to the fact that the questionnaire used in this study was adapted specifically for the organisation, no previous studies had examined the reliability or validity of the questionnaire. Hence the analysis of the reliability and validity of the results would form a key component of the data analysis of the results.

##### *4.5.1.1 Reliability of the questionnaire*

Reliability refers to the consistency of measurement (Spector, 2000). A measuring instrument is therefore reliable when the same results are produced when the instrument is used in a different situation and administered to different groups at different times. An important reliability estimate to evaluate the reliability of scales is internal consistency. According to Cresswell (2003), this refers to whether items are consistent across different

constructs. Santos (1999) holds that because items within a particular scale are interrelated, it is necessary to know how well they items relate to one another.

In order to establish the reliability of items in each dimension, Cronbach's alpha coefficient was calculated for each dimension to ensure that the items included all had indices that indicated internal consistency. Cronbach's alpha coefficient is considered an "index of reliability associated with the variation accounted for the true score of the underlying construct" (Santos, 1999, p. 2). According to Nunnally (1978) and Spector (1997), an acceptable reliability coefficient is 0,70, however lower thresholds have been used in previous research.

Cronbach's alpha coefficients range in value from 0 to 1 - the higher the score, the more reliable the scale is (Santos, 1999).

#### *4.5.1.2 Validity of the questionnaire*

Validity relates to whether the measuring instrument used in a particular study measures what it intends to measures (Golafshani, 2003). A test's validity therefore indicates whether the test items used reflect the variables in the theoretical framework. There are two major forms of validity - external and internal validity (Cooper & Schindler, 2003). External validity relates to whether the research data can be generalised to the wider population, while internal validity has to do with the ability of the research instrument to measure what it is supposed to measure. According to Cooper and Schindler (2003), a widely accepted classification of internal validity consists of content validity, criterion-related validity and construct validity.

Construct validity is considered a never-ending process. It refers to the process of examining whether or not a test actually measures a theoretical construct or trait (Anastasi & Urbina, 1997). Hence, studies should continue to provide evidence of construct validity and only when studies of a test consistently lead to negative outcomes should the test be rejected.

Since the survey instrument for this study was adapted to meet the requirements of the organisation from which the data were obtained and no previous research studies were available that examine the validity of the questionnaire, this study will focus on examining the construct validity of the instrument through the use of a factor analysis to determine whether the 12 dimensions of the questionnaire can be replicated.

Factorial validity represents the extent to which a scale structure is empirically and theoretically justified. For a measure to demonstrate construct validity, its factor structure should comprise the theorised number and pattern of factors. In this study, 12 dimensions were expected to emerge from the data.

#### **4.5.2 The relationship between organisational climate and job satisfaction**

The hypothesised relationship between organisational climate and job satisfaction was examined using inferential statistics procedures. Inferential statistics allow the researcher to draw conclusions about a population from the sample of a particular study (Cooper & Schindler, 2003). Inferential statistics make it possible to test hypotheses by determining the statistical likelihood that the data reveal true differences. The inferential statistics relevant to this study include Pearson's product-moment correlation coefficient, multiple regression analysis, t-tests, and analysis of variance (ANOVA).

##### *4.5.2.1 Pearson's product-moment correlation coefficient*

According to Muchinsky (1993), correlation reflects the degree of linear relationship between two variables and highlights two elements - the direction and the strength of the relationship. A correlation coefficient ranges in value from -1,00 (which represents a perfect negative correlation) to +1,00 (which represents a perfect positive correlation). A 0,0 value represents a lack of correlation. The most commonly used instrument is Pearson's product-moment correlation coefficient.

This study was expected to find strong positive correlations between the dimensions of satisfaction and organisational climate measured by means of the organisational climate questionnaire and the dimension used to examine job satisfaction. It was also expected that higher levels of job satisfaction would result in positive scores on the organisational climate dimensions, and vice versa.

Results that are considered to be statistically significant may not necessarily be practically significant, and vice versa (Pallant, 2001). She postulates that it is dangerous to interpret data on the basis of their significance only because this could lead to a misrepresentation of the data. It is therefore necessary to describe the measure of association between the independent and dependent variables. This is achieved by utilising effect size or strength of association.

Effect size or strength of association indicates the relative magnitude of the differences between group means (Pallant, 2001). In other words, it relates to the extent to which the changes in the dependent variable are caused by changes in the independent variable. One of the most common effect size statistics is the Eta-squared value, which represents the proportion of variance of the dependent variable explained by the independent variable (Pallant, 2001). The Eta squared value ranges in value from 0 to 1, with ,01 indicating a small effect size, 0,06 a moderate effect size and values over 0,14 a large effect size (Pallant, 2001).

#### 4.5.2.2 *Multiple regression analysis*

Regression analysis is a statistical technique used to measure linear relationships between two or more variables (Hair et al., cited in Josias, 2005). Not only does it indicate how well a set of variables explains a dependent variable, but also gives the direction and size of the effect of the variables on the dependent variable (Neuman, cited in Josias, 2005).

In order to determine the degree to which different dimensions of organisational climate predict job satisfaction, a stepwise multiple-regression was used. This technique allows



the programme to select the independent variables it will enter, as well as the order in which they will be entered, based on a set of statistical criteria (Pallant, 2001).

### **4.5.3 Differences in groups for organisational climate and job satisfaction**

#### *4.5.3.1 Independent group t- test*

For the purposes of this study, t-tests were used to determine statistically significant differences between groups of the sample on the basis of gender (whether males or females reported higher levels of satisfaction), organisational level (whether participants at senior levels or staff level reported higher levels of satisfaction) and employee status (whether permanent employees reported higher levels of satisfaction than project consultants).

The t-test refers to a statistical technique used to compare the means of two groups and determine if a significant difference exists (Muchinsky, 1993). A typical example of the use of t-tests is for comparisons between groups of only two categories, such as males or female (gender).

#### *4.5.3.2 Analysis of variance (ANOVA)*

According to Muchinsky (1993), ANOVA is used to test for differences between two or more groups. In the present study, ANOVA was utilised to investigate differences in tenure (whether employees with longer or shorter tenure displayed higher levels of satisfaction) and race (whether the African, Coloured, Indian or White participants were more satisfied).

The Bonferroni test was used to control for the likelihood of a Type 1 error (rejecting the null hypothesis when it is actually true) and to indicate where the specific areas of difference lay. This involved setting a more stringent alpha level for each comparison in order to keep the alpha level across all settings at a reasonable level (Pallant, 2001).

#### **4.5.4 Influence of attendance of diversity management workshops on organisational climate and job satisfaction**

In order to assess the influence of the attendance of diversity management workshops on job satisfaction and organisational climate, ANOVA was used.

### **4.6 FORMULATION OF HYPOTHESES**

A research hypothesis had to be formulated on the relationship between organisational climate and job satisfaction in order to allow for the empirical testing of the relationship between these two variables.

The following research hypotheses address the objectives of this study:

#### **4.6.1 Hypothesis 1**

A 12-factor structure is expected to underlie the organisational climate questionnaire in order to support the 12 identified dimensions of the scale.

#### **4.6.2 Hypothesis 2**

There is a strong positive relationship between organisational climate and job satisfaction.

#### **4.6.3 Hypothesis 3**

Organisational climate dimensions that are perceived as personal to or have a direct impact on the individual will have a greater influence on job satisfaction than organisational climate factors that are perceived as external or influence the individual indirectly.

#### **4.6.4 Hypothesis 4**

Organisational climate and job satisfaction vary across the different biographical (race, gender) and organisational variables (job level, employee status, years of service and diversity awareness training).

### **4.7 CHAPTER SUMMARY**

This chapter discussed the rationale and aim of the organisational climate questionnaire, identified its dimensions and scale and discussed its administration. The population and sample were also reviewed. The methodology of the study was then discussed and issues of reliability and validity of the questionnaire addressed. The statistical analysis employed in this study was explained, its aim being to test the relationship between organisational climate and job satisfaction, the strength of correlations of independent biographical variables and dependent variables and the differences in groups relating to organisational climate and job satisfaction. The chapter concluded with the formulation of the research hypotheses.

Chapter 5 focuses on the results of the empirical study.

## **CHAPTER 5**

### **RESULTS OF THE RESEARCH**

The aim of this chapter is to report on and discuss the results of the research as depicted in step 6 of the empirical study detailed in chapter 1. The chapter commences with the presentation of the descriptive statistics of the sample. Thereafter, the results concerning the reliability and validity of the questionnaire will be reported and discussed. The focus will then shift to exploring the relationship between organisational climate and job satisfaction through inferential statistics in order to test the hypotheses formulated in chapter 4.

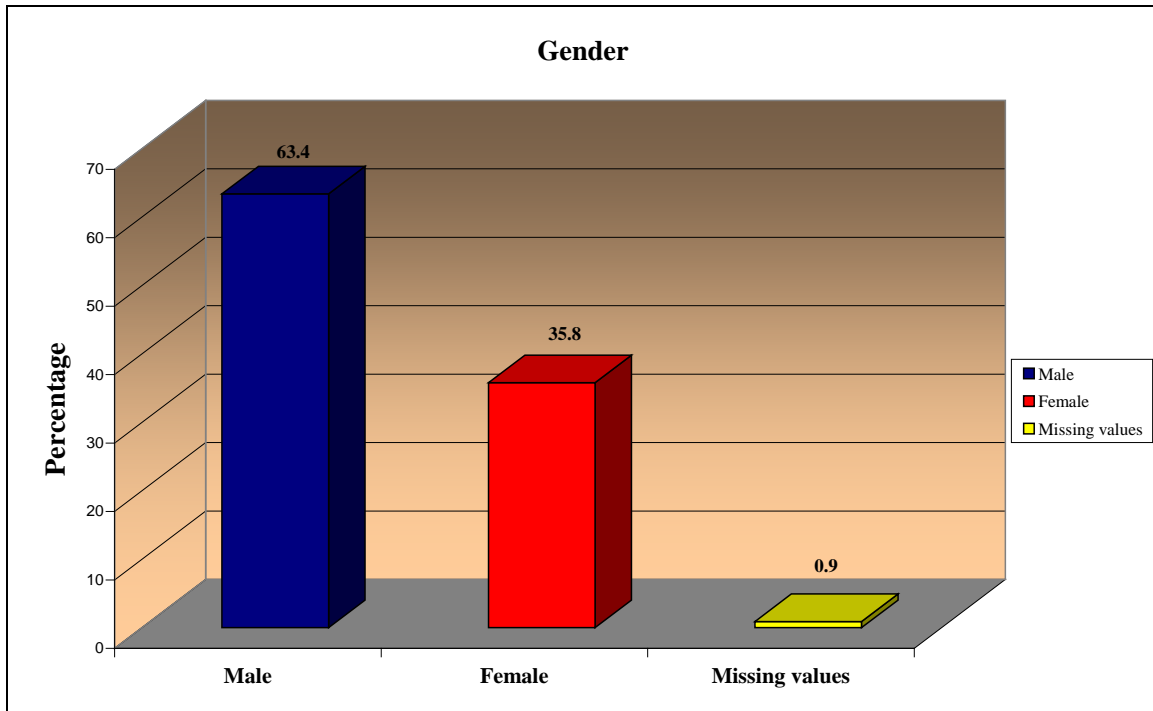
#### **5.1 DESCRIPTIVE STATISTICS**

In the section that follows, the descriptive statistics calculated for the sample are provided. The data gathered via the measuring instrument are summarised by making use of graphs to obtain an overall idea of the data and review the information and relationships that emerge.

##### **5.1.1 Biographic profile of the sample**

The biographical variables that are relevant in this part of the study include gender and race. The organisational variables include tenure, job level, employment status, regions and diversity awareness training. These will be represented graphically for each of the above-mentioned variables.

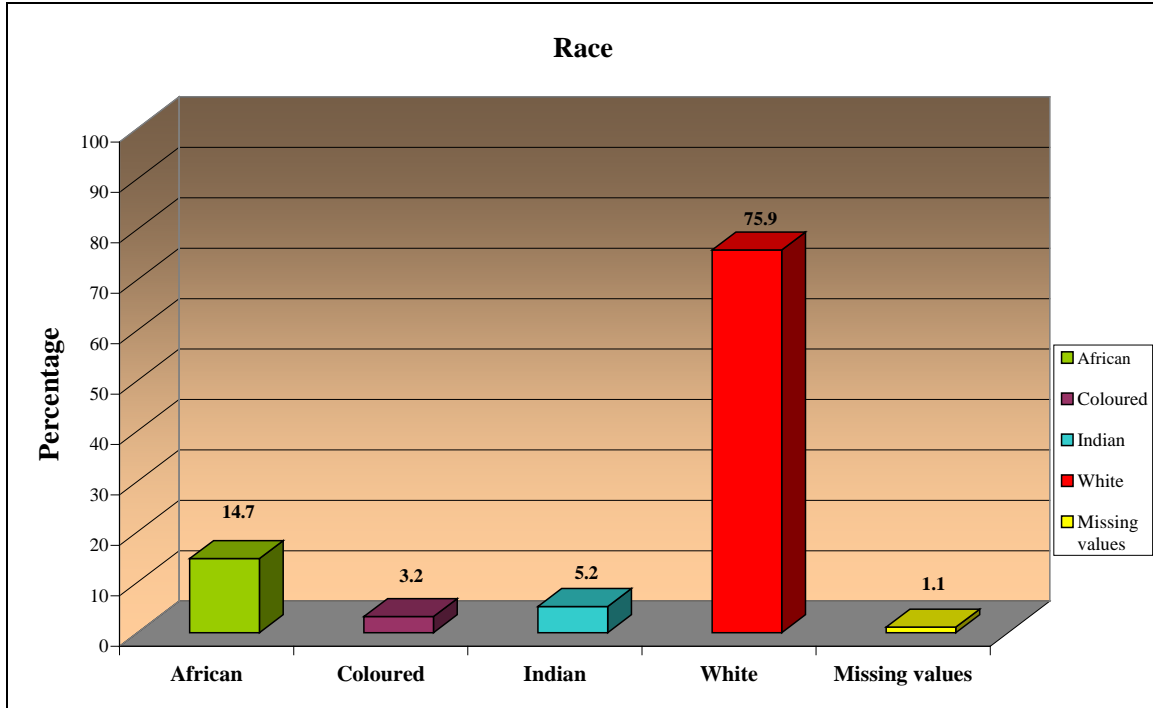
Figure 5.1 presents a graphical representation of the gender distribution of the sample.



**Figure 5.1: Sample split by gender**

As per the graphical representation, the majority of the respondents were male. More specifically, 63,4% (n=441) of the subjects were male and 35,8% (n=249) were female.

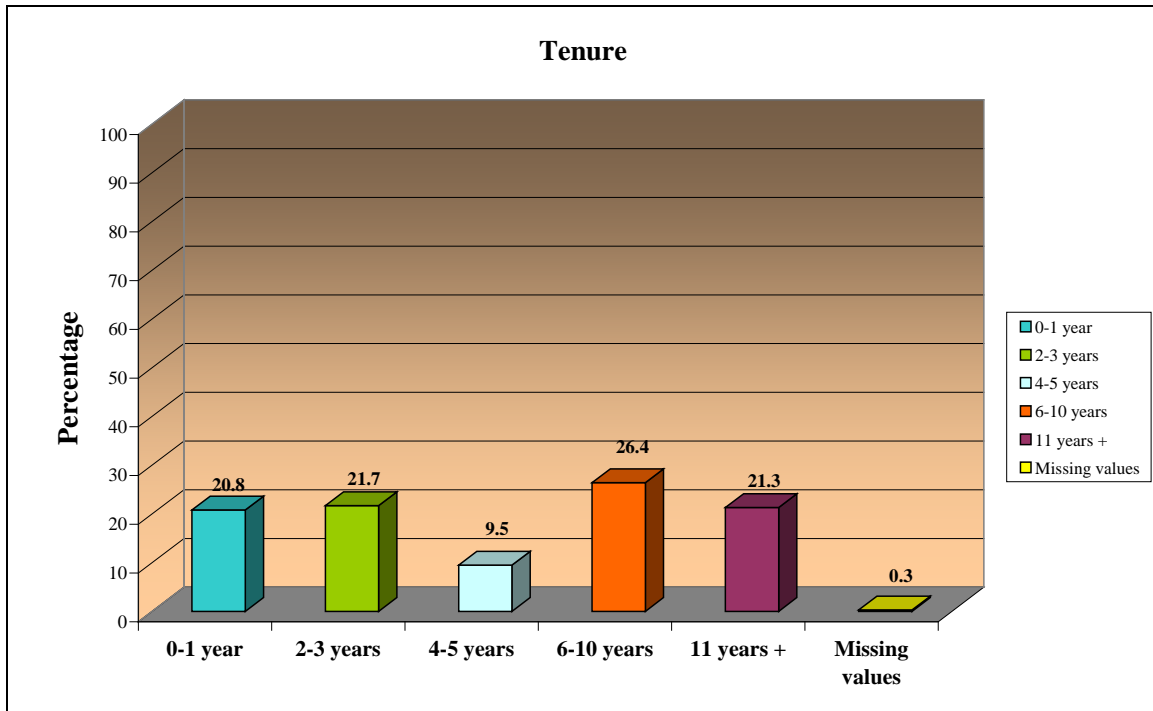
Figure 5.2 below shows the biographical split according to race.



**Figure 5.2: Sample split by race**

From the distribution represented in Figure 5.2, one can infer that 75,9% (n=528) of the sample consisted of white respondents. African, Coloured and Indian respondents make up only 23,1% of the sample (n=160).

Figure 5.3 depicts the employees' length of service (tenure) in the organisation.

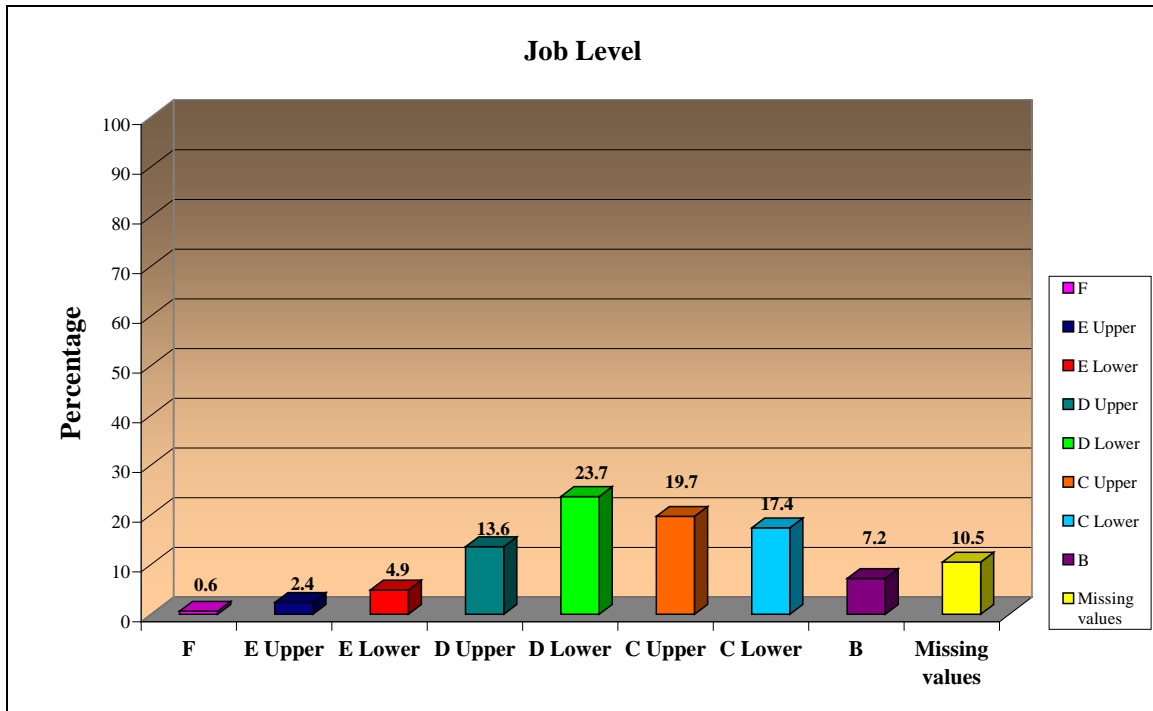


**Figure 5.3: Sample split by tenure**

As illustrated in figure 5.3 above, the majority of respondents in the sample had worked for the organisation for 6 to 10 years, representing 26,4% (n=184) of the sample. The least represented category with only 9,5% is 4 to 5 years with only 66 respondents falling into this category. 145 respondents (20,8%) had been with the organisation for one year or less and 151 respondents (21,7%) had been employed for at least three years. Employees who had been with the organisation for 11 years and more constituted 21,3% (n=148).

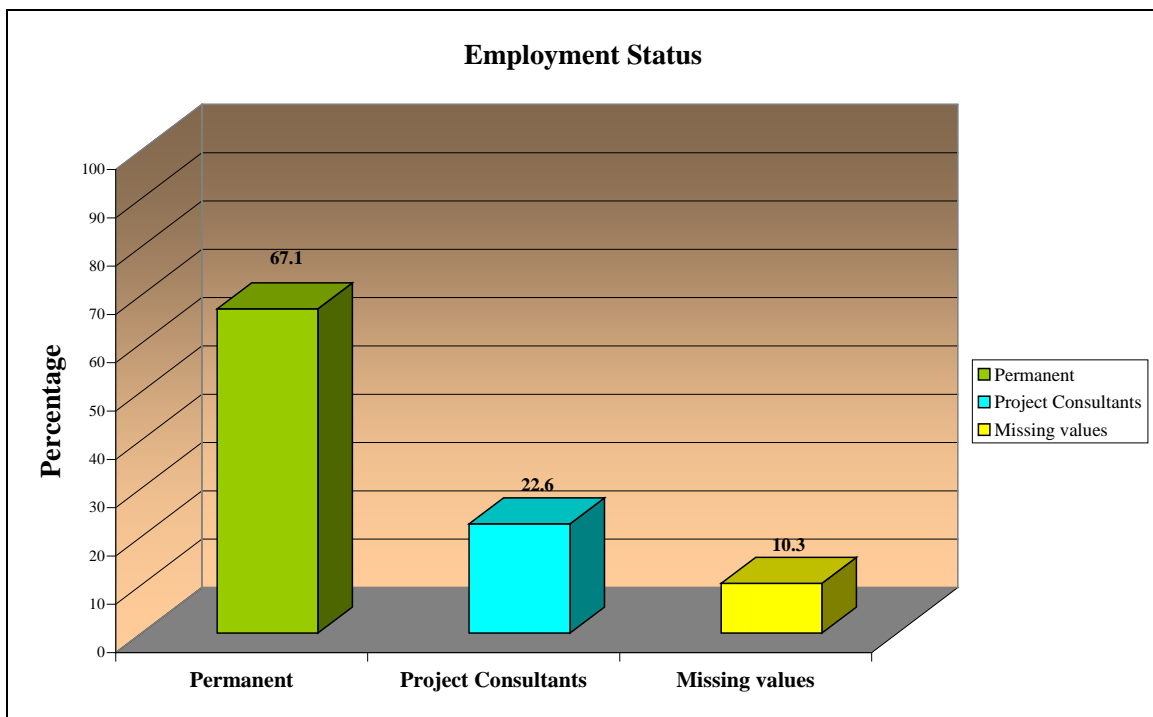
The results suggest a relatively even spread across the tenure categories, with the exception of the category representing respondents employed for 4 to 5 years.

Figure 5.4 below depicts the breakdown of the sample according to job level or grade. The graph indicates that 68% (n=473) of the sample was employed at a clerical, supervisory or junior management level (B, CL, CU & DL), 19% (n=129) at a middle or senior management level (DL, DU & EL) and 3% (n=21) at executive level (EU & F).



**Figure 5.4: Sample split by job level**

Figure 5.5 below shows the organisational split according to employment status.

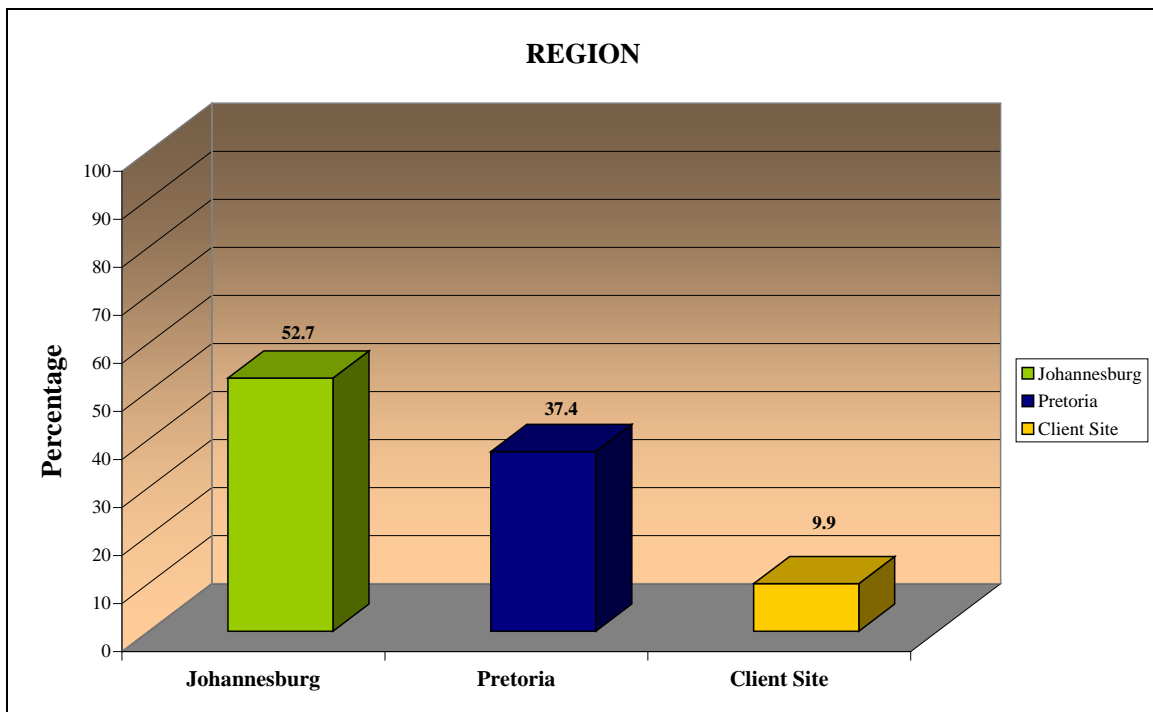


**Figure 5.5: Sample split by employment status**



The graph in figure 5.5 above illustrates that most of the sample respondents 67,1% (n=467) were permanently employed by the organisation with the balance of 22,6% (n=157) represented by project consultants.

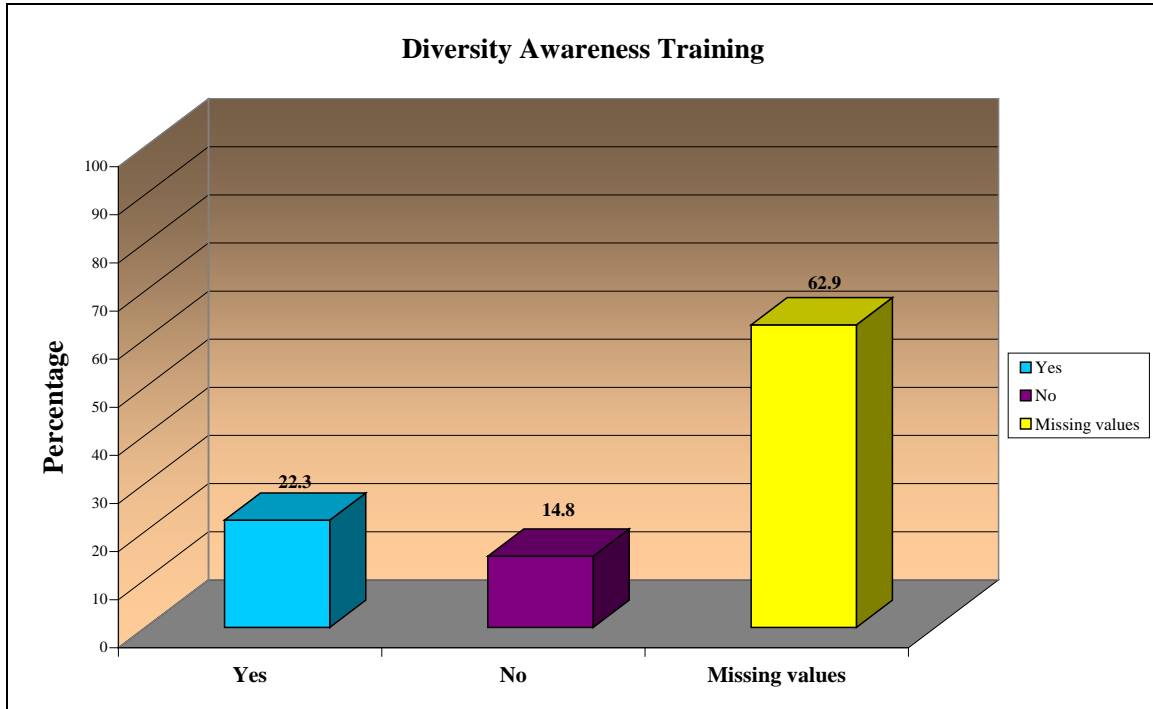
Given that close to 70% of the respondents were permanently employed by the organisation, one could conclude that the organisation focuses primarily on recruiting permanent employees. However, it is worth noting that the large difference could be attributed to project consultants not considering themselves part of the organisation and therefore not completing the questionnaire or it could be that the regions involved in the study did not require project consultants.



**Figure 5.6: Sample split by region**

Figure 5.6 shows the organisational split according to the regions and indicates that the majority of the respondents (52,7%; n=367) were situated in Johannesburg. The graph illustrates that 37,4% (n=260) of the respondents were from the Pretoria region, with 9,9% (n=69) of the sample representing the Client Site region. This is representative of

the organisation, because the Johannesburg region is considered to be the largest region in the organisation.



**Figure 5.7: Sample split by diversity awareness training**

One of the three areas involved in the study included whether or not a respondent had undergone diversity awareness training as one of the organisational variables. On inspection, this involved 260 (37,1%) participants from the total sample of 696. As illustrated in figure 5.7 below, 22,3% (n=155) of the respondents had attended the diversity awareness training, whereas 14,8% (n=103) had not.

## **5.2 RESULTS OF THE ORGANISATIONAL CLIMATE QUESTIONNAIRE**

The climate of the organisation was measured using the organisational climate questionnaire discussed in chapter 2 (see table 2.3). The descriptive statistics presented in table 5.1 were computed for the various dimensions assessed by the questionnaire.

**TABLE 5.1**

**DESCRIPTIVE STATISTICS FOR THE DIMENSIONS OF THE  
ORGANISATIONAL CLIMATE QUESTIONNAIRE**

<b>Dimension</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Skewness</b>	<b>Kurtosis</b>
<b>Trust</b>	695	3,67	0,82	-0,584	0,128
<b>Training &amp; development</b>	695	3,11	0,84	-0,271	-0,452
<b>Transformation and diversity</b>	696	3,59	0,66	-0,362	-0,247
<b>Job satisfaction</b>	694	3,36	0,86	-0,370	-0,128
<b>Leadership</b>	696	3,83	0,69	-0,796	1,001
<b>Employee wellness</b>	691	3,72	0,75	-0,837	1,219
<b>Communication</b>	692	3,50	0,80	-0,567	0,376
<b>Performance management</b>	692	3,42	0,82	-0,512	0,125
<b>Remuneration &amp; reward</b>	687	2,77	0,99	-0,271	-0,497
<b>Teamwork</b>	693	3,80	0,65	-0,587	1,040
<b>Work environment</b>	691	3,59	0,96	-0,684	0,084
<b>Organisation's image</b>	693	3,81	0,78	-0,650	0,761
<b>Total organisational Climate</b>	696	3,56	0,56	-0,356	0,190

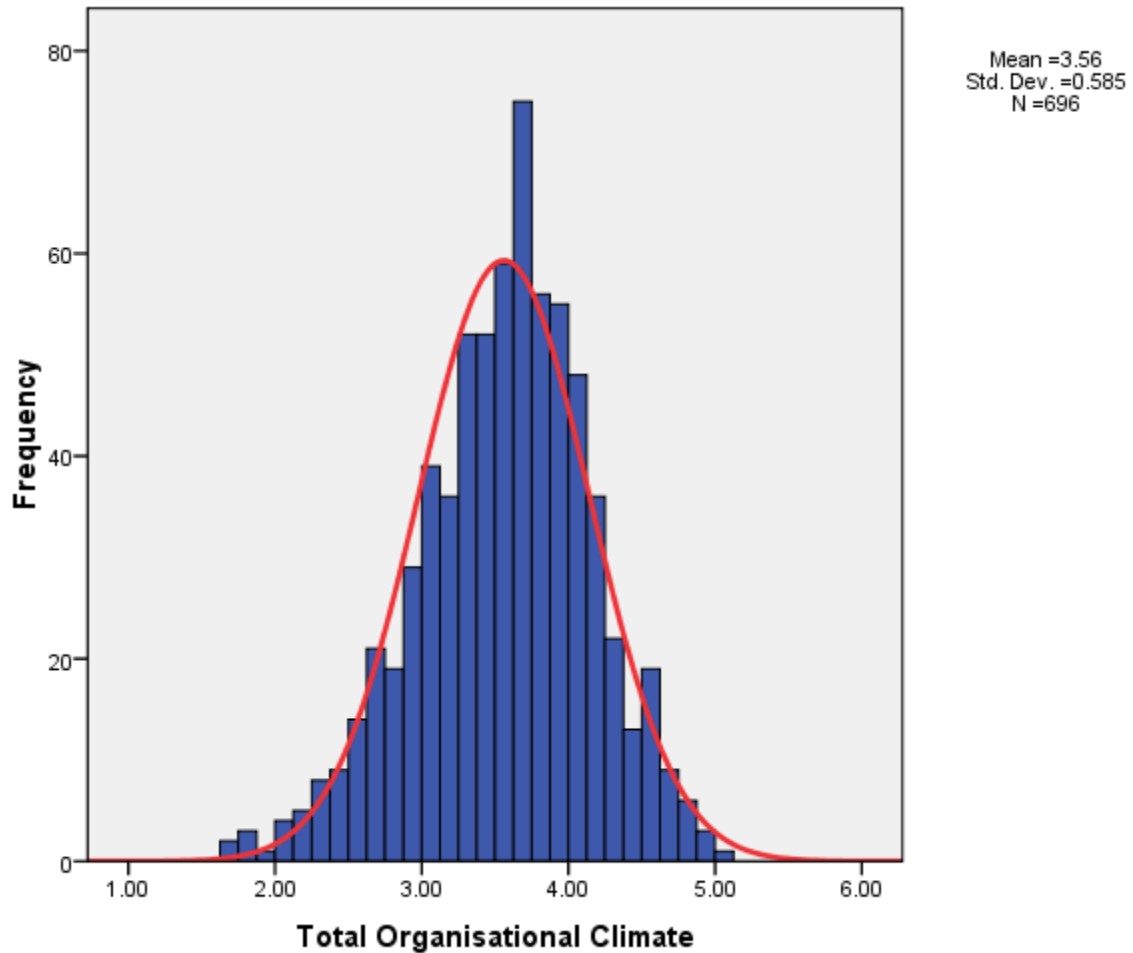
### **5.2.1 Skewness**

Skewness is a measure of a distribution's deviation from symmetry (Cooper & Schindler, 2003). In a symmetrical distribution, the skewness is 0. Variables with a skewness higher than 2 should be avoided (Schepers, cited in Martin, 2007). Positive skewness values indicate positive skewness (scores clustered to the left at the low values). Negative skewness values indicate a clustering of scores at the high end (right-hand side of the graph) (Pallant, 2001). The histogram depicted in figure 5.8 illustrates that the total score

for organisational climate as perceived by the organisation's employees was positively skewed. However, because of the large sample size, the probability of Type I and Type II errors is reduced. Type I error involves rejecting the null hypothesis when it is in fact true, while Type II error occurs when the null hypothesis is rejected when it is in fact true (Pallant, 2001).

### **5.2.2 Kurtosis**

Kurtosis is the measure of a distribution's peakedness or flatness compared to a normal distribution (Cooper & Schindler, 2003). Indices of 7 and more are extreme and signify extremely low reliabilities (Schepers, cited in Martin, 2007). Positive kurtosis values indicate that the distribution is peaked (clustered in the centre) with long thin tails while kurtosis values below 0 indicate that the distribution is relatively flat (many extreme cases) (Pallant, 2001). Figure 5.8 suggests a slight deviation from a normal-shaped curve with some peaking contributed by greater frequency of "4" values.



**Figure 5.8: Dispersion of organisational climate**

### 5.2.3 Describing the organisational climate

The climate in the current organisation can be described according to the dimensions in the organisational climate questionnaire as discussed in chapter 2 and presented in appendix A. The mean scores of the total organisational climate scale as well as the mean scores of the dimensions were used to summarise the climate in the organisation. For the purposes of this study, the recommended cut-off score of 3,2 will be used to differentiate between potential positive and negative perceptions (Odendaal, 1997), with scores above 3,2 indicating a positive perception and scores below 3,2 a negative perception of that dimension.

The climate in the organisation can be defined as positive, with a mean score of 3,56, which is above the 3,2 cut-off (see table 5.1). The results indicate that the employees were generally satisfied with the various aspects of the organisation as measured by the 11 climate dimensions and the job satisfaction dimension. In particular, employees perceived the leadership in the organisation to be extremely positive (3,83). The leadership-subordinate relationship was reported to be an essential element of an organisation's climate; with a leader's behaviour towards his/her subordinates playing a vital role in how supportive a work setting was perceived to be (Van Dierendonck, Haynes, Borril & Stride, 2004). From the results of this study, it is clear that the leaders in the organisation were trusted, gave subordinates guidance and feedback, exhibited strong leadership skills and supported their subordinates.

The results also highlight that the respondents had a positive perception of the organisation's image (3,81). The positive score indicates that respondents held the organisation and the brand in high regard and were proud to be associated with the company. Teamwork was also perceived extremely positively (3,80), with respondents agreeing that they worked well in their team, were needed and valued in the team and were able to participate in the decision-making process. Organisations that encourage teamwork and participation have been found to report less burnout among their employees because they function in favourable working conditions (Cooper, Dewe & O'Driscoll, 2001).

The respondents also reported positive perceptions of employee wellness (3,72), indicating that the organisation was supportive of work/life balance and that the volume and pace of work was reasonable and did not cause unnecessary stress. Trust, which highlights strong and honest relationships between subordinates and their managers, was perceived positively by the respondents with a mean of 3,67. The physical work environment and transformation and diversity strategies and initiatives in the organisation were also positively perceived, both reporting means of 3,59.

Communication in the organisation was positively perceived by the respondents, with a mean of 3,50. One may therefore infer that employees perceived information on changes and future plans to be readily available and communicated by management. Similarly, performance management (3,41) was also perceived as positive, with respondents agreeing that they received feedback on their job and performance and that initiatives to manage employees' performance were considered fair.

Two dimensions that reported a mean below the cut-off point of 3,2 are training and development (3,11) and remuneration and reward (2,77). These results indicate that employees perceived training and development opportunities in the organisation negatively and regarded remuneration and reward practices as negative. Hence, these dimensions could be considered possible areas of development for the organisation.

The job satisfaction of the organisational members was also measured. This was achieved by adopting the global approach, whereby certain questions were asked to elicit affective responses about the employees' job. The results indicate that the respondents were satisfied with their jobs (3,36), found their work interesting and challenging and saw their future in the organisation in a positive light.

### **5.3 RELIABILITY OF THE ORGANISATIONAL CLIMATE QUESTIONNAIRE**

The results of the alpha coefficients for the organisational climate questionnaire are presented in table 5.2. The results for each dimension are presented in the last column.

**TABLE 5.2**

**SCALE RELIABILITIES OF THE TOTAL SCALE AND SUBSCALES FOR THE  
ORGANISATIONAL CLIMATE QUESTIONNAIRE**

<b>Dimension</b>	<b>No. of Items</b>	<b>Cronbach's alpha</b>
<b>TOTAL</b>	<b>70</b>	<b>0,971</b>
<b>QUESTIONNAIRE</b>		
Trust	5	0,892
Training & development	8	0,875
Transformation and diversity	9	0,868
Job satisfaction	5	0,812
Leadership	11	0,914
Employee wellness	5	0,826
Communication	7	0,880
Performance management	5	0,832
Remuneration & reward	2	0,854
Teamwork	8	0,838
Work environment	2	0,596
Organisation's image	4	0,838

The overall Cronbach's alpha coefficient obtained for the organisational climate questionnaire was 0,97 for the total 70 items. Owing to the total value being above 0,7, the scale was deemed to be a reliable measure for examining the current sample (Pallant, 2001). In addition, Cronbach's alpha coefficients for the dimensions of the questionnaire were also acceptable. When examining the results of the scales, all except one appeared to have good internal consistency reliabilities of above 0,80. The results of the alpha coefficient from the 11 dimensions ranged from 0,81 to 0,89. This indicates that the 11 dimensions had internal consistencies within the recommended range.



The work environment scale, however, appeared to have a low reliability. The alpha coefficient of 0,59 obtained from the work environment scale, although less than 0,70, was considered acceptable. This score suggests that the items in this scale did not correlate strongly with each other. Hence, consideration should be given to exploring adding additional items in this dimension or the exclusion of this item in future research. For the purposes of the current research, this dimension was still included in the analysis.

## **5.4 VALIDITY OF THE ORGANISATIONAL CLIMATE QUESTIONNAIRE**

Since there are no previous data on the validity of the organisational climate questionnaire used in this study, it was necessary to examine the validity of the factor structure of the organisational climate questionnaire. To this end, a confirmatory factor analysis (CFA) was conducted, followed by an exploratory factor analysis (EFA). CFA is a complex factor analysis technique used to confirm or test certain hypotheses on the structure underlying a set of variables, whereas EFA is used to determine the nature of the constructs that influence a set of responses (Field, 2005).

### **5.4.1 Confirmatory analysis of the original 12 dimensions**

It is important to investigate the face validity of the organisational climate questionnaire as a measure of organisational climate. The primary concern in this study relates to the exact nature of the underlying dimensions of the organisational climate questionnaire. Accordingly, a confirmatory factor analysis was performed to investigate whether there was any evidence to support the original 12 factor dimensions of the scale.

A confirmatory factor analysis with maximum likelihood estimation using AMOS 7.0 was used to test the fit of the original 12-dimension model with the data found in the study. The model illustrated that most of the indices were wide of their respective recommended values, thereby indicating a lack of fit for the 12-factor model in question.

The fit indices used in the analysis will be provided and a detailed analysis of the indices of fit for the 12-factor model will be presented in Table 5.13 and discussed on p. 170.

### **5.4.2 Exploratory factor analysis**

As a result of the low fit obtained with the 12 dimensions of the original organisational climate questionnaire, it was decided to attempt to replicate the model to determine whether 12 dimensions could be extracted from the questionnaire as expected. In addition, it was expected that these 12 dimensions would be distinct from one another as identified in the theoretical component of this research (see table 2.3). The job satisfaction scale was expected to load independently from the other 11 dimensions of the questionnaire.

Following the poor fit of the original 12-dimension hierarchical model, the data were subjected to an exploratory factor analysis in an effort to seek a more appropriate solution. An exploratory factor analysis was conducted to investigate the underlying factor structure of the questionnaire

#### *5.4.2.1 Suitability of the data*

Prior to performing the factor analysis, the suitability of the data for factor analysis was assessed. According to Pallant (2001), two issues need to be considered in order to determine the suitability of the data. The first refers to sample size. There is little consensus among researchers about sample size. However, researchers believe that the larger the sample is, the better. The sample size was greater than the recommended 150 respondents ( $n=696$ ) and there were more than the recommended ratio of five cases for each of the variables or items (Pallant, 2001). The second issue regarding the suitability of the data relates to the strength of the relationship between the variables. Tabachnick and Fidell (cited in Pallant, 2001), recommend that the correlation matrix exhibits coefficients greater than 0,3. In this study, the correlation matrix (see table 5.3) revealed

the majority of coefficients to be 0,3 and above. The data were therefore considered to be suitable for a factor analysis.

**TABLE 5.3**  
**CORRELATION MATRIX**

Dimensions	Trust	Training & development	Transformation and diversity	Job satisfaction	Leadership	Employee wellness	Communication	Performance management	Remuneration & reward	Teamwork	Work environment	Org. image
<b>Trust</b>	1,00											
<b>Training &amp; development</b>	0,566**	1,00										
<b>Transformation and diversity</b>	0,607**	0,630**	1,00									
<b>Job satisfaction</b>	0,772**	0,541**	0,540**	1,00								
<b>Leadership</b>	0,523**	0,416**	0,426**	0,541**	1,00							
<b>Employee wellness</b>	0,723**	0,631**	0,582**	0,800**	0,558**	1,00						
<b>Communication</b>	0,657**	0,625**	0,573**	0,680**	0,562**	0,736**	1,00					
<b>Performance management</b>	0,290**	0,267**	0,354**	0,208**	0,268**	0,256**	0,307**	1,00				
<b>Remuneration &amp; reward</b>	0,560**	0,475**	0,508**	0,613**	0,433**	0,643**	0,583**	0,210**	1,00			
<b>Teamwork</b>	0,273**	0,343**	0,326**	0,255**	0,287**	0,313**	0,345**	0,182**	0,265**	1,00		
<b>Work environment</b>	1,00**	0,566**	0,607**	0,772**	0,523**	0,723**	0,657**	0,290**	0,560**	0,273**	1,00	
<b>Organisational image</b>	0,430**	0,476**	0,605**	0,423**	0,377**	0,495**	0,447**	0,275**	0,382**	0,333**	0,430**	1,00

\*\*Correlation is significant at the 0,01 level (2-tailed)

Two statistical measures that help to assess the factorability of the data are the Kaiser-Mayer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity (see table 5.4). The KMO index ranges from 0 to 1, with 0,6 suggested as a minimum value for acceptable factor analysis. Bartlett's Test of Sphericity should be significant ( $p < 0,5$ ) for the factor analysis to be considered appropriate (Pallant, 2001). The KMO value was 0,961 which exceeded the recommended value of 0,6. The Bartlett's Test of Sphericity was statistically significant ( $p = 0,000$ ), and is therefore accepted that the factor analysis was appropriate.

**TABLE 5.4**

**KAISER-MAYER-OLKIN (KMO) MEASURE OF SAMPLING ADEQUACY AND  
BARTLETT'S TEST OF SPHERICITY**

<b>Kaiser-Mayer-Olkin (KMO) measure of sampling adequacy</b>		0,961
<b>Bartlett's Test of Sphericity</b>	<b>Approx. Chi-Square</b>	34341,957
	<b>df</b>	2415
	<b>Sig.</b>	0,000

**5.4.2.2** *Factor extraction*

It is necessary to decide how many factors or dimensions to extract. Factor extraction involves determining the smallest number of factors used to best represent the interrelationships between the set of variables (Pallant, 2001). For the purposes of this research, it was decided to utilise the principal axis factoring technique, rather than the principal component factoring technique. The reason for this is that while principal component factoring takes into account all variance, principal axis factoring is designed to be less affected by unique error variability because of the focus on shared variables (Pallant, 2001).

Kaiser's criterion or eigenvalue rule (Pallant, 2001) is one technique that can be used to determine which factors should be retained. The initial eigenvalues were examined to determine the number of factors to use for the factor analysis. Initial eigenvalues with a total value higher than 1 indicates a strong extraction (Pallant, 2001) - hence all factors with eigenvalues below 1,0 were not reported in the results and can be seen as insignificant. Twelve factors were found to have eigenvalues (Kaiser Criterion) exceeding 1,0 (see Table 5.5). This 12-factor model accounted for 60,23% of the total variance.

**TABLE 5.5**

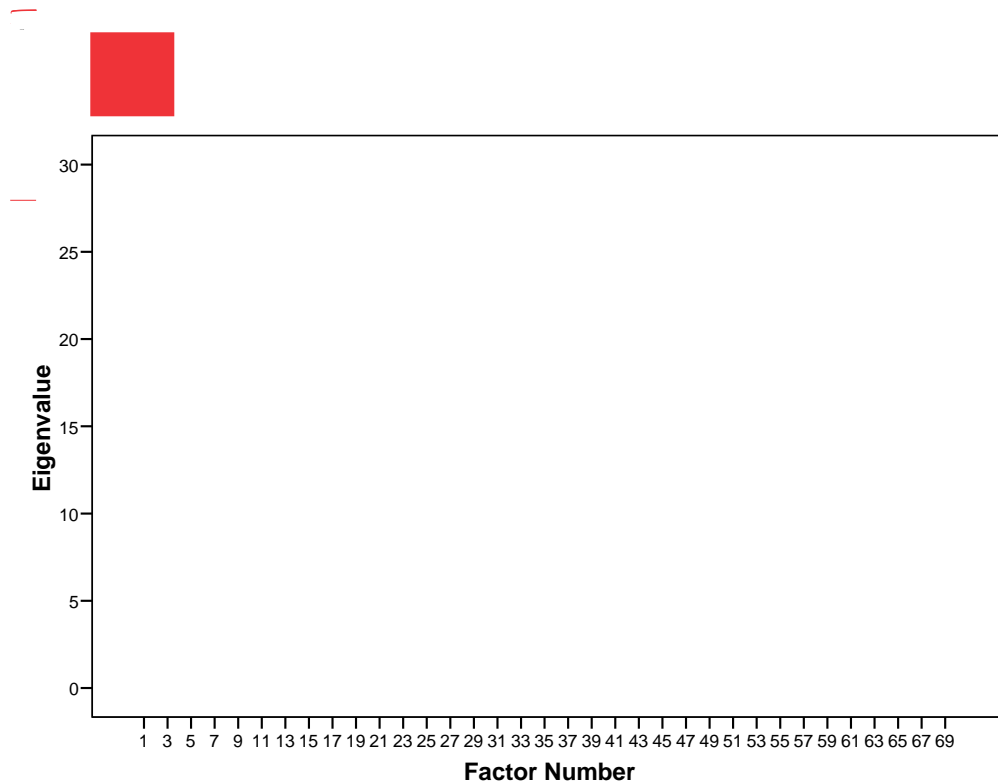
**TOTAL VARIANCE EXPLAINED FOR THE OVERALL SCALE OF THE  
ORGANISATIONAL CLIMATE QUESTIONNAIRE BEFORE EXTRACTION**

(Excluding factors with eigenvalues lower than 1)

Factor	Initial eigenvalues			Extraction sums of squared loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	25,082	35,831	35,831	24,718	35,312	35,312
2	4,878	6,969	42,801	4,498	6,425	41,737
3	2,457	3,510	46,310	2,122	3,032	44,769
4	2,408	3,440	49,750	2,026	2,894	47,663
5	2,090	2,986	52,736	1,691	2,415	50,078
6	1,860	2,657	55,393	1,491	2,129	52,207
7	1,723	2,462	57,855	1,376	1,966	54,174
8	1,489	2,127	59,982	1,131	1,616	55,789
9	1,290	1,843	61,825	0,896	1,280	57,069
10	1,251	1,787	63,612	0,841	1,202	58,271
11	1,173	1,675	65,287	0,749	1,070	59,340
12	1,083	1,547	66,834	0,625	0,893	60,233
<b>Extraction method: Principal axis factoring.</b>						

A second technique that can be used to decide which factors to retain is referred to as Cattell's scree test (Pallant, 2001). This process involves plotting each of the eigenvalues of the factors and inspecting the plot in order to find the point at which the shape of the

curve changes direction and becomes horizontal (Pallant, 2001). Inspection of Cattell's scree test revealed that the graph levelled off at the third factor (see figure 5.9).



**Figure 5.9: Scree plot for the overall scale of the organisational climate questionnaire**

In the 12-factor model (see table 5.5), the first factor explains the largest variance (35,31%), indicating the influence of a strong general factor in the data. This is evident in the factor matrix of the 12-factor model (see to table 5.6), which does not reveal a simple structure. As indicated in table 5.5 and confirmed by the scree test, (figure 5.9), the first three factors have a strong influence, explaining 44,76% of the variance. The factor matrix of the three-factor model (table 5.7) provides an overview of the structure of this model.

TABLE 5.6

## FACTOR MATRIX FOR THE 12-FACTOR MODEL

Item no.	FACTOR											
	1	2	3	4	5	6	7	8	9	10	11	12
q30	<b>0,807</b>	-0,296	-0,092	-0,132	0,023	-0,022	-0,021	-0,017	0,022	0,022	-0,050	0,026
q34	<b>0,803</b>	-0,271	-0,021	-0,157	0,038	-0,012	-0,064	0,031	-0,044	0,071	-0,051	0,164
q31	<b>0,793</b>	<b>-0,305</b>	-0,066	-0,108	0,065	0,021	-0,024	0,018	-0,027	0,038	-0,082	0,139
q15	<b>0,783</b>	<b>-0,312</b>	-0,100	-0,118	0,091	0,015	-0,011	0,074	0,119	-0,036	0,028	0,003
q1	<b>0,781</b>	-0,297	-0,143	-0,062	0,072	-0,108	-0,029	0,049	0,042	-0,169	0,062	-0,045
q16	<b>0,779</b>	-0,281	-0,060	-0,086	0,125	0,031	0,020	0,066	0,098	-0,095	0,070	0,034
q45	<b>0,772</b>	-0,287	-0,115	-0,018	0,073	0,027	0,060	-0,078	-0,086	0,036	-0,035	0,092
q50	<b>0,770</b>	-0,178	-0,017	-0,005	-0,051	-0,018	0,090	-0,125	-0,103	0,101	-0,055	0,015
q3	<b>0,765</b>	-0,249	-0,164	-0,038	0,064	-0,085	-0,020	0,073	0,042	-0,187	0,077	-0,037
q14	<b>0,749</b>	-0,269	-0,059	-0,072	0,125	-0,021	0,035	0,122	0,112	-0,092	0,158	-0,052
q33	<b>0,746</b>	-0,276	-0,022	-0,069	0,003	0,053	-0,055	-0,068	-0,069	0,129	-0,073	0,068
q38	<b>0,743</b>	<b>-0,340</b>	-0,022	-0,021	0,055	0,012	-0,068	-0,044	0,016	0,151	0,029	-0,097
q46	<b>0,736</b>	-0,252	-0,007	-0,008	0,044	0,043	0,115	-0,078	-0,065	0,071	-0,011	0,098
q4	<b>0,708</b>	0,096	-0,128	0,025	0,037	-0,177	-0,026	0,048	-0,114	-0,281	0,126	-0,036
q32	<b>0,707</b>	<b>-0,348</b>	-0,036	-0,121	0,038	0,036	-0,119	0,013	0,011	0,096	0,025	-0,024
q47	<b>0,706</b>	-0,222	-0,098	-0,079	0,010	0,082	0,075	-0,101	-0,118	0,086	-0,193	0,055
q36	<b>0,699</b>	-0,219	-0,076	-0,047	0,025	0,112	-0,030	-0,022	-0,118	0,107	0,027	0,139
q54	<b>0,682</b>	0,041	-0,098	0,068	-0,172	-0,053	0,023	-0,022	-0,033	0,049	-0,029	-0,264
q23	<b>0,672</b>	0,254	0,022	-0,049	0,138	-0,210	-0,207	0,054	0,042	-0,097	-0,030	0,021
q5	<b>0,671</b>	0,131	-0,094	-0,043	0,011	-0,160	-0,045	-0,001	-0,099	-0,293	0,113	0,003
q62	<b>0,669</b>	-0,193	0,087	0,032	-0,060	-0,009	0,098	-0,068	-0,047	0,011	-0,110	0,045
q51	<b>0,664</b>	-0,105	0,002	0,000	-0,236	0,007	0,052	-0,059	-0,091	0,102	-0,034	-0,264
q28	<b>0,660</b>	<b>-0,307</b>	0,052	-0,055	-0,004	-0,078	-0,075	0,018	0,036	0,085	0,038	-0,183



q39	0,658	-0,232	-0,076	0,146	0,023	0,071	0,024	-0,020	0,124	0,079	0,010	0,016
q49	0,657	0,211	-0,025	0,029	-0,160	0,005	0,119	-0,194	-0,219	-0,019	-0,117	-0,038
q7	0,647	0,262	0,022	-0,177	-0,211	-0,177	-0,144	,051	0,148	-0,034	0,034	0,033
q37	0,646	-0,183	-0,139	-0,006	-0,019	0,017	-0,077	0,009	-0,017	0,104	-0,005	0,176
q2	0,640	-0,305	-0,023	-0,098	0,119	-0,047	-0,077	-0,010	0,048	-0,159	0,131	-0,195
q48	0,640	0,264	0,034	-0,029	-0,068	0,090	0,100	-0,117	-0,124	0,059	-0,008	-0,001
q52	0,640	-0,016	0,055	0,190	-0,276	0,074	-0,019	-0,043	-0,122	0,062	0,097	-0,144
q44	0,630	0,127	-0,024	0,075	-0,124	-0,027	0,086	-0,223	-0,115	-0,056	-0,045	-0,007
q26	0,622	0,393	-0,123	0,114	0,094	-0,197	-0,056	-0,114	-0,105	-0,177	-0,128	-0,002
q55	0,606	0,213	-0,174	0,115	-0,030	-0,244	0,051	-0,034	-0,048	0,043	-0,055	-0,120
q10	0,604	0,242	0,034	-0,290	-0,404	-0,003	0,027	-0,036	0,369	-0,016	-0,116	0,036
q63	0,601	-0,062	0,354	0,145	0,014	0,032	0,178	-0,068	-0,041	0,014	-0,007	0,053
q29	0,584	-0,251	0,037	-0,063	0,174	-0,062	-0,042	0,041	0,081	0,057	0,011	-0,001
q13	0,579	0,362	0,000	-0,137	-0,100	-0,157	-0,068	0,117	-0,066	-0,069	0,075	0,067
q12	0,571	0,392	0,001	-0,167	-0,150	-0,108	0,085	0,071	-0,053	-0,059	0,055	0,124
q69	0,567	0,303	0,037	0,049	0,249	0,061	-0,227	-0,186	0,070	0,026	0,049	0,063
q9	0,565	0,242	0,051	-0,274	-0,383	0,008	0,062	-0,048	0,271	-0,007	-0,166	0,006
q53	0,545	0,011	0,016	0,160	-0,212	0,039	-0,064	-0,060	-0,065	0,137	0,098	-0,210
q70	0,535	0,390	0,001	0,079	0,266	-0,005	-0,179	-0,256	0,056	-0,008	-0,163	0,080
q21	0,526	-0,018	0,007	-0,270	0,114	0,106	0,176	0,187	0,029	-0,011	0,031	-0,015
q27	0,523	0,346	-0,114	0,099	0,087	-0,186	-0,025	-0,114	-0,135	-0,172	-0,133	0,055
q11	0,517	0,296	0,207	-0,221	-0,251	0,040	0,122	0,015	0,063	-0,020	0,002	0,102
q61	0,507	-0,121	0,471	0,275	0,045	0,003	0,210	-0,036	0,063	-0,169	0,008	0,076
q42	0,491	0,096	-0,214	0,401	-0,159	0,338	-0,035	0,238	0,050	-0,055	-0,040	0,068
q40	0,486	0,009	-0,175	0,360	-0,038	0,191	0,008	0,141	0,144	-0,030	-0,098	0,029
q6	0,474	0,152	0,025	-0,082	-0,296	0,041	-0,037	-0,031	0,205	0,004	0,142	0,024
q22	0,470	0,411	0,031	-0,199	0,289	0,223	0,163	0,108	-0,052	-0,049	-0,100	-0,101
q43	0,466	0,112	-0,312	0,368	-0,112	0,257	-0,068	0,110	0,008	-0,148	-0,044	0,012
q19	0,465	0,438	-0,032	-0,147	0,265	0,280	0,092	0,094	-0,101	-0,004	-0,032	-0,122
q17	0,451	0,364	0,137	-0,235	0,131	0,215	0,239	0,132	0,002	0,107	0,152	0,043
q68	0,440	0,382	-0,002	0,138	0,276	0,130	-0,268	-0,269	0,279	0,077	0,052	-0,060

q18	<b>0,432</b>	<b>0,375</b>	0,059	-0,164	0,078	0,176	0,172	0,051	-0,001	0,068	0,088	-0,058
q64	<b>0,414</b>	0,099	0,064	0,123	-0,090	-0,040	0,113	-0,048	-0,114	0,015	-0,076	0,009
q58	<b>0,410</b>	-0,054	0,354	0,240	0,148	-0,026	0,093	0,070	0,023	-0,049	0,027	0,127
q8	<b>0,389</b>	0,244	0,015	-0,098	-0,146	0,045	0,083	0,005	-0,049	0,019	0,166	0,025
q67	<b>0,369</b>	<b>0,306</b>	-0,064	0,160	0,229	0,078	-0,150	<b>-0,323</b>	0,240	0,141	0,061	-0,067
q20	<b>0,338</b>	<b>0,360</b>	0,026	-0,224	<b>0,310</b>	0,272	0,122	0,118	-0,092	0,030	0,002	-0,128
q35	<b>0,078</b>	0,192	0,030	-0,010	0,065	0,076	0,056	0,011	0,007	0,025	-0,055	0,070
q60	<b>0,554</b>	-0,124	0,600	<b>0,313</b>	0,037	-0,029	0,166	-0,031	0,106	-0,092	-0,040	-0,039
q59	<b>0,478</b>	-0,164	0,565	0,272	0,054	-0,090	0,115	0,021	0,063	-0,046	0,062	-0,074
q41	<b>0,443</b>	0,073	-0,259	<b>0,456</b>	-0,158	<b>0,332</b>	-0,028	0,279	0,047	-0,051	-0,043	0,016
q56	<b>0,323</b>	0,290	-0,206	0,274	0,166	<b>-0,467</b>	0,224	0,258	0,106	0,296	-0,031	0,051
q57	<b>0,308</b>	0,289	-0,199	0,203	0,136	<b>-0,460</b>	0,276	0,230	0,090	0,265	0,002	-0,032
q24	<b>0,470</b>	0,153	0,393	-0,009	-0,020	-0,021	<b>-0,507</b>	<b>0,332</b>	-0,128	0,094	-0,129	-0,020
q25	<b>0,402</b>	0,131	0,396	-0,073	-0,046	-0,057	<b>-0,476</b>	0,298	-0,144	0,105	-0,150	-0,040
q65	<b>0,314</b>	0,234	-0,039	0,100	-0,131	-0,025	-0,099	-0,091	-0,168	0,119	<b>0,383</b>	0,124
q66	0,297	0,199	0,074	0,171	-0,071	0,058	-0,144	-0,035	-0,103	0,124	<b>0,345</b>	0,153

Extraction method: Principal axis factoring: 12 factors extracted. 13 iterations required.

Item loadings greater than 0,3 are shown in boldface. The items, along with their numbers, are shown in appendix A.

TABLE 5.7

## FACTOR MATRIX FOR THE THREE-FACTOR MODEL

Item no.	1	Factor 2	3
q30	0,810	-0,294	-0,140
q34	0,803	-0,266	-0,090
q31	0,795	-0,302	-0,106
q15	0,784	-0,310	-0,140
q1	0,782	-0,292	-0,154
q16	0,780	-0,277	-0,087
q45	0,773	-0,283	-0,107
q50	0,771	-0,172	-0,012
q3	0,765	-0,243	-0,162
q14	0,748	-0,264	-0,077
q33	0,747	-0,273	-0,055
q38	0,744	-0,338	-0,034
q46	0,737	-0,248	0,000
q32	0,709	-0,346	-0,094
q4	0,706	0,100	-0,102
q47	0,705	-0,215	-0,113
q36	0,699	-0,215	-0,093
q54	0,680	0,047	-0,058
q62	0,670	-0,188	0,102
q23	0,670	0,255	-0,015
q5	0,669	0,136	-0,101
q51	0,662	-0,096	0,003
q28	0,660	-0,303	0,020
q39	0,659	-0,229	-0,005
q49	0,654	0,216	-0,003
q37	0,646	-0,179	-0,135
q7	0,644	0,263	-0,059
q48	0,640	0,272	0,024
q2	0,639	-0,297	-0,061
q52	0,637	-0,009	0,115
q44	0,629	0,134	0,015
q26	0,620	0,391	-0,063
q55	0,605	0,215	-0,101
q63	0,601	-0,058	0,398
q10	0,595	0,231	-0,068
q29	0,584	-0,250	0,005
q13	0,578	0,367	-0,062

q12	0,569	0,397	-0.061
q69	0,564	0,300	0.036
q9	0,558	0,235	-0.051
q53	0,543	0,017	0.067
q70	0,531	0,380	0.021
q21	0,524	-0,013	-0.087
q27	0,521	0,346	-0.060
q11	0,515	0,296	0.100
q42	0,483	0,092	-0.032
q40	0,482	0,011	-0.011
q6	0,472	0,154	-0.009
q22	0,466	0,398	-0.037
q19	0,462	0,427	-0.076
q24	0,461	0,142	0.240
q43	0,461	0,109	-0.123
q17	0,447	0,353	0.041
q41	0,435	0,069	-0.045
q68	0,434	0,359	0.034
q18	0,430	0,375	-0.001
q64	0,414	0,104	0.116
q25	0,395	0,121	0.224
q8	0,389	0,249	-0.021
q67	0,365	0,291	0.002
q56	0,315	0,255	-0.045
q65	0,311	0,228	-0.004
q57	0,302	0,259	-0.061
q66	0,295	0,195	0.111
q20	0,334	0,345	-0.054
q35	0,078	0,195	0.028
q60	0,555	-0,120	0.696
q59	0,480	-0,162	0.645
q61	0,507	-0,116	0.551
q58	0,410	-0,052	0.425

Extraction method: Principal axis factoring: 3 factors extracted; 7 iterations required  
Item loadings greater than 0,3 are shown in boldface. The items, along with their numbers, are shown in appendix A.

#### 5.4.2.3 Factor Rotation

Factor rotation does not change the underlying solution - its purpose is to present the pattern of loadings in such a way that it is easier to interpret (Pallant, 2001). On the basis of the results found in the previous analyses, it was decided to assess both the 12-factor

and the three-factor model with an oblique promax rotation. An oblique rotation as opposed to an orthogonal rotation such as the varimax method was determined to be the most suitable method for analysing the factor structure. This is because, at a conceptual level, multiple domains of a single construct should be related, and the factors are therefore expected to be correlated. The 12-factor model explained a total of 60,23% of the variance (see table 5.8). Table 5.9 displays the rotated pattern matrix, indicating a clearer distribution among the 12 factors. Pattern matrices are used more frequently because they explain the unique relationships between items and factors and the loadings represent the direct effects of factors on items. An items loading of 0,3 signifies a strong relationship between the item and the factor. Even though only one item (item 2 = 0,378) loaded on the 12<sup>th</sup> factor, it was retained because of its high eigenvalue.

**TABLE 5.8**

**TOTAL VARIANCE EXPLAINED FOR THE 12 FACTOR MODEL AFTER  
EXTRACTION**

(Excluding factor with eigenvalues lower than 1)

Factor	Initial eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings (a)
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total
<b>1</b>	25,082	35,831	35,831	24,718	35,312	35,312	22,014
<b>2</b>	4,878	6,969	42,801	4,498	6,425	41,737	11,001
<b>3</b>	2,457	3,510	46,310	2,122	3,032	44,769	14,258
<b>4</b>	2,408	3,440	49,750	2,026	2,894	47,663	11,087
<b>5</b>	2,090	2,986	52,736	1,691	2,415	50,078	17,376
<b>6</b>	1,860	2,657	55,393	1,491	2,129	52,207	8,230
<b>7</b>	1,723	2,462	57,855	1,376	1,966	54,174	5,621
<b>8</b>	1,489	2,127	59,982	1,131	1,616	55,789	4,402
<b>9</b>	1,290	1,843	61,825	0,896	1,280	57,069	5,568
<b>10</b>	1,251	1,787	63,612	0,841	1,202	58,271	8,943
<b>11</b>	1,173	1,675	65,287	0,749	1,070	59,340	12,189
<b>12</b>	1,083	1,547	66,834	0,625	0,893	60,233	1,352

**Extraction Method: Principal axis factoring.**

<sup>a</sup> When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

TABLE 5.9

## PATTERN MATRIX FOR THE 12-FACTOR MODEL (11 DIMENSIONs)

Item no.	FACTOR											
	1	2	3	4	5	6	7	8	9	10	11	12
q31	<b>0,936</b>	-0,022	0,017	-0,028	0,025	0,020	-0,043	-0,008	0,048	-0,035	-0,116	0,075
q34	<b>0,931</b>	-0,036	0,056	-0,047	0,003	-0,041	-0,054	0,000	0,109	0,033	-0,125	0,084
q32	<b>0,895</b>	-0,014	-0,010	-0,088	-0,174	-0,039	0,039	-0,036	0,098	0,023	0,085	-0,075
q30	<b>0,888</b>	-0,036	0,086	-0,061	0,030	-0,029	-0,004	-0,005	0,003	-0,068	0,017	-0,027
q15	<b>0,885</b>	0,037	0,091	-0,008	-0,061	0,049	0,017	0,006	-0,035	-0,069	-0,058	-0,160
q45	<b>0,859</b>	-0,008	-0,109	-0,007	0,101	0,010	-0,017	-0,005	-0,087	0,022	-0,004	0,073
q38	<b>0,849</b>	-0,014	-0,077	-0,022	-0,201	-0,058	0,105	0,033	0,048	0,020	0,216	-0,071
q33	<b>0,837</b>	-0,035	-0,012	-0,051	-0,064	-0,027	0,022	-0,033	0,075	0,019	0,063	0,120
q16	<b>0,815</b>	0,067	0,043	0,083	0,013	0,058	0,008	-0,030	-0,076	-0,021	-0,114	-0,178
q36	<b>0,793</b>	0,038	-0,095	-0,079	-0,055	0,046	-0,022	-0,044	0,025	0,164	-0,021	0,111
q1	<b>0,767</b>	-0,075	-0,010	0,007	0,259	0,024	-0,044	-0,020	-0,062	-0,055	-0,001	-0,267
q46	<b>0,753</b>	0,028	-0,050	0,104	-0,008	-0,021	-0,022	0,011	-0,093	0,055	0,010	0,102
q47	<b>0,752</b>	0,061	-0,026	-0,079	0,078	0,007	-0,042	-0,032	-0,015	-0,131	0,079	0,210
q14	<b>0,745</b>	0,099	0,007	0,092	-0,030	0,035	-0,013	0,033	-0,081	0,022	-0,026	-0,295
q37	<b>0,728</b>	-0,123	0,040	-0,117	-0,026	0,098	0,014	0,049	0,035	0,128	-0,093	0,106
q29	<b>0,704</b>	0,020	-0,040	0,083	-0,100	-0,084	0,082	0,084	0,058	-0,041	-0,051	-0,092
q3	<b>0,696</b>	-0,048	-0,008	0,003	0,276	0,078	-0,054	-0,019	-0,073	-0,036	-0,013	-0,272
q28	<b>0,659</b>	-0,036	-0,001	0,032	-0,143	-0,108	0,030	0,041	0,110	-0,041	0,281	-0,176
q2	<b>0,643</b>	0,031	-0,089	0,050	0,128	-0,091	0,052	-0,125	-0,035	-0,048	0,150	<b>-0,378</b>
q50	<b>0,637</b>	-0,020	-0,001	0,040	0,079	-0,065	-0,020	0,028	-0,048	0,024	0,184	0,120
q39	<b>0,616</b>	-0,067	0,040	0,096	-0,169	0,174	0,128	0,073	-0,086	0,010	0,051	-0,010
q62	<b>0,493</b>	-0,058	0,070	0,198	0,095	0,001	-0,064	-0,011	-0,010	-0,074	0,079	0,113
q21	<b>0,462</b>	<b>0,455</b>	0,112	0,004	-0,132	-0,012	-0,138	0,040	-0,022	-0,078	-0,072	-0,076

q20	0,011	<b>0,825</b>	-0,161	-0,078	-0,033	-0,005	0,058	-0,026	0,053	-0,072	0,035	-0,006
q22	-0,030	<b>0,777</b>	-0,043	0,004	0,149	0,038	0,047	-0,011	0,035	-0,197	-0,017	0,029
q19	-0,044	<b>0,776</b>	-0,133	-0,097	0,109	0,094	0,089	-0,038	0,054	-0,075	0,068	0,019
q17	0,043	<b>0,695</b>	0,144	0,084	-0,245	-0,046	-0,008	0,072	-0,052	0,170	-0,072	0,048
q18	-0,057	<b>0,574</b>	0,132	0,011	-0,092	-0,018	0,056	0,037	-0,051	0,080	0,078	0,017
q48	0,072	0,242	0,095	0,024	0,181	-0,016	0,044	-0,029	-0,032	0,108	0,190	0,148
q35	-0,100	0,177	0,050	0,036	0,017	0,047	0,048	0,029	0,004	-0,017	-0,100	0,120
q10	0,039	-0,075	<b>1,059</b>	-0,043	-0,097	0,033	0,088	-0,026	-0,036	-0,169	0,011	0,044
q9	-0,004	-0,015	<b>0,934</b>	-0,037	-0,036	0,013	0,034	-0,037	-0,011	-0,208	0,075	0,097
q11	-0,089	0,165	<b>0,589</b>	0,143	0,024	-0,049	-0,088	-0,054	0,020	0,061	-0,021	0,108
q6	0,030	-0,084	<b>0,582</b>	0,003	-0,132	0,069	0,098	-0,053	-0,058	0,174	0,078	-0,076
q7	0,087	-0,110	<b>0,561</b>	-0,071	0,198	-0,048	0,053	0,056	0,143	0,066	0,006	-0,085
q12	-0,061	0,141	<b>0,354</b>	-0,024	<b>0,349</b>	-0,034	-0,131	0,077	0,015	0,153	-0,059	0,050
q60	-0,050	-0,037	0,052	<b>0,914</b>	-0,014	-0,002	0,045	-0,009	0,052	-0,103	0,065	-0,017
q61	0,008	-0,036	0,027	<b>0,825</b>	0,106	0,047	-0,022	-0,058	-0,069	-0,023	-0,087	-0,005
q59	0,009	-0,041	-0,054	<b>0,814</b>	-0,075	-0,076	0,008	0,040	0,095	0,005	0,109	-0,103
q58	0,087	0,012	-0,110	<b>0,598</b>	0,032	0,056	0,003	0,069	0,062	0,062	-0,176	0,029
q63	0,183	0,075	0,001	<b>0,534</b>	0,005	-0,040	-0,013	-0,006	-0,011	0,048	0,054	0,109
q26	-0,109	-0,014	-0,044	0,001	<b>0,847</b>	0,025	0,127	0,056	0,021	-0,075	0,029	0,023
q27	-0,094	-0,031	-0,065	0,008	<b>0,819</b>	0,012	0,072	0,043	0,002	-0,057	-0,034	0,072
q5	0,173	-0,014	0,001	0,021	<b>0,689</b>	-0,009	-0,068	-0,087	-0,041	0,097	-0,015	-0,228
q4	0,208	-0,002	-0,094	0,032	<b>0,682</b>	0,041	-0,095	-0,024	-0,036	0,093	0,034	-0,262
q23	0,168	-0,004	0,096	0,015	<b>0,468</b>	-0,055	0,151	0,085	0,217	-0,019	-0,105	-0,108
q49	0,029	0,083	0,055	0,008	<b>0,461</b>	-0,015	-0,045	-0,066	-0,052	0,000	<b>0,303</b>	0,186
q44	0,097	-0,042	0,083	0,078	<b>0,417</b>	-0,016	0,043	-0,069	-0,125	0,044	0,212	0,099
q55	0,077	-0,035	0,011	-0,079	<b>0,409</b>	-0,007	0,046	0,269	-0,017	-0,036	0,271	-0,008
q13	-0,028	0,082	0,239	-0,071	<b>0,392</b>	-0,033	-0,089	0,074	0,153	0,163	-0,025	-0,046
q64	-0,012	0,007	0,008	0,158	0,224	0,037	-0,068	0,058	0,003	0,006	0,149	0,137
q41	-0,037	0,049	-0,015	-0,007	-0,063	<b>0,831</b>	-0,057	0,030	0,056	0,011	0,078	0,032
q42	-0,004	0,050	0,048	0,014	-0,047	<b>0,776</b>	-0,034	-0,011	0,053	0,042	0,020	0,066
q43	-0,015	-0,013	-0,030	-0,079	0,231	<b>0,670</b>	0,027	-0,076	-0,032	0,003	0,064	-0,006



q40	0,128	-0,020	0,061	0,091	-0,033	<b>0,576</b>	0,077	0,084	-0,017	-0,095	-0,006	0,042
q68	-0,031	0,102	0,093	0,014	0,005	0,032	<b>0,746</b>	-0,041	-0,022	0,077	-0,010	-0,055
q67	0,015	0,049	0,054	-0,012	-0,036	-0,027	<b>0,687</b>	0,040	-0,142	0,099	0,072	-0,005
q70	0,025	0,057	0,009	0,030	<b>0,450</b>	-0,033	<b>0,484</b>	-0,022	0,053	-0,064	-0,131	0,157
q69	0,149	0,105	-0,026	0,027	0,208	-0,034	<b>0,473</b>	-0,063	0,061	0,154	-0,103	0,013
q56	0,018	-0,022	-0,061	0,021	0,059	0,042	0,002	<b>0,862</b>	-0,010	0,015	-0,041	0,105
q57	-0,022	0,051	-0,039	0,007	0,067	-0,028	-0,030	<b>0,816</b>	-0,065	-0,004	0,061	0,040
q24	0,008	0,035	-0,028	0,072	0,003	0,080	-0,043	-0,036	<b>0,856</b>	0,015	0,052	0,031
q25	0,006	0,024	0,000	0,040	0,006	-0,008	-0,075	-0,038	<b>0,834</b>	-0,019	0,086	0,045
q65	-0,022	-0,074	-0,088	-0,089	0,072	-0,045	0,072	0,017	-0,041	<b>0,662</b>	0,109	-0,014
q66	-0,035	-0,052	-0,097	0,050	-0,067	0,049	0,125	-0,008	0,046	<b>0,617</b>	0,019	0,007
q8	-0,040	0,181	0,205	-0,022	0,038	-0,017	-0,050	-0,010	-0,060	0,248	0,098	-0,009
q51	<b>0,303</b>	0,043	0,090	-0,035	-0,026	-0,017	-0,069	-0,003	0,048	-0,054	<b>0,564</b>	-0,034
q53	0,101	-0,029	0,009	-0,006	-0,088	0,074	0,068	0,009	0,075	0,165	<b>0,512</b>	-0,058
q54	0,176	0,037	0,092	-0,072	0,130	0,064	0,004	0,081	0,027	-0,071	<b>0,499</b>	-0,089
q52	0,106	-0,050	0,022	0,089	0,007	0,143	-0,041	-0,060	0,061	0,196	<b>0,470</b>	-0,025

Extraction Method: Principal axis factoring.

Rotation Method: Promax with Kaiser normalisation. <sup>a</sup> Rotation converged in nine iterations.

Item loadings greater than 0,3 are shown in boldface. The items, along with their numbers, are shown in appendix A.

As discussed in section 5.3.2.2, the scree test indicated that the graph levelled off at the third factor, indicating that the first three factors have a strong influence. Table 5.10 depicts the total variance (44,21%) explained by the three-factor model. The rotated pattern matrix for the three-factor model (see table 5.11), indicated a clear distribution among the three factors.

**TABLE 5.10**

**TOTAL VARIANCE EXPLAINED FOR THE THREE-FACTOR MODEL AFTER  
EXTRACTION**

(Excluding factor with eigenvalues lower than 1)

<b>Factor</b>	<b>Initial eigenvalues</b>			<b>Extraction sums of squared loadings</b>			<b>Rotation sums of squared loadings (a)</b>
	<b>Total</b>	<b>% of variance</b>	<b>Cumulative %</b>	<b>Total</b>	<b>% of variance</b>	<b>Cumulative %</b>	<b>Total</b>
<b>1</b>	25,082	35,831	35,831	24,596	35,138	35,138	22,554
<b>2</b>	4,878	6,969	42,801	4,341	6,201	41,339	18,643
<b>3</b>	2,457	3,510	46,310	2,014	2,877	44,215	11,463

**Extraction Method: Principal axis factoring.**

<sup>a</sup> When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

TABLE 5.11

## PATTERN MATRIX FOR THE THREE-FACTOR MODEL

Item No.	FACTOR		
	1	2	3
q15	0,932	-0,070	-0,065
q30	0,932	-0,040	-0,064
q1	0,921	-0,047	-0,083
q31	0,907	-0,060	-0,023
q32	0,889	-0,151	-0,012
q45	0,874	-0,045	-0,027
q3	0,865	0,010	-0,099
q34	0,863	-0,015	-0,005
q38	0,861	-0,136	0,063
q16	0,857	-0,038	-0,002
q14	0,816	-0,035	0,005
q33	0,810	-0,050	0,032
q2	0,769	-0,120	0,016
q47	0,763	0,015	-0,048
q36	0,744	0,010	-0,024
q46	0,738	-0,031	0,096
q28	0,733	-0,132	0,118
q37	0,702	0,041	-0,084
q50	0,689	0,078	0,079
q39	0,671	-0,036	0,081
q29	0,637	-0,092	0,088
q62	0,561	0,003	0,209
q51	0,528	0,130	0,080
q54	0,432	0,325	-0,005
q4	0,424	0,408	-0,061
q21	0,415	0,195	-0,051
q52	0,342	0,213	0,207
q40	0,309	0,198	0,035
q53	0,288	0,217	0,136
q26	0,035	0,734	-0,047
q12	-0,005	0,721	-0,050
q19	-0,095	0,720	-0,083
q13	0,033	0,687	-0,048
q22	-0,090	0,680	-0,032
q70	-0,069	0,673	0,047
q27	0,016	0,639	-0,049
q18	-0,114	0,632	0,010

q68	-0,118	<b>0,608</b>	0,055
q17	-0,109	<b>0,605</b>	0,066
q69	0,026	<b>0,583</b>	0,076
q7	0,183	<b>0,583</b>	-0,029
q48	0,112	<b>0,580</b>	0,072
q23	0,177	<b>0,575</b>	0,028
q20	-0,108	<b>0,567</b>	-0,061
q11	-0,047	<b>0,550</b>	0,150
q10	0,191	<b>0,525</b>	-0,042
q49	0,200	<b>0,519</b>	0,044
q55	0,237	<b>0,513</b>	-0,080
q9	0,152	<b>0,512</b>	-0,025
q67	-0,070	<b>0,501</b>	0,015
q8	0,005	<b>0,462</b>	-0,007
q57	-0,033	<b>0,447</b>	-0,066
q56	-0,031	<b>0,445</b>	-0,045
q5	<b>0,361</b>	<b>0,439</b>	-0,066
q65	-0,035	<b>0,404</b>	0,008
q44	0,257	<b>0,403</b>	0,072
q6	0,151	<b>0,373</b>	0,024
q66	-0,091	<b>0,339</b>	0,150
q43	0,270	<b>0,330</b>	-0,112
q42	0,239	<b>0,303</b>	0,003
q64	0,078	0,270	0,175
q35	-0,174	0,269	0,026
q41	0,242	0,257	-0,017
q60	0,000	-0,046	<b>0,918</b>
q59	0,031	-0,119	<b>0,852</b>
q61	0,066	-0,037	<b>0,736</b>
q58	0,023	0,026	<b>0,566</b>
q63	0,173	0,095	<b>0,554</b>
q24	-0,017	<b>0,315</b>	<b>0,328</b>
q25	-0,028	0,267	<b>0,304</b>

Extraction method: Principal axis factoring.

Rotation method: Promax with Kaiser Normalisation. <sup>a</sup> Rotation converged in five iterations.

Item loadings greater than 0,3 are shown in boldface. The items, along with their numbers, are shown in appendix A.

It is important to note that even though some items had a loading of less than 0,3 in both of the models, it was decided to retain these items on the factors where they loaded the highest. This was done to ensure a fair comparison with the original scale. In addition, no

items were permitted to load on more than one factor in the assessment of any of the models.

### **5.4.3 Interpretation of the 12-factor model (11 dimensions) and three-factor model**

#### *5.4.3.1 Interpretation of the 12-factor model*

The factor analysis conducted on the basis of the loadings of the items in table 5.9, did not support the original 12 dimensions of the organisational climate questionnaire. It was therefore decided to explore the items further and to determine if these items grouped together on the basis of a common construct. Appendix B provides a table listing the factors and items.

As indicated in table 5.8, the first factor accounted for 22,01% of the total variance after extraction and consisted of items such as “The management style of my immediate manager is generally participative” and “My immediate manager demonstrates strong leadership skills”. The items also included statements on the immediate manager’s concern and support for his/her subordinates and referred to issues relating to trust. The first factor will be referred to as “Leadership of immediate manager” as the majority of the items related to a range of leadership and management issues of the respondents’ immediate manager. The second factor accounted for 11,0% of the total scale variance and included items such as “I support the organisation’s transformation initiatives” and “I think there are enough initiatives to drive diversity in the organisation”. Factor 2 will be referred to as “Transformation and diversity” because most of the items related to dealing with transformation and diversity initiatives. The third factor accounted for 14,25% of the total scale variance. The items in this factor related to awareness, opportunities and satisfaction of career development initiatives. This factor will be referred to as “Personal growth and development”. The fourth factor, which accounted for 11,08% of the total scale variance, included items such as “I feel part of my team” and “The people I work with are pleasant”. Since the items referred to belonging and feeling needed, this factor was termed “Interpersonal belonging and fit”.

The fifth factor accounted for 17,37% of the total scale variance. The items in this factor referred to general feelings of satisfaction with the overall environment. “I feel positive about my future in the organisation” and “I am informed of changes before they actually happen” are examples. Hence this factor was referred to as “General feeling of job satisfaction”. Factor 6, which accounted for 8,23% of the total scale variance after extraction and consisted of items such as “The amount of work I am asked to do is reasonable” and “I am able to satisfy both my job and family responsibilities”. This factor was termed “Employee wellness”. Factor 7 accounted for 5,62% of the total scale variance and included items such as “I think the organisation’s brand is highly rated”. Since the items referred to the organisation’s brand, the factor was termed “Image”. Factor 8 accounted for 4,40% of the total scale variance. The two items in this factor were clearly related to monetary issues and subsequently is referred to as “Pay”. Factor 9, which accounted for 5,56% of the total scale variance, related to issues of the job itself. This factor was termed “Challenging and interesting work”. Factor 10 accounted for 8,94% of the total scale variance and included items such as “The physical set-up at work allows me to do my best”. Because the items in this factor related to the conditions of the environment, it was labelled “Physical work environment”. Factor 11 accounted for 12,18% of the total scale variance and included items such as “I am satisfied with the way that my work performance is evaluated” and “I receive regular feedback regarding my work performance from my immediate manager”. Because the items related to the employee’s work, they were termed “Recognition and acknowledgment”.

Factor 12 only accounted for 1,35% of the total scale variance and had only one item that loaded more than 0,3. It was therefore decided to retain only 11 factors.

From this interpretation, it was also found that some dimensions could be seen as having a personal or direct influence on the individual and others were having an indirect influence on the individual. The dimensions that were considered to have a personal influence included personal growth and development, employee wellness, interpersonal belonging and fit and challenging and interesting work. Dimensions that could be seen as

having an indirect influence on the individual included recognition and acknowledgment, physical work environment, pay, leadership, image and transformation and diversity

#### 5.4.3.2 *Interpretation of the three-factor model*

On the basis of the scree test (see figure 5.9), it was decided to investigate the suggestion of a three-factor model. On further examination of how the items loaded (see table 5.11), there appeared to be a clear distinction between the employee's team, leadership, and the overall environment. Appendix C provides the list of items per factor.

As indicated in table 5.10, factor 1 accounted for 22,55% of the total variance after extraction and consisted of items such as "I trust my immediate manager", "I believe what my immediate manager says" and "My immediate manager does a good job of sharing information". Other items also included statements regarding feedback of the employee's work and balancing work and family life. It was therefore decided to refer to factor 1 as "Interaction with management" because the majority of the items related to leadership issues and the immediate manager's influence on the employee's work experience.

Factor 2, which accounted for 18,64% of the total variance of the scale, contained items such as "I am satisfied with the opportunities for career development", "My salary package is fair in comparison with similar positions in the market", "I am satisfied with the quality of equipment" and "I think the organisation's brand is highly rated". Factor 2 was therefore be referred to as "Interaction with personal environment" as the majority of the items had to do with the employee's environment. Factor 3 accounted for 11,46% of the total scale variance. Items in this factor referred to the employee's team such as "In my section we work together as a team" and "I feel part of my team". The third factor was referred to as "Interaction with co-workers".

There was a strong climate in this organisation. Even though the reliability scores for the original questionnaire were high, 0,97, possibly suggesting that the test measured

something coherent and internally consistent, it was difficult to surmise precisely what the questionnaire measured because the scale dimensions were so different from what was previously estimated in the original questionnaire. However, it is possible that it was a function of the strong association between the three distinct groupings of leadership influence, the environment of the employee and the employee's immediate work group as experienced in the organisation being studied. Since climate is unique to all organisations this could have resulted in the poor fit of the model. It was therefore decided to confirm the revised 12-factor (11 dimensions) and three-factor structures by means of CFA.

#### **5.4.4 CFA of the revised 12-factor (11 dimensions) and three-factor models**

It was decided to use a CFA to compare the 12-factor (11 dimensions) and three-factor models with the fit indices revealed by the original assessment. Hence, the 12-factor (11 dimensions) and three-factor models were tested.

To determine whether the instrument was capable of measuring one general factor as well as sub factors, which was supported by the large amount of variance and explained by the original factor and lack of simple structure, a hierarchical model comprising a general factor with either the 12 revised dimensions or the three-dimension model as lower-order factors was tested. To confirm the three-factor model, it was tested twice – firstly, without a hierarchical structure, only examining oblique relationships between variables, and secondly, with a hierarchical structure. The analyses revealed the same fit indices and therefore supported the fact that the measure could be assessed with a general factor model as well as with the dimensions on their own, which indicated the dimensionality of the scale.



**TABLE 5.12**

**MODEL SPECIFICATIONS AND ITEM NUMBERS FOR EACH OF THE  
ORGANISATIONAL CLIMATE MODELS UNDER EXAMINATION**

<b>MODEL</b>	<b>MODEL SPECIFICATION</b>		<b>SOURCE</b>	<b>FACTOR</b>	<b>ITEMS</b>
<b>1</b>	<b>General one-factor model</b>		<b>Present study</b>	Factor 1	All 70 items
<b>2</b>	<b>Original 12-factor model</b>	<b>Hierarchical</b>	<b>Present study</b>	Factor 1	1, 2, 3, 4, 5
				Factor 2	6, 7, 8, 9, 10, 11, 12, 13
				Factor 3	14, 15, 16, 17, 18, 19, 20, 21, 22
				Factor 4	23, 24, 25, 26, 27, 28, 29, 30, 31, 32,
				Factor 5	33, 34, 35, 36, 37, 38
				Factor 6	39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49,
				Factor 7	50
				Factor 8	51, 52, 53, 54, 55
<b>2</b>	<b>Original 12-factor model</b>	<b>Hierarchical</b>	<b>Present study</b>	Factor 9	56, 57
				Factor 10	58, 59, 60, 61, 62, 63, 64
				Factor 11	65, 66
				Factor 12	67, 68, 69, 70
<b>3</b>	<b>Revised 12-factor model (11 dimensions)</b>		<b>Present study</b>	Factor 1	31, 34, 32, 30, 15, 45, 38, 33, 16, 36, 1, 46, 47, 14, 37, 29, 3, 28, 2, 50, 39, 62, 21
				Factor 2	20, 22, 19, 17, 18, 48, 35
				Factor 3	10, 9, 11, 6, 7, 12
				Factor 4	60, 61, 59, 58, 63
				Factor 5	26, 27, 5, 4, 23, 49, 44, 55, 13, 64
				Factor 6	41, 42, 43, 40
				Factor 7	68, 67, 70, 69
				Factor 8	56, 57
				Factor 9	24, 25
				Factor 10	65, 66, 8
				Factor 11	51, 53, 54, 52

MODEL	MODEL SPECIFICATION	SOURCE	FACTOR	ITEMS
4	Three-factor model (Including JS)	Oblique	Present study	Factor 1
				15, 30, 1, 31, 32, 45, 3, 34, 38, 16, 14, 33, 2, 47, 36, 46, 28, 37, 50, 39, 29, 62, 51, 54, 4, 21, 52, 40, 53
				Factor 2
				26, 12, 19, 13, 22, 70, 27, 18, 68, 17, 69, 7, 48, 23, 20, 11, 10, 49, 55, 9, 67, 8, 57, 56, 5, 65, 44, 6, 66, 43, 42, 64, 35, 41
				Factor 3
				60, 59, 61, 58, 63, 24, 25
5	Three-factor model (Including JS)	Hierarchical	Present study	Factor 1
				15, 30, 1, 31, 32, 45, 3, 34, 38, 16, 14, 33, 2, 47, 36, 46, 28, 37, 50, 39, 29, 62, 51, 54, 4, 21, 52, 40, 53
				Factor 2
				26, 12, 19, 13, 22, 70, 27, 18, 68, 17, 69, 7, 48, 23, 20, 11, 10, 49, 55, 9, 67, 8, 57, 56, 5, 65, 44, 6, 66, 43, 42, 64, 35, 41
				Factor 3
				60, 59, 61, 58, 63, 24, 25

There were few missing data in the results, with less than 6% data missing for any variable. The Expectation-Maximization (EM) method was used to approximate a probability function. EM is typically used to compute maximum likelihood estimates with incomplete samples (Dempster, Laird & Rubin, 1977). Maximum likelihood estimation was employed to estimate all models because maximum likelihood is typically used in latent variable modelling and its accuracy is less dependent on sample size or non-normality (Tabachnick & Fidell, 2007).

Missing data were estimated using the expectation-maximisation method for maximum likelihood estimation in the AMOS 7.0 package.

Normality of the variables was initially evaluated on the basis of the skewness of their distribution. When the ratio of the skewness and the standard error for skewness exceeded 3, the variable was considered to deviate from normality. The skewness and

kurtosis were within this range and therefore deemed acceptable to proceed with the analysis.

The primary fit index was the chi-square statistic ( $\chi^2$ ) (CMIN), followed by the normed chi-square adjustment ( $\chi^2/\text{df}$ ). Since the chi-square statistic is expected to roughly equal the degrees of freedom (df), a ratio of 2,0 for good fit or 3,0 for adequate fit is required, whereas larger values suggest a lack of fit (Tabachnick & Fidell, 2001). Because p is significant, this indicates that the variables are related. In contrast, the chi-square of the hypothesised model should ideally be non-significant, showing that the model describes the relationship between the variables well. However, the chi-square test of fit is extremely sensitive to sample size. For example, in large samples, trivial differences between the sample and estimated population covariance matrices can result in a significant chi-square (Tabachink & Fidell, 2001). Hence a range fit of indices were developed to evaluate the fit of the model that is independent of sample size.

The most used and accepted fit indices are the Comparative Fit Index (CFI), the Tucker Lewis Index (TLI), and the Root Mean Square of Approximation (RMSEA) (Tabachink & Fidell, 2001). The Parsimony Normed Fit Index (PNFI), which not only provides an idea of the fit of the model but also a reading on parsimony, and the Parsimony Comparative Fit Index (PCFI) were also used.

The lack of fit should ideally be below 0,6 although a value below 0,8 is considered acceptable. The TLI and CFI should ideally be over 0,95 indicating an excellent fit, but a value over 0,90 is conventionally deemed as acceptable (Hu & Bentler, 1999). Similarly, the PNFI and CNFI should also have a value of 0,90.

TABLE 5.13

**FIT INDICES FOR THE COMPARATIVE MODELS OF THE  
ORGANISATIONAL CLIMATE QUESTIONNAIRE IDENTIFIED IN THE  
PRESENT STUDY**

Fit statistics	Cut off	Present study				
		Hierarchical Original 12 Factor Model	One General Factor	Hierarchical Revised 12 Factor Model	Hierarchical three factor model	Oblique three factor model
CMIN ( $\chi^2$ )		1397,376	6197,624	5264,65	6121,485	6121,485
Normed CMIN ( $\chi^2/df$ )	2,0-3,0	2,66	3,68	2,256	2,949	2,949
df		495	489	495	491	374
p (as have missing data)		0	0	0	0	0
CFI	0,90	0,76	0,603	0,82	0,73	0,73
TLI	0,90	0,74	0,58	0,80	0,71	0,71
PNFI	0,90	0,62	0,50		0,60	0,60
PCFI	0,90	0,71	0,57		0,68	0,68
RMSEA	0,06	0,074	0,095	0,06	0,08	0,08

The analysis showed that the one general factor model had the poorest fit with  $\chi^2 = 6197,624$ ,  $p < 0$ , CFI = 0,603, TLI = 0,58, PNFI = 0,50, PCFI = 0,057 and RMSEA = 0,095. Both the hierarchical and oblique three factor models were significant,  $\chi^2 = 6121,485$ ,  $p < 0$ , CFI = 0,73, TLI = 0,71, PNFI = 0,60, PCFI = 0,068 and RMSEA = 0,080 and therefore also a poor fit. The original 12-factor model was a better fit. However, it still did not fit the model well  $\chi^2 = 1397,376$ ,  $p < 0$ , CFI = 0,76, TLI = 0,74, PNFI = 0,62, PCFI = 0,074 and RMSEA = 0,074. The revised 12-factor model (11 dimensions) fitted the data best;  $\chi^2 = 5264,65$ ,  $p < 0$ , CFI = 0,82, TLI = 0,80 and RMSEA = 0,06. The path models of the original 12-factor model as well as of the revised 12-factor model (11 dimensions) are presented with standardised regression coefficients and squared multiple correlations because they were a better fit. The three-factor model, is however, also presented.

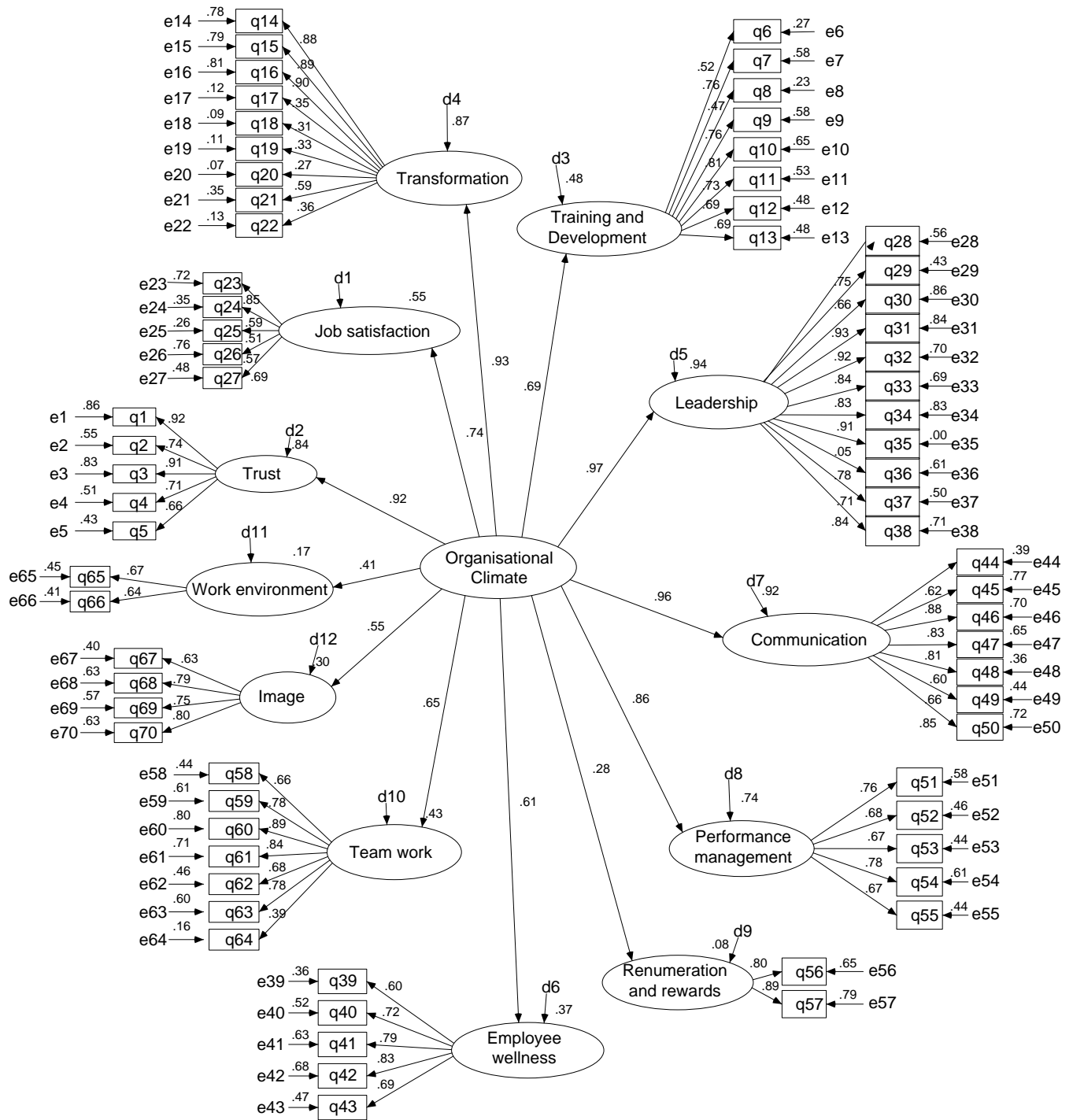
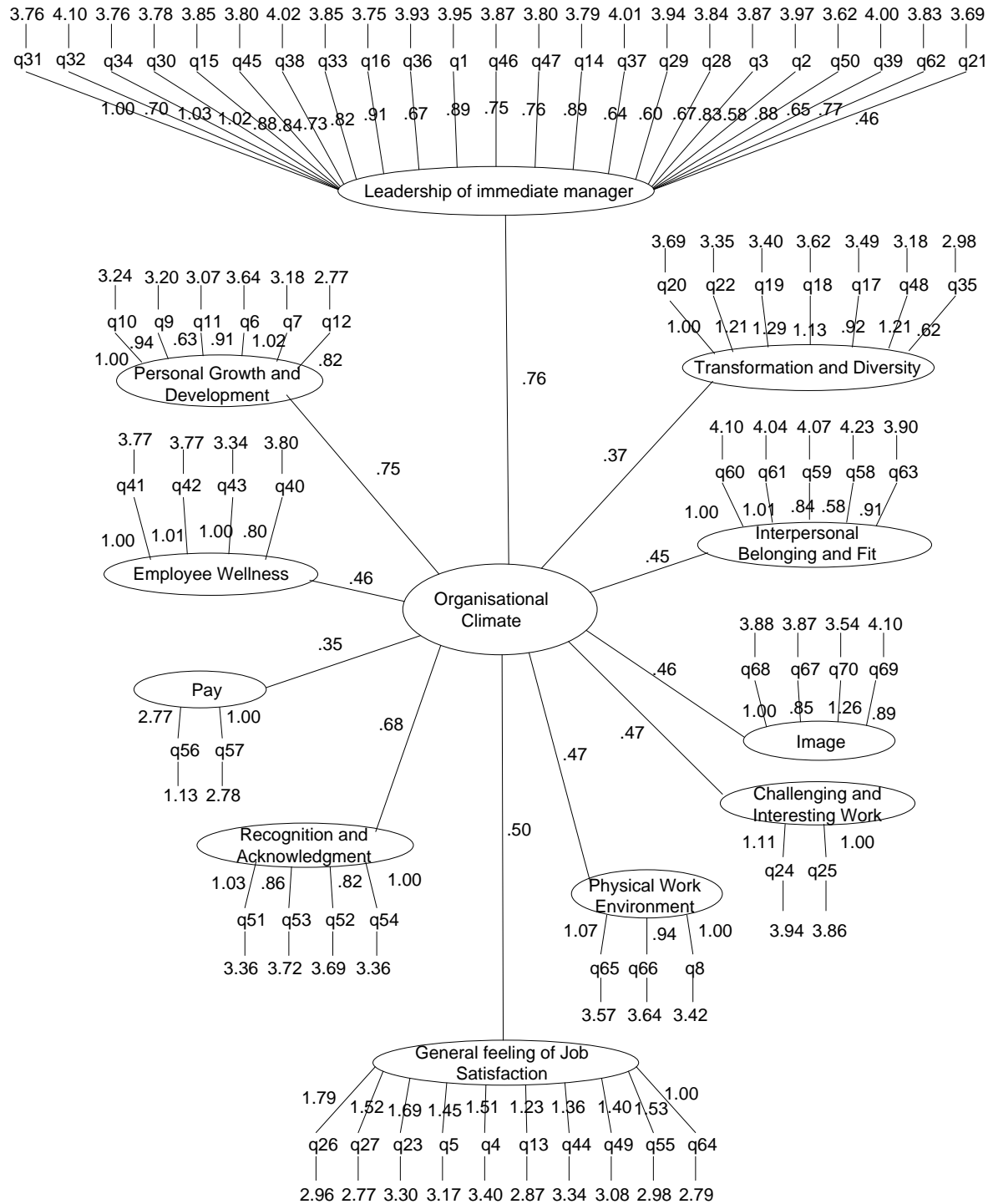
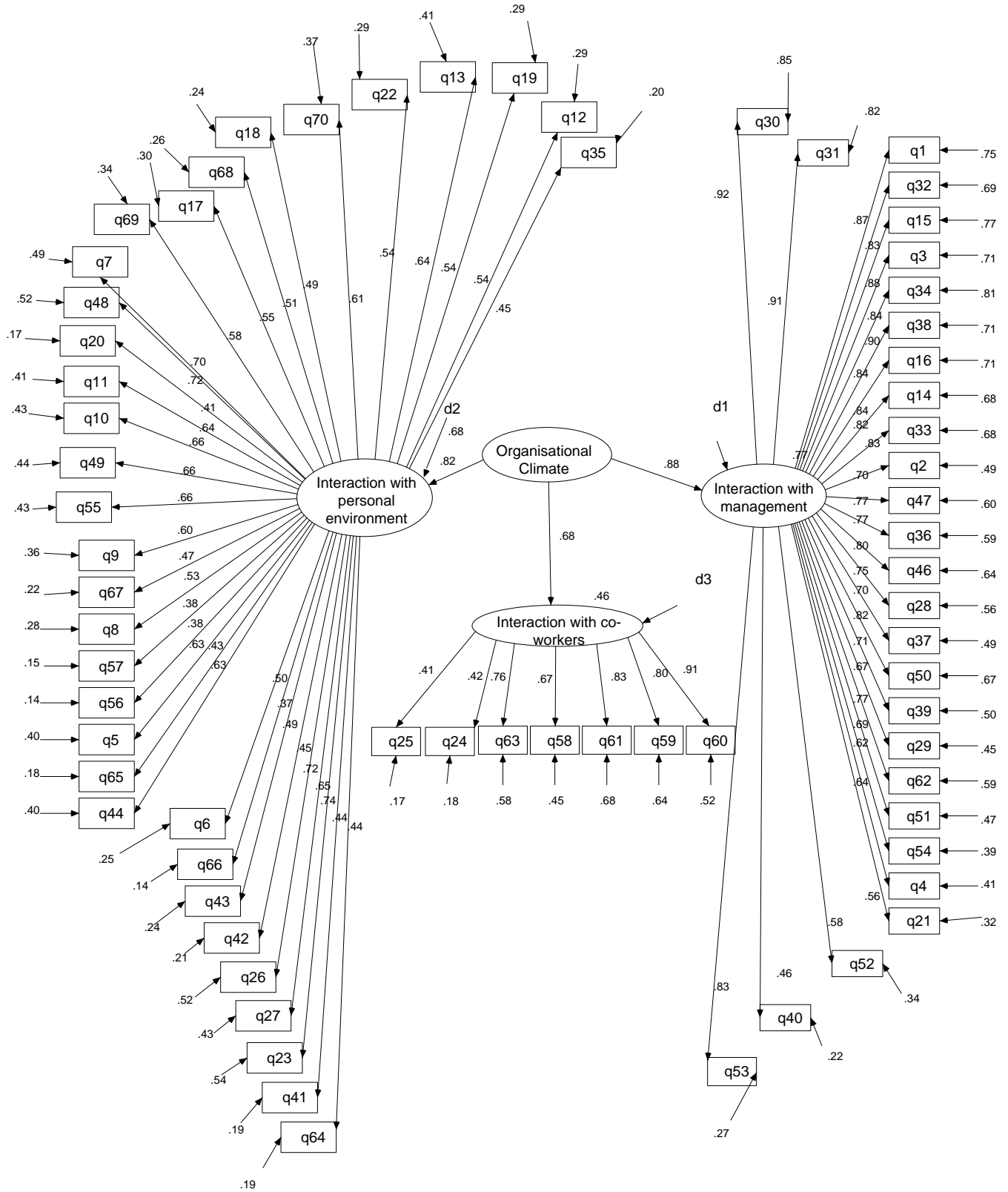


Figure 5.10: Original 12-factor model



**Figure 5.11: The revised 12-factor model (11 dimensions)**



**Figure 5.12: The three-factor model**

The revised 12-factor model (11 dimensions) fitted the data best. However the three-factor model seemed to imply a dynamic in the specific sample under investigation. It was therefore decided to proceed with both models for further analysis.

To summarise: owing to the large degree of variance explained by the first factor, the scale seemed to be inherently biased in favour of a unifactorial interpretation. Although an assessment of the one-dimensional model also yielded a less than satisfactory fit with the data, this may have resulted in some of the factors not emerging clearly in alternative samples simply because they were represented by an inadequate number of items. The lack of fit of the one-dimensional model and the strong suggestion of alternative factors found by the EFA, however suggests that the scale measured more than one dimension. It is therefore recommended that future research utilising this organisational climate questionnaire should attempt to replicate the original 12-dimensional questionnaire as well as the new 12-factor (11 dimensions) and three-factor models in order to confirm fit in more heterogeneous samples.

## **5.5 RELIABILITY OF THE REVISED 12-FACTOR (11 DIMENSIONS) AND THREE-FACTOR MODELS**

### **5.5.1 Twelve-factor model (11 dimensions)**

The results of the alpha coefficients for the revised 12-factor model (11 dimensions) are presented in table 5.14. The results for each dimension are presented in the last column.



**TABLE 5.14**

**SCALE RELIABILITIES OF THE TOTAL SCALE AND SUBSCALES FOR THE  
TWELVE (11 DIMENSIONS) FACTOR MODEL**

<b>Dimension</b>	<b>No. of Items</b>	<b>Cronbach's alpha</b>
<b>TOTAL QUESTIONNAIRE</b>	<b>70</b>	<b>0,971</b>
Leadership of immediate manager	23	0,971
Transformation and diversity	6	0,845
Personal growth and development	6	0,867
Interpersonal belonging and fit	5	0,873
General feeling of job satisfaction	10	0,892
Employee wellness	4	0,851
Image	3	0,838
Pay	2	0,854
Challenging and interesting work	2	0,889
Physical work environment	2	0,596
Recognition and acknowledgment	4	0,820

Cronbach's alpha coefficients for the revised dimensions of the 12-factor model (11 dimensions) indicated good reliability, with the majority of the scales appearing to have acceptable internal consistency reliabilities of above 0,80. The results of the alpha coefficient from 10 of the dimensions ranged from 0,82 to 0,97. This indicates that these 10 dimensions had internal consistencies within the recommended range.

The initial transformation and diversity scale, however, reported a coefficient alpha of 0,81 with the corrected item total correlation of item 35 being  $< 0,3$  (0,210). Hence, item 35 (The management style of my immediate manager is generally autocratic) was removed from the scale because it had little face validity. The new coefficient alpha for this scale without item 35 is 0,85. The physical work environment scale appeared to have

a low reliability, initially reporting a coefficient alpha of 0,55. On further inspection, item 8 (New employees receive the necessary induction/orientation) was  $< 0,3$  (0,215) and therefore removed from this scale because it had little face validity. The new coefficient alpha for this scale improved to 0,596. Although less than 0,70, it was considered acceptable. This score, however, suggests a poor correlation with the other scales and in future research consideration should be given to exploring adding additional items in this dimension or the exclusion of this item. For the purposes of the current research, this dimension was still included in the analysis.

### 5.5.2 The three-factor model

The results of the alpha coefficients for the three-factor model are presented in table 5.15. The results for each dimension are presented in the last column.

**TABLE 5.15**

**SCALE RELIABILITIES OF THE TOTAL SCALE AND SUBSCALES FOR THE  
THREE FACTOR MODEL**

<b>Dimension</b>	<b>No. of Items</b>	<b>Cronbach's alpha</b>
<b>TOTAL QUESTIONNAIRE</b>	<b>70</b>	<b>0,971</b>
Interaction with management	28	0,970
Interaction with personal environment	33	0,938
Interaction with co-workers	7	0,844

Cronbach's alpha coefficients for the three-factor model indicated good reliability with all three scales reporting acceptable internal consistency reliabilities of above 0,80. The

results of the alpha coefficient from the three dimensions ranged from 0,84 for interaction with co-workers to 0,97 for interaction with management. This indicated that the three dimensions had internal consistencies within the recommended range.

The initial interaction with personal environment scale reported a coefficient alpha of 0,94 (0,936) with the corrected item-total correlation of item 35 being  $< 0,3$  (0,157). Hence item 35 (The management style of my immediate manager is generally autocratic) was removed from the scale because of its poor face validity. The new coefficient alpha for this scale without item 35 was 0,94 (0,938).

Since the 12-factor model (11 dimensions) fitted the model best and reported good internal consistency, it was decided to conduct the rest of the analysis using the dimensions of the 12-factor model (11 dimensions).

## **5.6 TESTING OF THE STUDY HYPOTHESES**

In this section, the results of the statistical techniques used to test the study's hypotheses are presented and interpreted.

### **5.6.1 Effect size**

To interpret the practical significance of the statistical results, Cohen's (1988) guidelines for the interpretation of effect size were applied.

Calculating and interpreting effect sizes not only determines the practical significance of statistical findings, but also prevents the probability of deducing statistically significant differences between groups or relationships between variables, when the effect size is extremely small (Cohen, 1988).

Where statistically significant results were found for differences between means (t-tests and analysis of variance), eta squared ( $r^2$ -values) were calculated and interpreted according to the following guidelines:

- $r^2 = 0,3$  (small effect)
- $r^2 = 0,5$  (medium effect)
- $r^2 = 0,8$  (large effect)

Where statistically significant relationships were found through correlation coefficients, r-values (equal to the correlation magnitude) were interpreted according to the following guidelines:

- $r = 0,1$  (small effect)
- $r = 0,3$  (medium effect)
- $r = 0,5$  (large effect)

### **5.6.2 Hypotheses related to the relationship between organisational climate and job satisfaction**

The research results of the Pearson product-moment correlation coefficient between organisational climate and job satisfaction are presented in table 5.16 (overall) and table 5.17 (dimensions) and discussed according to the hypothesis statements in sections 4.6.2 and 4.6.3.

**TABLE 5.16**

**CORRELATION BETWEEN TOTAL ORGANISATIONAL CLIMATE AND JOB  
SATISFACTION**

		<b>Job Satisfaction</b>
<b>Organisational Climate</b>	r	0,813**
	p (two-tailed)	0,000
	N	696

\*\* Correlation was significant at the 0,01 level (2-tailed).

Preliminary analyses were performed to ensure that there were no violations of the assumptions of normality, linearity and homoscedasticity. The results indicated that there was a strong positive correlation between the two variables ( $r=0,813$ ,  $n=696$ ,  $p=0,000$ ). In terms of the practical significance guidelines provided by Cohen (1988), the relationship between the total organisational climate variable and total satisfaction variable had a large effect size because  $r \geq 0,5$ .

The hypothesis (specified in section 4.6.2) on the relationship between organisational climate and job satisfaction is therefore accepted.

Table 5.17 presents the results of the correlation between the organisational climate dimensions and job satisfaction. Preliminary analyses were performed to ensure that no violations of the assumptions of normality, linearity and homoscedasticity.

The results indicated that organisational climate dimensions, which were grouped together as personal factors or factors with a direct influence on the individual, were positively and statistically related (at the 0,01 level) to general feeling of job satisfaction with personal growth and development indicating the strongest relationship ( $r = 0,680$ ;  $p = 0,000$ ) followed Employee Wellness ( $r = 0,484$ ;  $p = 0,000$ ), interpersonal belonging and fit ( $r = 0,483$ ;  $p = 0,000$ ) and challenging and interesting work ( $r = 0,427$ ;  $p = 0,000$ ). In

terms of the practical significance guidelines provided by Cohen (1988), the relationships between the personal factors or factors that had a direct influence on the individual, organisational climate and satisfaction variables possessed effect sizes ranging from medium (challenging and interesting work, interpersonal belonging and fit and employee wellness) to large (personal growth and development).

This finding is similar to that of previous studies in which issues relating to personal growth such as opportunities for development and advancement were considered to have an influence on job satisfaction (Barbash, cited in Peek, 2003; Brief, 1998; Freeman & Rodgers, cited in Peek, 2003; Hackman & Suttle, cited in Peek, 2003; Schlesinger, cited in Peek, 2003). Similarly, the study's finding that interpersonal belonging and fit influence job satisfaction is also evident in other studies. Bisconti and Solomon (cited in Peek, 2003) found that individuals and groups who were able to make their own decisions and worked in a situation in which positive employee relationships were nurtured were more satisfied. A study by Peek (2003) on community college staff found that relationships with peers, supervisors and subordinates were one of the leading factors in job satisfaction. This finding was also reported in a study conducted on South African doctors, which reported that doctors were most satisfied with the social aspects of their work (relationships with colleagues and staff) (Pillay, 2008).

Organisational climate dimensions, which are grouped together as external to, or influence the individual indirectly, also reported a strong positive relationship with general feeling of job satisfaction, the strongest relationship being between recognition and acknowledgement ( $r = 0,650$ ;  $p = 0,000$ ), followed by the physical work environment ( $r = 0,477$ ;  $p = 0,000$ ) and pay ( $r = 0,424$ ;  $p = 0,000$ ). In terms of the practical significance guidelines provided by Cohen (1988), the relationships between the above factors and organisational climate and general feeling of job satisfaction variables possessed effect sizes ranging from medium (physical work environment and pay) to large (recognition and acknowledgement).

The above findings of this study on the role of recognition and acknowledgement in influencing satisfaction were also reported in previous studies (Hackman & Suttle, cited in Peek, 2003). In addition, the role of pay and benefits in influencing satisfaction was also documented (Brief, 1998).

It is interesting to note that the climate dimensions grouped under the broader organisational environment reported the strongest relationship to satisfaction. Since these factors relate to the wider organisation, they can be regarded as external to the individual and seen as having an indirect rather than a direct influence on the individual. The relationships between leadership and general feeling of job satisfaction ( $r = 0,667$ ;  $p = 0,000$ ), image and satisfaction ( $r = 0,559$ ;  $p = 0,000$ ) and transformation and diversity and satisfaction ( $r = 0,584$ ;  $p = 0,000$ ) are positively and statistically related. In terms of the practical significance guidelines provided by Cohen (1988), the relationships between the broader external organisational climate and satisfaction variables possessed large effect sizes with  $r$  being  $> 0,5$ .

**TABLE 5.17****CORRELATION BETWEEN ORGANISATIONAL CLIMATE DIMENSIONS AND JOB SATISFACTION**

		Lead	T & D	PG & D	IB & F	Gen. JS.	EE Well.	Image	Pay	C & I Work	WE	R & A
Lead	r	1,000										
	P (two-tailed)											
	N	696										
T & D	r	0,431**	1,00									
	P (two-tailed)	0,000										
	N	696										
PG & D	r	0,551**	0,548**	1,00								
	P (two-tailed)	0,000	0,000									
	N	695	695									
IB & F	r	0,567**	0,348**	0,390**	1,00							
	P (two-tailed)	0,000	0,000	0,000								
	N	693	693	693								
Gen. JS.	r	0,667**	0,548**	0,680**	0,483**	1,00						
	P (two-tailed)	0,000	0,000	0,000	0,000							
	N	696	696	695	693							
EE Well.	r	0,478**	0,345**	0,365**	0,307**	0,484**	1,00					
	P (two-tailed)	0,000	0,000	0,000	0,000	0,000						
	N	688	688	687	688	688						
Image	r	0,426**	0,426**	0,455**	0,340**	0,599**	0,342**	1,00				
	P (two-tailed)	0,000	0,000	0,000	0,000	0,000	0,000					



		Lead	T & D	PG & D	IB & F	Gen. JS.	EE Well.	Image	Pay	C & I Work	WE	R & A
	N	693	693	692	693	688	688					
Pay	r	0,234**	0,234**	0,244**	0,164**	0,424**	0,254**	0,275**	1,00			
	P (two-tailed)	0,000	0,000	0,000	0,000	0,000	0,000	0,000				
	N	687	687	686	687	683	683	687				
C & I Work	r	0,367**	0,324**	0,395**	0,385**	0,427**	0,231**	0,351**	0,123**	1,00		
	P (two-tailed)	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000			
	N	694	694	693	691	694	691	691	686			
WE	r	0,332**	0,383**	0,448**	0,283**	0,477**	0,323**	0,382**	0,209**	0,261**	1,00	
	P (two-tailed)	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000		
	N	695	695	694	692	695	692	692	686	693		
R & A	r	0,709**	0,419**	0,591**	0,497**	0,650**	0,500**	0,402**	0,226**	0,379**	0,397**	1,00
	P (two-tailed)	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	
	N	692	691	691	692	692	687	692	686	690	691	

Key: leadership of immediate manager = Lead, transformation & diversity = T & D, personal growth & development = PG & D, interpersonal belonging & fit = IB & F, general feeling of job satisfaction = Gen. JS., employee wellness = EE Well., challenging & interesting work = C & I work, physical work environment = WE, recognition & acknowledgement = R & A

### **5.6.3 Hypothesis relating to the influence of organisational climate on job satisfaction**

It was hypothesised that organisational climate factors that are perceived to be internal to the individual or have a direct influence on the individual will have a greater influence on job satisfaction than organisational climate factors that are perceived to be external to the individual and have an indirect influence. In order to explore which dimensions had the greater influence on job satisfaction, a stepwise linear regression was conducted.

The purpose of the linear regression analysis was to determine the extent that the independent climate dimensions predicted or explained the variance in job satisfaction. In addition, it was of interest for this research to understand which dimension in the set of the entire climate dimensions, best predicted job satisfaction. Here all the independent variables, the climate dimensions, were regressed on the dependent variable of job satisfaction.

The results of the stepwise linear regression are elucidated below. Preliminary analysis was conducted to ensure there were no violations of the assumptions of multicollinearity. Since the values for the variables appeared to be respectable, this assumption did not appear to have been violated.

Table 5.18 depicts the variables entered and the fit of the model in which R-squared and adjusted R-squared were presented. It is evident that through the stepwise estimation technique, nine variables (model 9) predicted 70,9% of variance in job satisfaction. All of the models, including model 9, were statistically significant.

**TABLE 5.18****MODEL SUMMARY<sup>j</sup> OF EXPLAINED VARIANCE IN JOB SATISFACTION**

<b>Model</b>	<b>Variables Entered</b>	<b>R<sup>2</sup></b>	<b>Adjusted R<sup>2</sup></b>	<b>p</b>
<b>1</b>	Personal growth & development	0,463	0,462	0,000**
<b>2</b>	Personal growth & development, leadership	0,585	0,584	0,000**
<b>3</b>	Personal growth & development, leadership, image	0,648	0,646	0,000**
<b>4</b>	Personal growth & development, leadership of immediate manager, image, pay	0,682	0,680	0,000**
<b>5</b>	Personal growth & development, leadership, image, pay, recognition & acknowledgement	0,694	0,692	0,000**
<b>6</b>	Personal growth & development, leadership of immediate manager, image, pay, recognition & acknowledgement, transformation & diversity	0,704	0,701	0,000**
<b>7</b>	Personal growth & development, leadership of immediate manager, image, pay, recognition & acknowledgement, transformation & diversity, physical work environment	0,709	0,706	0,000**
<b>8</b>	Personal growth & development, leadership of immediate manager, image, pay, recognition & acknowledgement, transformation & diversity, physical work environment, challenging & interesting work	0,711	0,708	0,000**
<b>9</b>	Personal growth & development, leadership of immediate manager, image, pay, recognition & acknowledgement, transformation & diversity, physical work environment, challenging & interesting work, employee wellness	0,713	0,709	0,000**

<sup>j</sup> Dependent variable: General satisfaction

\*\*Model is significant at the 0,000 level,  $p < 0,0005$ .

Table 5.19 presents all the variables included in model 9 and their contribution in predicting job satisfaction. The beta value provides information on the contribution of each independent variable. The largest value contributes the most.

**TABLE 5.19****COEFFICIENTS FOR THE INDEPENDENT VARIABLES OF MODEL NINE**

<b>Variable</b>	<b>Beta</b>	<b>p-value</b>
<b>Personal Growth &amp; Development</b>	0,224	0,000**
<b>Leadership of Immediate Manager</b>	0,216	0,000**
<b>Image</b>	0,181	0,000**
<b>Pay</b>	0,177	0,000**
<b>Recognition &amp; Acknowledgement</b>	0,127	0,000**
<b>Transformation &amp; Diversity</b>	0,113	0,000**
<b>Physical Work Environment</b>	0,073	0,003**
<b>Challenging &amp; Interesting work</b>	0,058	0,014*
<b>Employee Wellness</b>	0,053	0,035*

\* Significant at the 0,5 level.

\*\* Significant at the 0,000 level.

In the above table, the largest beta coefficient is 0,224, which is for Personal growth and development. This means that this variable makes the strongest unique contribution to explaining job satisfaction, when the variance explained by all the other variables in the model is controlled for. Leadership of the immediate manager is the second largest contributor in explaining job satisfaction with a beta coefficient of 0,216, followed by image with a value of 0,181 and pay with a beta coefficient of 0,177 contributing the third and fourth largest variance in job satisfaction respectively. The fifth largest contributor is recognition and acknowledgement with a beta coefficient of 0,127 with transformation and diversity in sixth place with a beta coefficient of 0,113. Physical work environment, challenging and interesting work and employee wellness make up the seventh, eighth and ninth places with beta coefficient values of 0,073, 0,058 and 0,053 respectively. Personal growth and development ( $p = 0,000$ ), leadership ( $p = 0,000$ ), image ( $p = 0,000$ ), pay ( $p = 0,000$ ), recognition and acknowledgement ( $p = 0,000$ ) and transformation and diversity ( $p = 0,000$ ) variables make a statistically unique contribution (at the comparison wise significance level of 0,005) with a p value of 0,000. Physical

work environment ( $p = 0,003$ ) is also statistically significant at the 0,005 level. Challenging and interesting work ( $p = 0,014$ ) and employee wellness ( $p = 0,035$ ) are statistically significant at the 0,05 level. Interpersonal belonging and fit ( $p = 0,197$ ) was excluded from this model because it does not appear to contribute to job satisfaction.

On the basis of the presentation of the above results, the hypothesis regarding organisational climate dimensions perceived as personal to the individual will have a greater influence on job satisfaction than organisational climate factors perceived as external to the individual (as specified in section 4.6.3) can be partially confirmed.

#### **5.6.4 Hypothesis relating to biographical and organisational variables with regards to organisational climate and job satisfaction**

In this research, biographical variables (gender and race) and organisational variables (years of service, job level, employee status, region and diversity awareness training) were discussed to identify possible subgroups. To compare these subgroups with each other in terms of how they differ in respect of organisational climate and job satisfaction, t-tests and analysis of variance (ANOVA) were used. To ensure that a total organisational climate score, representative of all the dimensions was used, the mean score for each dimension was calculated. Owing to the large number of dimensions, only the total organisational climate and job satisfaction data will be provided here. If, however, there is a difference between the groups on any dimensions, the relevant dimension will be included. The Post-hoc comparison tables will not be included in this chapter due to space limitations, but will be included as Appendix D.

##### *5.6.4.1 Gender*

The results in table 5.20 indicate that there was no difference between males and females regarding organisational climate and job satisfaction. However, there was a difference on the organisational climate dimension of pay, with females reporting less satisfaction. In

terms of the practical significance guidelines provided by Cohen (1988), the difference in satisfaction on the basis of pay, displayed a small effect size.

**TABLE 5.20**

**T-TEST COMPARISON OF GENDER DIFFERENCES**

Dependent variable	Gender	Mean	Std. Deviation	Std. Error	Variances	t	p	Effect size
<b>Organisational climate</b>	Male	3,6557	0,54458	0,02593	Equal	0,129	0,897	
	Female	3,6500	0,59175	0,03750				
<b>Job satisfaction</b>	Male	3,0545	0,80352	0,03826	Equal	1,104	,270	
	Female	2,9825	0,85800	0,05437				
<b>Pay</b>	Male	2,8664	0,97619	0,04664	Equal	3,120	0,002	0,014
	Female	2,6214	0,99205	0,06364				

Even though this finding is inconsistent with the findings of Long (2005) and Clark (1997), it is commensurate with the findings of the majority of other studies, indicating that there are no statistically significant differences between males and females (Martin, 2007; Hlungwane, 2006; Josias, 2005; Pors, 2003; Alavi & Askaripur, 2003; Carr & Human, 1988).

The findings of this research on gender differences and organisational climate are consistent with those of Gerber (2003), where the results indicated no gender differences regarding total organisational climate.

#### 5.6.4.2 *Race*

A one-way between-groups analysis of variance was conducted to investigate the impact of race on organisational climate and job satisfaction. The subjects were divided into four groups according to recognised racial categories (group 1: African, group 2: Coloured, group 3: Indian, group 4: White). As indicated in table 5.21, there is no statistically

significant difference between the perception of organisational climate and job satisfaction of participants of different races [ $F(3,684)=1,08$ ,  $p=0,355$ ] for organisational climate and [ $F(3,684)=1,88$ ;  $p=0,132$ ] for satisfaction. However, there were statistically significant differences between groups regarding interpersonal belonging and fit and image. Despite reaching statistical significance, the actual difference in mean scores between the groups was quite small. The effect size, calculated using eta squared, was 0,014 for team work and 0,015 for image.

**TABLE 5.21**

**ANALYSIS OF VARIANCE: COMPARING ORGANISATIONAL CLIMATE  
AND JOB SATISFACTION OF RACE GROUPS**

		Sum of Squares	df	Mean Square	F	p	Effect Size
<b>Organisational Climate</b>	Between Groups	1,036	3	0,345			
	Within Groups	217,626	684	0,318	1,085	0,355	
	Total	218,661	687				
<b>Job Satisfaction</b>	Between Groups	3,799	3	1,266			
	Within Groups	461,057	684	0,674	1,879	0,132	
	Total	464,856	687				
<b>Interpersonal Belonging &amp; Fit</b>	Between Groups	4,312	3	1,437			
	Within Groups	299,252	681	0,439	3,271	0,021	0,014
	Total	303,564	684				
<b>Image</b>	Between Groups	6,431	3	2,144			
	Within Groups	403,904	681	0,593	3,615	0,013	0,015
	Total	410,335	684				

Post-hoc comparisons using the Bonferroni test indicated that the mean score for group 1 ( $M=4,05$ ,  $SD=0,76$ ) and group 4 ( $M=4,03$ ,  $SD=0,64$ ) was significantly different to group 3 ( $M=3,68$ ,  $SD=0,60$ ), with group 3 reporting the lowest level of satisfaction with

interpersonal belonging and fit. Group 2 did not differ significantly from any of the groups. Post-hoc comparisons using the Bonferroni test indicated that the mean score for group 1 ( $M=4,01$ ,  $SD=0,71$ ) was significantly different from group 4 ( $M=3,77$ ,  $SD=0,78$ ) with group 1 reporting a more positive perception of the organisation's image.

The above findings are dissimilar to other studies conducted in South Africa, reporting significant differences between race and satisfaction (Bowen & Cattle, 2008; Luddy, 2005). The findings of this research is however similar to those of other South African studies which reported no relationship between race and satisfaction (Martin, 2007; Hlungwane, 2006) as well as international studies (Kavanaugh et al., 2006).

The above results are consistent with the findings of previous studies, in which no differences were found between the race groups on total organisational climate scores (Gerber, 2003).

#### 5.6.4.3 *Tenure*

A one-way between-group analysis of variance was conducted to investigate whether the respondents reported a difference in perceived organisational climate and job satisfaction on the basis of number of years of service with the company. The subjects were divided into five groups according to the number of years service with the organisation (group 1: 0 to 1 year, group 2: 2 to 3 years, group 3: 4 to 5 years, group 4: 6 to 10 years and group 5: 11 years+). The research results of the ANOVA are presented in table 5.22 and then discussed.



**TABLE 5.22**

**ANALYSIS OF VARIANCE: COMPARING ORGANISATIONAL CLIMATE  
AND JOB SATISFACTION OF TENURE GROUPS**

		Sum of squares	df	Mean square	F	p	Effect size
<b>Organisational Climate</b>	Between Groups	5,414	4	1,354			
	Within Groups	216,776	689	0,315	4,302	0,002*	0,02
	Total	222,191	693				
<b>Job satisfaction</b>	Between Groups	32,957	4	8,239			
	Within Groups	439,061	689	0,637	12,930	0,000*	0,06
	Total	472,018	693				
<b>Leadership of immediate manager</b>	Between Groups	7,593	4	1,898			
	Within Groups	359,491	689	0,522	3,638	0,006*	0,020
	Total	367,083	693				
<b>Personal growth &amp; development</b>	Between Groups	9,881	4	2,470			
	Within Groups	543,387	688	0,790	3,128	0,015*	0,018
	Total	553,268	692				
<b>Employee wellness</b>	Between Groups	7,430	4	1,858			
	Within Groups	454,120	681	0,667	2,786	0,026*	0,016
	Total	461,550	685				
<b>Image</b>	Between Groups	21,739	4	5,435			
	Within Groups	393,201	686	0,573	9,482	0,000*	0,052
	Total	414,940	690				
<b>Pay</b>	Between Groups	18,825	4	4,706			
	Within Groups	653,102	680	0,960	4,900	0,001*	0,028
	Total	671,927	684				

\*. The mean difference is significant at the 0,05 level.

The results indicate that there was a statistically significant difference at the  $p < 0,05$  level in organisational climate scores [ $F(4, 689) = 4,3$ ,  $p = 0,002$ ] and job satisfaction [ $F(4,$

689)=12,9,  $p=0,000$ ] of participants with different tenure. Despite reaching statistical significance, the actual difference in mean scores between the groups was small. The effect size calculated using eta squared was 0,02 for organisational climate and 0,06 for satisfaction.

Post-hoc comparisons of job satisfaction using the Bonferroni test indicated that the mean score for group 1 ( $M=3,43$ ), was significantly different from group 2 ( $M=3,03$ ), group 3 ( $M=2,85$ ), group 4 ( $M=2,92$ ) and group 5 ( $M=2,83$ ). From the results, it can be inferred that respondents with 0 to 1 year service with the organisation are most satisfied and respondents with 11+ years of service with the organisation reported the lowest level of job satisfaction. Post-hoc comparisons of organisational climate using the Bonferroni test indicated that the mean score for group 1 ( $M=3,78$ ) was significantly different from group 5 ( $M=2,83$ ). One may infer from the results, that respondents with 0 to 1 year of service perceived the climate in the organisation to be more positive than respondents with 11+ years of service with the organisation.

The results in table 5.22 also reported statistically significant differences at the  $p<0,05$  level in leadership of the immediate manager, personal growth and development, employee wellness, image and pay scores for the five tenure groups. Despite leadership of the immediate manager, personal growth and development and employee wellness reaching statistical significance, the actual difference in mean scores between the groups was fairly small, with the effect size of 0,020, 0,018 and 0,016 respectively. Post-hoc comparisons using the Bonferroni test for leadership of immediate manager, personal growth and development and employee wellness, indicated that the mean scores for group 1 were significantly different from group 5. Groups 2, 3 and 4 did not differ significantly from groups 1 and 5.

Statistically significant differences at the  $p<0,05$  level was also found between the groups regarding image of the organisation. The Post-hoc comparisons indicated that group 1 ( $M=4,09$ ,  $SD=0,66$ ) appeared to be more satisfied than group 3 ( $M=3,77$ ,  $SD=0,72$ ), group 4 ( $M=3,73$ ,  $SD=0,80$ ) and group 5 ( $M=3,58$ ,  $SD=0,83$ ) about the organisation's

image. Group 2 ( $M=3,88$ ,  $SD=0,72$ ) did not differ significantly from groups 1, 3 and 4, but differed significantly from group 5. Significant differences were also found between pay and the various tenure groups, with group 1 ( $M=3,06$ ,  $SD=0,87$ ) reporting significant differences between groups 2 ( $M=2,72$ ,  $SD=0,95$ ), 3 ( $M=2,55$ ,  $SD=0,94$ ), 4 ( $M=2,64$ ,  $SD=1,03$ ) and 5 ( $M=2,08$ ,  $SD=1,06$ ), indicating that group 1 was more satisfied with pay than any of the other groups.

The above findings are in line with previous job satisfaction studies (Josias, 2005; Lambert et al., 2001) which reported an inverse relationship between tenure and job satisfaction; employees who had been with the organisation for a long time were less satisfied than those who had been with the organisation for only a short period. This finding however, is inconsistent with other studies, which reported tenure and satisfaction to be u-shaped (Shields & Ward, 2001) or no significant relationship (Bowen & Cattle, 2008; Martin, 2007; Hlungwane, 2006).

The findings in this study on tenure and organisational climate were inconsistent with those previous studies which reported no significant relationship between tenure and organisational climate (Gerber, 2003).

#### 5.6.4.4 *Job level*

The research results of the ANOVA are presented in table 5.23 and indicate that for job satisfaction there was no statistical significance between the different groups. The results, however, do indicate a statistically significant difference at the  $p<0,05$  level between the different job levels regarding their perception of organisational climate. The subjects were divided into groups on the basis of their hierarchical level in the organisation (group 1: executive management, group 2: middle and senior management and group 3: junior management, supervisors and clerical staff).

Despite achieving statistical significance, the difference in mean scores between the groups was quite small. The effect size, calculated using eta squared was 0,02, which,

according to Cohen (1988) is considered small. Post-hoc comparisons using the Bonferroni test indicated that the mean score for middle and senior management ( $M=3,50$ ,  $SD=0,55$ ) was significantly different from that of junior management, supervisors and clerical staff ( $M=3,63$ ,  $SD=0,57$ ), with the former group reporting a more positive perception of organisational climate. Executive management ( $M= 3,49$ ,  $SD=0,49$ ) did not differ significantly from the other groups.

There was also a statistically significant difference at the  $p<0,05$  level in scores between group 2 and group 3. Despite reaching statistical significance, the difference in mean scores between the groups was quite small. The effect size, calculated using eta squared was 0,027, 0,016, 0,016 and 0,009 for leadership of immediate manager, employee wellness, pay and physical work environment respectively.

Post-hoc comparisons using the Bonferroni test indicated that group 3 reported higher levels of satisfaction with the climate dimensions of leadership of immediate manager ( $M=3,92$ ,  $SD=0,2$ ), employee wellness ( $M=3,67$ ,  $SD=0,83$ ) and physical work environment ( $M=3,54$ ,  $SD=0,81$ ). Group 2 appeared to be more satisfied than group 3 regarding the dimension of pay ( $M=2,99$ ,  $SD=0,99$ ). Group 1 did not differ significantly from the other groups.

**TABLE 5.23**

**ANALYSIS OF VARIANCE: COMPARING ORGANISATIONAL CLIMATE  
AND JOB SATISFACTION OF JOB LEVEL GROUPS**

		Sum of squares	df	Mean square	F	Sig.	Effect size
<b>Organisational climate</b>	Between Groups	4,083	2	2,042			
	Within Groups	195,895	620	0,316	6,462	0,002**	0,02
	Total	199,979	622				
<b>Job satisfaction</b>	Between Groups	3,613	2	1,806			
	Within Groups	419,033	620	0,676	2,673	0,070	
	Total	422,645	622				
<b>Leadership of immediate manager</b>	Between Groups	9,037	2	4,518			
	Within Groups	322,141	620	0,520	8,696	0,000**	0,027
	Total	331,178	622				
<b>Employee wellness</b>	Between Groups	6,702	2	3,351			
	Within Groups	420,017	613	0,685	4,890	0,008**	0,016
	Total	426,719	615				
<b>Pay</b>	Between Groups	9,300	2	4,650			
	Within Groups	602,810	615	0,980	4,744	0,009**	0,015
	Total	612,110	617				
<b>Physical work environment</b>	Between Groups	4,262	2	2,131			
	Within Groups	424,957	619	0,687	3,104	0,046**	0,009
	Total	429,219	621				

\*\*The mean difference is significant at the 0,05 level.

Although there are relatively few studies investigating the relationship between satisfaction and job level (Oshagbemi, 1997), generally there does seem to be a positive relationship between job level and satisfaction (Josias, 2005; Miles, et al., 1996; Kline & Boyd, 1991; Saal & Knight, 1988; Mowday et al., 1982; Ronen, 1978).

However, the findings of this research were inconsistent to the findings of the studies above, but consistent with the findings of Frances (1986), who found higher-level employees to be less satisfied than lower-level employees.

Previous studies investigating the difference between groups on the basis of job level found that respondents at more senior levels reported higher scores on organisational climate (Gerber, 2003). This study, however, found the opposite to be true with junior management, supervisors and clerical staff reporting higher mean scores on the overall climate as well as leadership of immediate manager, employee wellness and physical work environment. Middle and senior management, however, reported higher satisfaction with regard to pay.

#### 5.6.4.5 *Employee status*

Table 5.24 represents the research results of the t-test conducted on employee status.

**TABLE 5.24**

#### **T-TEST COMPARISON OF EMPLOYEE STATUS**

	<b>Employee status</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Std. Error Mean</b>	<b>Variances</b>	<b>t</b>	<b>p</b>	<b>Effect Size</b>
<b>Organisational climate</b>	Permanent	3,6307	0,54721	0,02588	Equal	0,091	0,927	
	PC	3,6259	0,60804	0,04916				
<b>Job satisfaction</b>	Permanent	2,9947	0,81073	0,03835	Equal	-0,712	0,477	
	PC	3,0496	0,85805	0,06937				
<b>Transformation &amp; diversity</b>	Permanent	3,3729	0,64456	0,03049	Unequal	2,011	0,045	0,006
	PC	3,2354	0,75666	0,06117				
<b>Personal growth &amp; development</b>	Permanent	3,1409	0,86232	0,04079	Unequal	2,979	0,003	0,009
	PC	2,8784	0,96299	0,07811				
<b>Employee wellness</b>	Permanent	3,5790	0,83301	0,03962	Equal	-2,657	0,008	-0,009
	PC	3,7850	0,78205	0,06385				

The results indicate that there was no statistically significant difference between the perception of organisational climate ( $t=0,091$ ,  $p=0,927$ ) and job satisfaction ( $t=0,712$ ,  $p=0,477$ ) of the participants based on their employment status. However, there was a statistically significant difference for transformation and diversity ( $t=02,011$ ,  $p=0,045$ ) and personal growth and development ( $t=02,979$ ,  $p=0,003$ ), with project consultants (PC) reporting less satisfaction with these organisational climate factors. Employee wellness however, was statistically significant ( $t=-2,657$ ,  $p=0,008$ ), with respondents who were employed as PCs reporting higher levels of satisfaction for employee wellness.

The effect size calculated using eta squared is 0,006 for transformation and diversity, 0,009 for personal growth and development and -0,009 for employee wellness, which in Cohen's (1988) terms would be considered a small effect size.

The findings of this study are therefore inconsistent with those reported by Movashi and Terborg (2002) who found no significant difference between individuals employed on a permanent or contract basis. Even though this study found the PCs to be more satisfied in terms of employee wellness, the general findings were inconsistent with those of Cho and Johanson (2008), who reported that contractors were more satisfied than their permanent counterparts, and Ang and Slaughter (2001) who found that contractors perceived their work environment more favourably than permanent employees.

#### 5.6.4.6 *Region*

The research results of the ANOVA are presented in table 5.25 and indicate that with regard to job satisfaction there was no statistical significance between the different regions. Statistically significant differences for organisational climate however were reported among the different regions. The subjects were divided into groups on the basis of region in which the respondents were based (group 1: Johannesburg, group 2: Pretoria and group 3: client site).

**TABLE 5.25**

**ANALYSIS OF VARIANCE: COMPARING ORGANISATIONAL CLIMATE  
AND JOB SATISFACTION OF REGION**

		Sum of squares	df	Mean square	F	p	Effect Size
<b>Organisational climate</b>	Between Groups	2,019	2	1,009			
	Within Groups	220,407	693	0,318	3,173	0,042	0,009
	Total	222,425	695				
<b>Job satisfaction</b>	Between Groups	1,440	2	0,720			
	Within Groups	472,463	693	0,682	1,056	0,348	
	Total	473,903	695				
<b>Personal growth &amp; development</b>	Between Groups	18,946	2	9,473			
	Within Groups	538,839	692	0,779	12,166	0,000	0,034
	Total	557,785	694				
<b>Physical work environment</b>	Between Groups	19,288	2	9,644			
	Within Groups	461,524	692	0,667	14,460	0,000	0,040
	Total	480,812	694				

Post-hoc comparisons using the Bonferroni test indicated that the mean score for group 2 ( $M=3,60$ ,  $SD=0,60$ ) was significantly different to group 3 ( $M=3,77$ ,  $SD=0,58$ ), with group 1 ( $M=3,66$ ,  $SD=0,53$ ) not differing significantly from either group 2 or group 3. Despite reflecting a statistical difference, the mean scores between the groups were fairly small with the effect size reported as 0,009.

Statistical significance was also reported for personal growth and development and physical work environment. Post-hoc comparisons using the Bonferroni test indicated that group 3 ( $M=3,44$ ,  $SD=0,69$ ) reported higher levels of satisfaction regarding personal growth and development than group 1 ( $M=3,38$ ,  $SD=0,66$ ) and group 2 ( $M=3,27$ ,  $SD=0,71$ ). Similarly, group 3 ( $M=3,93$ ,  $SD=0,71$ ), reported higher levels of satisfaction



with their physical work environment than group 1 ( $M=3,38$ ,  $SD=0,85$ ) and group 2 ( $M=3,57$ ,  $SD=0,78$ ).

#### 5.6.4.7 Diversity awareness training

An independent samples t-test was conducted to compare how participants who attended a diversity awareness training programme differed from participants who did not attend the diversity awareness training programme in terms of their perception of organisational climate and job satisfaction.

**TABLE 5.26**

**T-TEST COMPARISON OF ATTENDANCE OF DIVERSITY AWARENESS  
TRAINING**

Dependent variable	Diversity awareness training	Mean	Std. Deviation	Std. Error	Variances	t	p	Effect size
<b>Organisational climate</b>	Yes	3,5596	0,59044	0,04742	Equal	-1,061	0,290	
	No	3,6409	0,62153	0,06124				
<b>Job satisfaction</b>	Yes	2,8337	0,89005	0,07149	Equal	-3,064	0,002	-0,02
	No	3,1691	0,81491	0,08030				
<b>Pay</b>	Yes	2,5695	1,04250	0,08484	Equal	-2,266	0,024	-0,01
	No	2,8665	0,98207	0,09772				
<b>Image</b>	Yes	3,6640	0,87698	0,07067	Equal	-1,989	0,048	-0,01
	No	3,8738	0,73538	0,07317				

The results in the above table indicate that there was no significant difference between diversity awareness training and the perception of organisational climate, although a significant difference was found between these groups for job satisfaction, with respondents who attended the diversity awareness training reporting lower levels of job satisfaction ( $t=-3,064$ ,  $p=0,002$ ). These respondents also reported less satisfaction with

regard to the two dimensions of organisational climate namely pay ( $t=-2,266$ ,  $p=0,024$ ) and image ( $t=-1,989$ ,  $p=0,048$ ). However, the magnitude of the differences in the means was tiny. The resulting eta squared value was  $<0,3$ , which according to Cohen (1988), is considered a small effect size.

The findings of this study were consistent with the results reported in a study by LaBeaume (cited in Skuturna, 2006), in which a positive and significant relationship was found between overall job satisfaction and satisfaction with diversity. Similar findings were reported in Kang and Newell's (2008) study, the results of which showed that diversity constructs had a positive relationship with job satisfaction.

#### **5.6.5 SUMMARY OF RESEARCH HYPOTHESES**

The above section addressed the objectives of the study through testing of the research hypotheses as listed in section 4.6 of the previous chapter. Table 5.27 below, provides a summary of the research hypotheses accepted and rejected.

**TABLE 5.27****SUMMARY OF HYPOTHESES**

<b>Hypotheses</b>	<b>Yes/No</b>
<b>Hypothesis 1</b> A 12-factor structure is expected to underlie the organisational climate questionnaire in order to support the 12 identified dimensions of the scale.	No
<b>Hypothesis 2</b> There is a strong positive relationship between organisational climate and job satisfaction.	Yes
<b>Hypothesis 3</b> Organisational climate dimensions that are perceived as personal to or have a direct impact on the individual will have a greater influence on job satisfaction than organisational climate factors that are perceived as external or influence the individual indirectly.	Partial
<b>Hypothesis 4</b> Organisational climate and job satisfaction vary across the different biographical (race, gender) and organisational variables (job level, employee status, years of service and diversity awareness training).	Yes

## CHAPTER 6

### CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

The aim of this chapter is to focus on steps 7 to 9 of the empirical investigation, as elucidated in chapter 1. The conclusions of this research will be formulated on the basis of the literature review as well as the results of the empirical investigation. The research limitations will then be discussed and recommendations made for future research.

#### 6.1 CONCLUSIONS

The aim of this research was to investigate the relationship between organisational climate and job satisfaction. The relationship was investigated in two ways, namely theoretically through the literature review and statistically by conducting an empirical investigation.

##### 6.1.1 Conclusions relating to the literature review

Conclusions will be drawn about organisational climate and job satisfaction with specific reference to the contextual framework of the research and the literature reviewed.

##### *6.1.1.1 Aim 1: conceptualise organisational climate and determine its key components*

The first aim of this research, namely to conceptualise organisational climate and determine its key components, was achieved in chapter 2 (see 2.2 and 2.4). The conclusion can be drawn that the concept of organisational climate is not straightforward and there is no single, widely accepted definition or theory of the construct in the literature. Researchers, however, agree on certain characteristics that describe the construct and differentiate it from other concepts:

- Climate is generally considered to be a molar construct that can change over time.
- It is perceived by organisational members and is shared, which can result in consensus among individuals.
- It consists of global impressions of the organisation which members form through interaction with one another and organisational policies, structures and processes.
- Climate perceptions are descriptions of environmental events and conditions rather than evaluations of them.
- The climate construct is multidimensional.
- It refers to the “feeling of an organisation”.
- Climate can potentially influence an individual’s behaviour.

The various aspects of climate, such as dimensions and levels of climate were explored. With reference to the dimensions of organisational climate, the literature differentiates between strategic climates (a climate for something), say, a climate for safety and a generic climate construct. Various dimensions of organisational climate are presented in the literature. This research considered a generic approach to the investigation of organisational climate, using the dimensions listed in table 2.3, which, upon review exhibited overlapping with other popular climate dimensions in the literature. Climate is also considered to exist at three different levels, namely organisational level (organisational climate), group level (group climate) and psychological level (individual climate). The discussion clarified organisational climate.

A model of organisational climate was also presented to clarify and explore the relationships between the various aspects of organisational climate. Gerber’s (2003) model of organisational climate was found to be suitable for the purposes of this study,

because it not only highlights the various climate levels, but also acknowledges the role of organisational culture and its interaction with organisational climate (see section 2.3). In addition, the model also describes the relationship between climate and job outcomes such as job satisfaction. The vital role that climate plays in an organisation was also explored and it was concluded that climate has a significance influence on an organisation's performance.

#### *6.1.1.2 Aim 2: determine how organisational climate can be measured*

Aim 2, namely to determine how organisational climate can be measured was achieved in chapter 2 (see 2.5). From the discussion, it can be concluded that there are two primary techniques to measure climate - objective and subjective (perceptual). Objective measuring techniques such as organisational size and hierarchy do not rely on individual perceptions and are therefore considered to be more reliable. However, this technique does have limitations. Many variables have to be considered, and this tends to make interpretation difficult. No consideration is given to how organisational properties are related to each other and to organisational functioning, and since climate is a function of perception, it cannot be measured by means of objective criteria. Subjective techniques measure individual perceptions and are therefore considered a more appropriate measurement of organisational climate. Since this research studied how organisational members view the climate, it was concluded that in order to achieve the aims of this research, subjective techniques that measure individual perceptions had to be used.

#### *6.1.1.3 Aim 3: conceptualise job satisfaction and determine its key components*

Aim 3 of this research, namely to conceptualise job satisfaction and its key components was achieved in chapter 3 (see 3.2 and 3.3). Although job satisfaction is a popular concept and has been extensively researched, a universally accepted definition does not exist. Job satisfaction is considered an attitude (generally referring to the affective component) that individuals have towards their job, which can change according to one's

environment, values and needs. Additional conclusions regarding job satisfaction includes the following:

- Job satisfaction is more present and past oriented and places the emphasis on the individual.
- It influences the individual to behave in a particular manner.
- It can influence work-related outcomes such as absenteeism and turnover.
- Job satisfaction can be divided into global (overall) and facet job satisfaction, reflecting an overall feeling towards one's job or expressing one's feelings about a particular aspect of the job.

When exploring the aspects of job satisfaction, one may conclude that a number of job and environmental factors influence job satisfaction. Although these influences vary, most researchers agree on six primary influences - the job itself, pay, promotion, working conditions, supervision and the workgroup. It is concluded that these influences can be divided into two broad categories, extrinsic and intrinsic factors, which address the potential sources of satisfaction. Models of job satisfaction were explored and it was concluded that these can be divided into content theories and process theories.

In addition to job or environmental influences on job satisfaction, personal variables were seen to play a role in job satisfaction. Job satisfaction influences behaviour which has consequences for the organisation. Because job satisfaction influences organisational outcomes, it can be concluded that organisations need to gain a greater understanding of the concept and should identify the factors in their environment that influence it. Therefore it can be concluded that measuring job satisfaction is crucial for organisations for two reasons - it explains a range of employee behaviours relevant to the work environment and relates to company variables including quality, efficiency and productivity and consumer evaluation of the service.

#### 6.1.1.4 *Aim 4: determine how job satisfaction can be measured*

Aim 4, namely to determine how job satisfaction can be measured was achieved in chapter 3 (see 3.6). It can be concluded that job satisfaction can be measured in various ways - paper-and-pencil tests, critical incidents and interviews, of which the most commonly used is the paper-and-pencil test. In addition, it is concluded that job satisfaction can be measured via facets of the job and environment, referred to as the facet approach, or the global approach, which lists direct statements on how individuals feel about their jobs. For the purposes of this research, it was concluded that the measurement most suitable for this research was the global approach because research shows that the global approach is more accurate. Job satisfaction was measured with the focus on the affective component thereof.

#### 6.1.1.5 *Aim 5: integrate the concepts of organisational climate and job satisfaction*

Aim 5, namely to integrate organisational climate and job satisfaction, was achieved at the end of chapter 3. It was concluded that although organisational climate and job satisfaction are related constructs, they are distinct (Al-Shammari, 1992; Keuter et al., 2000), with organisational climate focusing on organisational/institutional attributes as perceived by organisational members, and job satisfaction defined as perceptions and attitudes that people have and exhibit towards their work. This view is supported by a number of research studies (LaFollette & Sims, 1975; Litwin & Stringer, 1968; Friedlander & Margulies, 1969; Schneider & Snyder, 1975).

Batlis (1980), Lawler et al., (1974), Pritchard and Karasick (1973) and Waters et al. (1974) all conducted studies involving the relationship between organisational climate and job satisfaction. Their results revealed consistent and impressive relationships between climate and satisfaction. Although climate dimensions varied across the studies, it can be concluded that employees tend to be more satisfied in climates that encourage autonomy (Bisconti & Solomon, cited in Peek, 2003), show an interest in their employees (Hackman & Suttle, cited in Peek, 2003), are concerned about the feelings of employees



(Ford, cited in Peek, 2003; Hopkins, cited in Peek, 2003) and encourage continuous learning and development opportunities (Brief, 1998; Freeman & Rodgers, cited in Peek, 2003; Ford, cited in Peek, 2003; Schlesinger, cited in Peek, 2003).

### **6.1.2 Conclusions relating to the empirical study**

Conclusions will be drawn about organisational climate and job satisfaction with specific reference to the empirical investigation in this study.

#### *6.1.2.1 Aim 1: investigate the organisational climate in an ICT organisation in South Africa*

Aim 1, namely to investigate the organisational climate in an ICT organisation in South Africa, was achieved in chapter 5. The organisational climate questionnaire was used to gather information on the climate in the current organisation and the results were presented in chapter 5 (see table 5.1). The mean score for the total climate and the mean score for 10 of the dimensions were above the 3,2 cut-off point. Two of the dimensions indicated mean cut-offs below the recommended 3,2 range (Odendaal, 1997). The results indicated that organisational climate, as perceived by the organisational members, can be regarded as generally positive. Two areas identified as requiring attention by the organisation and reflecting negative perceptions of organisational members related to training and development and remuneration and reward. The reliability and validity of the questionnaire was discussed and it was determined that most of the scales had acceptable internal consistency reliability. However, the model had a poor fit to the data. It was therefore decided to conduct a Confirmatory Factor Analysis on the revised 12-factor (11 dimensions) and three-factor models. On the basis of the results achieved, it can be concluded that the revised 12-factor model (11 dimensions), fitted the data best. It is worth noting that the dimensions were all highly correlated, suggesting that they were not clearly distinguishable.

6.1.2.2 *Aim 2: investigate job satisfaction in an ICT organisation in South Africa*

Aim 2, namely to investigate job satisfaction in an ICT organisation in South Africa, was achieved in chapter 5 (see table 5.1). The job satisfaction of the organisational members was measured according to the global approach, whereby certain questions were grouped together in one dimension to elicit affective responses about the employees' job. The results indicate that the respondents were satisfied with their jobs.

6.1.2.3 *Aim 3: investigate whether a relationship exists between organisational climate and job satisfaction in an ICT organisation in South Africa*

Aim 3, namely to investigate whether a relationship exists between organisational climate and job satisfaction in an ICT organisation in South Africa, was achieved in chapter 5. From the results presented in table 5.16 it can be concluded that there was a strong positive correlation between organisational climate and job satisfaction. Table 5.17 provides the results for all the dimensions of organisational climate, and it can be concluded that the dimensions of organisational climate correlated positively with job satisfaction.

6.1.2.4 *Aim 4: investigate whether organisational climate dimensions that are perceived as personal to the individual have a greater influence on job satisfaction than climate factors that are perceived as external.*

Aim 4, namely to investigate whether organisational climate dimensions that are perceived as personal to the individual have a greater influence on job satisfaction than climate factors that are perceived as external to the individual, was achieved in chapter 5. It can be concluded that the personal dimension of personal growth and development contributed the most to predicting job satisfaction, thus indicating that issues relating to furthering one's knowledge and expertise play a significant role in job satisfaction. In addition, it can be concluded that dimensions perceived as external to the individual also contributed significantly to the job satisfaction of the respondents in this study, with

leadership, organisational image and pay contributing the second, third and fourth highest to job satisfaction. This indicates that organisation dimensions perceived as internal and external contributed to job satisfaction.

*6.1.2.5 Aim 5: investigate whether organisational climate and job satisfaction varies across biographical and organisational variables*

Aim 5 of the empirical study, namely to investigate whether organisational climate and job satisfaction varied across biographical and organisational variables, was achieved in chapter 5.

The empirical investigation indicated that gender differences did not contribute to differences in organisational climate scores or job satisfaction scores. The climate dimension of pay, however, indicated that females were less satisfied than their male counterparts.

According to the results of this research, respondents from different race groups did not report differences in terms of job satisfaction and total organisational climate scores. The respondents did, however, report differences in terms of the organisational climate dimensions of interpersonal belonging and fit and image. The results indicate that the Indian respondents were less satisfied than the African and White respondents on the organisational climate dimension of interpersonal belonging and fit. On the dimension of image, the African respondents report higher levels of satisfaction than the White respondents.

The analysis on tenure and organisational climate and job satisfaction indicated differences between the respondents in terms of total organisational climate and job satisfaction as well as in terms of climate dimensions. The respondents who had been with the organisation for one year or less, reported the highest level of job satisfaction than any of the other tenure groups. In addition, respondents with tenure of one year or less had a more positive perception than respondents who has been with the organisation

for 11 years and more. In terms of the organisational climate dimension, the respondents with tenure of one year or less reported higher levels of satisfaction with leadership of immediate manager, personal growth and development and employee wellness than the respondents who had worked for the organisation for 11 years or more. The respondents who had been with the company for one year or less also reported a more positive perception of organisational image than the respondents with four to five years, six to 10 years and 11+ years. Similarly, the respondents with one year or less of work experience with the organisation indicated higher levels of satisfaction with pay.

The empirical investigation indicated that although no differences were reported in the job satisfaction levels of respondents in terms of job level, it appears that junior management, supervisors and clerical staff had a more positive perception of the organisational climate than middle and senior management. In addition, junior management, supervisors and clerical staff appeared to be more satisfied with the organisation's leadership, employee wellness and the physical work environment. Middle and senior management report higher levels of satisfaction with pay.

The results of this research found no statistical significant difference in the perception of total organisational climate and job satisfaction of the respondents with regard to their employment status. The research did, however, indicate a statistically significant difference in the organisational climate dimensions of transformation and diversity, personal growth and development and employee wellness with project consultants (PCs) reporting less satisfaction with the first two dimensions and higher levels of satisfaction for employee wellness.

Although no statistical significance was found between the three regions and job satisfaction, the results indicated a statistically significant difference in the respondents perception of total organisational climate as well as in two dimensions, namely personal growth and development and physical work environment, with the respondents who were based on a client site reporting a more positive perception of the organisation and higher satisfaction in the above-mentioned dimensions.

According to this research, there was no difference between the two groups in diversity awareness training and the perception of organisational climate. A statistical significance, however, was evident between diversity awareness training and job satisfaction with the respondents who had attended the training reporting less job satisfaction and also lower levels of satisfaction with regard to pay and image.

## **6.2 LIMITATIONS OF THE RESEARCH**

The limitations of the literature study and empirical investigation are discussed below.

### **6.2.1 Limitations of the literature review**

With regard to the literature review, the following limitations were encountered:

- There is no consensus on the definition of organisational climate, and there is controversy about how the concept should be measured.
- Current research on organisational climate is limited, with many studies focusing on the concept of organisational culture.
- Although the overlapping between organisational climate and organisational culture is smaller, there is still little consensus on the relationship between these two constructs, and at times, they are used interchangeably.
- There is no widely accepted set of organisational climate dimensions and as such studies seldom make use of the same dimensions, which makes it difficult to compare results from one study to the next.
- There is no generally accepted definition of job satisfaction and its measurement.

## **6.2.2 Limitations of the empirical investigation**

### *6.2.2.1 Sample*

Since the research study was conducted in a single organisation, it cannot therefore be generalised to other ICT organisations or to the rest of the South African workforce. In addition, because only three regions were used in this study, the results cannot be generalised to the entire organisation. When reviewing the biographical make-up of the sample, the majority of the respondents were white males. Although this represents the demographics of the organisation, it is not possible to generalise the finding of this study to the broader South African population.

### *6.2.2.2 Questionnaire*

Owing to the fact that the questionnaire used in this study was developed specifically for this research, no previous reliability and validity data were available. Because no norm groups exist, it was impossible to compare the findings of this study with other organisational climate studies conducted in South Africa. The questionnaire included a global approach to investigating only the affective responses to job satisfaction, thereby excluding cognitive and behavioural components of job satisfaction, limiting comparisons of findings to other studies that had investigated all three components of the job satisfaction attitude. An additional limitation was the high correlations between the items of the questionnaire and the problems with the scale dimensions, which could possibly indicate that the job satisfaction variable was not distinct.

### *6.2.2.3 Use of current organisational climate and job satisfaction information*

Information gathered on the respondents' perception of organisational climate and feelings of job satisfaction was not collected on the same day. The regions had one month in which to conduct the survey, resulting in the regions collecting the data at different times during that month. (region specific), which poses a limitation for this research. By

conducting regular surveys investigating the relationship between organisational climate and job satisfaction over a number of years, more informed conclusions could be drawn. Another limitation of this research was the lack of studies conducted in South Africa investigating the relationship between organisational climate and job satisfaction, making comparisons with this research impossible.

## **6.3 RECOMMENDATIONS**

### **6.3.1 Recommendations for industrial psychologists working in the field of organisational climate**

The conclusions of this research tend to indicate that practitioners should be mindful of the fact that climate is unique to every organisation and should be viewed in the context of the particular organisation. In addition, practitioners should be aware of the influence that an organisation's climate can have on the satisfaction levels of its employees. Understanding what the needs of the organisational members are, is crucial when developing and implementing initiatives that are aimed at improving the climate in the organisation.

Practitioners also have a role to fulfil in assisting business leaders to understand how the perception of various elements in the organisation can have a positive or negative impact on employees, and ultimately influence the bottom line of the organisation. Hence, practitioners need to focus on understanding the importance of workplace climate and job satisfaction in determining an organisation's success or failure and implementing appropriate programmes and initiatives that set best practices to enable the organisation to perform at its best in both the short and long term.

### **6.3.2 Recommendations for further research**

In an attempt to address the limitations of this research as discussed in the previous section, it is recommended that further research be conducted to investigate the concepts

of climate and culture and their possible interrelationships in order to gain clarity on the roles they play within an organisation. In addition, it is recommended that a longitudinal study investigating the relationship between organisational climate and job satisfaction be conducted in the South African context. Future research should consider studying climate and satisfaction over a number of years, and not only at a single point in time. Also larger samples should be used, utilising a number of organisations, across a range of industries in South Africa.

The final recommendation relating to the conclusions of this research is that further studies should be conducted to explore the relationship between organisational climate dimensions that are perceived to be internal to or having a direct influence on the employee versus organisational climate dimensions that are perceived as external to or having an indirect influence on the employee and satisfaction levels.

### **6.3.3 Recommendations for the organisation**

It is recommended that the organisation continues focusing on the areas in which it is doing well and find ways to improve these areas by giving employees feedback and encouraging open and honest feedback. Although areas such as leadership, employee wellness and physical work environment reported positive perceptions among employees, the results indicated that the longer employees are employed in the organisation, the less satisfied they tend to be. Hence, the organisation should consider conducting focus groups or further surveys to understand why these employees become less satisfied the longer they remain with the organisation.

It is also recommended that the organisation should address concerns relating to training and development initiatives. Not only did the results indicate that this dimension reported a mean below 3,2, indicating that employees perceive opportunities to further their knowledge and expertise in a negative light, but the regression analysis found that this dimension had the greatest impact on job satisfaction. The organisation should ensure all new employees receive the necessary orientation once they join the organisation. Line



managers should also ensure that all employees have a personal development plan in place, based on their training and development needs. Employees should be afforded the opportunity to attend training sessions in line with their personal development plan. Coaching and mentoring programmes are another way in which the organisation could provide learning and growth opportunities for employees as soft and technical skills could be transferred to younger, less experienced employees.

A third recommendation for the organisation is to investigate the issues and concerns employees have about remuneration and reward policies in the organisation. This dimension reported a mean score of 2,77, indicating that employees perceive remuneration and reward practices negatively. The organisation could arrange workshops where employees are informed of the value of their salary packages and the comparative market information. The findings indicated that groups differ on the basis of gender, tenure, job level and diversity awareness training. A final recommendation is therefore that reward and incentive programmes should be considered for various groups in the organisation, based on their particular needs and values.

#### **6.4 INTEGRATION OF THE RESEARCH**

This dissertation focused on the relationship between organisational climate and job satisfaction. Challenges such as the talent shortage, managing a diverse workforce, flexible work patterns, and an emphasis on work/life balance, together with organisational issues such as downsizing, outsourcing and a demand for increased productivity have an impact on the job satisfaction levels of organisational members. Understanding what factors make a difference in job satisfaction levels of employees could be helpful for organisations to create, develop and sustain an organisational climate in which employees can thrive. Developing and nurturing a positive organisational climate is no longer a “nice to have” – it is a business imperative.

As such, the industrial psychologists role is to assist line managers to develop an organisational climate that influences employees' attitudes positively, attracts and retains talent and improves productivity and organisational effectiveness.

The research aim was to determine whether there is a relationship between organisational climate and job satisfaction in a South African ICT organisation. The findings of the empirical research were presented in chapter 5, and the conclusions relating to each of the specific aims of both the literature and the empirical studies were discussed in this chapter.

In conclusion, this research provides support for the relationship between organisational climate and job satisfaction, using a sample from three regions in an ICT organisation. Although the findings of the research only partially support the research hypotheses and there were limitations in the sample size, questionnaire and period of information gathering, the relationship between organisational climate and job satisfaction revealed in this study, could result in further understanding of and insight into the dynamics between these concepts. Recommendations also made for further research.

## **6.5 CHAPTER SUMMARY**

This chapter dealt with the conclusions, limitations and recommendations of the study. An integration of the research was also presented.

## REFERENCES

- Aarons, G.A., & Sawitzky, A.C. (2006). Organizational climate partially mediates the effect of culture on work attitudes and staff turnover in Mental Health Services. *Administration and Policy in Mental Health and Mental Health Services Research*, 33(3), 289-301.
- Adams, J.S. (1963). Toward an understanding of inequity. *Journal of Abnormal and Social Psychology*, 67(5), 422-436.
- Ahmed, P. K. (1998). Culture and climate for innovation. *European Journal of Innovation Management*, 1(1), 30-43.
- Al-Ajmi, R. (2001). The effect of personal characteristics on job satisfaction: A study among male managers in the oil industry in Kuwait. *International Journal of Commerce and Management*, 11(3/4), 91-110.
- Alavi, H.R., & Askaripur, M.R. (2003). The relationship between self-esteem and job satisfaction of personnel in government organizations. *Public Personnel Management*, 32(4), 591-600.
- Alexander, C. (2000). *Organizational Behavior*. London: Krogan Page.
- Allen, D.K. (2003). Organizational climate and strategic change in higher education: Organizational insecurity. *Higher Education*, 46(1), 61-92.
- Al-Shammari, M.M. (1992). Organisational climate. *Leadership and Organization Development Journal*, 13 (6), 30-32.

Ang, S., & Slaughter, S.A. (2001). Work outcomes and job design for contract versus permanent Information Systems professionals on software development teams. *MIS Quarterly*, 25(3), 321-350.

Anastasi, A., & Urbina, S. (1997). *Psychological Testing*. Engelwood Cliffs, NJ: Prentice-Hall.

Anderson, A.E. (2004). What's absent in absence management. *Employee Benefits Journal*, 29(1), 25-30.

Ash, P.R. (1983). *An investigation of organizational climate: Definition, Measurement and usefulness as a diagnostic technique*. University of Missouri, Columbia: University Microfilms International.

Ashforth, B.E. (1985). Climate Formation: Issues and Extensions. *Academy of Management Journal*, 10(4), 837-847.

Ashkanasy, N.M., Wilderom, C.P.M., & Peterson, M.F. (2000). *Handbook of Organizational Culture and Climate*. Thousand Oaks, CA: Sage.

Augustyn, J.C.D & Cillie, G.G. (2008). Theory and Practice in Industrial Psychology. Quo Vadis? *SA Journal of Industrial Psychology*, 34(1), 70-75.

Balgobind, V. (2002). *The impact of transformational leadership on subordinate job satisfaction*. Unpublished MA dissertation. Pretoria: University of South Africa.

Batlis, N.C. (1980). The effect of organizational climate on job satisfaction, anxiety, and propensity to leave. *The Journal of Psychology*, 104(2), 233-240.

Benjamin, G.M. (1983). *A study of the relationship between organizational climate measures and organization performance measures*. University of Toledo: University Microfilms International.

Berkowitz, J. (1987). Pay, equity, job gratifications and comparisons in job satisfaction. *Journal of Applied Psychology*, 72(4), 544-551.

Bilgic, R. (1998). The relationship between job satisfaction and personal characteristics of Turkish workers. *The Journal of Psychology*, 132(5), 549-557.

Blum, M.L. & Naylor, J.C. (1968). *Industrial Psychology: Its Theoretical and Social Foundations*. New York: Harper & Row.

Bowen, P. & Cattell, K. (2008). Job satisfaction of South African quantity surveyors. *Engineering, Construction and Architectural Management*, 15(3), 260-269.

Brown, S.P. & Leigh, T.W. (1996). A new look at psychological climate and its relationship to job involvement, effort and performance. *Journal of Applied Psychology*, 81(4), 358-368.

Brenner, O.C. & Fernsten, J.A. (1984). Racial differences in perceived job fulfilment of white collar workers. *Perceptual and Motor Skills*, 58, 643-646.

Brief, A.P. (1998). *Attitudes in and around organizations*. Thousand Oaks, CA: Sage Publications.

Brown, R.B. & Brooks, I. (2002). Emotion at work: Identifying the emotional climate of night nursing. *Journal of Management in Medicine*, 16 (5), 327-344.

Buitendach, J.H., & De Witte, H. (2005). Job insecurity, extrinsic and intrinsic job satisfaction and affective organisational commitment of maintenance workers in a parastatal. *South African Journal of Business Management*, 36(2), 27-37.

Burrell, G., & Morgan, G. (1979). *Sociological paradigms and organizational analysis*. London: Routledge.

Caldwell, D.F. & O'Reilly, C.A. (1990). Measuring person-job fit with a profile-comparison process. *Journal of Applied Psychology*, 75(6), 648-657.

Campbell, J.P., Dunnette, M.D., Lawler, E.E., III, & Weick, K.E., Jr. (1970). *Managerial Behavior, Performance, and Effectiveness*. New York, NY: McGraw-Hill.

Carbonaro, M., Bainbridge, J., & Wolodko, B. (2002). Using Internet surveys to gather research data from teachers: Trials and tribulations. *Australian Journal of Educational Technology*, 18(3), 275-292.

Carr, M., & Human, P. (1988). Job satisfaction and its relationship with demographic and work related variables: A case study in the Western Cape, South Africa. *South African Journal of Labour Relations*, 10(3&4), 60-67.

Cascio, W.F. (2003). *Managing Human Resources: Productivity, quality of work life, profits* (6<sup>th</sup> ed.). Boston, MA: McGraw-Hill/Irwin.

Cho, S., & Johanson, M.M. (2008). Organizational citizenship behavior and employee performance: A moderating effect of work status in restaurant employees. *Journal of Hospitality and Tourism*, 32(3), 307-326.

Churchill, G.A., III, Ford, N.M., & Walker, O.C. (1974). Measuring the job satisfaction of industrial salesmen. *Journal of Marketing Research*, XI, 254-260.

Cimete, G., Gencalp N.S., & Keskin, G. (2003). Quality of life and job satisfaction of nurses. *Journal of Nursing Care Quality*, 18(2), 151-158).

Clark, A., Oswald, A., & Warr, P. (1996). Is job satisfaction U-shaped in age? *Journal of Occupational and Organizational Psychology*, 69, 57-81.

Clark, A.E. (1997). Job satisfaction and gender: Why are women so happy at work? *Labour Economics*, 4, 341-372.

Cohen, J.W. (1988). *Statistical power analysis for the behavioral sciences* (2<sup>nd</sup> ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Cooper, C.L., Dewe, P., & O'Driscoll, M.P. (2001). *Organizational Stress: a review and critique of theory, research and applications*. Thousand Oaks, CA: Sage.

Cooper, D.R., & Schindler, P.S. (2003). *Business Research Methods* (8<sup>th</sup> ed.). Boston, MA: McGraw-Hill Irwin.

Cotton, P. (2004). Developing an Optimal Organisational Climate. Paper presented at Towards Australia's Safest Workplaces, Australia.

Cranny, C.J., Smith, P.C., & Stone, E.F. (1992). *Job Satisfaction: How people feel about their jobs and how it affects their performance*. New York: Lexington.

Cresswell, J. (2003). *Research design: Qualitative, Quantitative and mixed methods approaches* (2<sup>nd</sup> ed.). Thousand Oaks, CA: Sage.

Davidson, M.C.G. (2000). *Organisational climate and its influence on performance*. Unpublished doctoral dissertation. Queensland: Griffith University.

Davis, L.E. (1985). Black and white social work faculty: Perceptions of respect, satisfaction and job performance. *Journal of Sociology and Social Welfare*, 12(1), 79-94.

Deloitte & Touche (2001). Main results from Berlingske Tidende den 9.12.2001. In Lorentz L.E., (Ed.), *Opsigelser koster Virksomhedene Mange Millioner*.

Dempster, A.P., Laird, N.M., & Rubin, D. B. (1977). Maximum likelihood from incomplete data via the *EM* algorithm. *Journal of the Royal Statistical Society, Series B*, 34, 1-38.

Denison, D.R. (1996). What is the difference between organizational culture and organizational climate? A native's point of view on a decade of paradigm wars. *Academy of Management Journal*, 21(3), 619-654.

Dippenaar, H., & Roodt, G. (1996). Aanpassing en evalueering van die Litwin en Stringer Klimaatmeetingsvraelys (Adaptation and evaluation of the Litwin and Stringer climate questionnaire). *Journal of Industrial Psychology*, 22(2), 20-25.

Doering, M., Rhodes, S.R., & Schuster, M. (1983). *The aging worker*. Beverly Hills, CA: Sage.

Dormeyer, S. (2003). *The study about the leadership style and the organisational climate at the Swedish Civil Aviation Administration in Malmo-Sturup*. Master's dissertation, Institute for Psychology, Lund University, Sweden.

Drexler, J. (1977). Organizational Climate: Its homogeneity within organizations. *Journal of Applied Psychology*, 62(1), 38-42.

Field, A. (2005). *Discovering statistics using SPSS* (2<sup>nd</sup> ed.). London: Sage.

Field, R.H.G., & Abelson, M.A. (1982). Climate: A reconceptualization and proposed model. *Human Relations*, 35(3), 181-201.



Fincham, R., & Rhodes, P.S. (2005). *Principles of Organizational Behavior*. (4<sup>th</sup> ed.). New York: Oxford University Press.

Fisher, J., Milner, K., & Chandraprakash, A. (2007). Organisational climate, job tension and job satisfaction in a South African call centre case study. *Ergonomics SA*, 19(2), 1010-2728.

Forehand, G.A., & Gilmer, B. (1964). Environmental variations in studies of organizational behavior. *Psychological Bulletin*, 62(6), 361-382.

Frances, R. (1986). Job and education level of company managers: Their relations with job satisfaction. *Applied Psychology: An International Review*, 35, 513-531.

Friday, S.S., & Friday, E. (2003). Racioethnic perceptions of job characteristics and job satisfaction. *Journal of Management Development*, 22(5), 426-442.

Friedlander, F., & Margulies, N. (1969). Multiple impacts of organizational climate and individual value systems upon job satisfaction. *Personnel Psychology*, 22(2), 171-183.

Garg, P., & Rastogi, R. (2006). Climate profile and OCB's of teachers in public and private schools of India. *International Journal of Educational Management*, 20(7), 529-541.

Gavin, J. & Ewen, R. (1974). Racial differences in job attitudes and performance: some theoretical considerations and empirical findings. *Personnel Psychology*, 27(3), 455-464.

Gavin, J.H., & Mason, R.O. (2004). The Virtuous Organization: The value of happiness in the workplace. *Organizational Dynamics*, 33(4), 379-392.

Gelfand, J. (1972). *The modification, development and application of a measure of organisational climate and its relationship to higher order needs*. Unpublished MA dissertation. Johannesburg: University of Witwatersrand.

Gerber, F.J. (2003). *Die invloed van organisasieklimaat op werksmotivering. (The influence of organisational climate on work motivation)*. Unpublished MComm dissertation. Pretoria: University of South Africa

Gibson, J.L., Ivancevich, J.M., & Donnelly, J.H. (1997). *Organizations: Behavior, structure, processes* (9<sup>th</sup> ed). Chicago: Irwin.

Glick, W.H. (1985). Conceptualizing and Measuring: Organizational and Psychological Climate: Pitfalls in Multilevel Research. *Academy of Management Review*, 10(3), 601-616.

Glission, C., & Durick, M. (1988). Predictors of job satisfaction and organizational commitment in Human Service Organizations. *Administrative Quarterly*, 33, 61-81.

Glission, C., & James, L.R. (2002). The cross-level effects of culture and climate in human service teams. *Journal of Organizational Behavior*, 23(6), 767-794.

Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report*, 8(4), 597-607.

Gold, R.S., Webb, L.J., & Smith, J.K. (1982). Racial differences in job satisfaction among white and black mental health employees. *Journal of Psychology*, 111(2), 255-261.

Gratto, F.J. (2001). *The relationship between organizational climate and job satisfaction for directors of physical plants*. Unpublished PhD dissertation: University of Florida.

Gray, R. (2007). *A Climate of Success: Creating the right organizational climate for high performance*. Amsterdam. Elsevier

Greenberg, J. & Baron, R.A. (1997). *Behaviour in Organizations*. (6<sup>th</sup> ed). Englewood Cliffs, NJ: Prentice-Hall.

Greenhaus, J.H., Parasuaman, S., & Wormly, W.M. (1990). Effects of race on organizational experiences, job performance evaluations and career outcomes. *Academy of Management Journal*, 33(1), 64-86.

Gruneberg, M.M. (1979). *Understanding job satisfaction*. London: MacMillan.

Guion, R. (1973). A note on organizational climate. *Organizational Behavior and Human Performance*, 9, 120-125.

Haakonsson, D.D., Burton, R.M., Obel, B. & Lauridsen, J. (2008). How failure to align organizational climate and leadership style affects performance. *Management Decision*, 46(3), 406-432.

Hackman, J.R. & Oldham, G.R. (1975). Development of the Job Diagnostic Survey. *Journal of Applied Psychology*, 60(2), 159-170.

Hardy, G.E., Woods, D., Wall, T.D. (2003). The impact of psychological distress on absence from work. *Journal of Applied Psychology*, 88(2), 306-314.

Hellriegel, D., & Slocum, J.W. (1974). Organizational Climate: Measures, Research and Contingencies. *Academy of Management Journal*, 17(2), 255-280.

Herman, J.B. & Hulin, C.L. (1973). Managerial satisfactions and organizational roles: An investigation of Porter's Need Deficiency Scales. *Journal of Applied Psychology*, 57(2), 118-124.

Herzberg, F. (1968). *Work and the nature of man*. London: Crosby Lockwood Staples.

Hlungwane, N.T. (2006). *The influence of job satisfaction on burnout of pharmaceutical sales representatives*. Unpublished MA dissertation. Pretoria: University of South Africa.

Hofstede, G., Neugien, B., Ohayr, D., & Sanders, G. (1990). Measuring organisational cultures: a qualitative and quantitative study across twenty cases. *Administrative Sciences Quarterly*, 35(3), 286-316.

Hu, L., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis. *Structural Equation Modeling*, 6(1), 1-55.

Hughes, R., Ginnett, R., & Curphy, G. (2002). *Leadership: Enhancing the lessons of leadership*. Boston, MA: MacGraw-Hill Irwin.

Iaffaldano, M.T. & Muchinsky, P.M. (1985). Job satisfaction and job performance: A meta-analysis. *Psychological Bulletin*, 97(2), 251-273.

Isaksen, S.G., & Lauer, K.J. (2002). The climate for creativity and change. *Creativity and Innovation Management*, 11(1), 74-86.

Ivancevich, J.M., & Matteson, M.T. (2005). *Organizational Behavior and Management*. Chicago, IL: Irwin.

James, L.R., James, L.A., & Ashe, D.K. (1990). The Meaning of Organizations: The Role of Cognition and Values. In B. Schneider (Ed.), *Organizational Climate and Culture*. San Francisco: Jossey-Bass.

James, L.R., & Jones, A.P. (1974). Organizational Climate: A review of theory and research. *Psychological Bulletin*, 81(12), 1096-1112.

Janson, P., & Martin, J.K. (1982). Job satisfaction and age: A test of two views. *Social Forces*, 60, 1089-1102.

Johannesson, R.E. (1973). Some problems in the measurement of organizational climate. *Organizational Behavior and Human Performance*, 10, 118-144.

Johns, G. (1992). *Organizational Behavior: Understanding life at work* (3<sup>rd</sup> ed.). New York: Harper Collins.

Jones, A.P., & James, L.R. (1979). Psychological climate: Dimensions and relationships of individual and aggregated work environment perceptions. *Organizational Behavior and Human Performance*, 23, 201-250.

Jones, A.P., James, L.R., Bruni, J.R., & Sell, S.B. (1977). Black-white differences in work environment perceptions and job satisfaction and its correlates. *Personnel Psychology*, 30(1), 5-16.

Josias, B.A. (2005). *The relationship between job satisfaction and absenteeism in a selected field services section within an electricity utility in the Western Cape*. Unpublished MCom dissertation. Cape Town: University of the Western Cape.

Joyce, W.F. & Slocum, J.W. (1979). Climates in Organizations. In S. Kerr (Ed.), *Organizational Behavior and Human Performance*. Columbus, OH: Grid Publishing.

Joyce, W.F., & Slocum, J.W. (1984). Collective Climate: Agreement as a basis for defining aggregate climates in organizations. *Academy of Management Journal*, 27(4), 721-742.

Kalleberg, A.L., & Loscocco, K.A. (1983). Aging, value and rewards: Explaining age differences in job satisfaction. *American Psychologist Review*, 48, 78-90.

Kang, Y.C., & Newell, C.E. (2008). *Diversity attitudes and organizational outcomes: Are there group differences?* Paper presented at the 8<sup>th</sup> Annual Navy Workforce Research and Analysis Conference, Virginia.

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

Kavanaugh, J., Duffy, J.A., & Lilly, J. (2006). The relationship between job satisfaction and demographic variables for healthcare professionals. *Management Research News*, 29(6), 304-325.

Kerlinger, F.N. (1986). *Foundations of Behavioral Research*. New York: CBS.

Keuter, K., Byrne, E., Voell, J., & Larson, E. (2000). Nurses' satisfaction and organizational climate in a dynamic work environment. *Applied Nursing Research*, 13(1), 46-49.

Khandelwal, P. (2003). Job Satisfaction. In M.S. Saiyadain (Ed.). *Organisational Behaviour*. New Delhi : Tata McGraw-Hill.

Kline, T.J.B., & Boyd, J.E. (1991). Organizational structure, context and climate: Their relationships to job satisfaction at three managerial levels. *The Journal of General Psychology*, 18(4), 305-316.

Kollarik, T. & Mullner, J. (1975). Job satisfaction and satisfying some of the higher level needs of leading personnel. *Psychologie v Ekonomické*, 10, 9-18.

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*. San Francisco, CA: Jossey-Bass.

Kreitner, R., & Kinicki, A. (2001). *Organizational Behavior* (5<sup>th</sup> ed.). Burr Ridge, IL: Irwin McGraw-Hill.

Kuhn, T. (1970). *The Structure of Scientific Revolutions* (2nd ed.). Chicago, IL: University of Chicago Press.

LaFollette, W.R., & Sims, H.P. Jnr. (1975). Is Satisfaction redundant with organizational climate? *Organizational Behavior and Human Performance*, 13, 257-278.

Lambert, E.G., Hogan, N.L., Barton, A., & Lubbock, S.M. (2001). The impact of job satisfaction on turnover intent: A test of a structural measurement model using a national sample of workers. *Social Science Journal*, 38(2), 233-251.

Langton, N., & Robbins, S.P. (2007). *Organizational Behavior: concepts, controversies, applications* (4<sup>th</sup> ed.). Toronto, Ontario: Pearson Prentice-Hall.

Lawler, E. E. III (1992). *The ultimate advantage: Creating the high involvement organization*. San Francisco: Jossey-Bass Pfeiffer.

Lawler, E.E. III. (1976). Job Design and Employee Motivation. In M.M. Gruneberg (Ed), *Job Satisfaction: A Reader* (pp. 90-98). London. MacMillan.

Lawler, E.E., III, Hall, D.T., & Oldham, G.R. (1974). Organizational climate: Relationship to organizational structure, process and performance. *Organizational Behavior and Human Performance*, 11, 139-155.

Lawthom, R., Patterson, M.G, West, M.A, Staniforth, D., & Maitlis, S. (2005). *Organizational climate: A multi-level analysis*. Paper presented at the British Academy of Management Conference, Sheffield.

Lee-Ross, D. (1998). A practical theory of motivation applied to hotels. *International Journal of Contemporary Hospitality Management*, 10(2), 68-74.

Lephoko, C.S., Bezuidenhout, M.C., & Roos, J.H. (2006). Organisational climate as a cause for job dissatisfaction among nursing staff in selected hospitals within the Mpumalanga Province. *Curationis*, 29(4), 28-36.

Lewin, K., Lippit, R. & White, R.K. (1939). Patterns of aggressive behavior in experimentally created "Social Climate". *Journal of Social Psychology*, 10, 271-290.

Lindahl, R. (2006). The role of organizational climate and culture in the school improvement process: A review of the knowledge base. The Connexions Project, <http://cnx.org/content/m13465/1.1>. Accessed on 22 July 2008.

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

Locke, E.A. (1969). What is job satisfaction? *Organizational Behavior and Human Performance*, 4, 309-336.

Locke, E.A. (1976). The nature and causes of job satisfaction. In M.D. Dunnette (Ed.), *Handbook of Industrial and Organizational Psychology*, (pp. 1297-1343). Chicago, IL: Rand McNally College.

Locke, E.A., & Henne, D. (1986). Work motivation theories. In C.L. Cooper & I. Robertson (Eds.), *International review of industrial and organizational psychology* (pp. 1-35). London: Wiley.



Locke, E.A., & Latham, G.P. (2002). Building a practically useful theory of goal setting and task motivation: A 35 year odyssey. *American Psychologist*, 57(9), 705-717.

Locke, E.A., & Latham, G.P. (2006). New directions in goal setting theory. *Current Directions in Psychological Science*, 15(5), 265-268.

Lofquist, L.H., & Dawis, R.V. (1969). *Adjustment to work: A psychological view of man's problems in a work-orientated society*. New York: Appleton-Century-Crofts.

Long, A. (2005). Happy ever after? A study of job satisfaction in Australia. *The Economic Record*, 81(255), 303-321.

Loscocco, K.A. (1990). Reactions to blue collar work: A comparison of women and men. *Work and Occupations*, 17(2), 152-178.

Luddy, N. (2005). *Job satisfaction amongst employees in a public health institution in the Western Cape*. Unpublished MCom dissertation. Cape Town: University of the Western Cape.

Luthans, F. (1995). *Organizational Behavior* (7<sup>th</sup> ed.). Boston, MA: McGraw-Hill.

Luthans, F. (2002). *Organizational Behavior* (9<sup>th</sup> ed.). Boston, MA: McGraw-Hill Irwin.

Luthans, F. (2005). *Organizational Behavior* (10<sup>th</sup> ed.). Boston, MA: McGraw-Hill Irwin.

Martin, A. (2007). *Employee perceptions of organisational commitment, job satisfaction and turnover intentions in a post-merger institution*. Unpublished MCom dissertation. Johannesburg: University of Johannesburg.

Martins, N. & Von der Ohe, H. (2003). Organisational climate measurement: New and emerging dimensions during a period of transformation. *South African Journal of Labour Relations*, Spring, 41-59.

Maslow, A.H. (1943). A review of human motivation. *Psychological Review*, 50(4), 370-396.

Matulovich, M.J. (1978). *An analysis of the organizational climate of a company in the South African motor industry*. Unpublished MBL dissertation. Pretoria: University of South Africa.

Mayo, E. (1933). *The human problems of industrial civilisation*. New York: Macmillan.

McClelland, D.C. (1962). Business drive and national achievement. *Harvard Business Review*, 40(4), 99-112.

McGregor, D.M. (1960). *The Human Side of Enterprise*. New York: McGraw-Hill.

McKenna, E. (2000). *Business Psychology and Organizational Behavior: A student's handbook* (3<sup>rd</sup> ed.). Hove, East Sussex: Psychology Press.

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

Meyer, W.F., Moore, C., & Viljoen, H.G. (1997). *Personality theories from Freud to Frankl*. Johannesburg: Lexicon.

Miles, E.S., Patrick, S.L., & King, W.C. (1996). Job level as a systematic variable in predicting the relationship between supervisory communication and job satisfaction. *Journal of Occupational and Organisational Psychology*, 69(3), 277-292.

Moran, E.T., & Volkwein, J.F. (1992). The Cultural Approach to the Formation of Organizational Climate. *Human Relations*, 45(1), 19-47.

Morgan, S.E., Reichart, T., & Harrison, T.R. (2002). *From numbers to words: Reporting statistical results for the social sciences*. Boston, MA: Allyn & Bacon.

Mouton, J., & Marais, H.C. (1996). *Basic Concepts in the methodology of the social sciences*. Pretoria: Human Sciences Researcher Council.

Movashi, D., & Terborg, J.R. (2002). The job satisfaction and performance of contingent and regular customer service representatives: A human capital perspective. *International Journal of Service Industry Management*, 13(4), 333-347.

Mowday, R., Porter, L., & Steers, R. (1982). *Employee-organisations linkage: The psychology of commitment, absenteeism and turnover*. London: Academic Press.

Muchinsky, P.M. (1993). *Psychology applied to work* (4<sup>th</sup> ed.). Pacific Grove, CA: Brooks/Cole.

Muttar, K.A. (1985). *An investigation of the validity of objective and subjective measures of organizational climate*. West Virginia University, University Microfilms International.

Nair, R. (2006). *Climate studies and associated best practices to improve climate issues in the workplace*. Paper presented at Women in Engineering Programs and Advocates Network, Pennsylvania.

Naylor, J.C., Pritchard, R.D., & Ilgen, D.R. (1980). *A theory of behavior in organizations*. New York: Academic Press

Near, J.P., Rice, R.W. & Hunt, R.G. (1978). Work and extra work correlates of life and job satisfaction. *Academy of Management Journal*, 21(2), 248-264.

Neher, W. W. (1996). *Organisational Communication: Challenges of change diversity and continuity*. Toronto: Allyn & Bacon.

Nunnally, J. (1978). *Psychometric theory*. New York: McGraw-Hill.

O'Brien, G.E., & Dowling, P. (1981). Age and Job satisfaction. *Australian Psychologist*, 16, 49-61.

Odendaal, A. (1997). *Deelneemende bestuur and korporatiewe kultuur: Onafhanklike konstrukte?* (Participative management and corporate culture: Independent constructs?) Unpublished Master's dissertation. Johannesburg: Rand Afrikaans University.

Okpara, J.O. (2004). Personal characteristics as predictors of job satisfaction: An exploratory study of IT managers in a developing economy. *Information Technology and People*, 17(3), 327-338.

Oshagbemi, T. (1997). The influence of rank on the job satisfaction of organisational members. *Journal of Managerial Psychology*, 12(7), 511-520.

Oshagbemi, T. (2000). Is length of service related to the level of job satisfaction? *International Journal of Social Economics*, 27(3), 213-226.

Oshagbemi, T. (2003). Personal correlates of job satisfaction: Empirical evidence from UK universities. *International Journal of Social Economics*, 30(12), 1210-1232.

Pallant, J. (2001). *SPSS Survival Manual*. Maidenhead, Berkshire: St. Edmundsbury Press.

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., & Pugh, D.S. (1976). Organizational Structure and Climate. In M.D. Dunnette (Ed.), *Handbook of industrial and organizational psychology*. Chicago: Rand McNally.

Peek, R.C. (2003). *The relationship between organizational climate and job satisfaction as reported by institutional research staff at Florida community colleges*. Unpublished PhD. University of Florida.

Petty, M.M., McGee, G.W., & Cavender, J.W. (1984). A meta-analysis of the relationship between individual job satisfaction and individual performance. *Academy of Management Review*, 9(4), 712-721.

Pillay, R. (2008). Work satisfaction of medical doctors in the South African private health sector. *Journal of Health Organisation and Management*, 22(3), 254-268.

Pors, N.O. (2003). Job Satisfaction among library managers: A cross-cultural study of stress, freedom and job conditions. *New Library World*, 104(11/12), 464-472.

Pors, N.O., & Johannsen, C.G. (2002). Job satisfaction and motivational strategies among library directors. *New Library World*, 103(1177), 199-208.

Porter, L.W., Lawler, E.E., III, & Hackman, J.R. (1975). *Behavior in organizations*. New York: McGraw-Hill.

Pritchard, R.D., & Karasick, B.W. (1973). The effects of organizational climate on managerial job performance and job satisfaction. *Organizational Behavior and Human Performance*, 9, 126-146.

Quinn, R.P., & Staines, G.L. (1979). *The 1977 Quality of Employment Survey*. Ann Arbor, MI: Institute for Social Research.

Rad, A.M.M. & Yarmohammadian, M.H. (2006). A study of the relationship between manager's leadership style and employees' job satisfaction. *Leadership in Health Services*, 19(2), xi-xxviii.

Reichers, A. (1987). An interactionist perspective on newcomer socialization rates. *Academy of Management Review*, 12(2), 278-287.

Reichers, A.E. & Schneider, B. (1990). Climate and Culture: An evolution of constructs. In B. Schneider (Ed.), *Organizational Climate and Culture* (pp.5-39). San Francisco: Jossey-Bass.

Rentsch, J.R. (1990). Climate and Culture: Interaction and Qualitative Difference in Organizational Meanings. *Journal of Applied Psychology*, 75(6), 668-681.

Rhodes, S. (1983). Age-related differences in work-related attitudes and behavior: a review and conceptual analysis. *Psychological Bulletin*, 2, 338-367.

Robbins, S.P. (1998). *Organizational behavior: Concepts, controversies and applications* (8<sup>th</sup> ed.). Engelwood Cliffs, NJ: Prentice-Hall.

Robbins, S.P. (2005). *Essentials of Organizational Behavior* (8<sup>th</sup> ed.). Engelwood Cliffs, NJ: Pearson Prentice-Hall.

Robbins, S.P., & DeCenzo, D.A. (2008). *Fundamentals of Management: essential concepts and applications* (6<sup>th</sup> ed.). Engelwood Cliffs, NJ: Pearson Prentice Hall.

Robbins, S.P., & Judge, T.A. (2007). *Organizational Behavior* (12<sup>th</sup> ed.). Engelwood Cliffs, NJ: Pearson Prentice Hall.

Robbins, S. P., Odendaal, A. & Roodt, G. (2003). *Organisational Behaviour – Global and Southern African perspective*. Pretoria: Pearson Education.

Ronen, S. (1978). Job satisfaction and the neglected variable of job seniority. *Human Relations*, 31(4), 297-308.

Rousseau, D.M. (1990). Quantitative measurement of organizational culture: The case for multiple measures. In B. Schneider (ed.). *Frontiers in Industrial and organizational psychology*. San Francisco: Jossey-Bass.

Saal, F., & Knight, P. (1988). *Industrial/Organizational Psychology: Science and Practice*. Pacific Grove, CA: Brooks/Cole.

Saiyadain, M.S. (2003). *Organisational Behaviour*. New Delhi: Tata McGraw-Hill.

Santos, J.R.A. (1999). Cronbach's Alpha: A tool for assessing the reliability of scales. *Journal of Extension*, 37(2), 1-5.

Sarker, S. J., Crossman, A., & Chinmeteepituk, P. (2003). The relationship of age and length of service with job satisfaction: An examination of hotel employees in Thailand. *Journal of Managerial Psychology*, 18(7), 745-758.

Saura, I.G., Contri, G.B., Taulet, A.C., & Velazquez, B. M. (2005). Relationships among customer orientation, service orientation and job satisfaction in financial services. *International Journal of Service*, 16(5), 497-525.

Schein, E. (1990). Organizational culture. *American Psychologist*, 45(2), 109-119.

Schneider, B. (1975). Organizational climates: An essay. *Personnel Psychology*, 28, 447-479.

Schneider, B. (1987). The people make the place. *Personnel Psychology*, 40(3), 437-453.

Schneider, B. (1990). The climate for service: An application of the climate construct. In B. Schneider (Ed.), *Organizational climate and culture* (pp. 383-412). San Francisco: Jossey-Bass.

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

Schneider, B., Bowen, D.E., Ehrhart, M.G., & Holcombe, K.M. (2000). A climate for service: Evolution of a construct. In N.M. Ashkanasy, C.P.M. Wilderom & M.F. Peterson (Eds.), *Handbook of organizational culture and climate* (pp. 21-36). Thousand Oaks, CA: Sage.

Schneider, B., & Hall, D.T. (1972). Toward specifying the concept of work climate: A study of Roman Catholic diocesan priests. *Journal of Applied Psychology*, 56(6), 447-455.

Schneider, B., & Reichers, A.E. (1983). On the etiology of climates. *Personnel Psychology*, 36(1), 19-39.

Schneider, B., & Snyder, R.A. (1975). Some relationships between job satisfaction and organizational climate. *Journal of Applied Psychology*, 60(3), 318-328.

Sempane, M.E., Rieger, H.S., & Roodt, G. (2002). Job satisfaction in relation to organisational culture. *Journal of Industrial Psychology*, 28(2), 23-30.

Shields, M.A., & Ward, M. (2001). Improving nurse retention in the National Health Service in England: The impact of job satisfaction on the intentions to quit. *Journal of Health Economics*, 20(5), 677-701.



Siu, O. (2002). Predictors of job satisfaction and absenteeism in two samples of Hong Kong nurses. *Journal of Advanced Nursing*, 40(2), 218-229.

Skuturna, J. (2006). *Employee engagement and diversity satisfaction linkage identified.*, from <http://www.hrsolutionsinc.com> Accessed on 20 October 2008

Skyttner, L. (1996). General systems theory: Origin and hallmarks. *Kybernetes*, 25 (6), 16-22.

Smith, T.W. (2007). *Job satisfaction in the United States*. NORC: University of Chicago.

Smith, P.C., Kendall, L.M., & Hulin, C.L. (1969). *The measurement of satisfaction in work and retirement*. Chicago: Rand McNally.

Snipes, R.L., Oswald, S.L., La Tour, M., & Armenakis, A.A. (2004). The effects of specific job satisfaction facets on customer perceptions of service quality: an employee-level analysis. *Journal of Business Research*, 58(10), 1330-1339.

Spector, P.E. (1997). *Job satisfaction: Application, assessment, cause and consequences*. Thousand Oaks, CA: Sage.

Spector, P.E. (2000). *Industrial and Organizational Psychology: Research and Practice*. (2<sup>nd</sup> ed.). New York: Wiley.

Spector, P. E. (2005). *Industrial and Organizational Psychology: Research and Practice*. (4<sup>th</sup> ed.). New York: Wiley.

Spinelli, M.A., & Canavos, G.C. (2000). Investigating the relationship between employee satisfaction and guest satisfaction. *Cornell Hotel and Restaurant Administration Quarterly*, 41(6), 29-33.

Staples, D.S., & Higgins, C.A. (1998). A study of the impact of facto importance weightings on job satisfaction measures. *Journal of Business and Psychology*, 13(2), 211-232.

Steers, R.M. (1977). *Organizational Effectiveness: A behavioral view*. Santa Monica, CA: Goodyear.

Suliman, A.M., & Abdullah, M.H. (2005). Towards a high performance workplace: managing corporate climate and conflict. *Management Decision*, 43(5), 720-733.

Tabachnick, B.G., & Fidell, L.S. (2001). *Using multivariate statistics* (4<sup>th</sup> ed.). New York: Harper Collins

Tagiuri, R. (1968). The concept of organizational climate. In R. Tagiuri. & G. H. Litwin (Eds.), *Organizational climate: Exploration of a concept*. Boston, MA: Harvard University Press.

Tagiuri, R., & Litwin, G. H. (1968). *Organizational Climate: exploration of a concept*. Boston, MA: Harvard University Press.

Tjale, T.E. (2005). *The relationship between diversity management and organisational climate*. Unpublished master's dissertation. Pretoria: University of South Africa.

Truell, A.D. (2003). Use of internet tools for survey research. *Information Technology, Learning and Performance Journal*, 21(1), 31-37.

Tuch, S.A., & Martin, J.K. (1991). Race in the workplace: Black/white differences in the sources of job satisfaction, *Sociological Quarterly*, 32(1), 103-116.

Turnipseed, D.L. (1988). An integrated, interactive model of organisational climate, culture and effectiveness. *Leadership and Organizational Development Journal*, 9(5), 17-21.

Tustin, C.M. (1993). A consensus approach to the measurement of organisational climate. *SA Journal of Industrial Psychology*, 19(1), 1-4.

Van Dierendonck, D., Haynes, C., Borril, C., & Stride, C. (2004). Leadership behaviour and subordinate well-being. *Journal of Occupational Health Psychology*, 9(2), 165-175.

Veldsman, T.H. (2001). A new playing field, game and/or different rule? Into the future with Industrial Psychology as a discipline and profession. *SA Journal of Industrial Psychology*, 27(4), 34-41.

Verbeke, W., Volgering, M., & Hessels, M (1998). Exploring the conceptual expansion within the field of organizational behavior: Organizational climate and organizational culture. *Journal of Management Studies*, 35(3), 303-329.

Viteles, M.S. (1953). *Motivation and morale in industry* (1<sup>st</sup> ed.). New York: Norton.

Wallace, J., Hunt, J., & Richards, C. (1999). The relationship between organisational culture, organisational climate and managerial values. *The International Journal of Public Sector Management*, 12(7), 548-564.

Wanous, J.P., & Lawler, E.E. III. (1972). Measurement and meaning of job satisfaction. *Journal of Applied Psychology*, 56(2), 95-105.

Waters, L.K., Roach, D., & Batlis, N. C. (1974). Organizational climate dimensions and job-related attitudes. *Personnel Psychology*, 27, 465-476.

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

Weaver, C.N. (1980). Job satisfaction in the United States. *Journal of Applied Psychology*, 65, 364-367.

Weiss, H.M. (2002). Deconstructing job satisfaction: Separating evaluations, beliefs and affective experiences. *Human Resource Management Review*, 12(2), 173-194.

West, M.A., Smith, H., Lu Feng, W., & Lawthom, R. (1998). Research excellence and departmental climate in British universities. *Journal of Occupational and Organizational Psychology*, 71(3), 261-281.

Wiley, J.W., & Brooks, S.M. (2000). The high-performance organizational climate. In N.M. Ashkanasy, C.P.M. Wilderom & M.F. Peterson (Eds.), *Handbook of organizational culture and climate* (pp. 177-191). Thousand Oaks, CA: Sage.

Woodman, R.W., & King, D.C. (1978). Organizational climate: Science of folklore? *Academy of Management Review*, 3(4), 816-826.

Wright, J.D. & Hamilton, R.F. (1978). Work satisfaction and age: some evidence for the "job change" hypothesis. *Social Forces*, 56, 1140-1158.

**APPENDIX A: Organisational Climate Questionnaire.**

# Organisational Climate Questionnaire

**Compiled by:**

Dr Nico Martins  
Organisational Diagnostics  
P O Box 1550  
Glenvista  
2058

Tel: 011 432 2006  
Fax: 011 432 4768

E-mail: [nicellen@iafrica.com](mailto:nicellen@iafrica.com)  
Web Page: [www.orgdia.co.za](http://www.orgdia.co.za)

**Copyright Organisational Diagnostics, 2007**

All rights reserved. No part of this instrument may be reproduced or transmitted in any form or by means, manual or electronic, including photocopy, recording of any information storage or retrieval system, without permission in writing from **Organisational Diagnostics**, P O Box 1550, Glenvista

2058

**INSTRUCTIONS**

Thank you for participating in the survey. The questionnaire consists of 77 questions. It takes approximately 20 to 30 minutes on average to complete it.

Please note that this survey is handled completely **confidentially**. Please complete the survey in one session (cannot be book marked or saved and returned to later).

**Steps to follow to complete and submit the survey:****STEP 1:**

In **section 1** we require biographical information. Read each statement and tick (✓) the appropriate box.

In **section 2** decide whether you agree or disagree with each statement and tick (✓) the appropriate box as per the scale below.

The scale refers to the following:

- 1 = Strongly disagree
- 2 = Disagree
- 3 = Unsure
- 4 = Agree
- 5 = Strongly agree

**PLEASE** tick (✓) the appropriate box.

**PLEASE** try to avoid answering the column marked “unsure” on too many occasions, as this tends to skew the results.

***EXAMPLE:***

Question 1: My manager is always friendly.

If you strongly agree with this statement, tick the box below “strongly agree”.

Strongly disagree	Disagree	Unsure	Agree	Strongly Agree
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input checked="" type="checkbox"/> 5

**STEP 2:**

Click on SUBMIT

**STEP 3:**

Click FILE (top left corner of the browser)

**STEP 4:**

Click close and exist the Intranet.

**TECHNICAL DIFFICULTIES:** For any technical difficulties, please contact Ellen or Anthea on 011 432 2006

**EXPLANATION OF TERMS:**

*Management* refers to the Heads of Departments

**SECTION 1: BIOGRAPHICAL INFORMATION****1. Years of service** at organisation?

- |                     |                            |
|---------------------|----------------------------|
| 0 to 1 year         | <input type="checkbox"/> 1 |
| 2 to 3 years        | <input type="checkbox"/> 2 |
| 4 to 5 years        | <input type="checkbox"/> 3 |
| 6 to 10 years       | <input type="checkbox"/> 4 |
| 11 years and longer | <input type="checkbox"/> 5 |

**2. What is your gender?**

- |        |                            |
|--------|----------------------------|
| Male   | <input type="checkbox"/> 1 |
| Female | <input type="checkbox"/> 2 |

**3. What is your race?**

- |          |                            |
|----------|----------------------------|
| African  | <input type="checkbox"/> 1 |
| Coloured | <input type="checkbox"/> 2 |
| Indian   | <input type="checkbox"/> 3 |
| White    | <input type="checkbox"/> 4 |

**4. What is your job level** as per the organisation's title matrix?

- |         |                            |
|---------|----------------------------|
| F       | <input type="checkbox"/> 1 |
| E Upper | <input type="checkbox"/> 2 |
| E Lower | <input type="checkbox"/> 3 |
| D Upper | <input type="checkbox"/> 4 |
| D Lower | <input type="checkbox"/> 5 |
| C Upper | <input type="checkbox"/> 6 |
| C Lower | <input type="checkbox"/> 7 |
| B       | <input type="checkbox"/> 8 |

6. What is your **geographical location**?

- |                     |                            |
|---------------------|----------------------------|
| Johannesburg        | <input type="checkbox"/> 1 |
| Pretoria            | <input type="checkbox"/> 2 |
| Edcon – Client Site | <input type="checkbox"/> 3 |

7. I have attended the **diversity awareness training**.

- |     |                            |
|-----|----------------------------|
| Yes | <input type="checkbox"/> 1 |
| No  | <input type="checkbox"/> 2 |



## SECTION 2 –STATEMENTS

	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
<b>TRUST</b>					
1. I trust my immediate manager.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. My immediate manager trusts me.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3. I believe what my immediate manager says.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4. Management delivers what they promise.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
5. Management is transparent.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
<b>TRAINING AND DEVELOPMENT</b>					
6. I receive the training I need to do my job.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
7. I am satisfied with the opportunities for career development.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
8. New employees receive the necessary induction/orientation.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
9. A personal development plan based on my training and development needs exists.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
10. I am provided with opportunities for learning and development based on my personal development plan.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
11. I am aware of the mentoring/coaching opportunities in the organisation.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
12. The promotion criteria for jobs are available.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
13. There are promotion opportunities available.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
<b>TRANSFORMATION AND DIVERSITY</b>					
14. My immediate manager treats employees equally.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
15. My immediate manager manages a diverse team well.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
16. My immediate manager treats employees consistently (in the same way) irrespective of who you are.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
17. I understand the transformation strategy of the organisation.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
18. I think there are enough initiatives to drive diversity in the organisation.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
19. I see how transformation in the	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
organisation is going to improve our business.	1	2	3	4	5
20. I support the organisation's transformation initiatives.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
21. My immediate manager is committed to transformation in the organisation.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
22. I agree with the way transformation is being implemented in the organisation.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
<b>JOB SATISFACTION</b>					
23. I feel positive about my future in the organisation.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
24. I find my work interesting.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
25. I find my work challenging.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
26. I feel the organisation really cares for its employees.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
27. The organisation retains its best employees.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
<b>LEADERSHIP</b>					
28. My immediate manager values the contribution I make.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
29. My immediate manager keeps confidential issues to himself/herself.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
30. My immediate manager does a good job at "people management", dealing with people who work for him/her.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
31. My immediate manager leads by example.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
32. I get along well with my immediate manager.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
33. The management style of my immediate manager is generally participative.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
34. My immediate manager demonstrates strong leadership skills.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
35. The management style of my immediate manager is generally autocratic.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
36. My immediate manager manages client (internal or external) relationships well.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
37. My immediate manager is knowledgeable in his/her area of specialisation.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
38. My immediate manager respects me as an employee.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
<b>EMPLOYEE WELLNESS</b>					
39. My immediate manager supports employees' efforts to balance work, family and personal responsibilities.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
40. I am able to satisfy both my job and family responsibilities.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
41. The amount of work I am asked to do is reasonable.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
42. The pace of work enables me to do a good job.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
43. My job does not cause unreasonable amounts of stress in my life.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
<b>COMMUNICATION</b>					
44. Changes are well communicated to those most directly affected.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
45. My immediate manager listens carefully to his/her staff.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
46. My immediate manager clarifies misunderstandings if needed.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
47. My immediate manager conducts staff meetings in an effective manner.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
48. The organisation's future plans (strategy) have been clearly communicated to me.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
49. I am informed of changes before they actually happen.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
50. My immediate manager does a good job of sharing information.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
<b>PERFORMANCE MANAGEMENT</b>					
51. I receive regular feedback regarding my work performance from my immediate manager.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
52. I receive the information I need to do my job properly.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
53. My job responsibilities, objectives and targets, are clear to me.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
54. I am satisfied with the way that my work performance is evaluated.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
55. I am satisfied with the recognition for good performance.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

<b>REMUNERATION AND REWARDS</b>						
56. My salary package is fair in comparison with similar positions in the market.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	
57. My salary package is fair in comparison with similar positions in BCX.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	
<b>TEAMWORK</b>						
58. The people I work with are pleasant.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	
59. I feel needed in my team.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	
60. I feel part of my team.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	
61. In my section we work together as a team.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	
62. My immediate manager participates in team activities.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	
63. Members of my team are appropriately involved when we have to make a decision.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	
64. Regular team building opportunities are arranged for our section.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	
<b>WORK ENVIRONMENT</b>						
65. I am satisfied with the quality of equipment (computers, software, IT systems), which I use in my work.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	
66. They physical set-up at work allows me to do my best (furniture, lighting, air conditioning, etc).	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	
<b>BCX IMAGE</b>						
67. The organisation's brand is well known in the market place.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	
68. I think the organisation's brand is highly rated.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	
69. I am proud to be associated with the organisation brand.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	
70. The organisation is regarded as an employer of choice.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	

**Thank you for your participation!**

**APPENDIX B: Factors and items as interpreted for the twelve factor model (11 dimensions)**

FACTORS	ITEMS	STATEMENTS
<b>Leadership of immediate manager</b>	31	My immediate manager leads by example.
	34	My immediate manager demonstrates strong leadership skills.
	32	I get along well with my immediate manager.
	30	My immediate manager does a good job at “people management”, dealing with people who work for him/her.
	15	My immediate manager manages a diverse team well.
	45	My immediate manager listens carefully to his/her staff.
	38	My immediate manager respects me as an employee.
	33	The management style of my immediate manager is generally participative.
	16	My immediate manager treats employees consistently (in the same way) irrespective of who you are.
	36	My immediate manager manages client (internal or external) relationships well.
	1	I trust my immediate manager.
	46	My immediate manager clarifies misunderstandings if needed.
	47	My immediate manager conducts staff meetings in an effective manner.
	14	My immediate manager treats employees equally.
	37	My immediate manager is knowledgeable in his/her area of specialisation.
	29	My immediate manager keeps confidential issues to himself/herself.
	3	I believe what my immediate manager says.
	28	My immediate manager values the contribution I make.
	2	My immediate manager trusts me.
	50	My immediate manager does a good job of sharing information.
<b>Transformation and diversity</b>	39	My immediate manager supports employees’ efforts to balance work, family and personal responsibilities.
	62	My immediate manager participates in team activities.
	21	My immediate manager is committed to transformation in BCX.
	20	I support the organisation’s transformation initiatives.
	22	I agree with the way transformation is being implemented in the organisation.
	19	I see how transformation in the organisation is going to improve our business.
	17	I understand the transformation strategy of the organisation.
	18	I think there are enough initiatives to drive diversity in the organisation.
	48	The organisation’s future plans (strategy) have been clearly communicated to me.
	35	The management style of my immediate manager is generally autocratic.

FACTORS	ITEMS	STATEMENTS
<b>Personal growth and development</b>	10	I am provided with opportunities for learning and development based on my personal development plan.
	9	A personal development plan based on my training and development needs exists.
	11	I am aware of the mentoring/coaching opportunities in the organisation.
	6	I receive the training I need to do my job.
	7	I am satisfied with the opportunities for career development.
	12	The promotion criteria for jobs are available.
<b>Interpersonal belonging and fit</b>	60	I feel part of my team.
	61	In my section we work together as a team.
	59	I feel needed in my team.
	58	The people I work with are pleasant.
	63	Members of my team are appropriately involved when we have to make a decision.
<b>General feeling of job satisfaction</b>	26	I feel the organisation really cares for its employees.
	27	The organisation retains its best employees.
	5	Management is transparent.
	4	Management delivers what they promise.
	23	I feel positive about my future in the organisation.
	49	I am informed of changes before they actually happen.
	44	Changes are well communicated to those most directly affected.
	55	I am satisfied with the recognition for good performance.
	13	There are promotion opportunities available.
<b>Employee wellness</b>	64	Regular team building opportunities are arranged for our section
	41	The amount of work I am asked to do is reasonable.
	42	The pace of work enables me to do a good job.
	43	My job does not cause unreasonable amounts of stress in my life.
<b>Image</b>	40	I am able to satisfy both my job and family responsibilities.
	68	I think the organisation's brand is highly rated.
	67	The organisation's brand is well known in the market place.
	70	The organisation is regarded as an employer of choice.
<b>Pay</b>	69	I am proud to be associated with the organisation's brand.
	56	My salary package is fair in comparison with similar positions in the market.
<b>Challenging and interesting work</b>	57	My salary package is fair in comparison with similar positions in the organisation.
	24	I find my work interesting.
<b>Physical work environment</b>	25	I find my work challenging.
	65	I am satisfied with the quality of equipment (computers, software, IT systems), which I use in my work.
	66	The physical set-up at work allows me to do my best (furniture, lighting, air conditioning, etc).
	8	New employees receive the necessary induction/orientation.

FACTORS	ITEMS	STATEMENTS
<b>Recognition and acknowledg- ment</b>	51	I receive regular feedback regarding my work performance from my immediate manager.
	53	My job responsibilities, objectives and targets, are clear to me.
	54	I am satisfied with the way that my work performance is evaluated.
	52	I receive the information I need to do my job properly.
Although items 48, 35, 64 and 8 had loading below 0.3, these items were retained on the factors where they loaded the highest. This was done in order to ensure a fair comparison with the original scale.		

**APPENDIX C: Factors and items as interpreted for the three-factor model**

FACTORS	ITEMS	STATEMENTS
<b>Interaction with management</b>	15	My immediate manager manages a diverse team well.
	30	My immediate manager does a good job at “people management”, dealing with people who work for him/her.
	1	I trust my immediate manager.
	31	My immediate manager leads by example.
	32	I get along well with my immediate manager.
	45	My immediate manager listens carefully to his/her staff.
	3	I believe what my immediate manager says.
	34	My immediate manager demonstrates strong leadership skills.
	38	My immediate manager respects me as an employee.
	16	My immediate manager treats employees consistently (in the same way) irrespective of who you are.
	14	My immediate manager treats employees equally.
	33	The management style of my immediate manager is generally participative.
	2	My immediate manager trusts me.
	47	My immediate manager conducts staff meetings in an effective manner.
	36	My immediate manager manages client (internal or external) relationships well.
	46	My immediate manager clarifies misunderstandings if needed.
	28	My immediate manager values the contribution I make.
	37	My immediate manager is knowledgeable in his/her area of specialisation.
	39	My immediate manager supports employees’ efforts to balance work, family and personal responsibilities.
	50	My immediate manager does a good job of sharing information.
	29	My immediate manager keeps confidential issues to himself/herself.
	62	My immediate manager participates in team activities.
	51	I receive regular feedback regarding my work performance from my immediate manager.
	54	I am satisfied with the way that my work performance is evaluated.
	4	Management delivers what they promise.
	21	My immediate manager is committed to transformation in BCX.
	52	I receive the information I need to do my job properly.
	40	I am able to satisfy both my job and family responsibilities.
	53	My job responsibilities, objectives and targets, are clear to me.



FACTORS	ITEMS	STATEMENTS
<b>Interaction with personal environment</b>	26	I feel the organisation really cares for its employees.
	12	The promotion criteria for jobs are available.
	19	I see how transformation in the organisation is going to improve our business.
	13	There are promotion opportunities available.
	22	I agree with the way transformation is being implemented in the organisation.
	70	The organisation is regarded as an employer of choice.
	27	The organisation retains its best employees.
	18	I think there are enough initiatives to drive diversity in the organisation.
	68	I think the organisation's brand is highly rated.
	17	I understand the transformation strategy of the organisation.
	69	I am proud to be associated with the organisation's brand.
	7	I am satisfied with the opportunities for career development.
	48	The organisation's future plans (strategy) have been clearly communicated to me.
	23	I feel positive about my future in the organisation.
	20	I support the organisation's transformation initiatives.
	11	I am aware of the mentoring/coaching opportunities in the organisation.
	10	I am provided with opportunities for learning and development based on my personal development plan.
	49	I am informed of changes before they actually happen.
	55	I am satisfied with the recognition for good performance.
	9	A personal development plan based on my training and development needs exists.
	67	The organisation's brand is well known in the market place.
	8	New employees receive the necessary induction/orientation.
	57	My salary package is fair in comparison with similar positions in the organisation.
	56	My salary package is fair in comparison with similar positions in the market.
	5	Management is transparent.
	65	I am satisfied with the quality of equipment (computers, software, IT systems), which I use in my work.
	44	Changes are well communicated to those most directly affected.
	6	I receive the training I need to do my job.
	66	The physical set-up at work allows me to do my best (furniture, lighting, air conditioning, etc).
	43	My job does not cause unreasonable amounts of stress in my life.
	42	The pace of work enables me to do a good job.
	64	Regular team building opportunities are arranged for our section
	35	The management style of my immediate manager is generally autocratic
	41	The amount of work I am asked to do is reasonable

FACTORS	ITEMS	STATEMENTS
<b>Interaction with co- workers'</b>	60	I feel part of my team.
	59	I feel needed in my team.
	61	In my section we work together as a team.
	58	The people I work with are pleasant.
	63	Members of my team are appropriately involved when we have to make a decision.
	24	I find my work interesting.
	25	I find my work challenging.
Although items 53, 64, 35 and 41 had loading below 0.3, these items were retained on the factors where they loaded the highest. This was done in order to ensure a fair comparison with the original scale.		

FACTORS	ITEMS	STATEMENTS
Recognition and		
Acknowledg- ment	53	My job responsibilities, objectives and targets, are clear to me.

**APPENDIX D: Post-hoc Bonferroni tests****Race****Multiple Comparisons**

Bonferroni

Dependent Variable	(I) Race	(J) Race	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Organisational Climate	African	Coloured	-.05676	.13259	1.000	-.4076	.2941
		Indian	.17615	.10935	.646	-.1132	.4655
		White	.04076	.06101	1.000	-.1207	.2022
	Coloured	African	.05676	.13259	1.000	-.2941	.4076
		Indian	.23291	.15264	.765	-.1710	.6368
		White	.09752	.12274	1.000	-.2272	.4223
	Indian	African	-.17615	.10935	.646	-.4655	.1132
		Coloured	-.23291	.15264	.765	-.6368	.1710
		White	-.13539	.09716	.984	-.3925	.1217
	White	African	-.04076	.06101	1.000	-.2022	.1207
		Coloured	-.09752	.12274	1.000	-.4223	.2272
		Indian	.13539	.09716	.984	-.1217	.3925
Job Satisfaction	African	Coloured	.21979	.19300	1.000	-.2909	.7304
		Indian	.33273	.15916	.222	-.0884	.7539
		White	.17002	.08880	.336	-.0649	.4050
	Coloured	African	-.21979	.19300	1.000	-.7304	.2909
		Indian	.11294	.22218	1.000	-.4749	.7008
		White	-.04977	.17865	1.000	-.5225	.4229
	Indian	African	-.33273	.15916	.222	-.7539	.0884
		Coloured	-.11294	.22218	1.000	-.7008	.4749
		White	-.16271	.14142	1.000	-.5369	.2115
	White	African	-.17002	.08880	.336	-.4050	.0649
		Coloured	.04977	.17865	1.000	-.4229	.5225

		Indian	.16271	.14142	1.000	-.2115	.5369
Leadership of immediate manager	African	Coloured	-.00190	.17024	1.000	-.4523	.4485
		Indian	.24430	.14039	.494	-.1272	.6158
		White	.04115	.07833	1.000	-.1661	.2484
	Coloured	African	.00190	.17024	1.000	-.4485	.4523
		Indian	.24620	.19598	1.000	-.2724	.7648
		White	.04306	.15758	1.000	-.3739	.4600
	Indian	African	-.24430	.14039	.494	-.6158	.1272
		Coloured	-.24620	.19598	1.000	-.7648	.2724
		White	-.20314	.12475	.623	-.5332	.1269
	White	African	-.04115	.07833	1.000	-.2484	.1661
		Coloured	-.04306	.15758	1.000	-.4600	.3739
		Indian	.20314	.12475	.623	-.1269	.5332
Transformation and diversity	African	Coloured	-.11612	.16015	1.000	-.5399	.3076
		Indian	-.12971	.13207	1.000	-.4792	.2198
		White	-.10982	.07369	.819	-.3048	.0851
	Coloured	African	.11612	.16015	1.000	-.3076	.5399
		Indian	-.01359	.18437	1.000	-.5014	.4742
		White	.00630	.14825	1.000	-.3860	.3985
	Indian	African	.12971	.13207	1.000	-.2198	.4792
		Coloured	.01359	.18437	1.000	-.4742	.5014
		White	.01988	.11736	1.000	-.2906	.3304
	White	African	.10982	.07369	.819	-.0851	.3048
		Coloured	-.00630	.14825	1.000	-.3985	.3860
		Indian	-.01988	.11736	1.000	-.3304	.2906
Personal growth and development	African	Coloured	-.30720	.21065	.871	-.8646	.2502
		Indian	.18236	.17379	1.000	-.2775	.6422
		White	.01186	.09724	1.000	-.2454	.2691
	Coloured	African	.30720	.21065	.871	-.2502	.8646
		Indian	.48956	.24229	.262	-.1515	1.1306
		White	.31907	.19482	.612	-.1964	.8346
	Indian	African	-.18236	.17379	1.000	-.6422	.2775

		Coloured	-.48956	.24229	.262	-1.1306	.1515
		White	-.17050	.15422	1.000	-.5786	.2376
	White	African	-.01186	.09724	1.000	-.2691	.2454
		Coloured	-.31907	.19482	.612	-.8346	.1964
		Indian	.17050	.15422	1.000	-.2376	.5786
Interpersonal belonging and fit	African	Coloured	-.06515	.15625	1.000	-.4786	.3483
		Indian	.36376*	.12902	.030	.0224	.7051
		White	.02273	.07260	1.000	-.1694	.2148
	Coloured	African	.06515	.15625	1.000	-.3483	.4786
		Indian	.42891	.17939	.102	-.0457	.9036
		White	.08788	.14424	1.000	-.2938	.4695
	Indian	African	-.36376*	.12902	.030	-.7051	-.0224
		Coloured	-.42891	.17939	.102	-.9036	.0457
		White	-.34104*	.11419	.018	-.6432	-.0389
	White	African	-.02273	.07260	1.000	-.2148	.1694
		Coloured	-.08788	.14424	1.000	-.4695	.2938
		Indian	.34104*	.11419	.018	.0389	.6432
Employee wellness	African	Coloured	-.12840	.19556	1.000	-.6458	.3890
		Indian	.18112	.16014	1.000	-.2426	.6049
		White	.17340	.08948	.318	-.0634	.4102
	Coloured	African	.12840	.19556	1.000	-.3890	.6458
		Indian	.30952	.22448	1.000	-.2844	.9035
		White	.30181	.18097	.575	-.1771	.7807
	Indian	African	-.18112	.16014	1.000	-.6049	.2426
		Coloured	-.30952	.22448	1.000	-.9035	.2844
		White	-.00772	.14196	1.000	-.3834	.3679
	White	African	-.17340	.08948	.318	-.4102	.0634
		Coloured	-.30181	.18097	.575	-.7807	.1771
		Indian	.00772	.14196	1.000	-.3679	.3834
Image	African	Coloured	-.04419	.18152	1.000	-.5245	.4361
		Indian	.24874	.14989	.585	-.1479	.6453
		White	.24511*	.08435	.023	.0219	.4683

	Coloured	African	.04419	.18152	1.000	-.4361	.5245
		Indian	.29293	.20841	.962	-.2585	.8444
		White	.28930	.16758	.508	-.1541	.7327
	Indian	African	-.24874	.14989	.585	-.6453	.1479
		Coloured	-.29293	.20841	.962	-.8444	.2585
		White	-.00363	.13266	1.000	-.3546	.3474
	White	African	-.24511*	.08435	.023	-.4683	-.0219
		Coloured	-.28930	.16758	.508	-.7327	.1541
		Indian	.00363	.13266	1.000	-.3474	.3546
Pay	African	Coloured	-.04690	.23695	1.000	-.6739	.5801
		Indian	-.02904	.19196	1.000	-.5370	.4789
		White	-.23196	.10810	.193	-.5180	.0541
	Coloured	African	.04690	.23695	1.000	-.5801	.6739
		Indian	.01786	.27082	1.000	-.6987	.7345
		White	-.18506	.21950	1.000	-.7659	.3958
	Indian	African	.02904	.19196	1.000	-.4789	.5370
		Coloured	-.01786	.27082	1.000	-.7345	.6987
		White	-.20292	.16994	1.000	-.6526	.2468
	White	African	.23196	.10810	.193	-.0541	.5180
		Coloured	.18506	.21950	1.000	-.3958	.7659
		Indian	.20292	.16994	1.000	-.2468	.6526
Challenging and interesting work	African	Coloured	-.33236	.22777	.870	-.9350	.2703
		Indian	-.10382	.18791	1.000	-.6010	.3934
		White	-.14006	.10515	1.000	-.4183	.1382
	Coloured	African	.33236	.22777	.870	-.2703	.9350
		Indian	.22854	.26198	1.000	-.4646	.9217
		White	.19230	.21066	1.000	-.3651	.7497
	Indian	African	.10382	.18791	1.000	-.3934	.6010
		Coloured	-.22854	.26198	1.000	-.9217	.4646
		White	-.03624	.16677	1.000	-.4775	.4050
	White	African	.14006	.10515	1.000	-.1382	.4183
		Coloured	-.19230	.21066	1.000	-.7497	.3651

		Indian	.03624	.16677	1.000	-.4050	.4775
Physical work environment	African	Coloured	-.06179	.19506	1.000	-.5779	.4543
		Indian	.23366	.16086	.881	-.1920	.6593
		White	.16266	.08976	.422	-.0748	.4002
	Coloured	African	.06179	.19506	1.000	-.4543	.5779
		Indian	.29545	.22456	1.000	-.2987	.8896
		White	.22446	.18057	1.000	-.2533	.7022
	Indian	African	-.23366	.16086	.881	-.6593	.1920
		Coloured	-.29545	.22456	1.000	-.8896	.2987
		White	-.07100	.14295	1.000	-.4492	.3072
	White	African	-.16266	.08976	.422	-.4002	.0748
		Coloured	-.22446	.18057	1.000	-.7022	.2533
		Indian	.07100	.14295	1.000	-.3072	.4492
Recognition and Acknowledgement	African	Coloured	.26577	.19160	.995	-.2412	.7728
		Indian	.23252	.15828	.854	-.1863	.6513
		White	.16713	.08933	.371	-.0692	.4035
	Coloured	African	-.26577	.19160	.995	-.7728	.2412
		Indian	-.03325	.21978	1.000	-.6148	.5483
		White	-.09864	.17672	1.000	-.5662	.3690
	Indian	African	-.23252	.15828	.854	-.6513	.1863
		Coloured	.03325	.21978	1.000	-.5483	.6148
		White	-.06539	.13990	1.000	-.4356	.3048
	White	African	-.16713	.08933	.371	-.4035	.0692
		Coloured	.09864	.17672	1.000	-.3690	.5662
		Indian	.06539	.13990	1.000	-.3048	.4356

\*. The mean difference is significant at the 0.05 level.



**Tenure****Multiple Comparisons**

Bonferroni

Dependent Variable	(I) Years of service	(J) Years of service	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Organisational Climate	0-1 year	2-3yr	.09912	.06522	1.000	-.0845	.2828
		4-5yr	.18581	.08329	.260	-.0487	.4204
		6-10yr	.15148	.06229	.153	-.0239	.3269
		11+	.26119*	.06554	.001	.0766	.4458
	2-3yr	0-1 year	-.09912	.06522	1.000	-.2828	.0845
		4-5yr	.08669	.08277	1.000	-.1464	.3198
		6-10yr	.05236	.06159	1.000	-.1211	.2258
		11+	.16207	.06488	.127	-.0206	.3448
	4-5yr	0-1 year	-.18581	.08329	.260	-.4204	.0487
		2-3yr	-.08669	.08277	1.000	-.3198	.1464
		6-10yr	-.03433	.08048	1.000	-.2610	.1923
		11+	.07538	.08302	1.000	-.1584	.3092
	6-10yr	0-1 year	-.15148	.06229	.153	-.3269	.0239
		2-3yr	-.05236	.06159	1.000	-.2258	.1211
		4-5yr	.03433	.08048	1.000	-.1923	.2610
		11+	.10972	.06193	.769	-.0647	.2841
	11+	0-1 year	-.26119*	.06554	.001	-.4458	-.0766
		2-3yr	-.16207	.06488	.127	-.3448	.0206
		4-5yr	-.07538	.08302	1.000	-.3092	.1584
		6-10yr	-.10972	.06193	.769	-.2841	.0647
Job Satisfaction	0-1 year	2-3yr	.39712*	.09282	.000	.1357	.6585
		4-5yr	.57433*	.11853	.000	.2405	.9081
		6-10yr	.50547*	.08865	.000	.2558	.7551

		11+	.59636*	.09328	.000	.3337	.8590
	2-3yr	0-1 year	-.39712*	.09282	.000	-.6585	-.1357
		4-5yr	.17721	.11779	1.000	-.1545	.5089
		6-10yr	.10835	.08766	1.000	-.1385	.3552
		11+	.19924	.09234	.313	-.0608	.4593
	4-5yr	0-1 year	-.57433*	.11853	.000	-.9081	-.2405
		2-3yr	-.17721	.11779	1.000	-.5089	.1545
		6-10yr	-.06886	.11454	1.000	-.3914	.2537
		11+	.02203	.11816	1.000	-.3107	.3548
	6-10yr	0-1 year	-.50547*	.08865	.000	-.7551	-.2558
		2-3yr	-.10835	.08766	1.000	-.3552	.1385
		4-5yr	.06886	.11454	1.000	-.2537	.3914
		11+	.09089	.08814	1.000	-.1573	.3391
	11+	0-1 year	-.59636*	.09328	.000	-.8590	-.3337
		2-3yr	-.19924	.09234	.313	-.4593	.0608
		4-5yr	-.02203	.11816	1.000	-.3548	.3107
		6-10yr	-.09089	.08814	1.000	-.3391	.1573
Leadership of immediate manager	0-1 year	2-3yr	.07812	.08399	1.000	-.1584	.3146
		4-5yr	.21580	.10726	.446	-.0862	.5178
		6-10yr	.17597	.08021	.286	-.0499	.4019
		11+	.29578*	.08440	.005	.0581	.5335
	2-3yr	0-1 year	-.07812	.08399	1.000	-.3146	.1584
		4-5yr	.13767	.10659	1.000	-.1625	.4378
		6-10yr	.09785	.07932	1.000	-.1255	.3212
		11+	.21766	.08355	.094	-.0176	.4529
	4-5yr	0-1 year	-.21580	.10726	.446	-.5178	.0862
		2-3yr	-.13767	.10659	1.000	-.4378	.1625
		6-10yr	-.03983	.10364	1.000	-.3317	.2520
		11+	.07999	.10691	1.000	-.2211	.3811
	6-10yr	0-1 year	-.17597	.08021	.286	-.4019	.0499
		2-3yr	-.09785	.07932	1.000	-.3212	.1255
		4-5yr	.03983	.10364	1.000	-.2520	.3317

		11+	.11981	.07976	1.000	-.1048	.3444
	11+	0-1 year	-.29578*	.08440	.005	-.5335	-.0581
		2-3yr	-.21766	.08355	.094	-.4529	.0176
		4-5yr	-.07999	.10691	1.000	-.3811	.2211
		6-10yr	-.11981	.07976	1.000	-.3444	.1048
Transformation and diveristy	0-1 year	2-3yr	.17757	.07928	.254	-.0457	.4008
		4-5yr	.14387	.10125	1.000	-.1413	.4290
		6-10yr	.12152	.07572	1.000	-.0917	.3348
		11+	.20330	.07968	.109	-.0211	.4277
	2-3yr	0-1 year	-.17757	.07928	.254	-.4008	.0457
		4-5yr	-.03370	.10062	1.000	-.3171	.2497
		6-10yr	-.05606	.07487	1.000	-.2669	.1548
		11+	.02572	.07887	1.000	-.1964	.2478
	4-5yr	0-1 year	-.14387	.10125	1.000	-.4290	.1413
		2-3yr	.03370	.10062	1.000	-.2497	.3171
		6-10yr	-.02236	.09784	1.000	-.2979	.2532
		11+	.05942	.10093	1.000	-.2248	.3436
	6-10yr	0-1 year	-.12152	.07572	1.000	-.3348	.0917
		2-3yr	.05606	.07487	1.000	-.1548	.2669
		4-5yr	.02236	.09784	1.000	-.2532	.2979
		11+	.08178	.07529	1.000	-.1302	.2938
	11+	0-1 year	-.20330	.07968	.109	-.4277	.0211
		2-3yr	-.02572	.07887	1.000	-.2478	.1964
		4-5yr	-.05942	.10093	1.000	-.3436	.2248
		6-10yr	-.08178	.07529	1.000	-.2938	.1302
Personal growth and development	0-1 year	2-3yr	.05032	.10351	1.000	-.2412	.3418
		4-5yr	.09462	.13210	1.000	-.2774	.4666
		6-10yr	.06887	.09888	1.000	-.2096	.3473
		11+	.33170*	.10403	.015	.0388	.6247
	2-3yr	0-1 year	-.05032	.10351	1.000	-.3418	.2412
		4-5yr	.04430	.13114	1.000	-.3250	.4136
		6-10yr	.01854	.09759	1.000	-.2563	.2934

		11+	.28138	.10280	.064	-.0081	.5709
	4-5yr	0-1 year	-.09462	.13210	1.000	-.4666	.2774
		2-3yr	-.04430	.13114	1.000	-.4136	.3250
		6-10yr	-.02576	.12751	1.000	-.3848	.3333
		11+	.23708	.13154	.719	-.1334	.6075
	6-10yr	0-1 year	-.06887	.09888	1.000	-.3473	.2096
		2-3yr	-.01854	.09759	1.000	-.2934	.2563
		4-5yr	.02576	.12751	1.000	-.3333	.3848
		11+	.26284	.09813	.076	-.0135	.5392
	11+	0-1 year	-.33170*	.10403	.015	-.6247	-.0388
		2-3yr	-.28138	.10280	.064	-.5709	.0081
		4-5yr	-.23708	.13154	.719	-.6075	.1334
		6-10yr	-.26284	.09813	.076	-.5392	.0135
Interpersonal belonging and fit	0-1 year	2-3yr	-.00851	.07802	1.000	-.2282	.2112
		4-5yr	.05070	.09950	1.000	-.2295	.3309
		6-10yr	-.03703	.07463	1.000	-.2472	.1731
		11+	.04508	.07841	1.000	-.1757	.2659
	2-3yr	0-1 year	.00851	.07802	1.000	-.2112	.2282
		4-5yr	.05921	.09867	1.000	-.2187	.3371
		6-10yr	-.02852	.07351	1.000	-.2355	.1785
		11+	.05359	.07734	1.000	-.1642	.2714
	4-5yr	0-1 year	-.05070	.09950	1.000	-.3309	.2295
		2-3yr	-.05921	.09867	1.000	-.3371	.2187
		6-10yr	-.08773	.09601	1.000	-.3581	.1826
		11+	-.00562	.09897	1.000	-.2843	.2731
	6-10yr	0-1 year	.03703	.07463	1.000	-.1731	.2472
		2-3yr	.02852	.07351	1.000	-.1785	.2355
		4-5yr	.08773	.09601	1.000	-.1826	.3581
		11+	.08211	.07392	1.000	-.1261	.2903
	11+	0-1 year	-.04508	.07841	1.000	-.2659	.1757
		2-3yr	-.05359	.07734	1.000	-.2714	.1642
		4-5yr	.00562	.09897	1.000	-.2731	.2843

		6-10yr	-.08211	.07392	1.000	-.2903	.1261
Employee wellness	0-1 year	2-3yr	.08395	.09544	1.000	-.1848	.3527
		4-5yr	.24639	.12216	.441	-.0976	.5904
		6-10yr	.18477	.09136	.435	-.0725	.4421
		11+	.28648*	.09591	.029	.0164	.5566
	2-3yr	0-1 year	-.08395	.09544	1.000	-.3527	.1848
		4-5yr	.16244	.12126	1.000	-.1791	.5039
		6-10yr	.10082	.09017	1.000	-.1531	.3547
		11+	.20253	.09477	.330	-.0644	.4694
	4-5yr	0-1 year	-.24639	.12216	.441	-.5904	.0976
		2-3yr	-.16244	.12126	1.000	-.5039	.1791
		6-10yr	-.06162	.11808	1.000	-.3942	.2709
		11+	.04009	.12164	1.000	-.3025	.3826
	6-10yr	0-1 year	-.18477	.09136	.435	-.4421	.0725
		2-3yr	-.10082	.09017	1.000	-.3547	.1531
		4-5yr	.06162	.11808	1.000	-.2709	.3942
		11+	.10171	.09067	1.000	-.1536	.3570
	11+	0-1 year	-.28648*	.09591	.029	-.5566	-.0164
		2-3yr	-.20253	.09477	.330	-.4694	.0644
		4-5yr	-.04009	.12164	1.000	-.3826	.3025
		6-10yr	-.10171	.09067	1.000	-.3570	.1536
Image	0-1 year	2-3yr	.21303	.08834	.162	-.0358	.4618
		4-5yr	.32110*	.11266	.045	.0038	.6384
		6-10yr	.36841*	.08450	.000	.1304	.6064
		11+	.51725*	.08878	.000	.2672	.7673
	2-3yr	0-1 year	-.21303	.08834	.162	-.4618	.0358
		4-5yr	.10807	.11172	1.000	-.2065	.4227
		6-10yr	.15538	.08323	.624	-.0790	.3898
		11+	.30422*	.08757	.005	.0576	.5508
	4-5yr	0-1 year	-.32110*	.11266	.045	-.6384	-.0038
		2-3yr	-.10807	.11172	1.000	-.4227	.2065
		6-10yr	.04732	.10870	1.000	-.2588	.3534

		11+	.19615	.11206	.805	-.1194	.5117
	6-10yr	0-1 year	-.36841*	.08450	.000	-.6064	-.1304
		2-3yr	-.15538	.08323	.624	-.3898	.0790
		4-5yr	-.04732	.10870	1.000	-.3534	.2588
		11+	.14883	.08370	.758	-.0869	.3845
	11+	0-1 year	-.51725*	.08878	.000	-.7673	-.2672
		2-3yr	-.30422*	.08757	.005	-.5508	-.0576
		4-5yr	-.19615	.11206	.805	-.5117	.1194
		6-10yr	-.14883	.08370	.758	-.3845	.0869
Pay	0-1 year	2-3yr	.33866*	.11477	.033	.0154	.6619
		4-5yr	.51838*	.14616	.004	.1067	.9300
		6-10yr	.41939*	.11022	.002	.1090	.7298
		11+	.25771	.11552	.260	-.0676	.5830
	2-3yr	0-1 year	-.33866*	.11477	.033	-.6619	-.0154
		4-5yr	.17971	.14461	1.000	-.2276	.5870
		6-10yr	.08072	.10815	1.000	-.2239	.3853
		11+	-.08096	.11355	1.000	-.4007	.2388
	4-5yr	0-1 year	-.51838*	.14616	.004	-.9300	-.1067
		2-3yr	-.17971	.14461	1.000	-.5870	.2276
		6-10yr	-.09899	.14102	1.000	-.4961	.2982
		11+	-.26067	.14521	.731	-.6696	.1483
	6-10yr	0-1 year	-.41939*	.11022	.002	-.7298	-.1090
		2-3yr	-.08072	.10815	1.000	-.3853	.2239
		4-5yr	.09899	.14102	1.000	-.2982	.4961
		11+	-.16168	.10895	1.000	-.4685	.1451
	11+	0-1 year	-.25771	.11552	.260	-.5830	.0676
		2-3yr	.08096	.11355	1.000	-.2388	.4007
		4-5yr	.26067	.14521	.731	-.1483	.6696
		6-10yr	.16168	.10895	1.000	-.1451	.4685
Challenging and interesting work	0-1 year	2-3yr	-.07397	.11250	1.000	-.3908	.2429
		4-5yr	.11206	.14358	1.000	-.2923	.5164
		6-10yr	.04091	.10747	1.000	-.2617	.3436

		11+	.11515	.11325	1.000	-.2038	.4341
	2-3yr	0-1 year	.07397	.11250	1.000	-.2429	.3908
		4-5yr	.18603	.14253	1.000	-.2153	.5874
		6-10yr	.11489	.10606	1.000	-.1838	.4136
		11+	.18912	.11191	.915	-.1260	.5043
	4-5yr	0-1 year	-.11206	.14358	1.000	-.5164	.2923
		2-3yr	-.18603	.14253	1.000	-.5874	.2153
		6-10yr	-.07115	.13858	1.000	-.4614	.3191
		11+	.00309	.14311	1.000	-.3999	.4061
	6-10yr	0-1 year	-.04091	.10747	1.000	-.3436	.2617
		2-3yr	-.11489	.10606	1.000	-.4136	.1838
		4-5yr	.07115	.13858	1.000	-.3191	.4614
		11+	.07424	.10685	1.000	-.2267	.3751
	11+	0-1 year	-.11515	.11325	1.000	-.4341	.2038
		2-3yr	-.18912	.11191	.915	-.5043	.1260
		4-5yr	-.00309	.14311	1.000	-.4061	.3999
		6-10yr	-.07424	.10685	1.000	-.3751	.2267
Physical work environment	0-1 year	2-3yr	.20347	.09673	.358	-.0689	.4759
		4-5yr	.13332	.12353	1.000	-.2145	.4812
		6-10yr	.07178	.09238	1.000	-.1884	.3319
		11+	.15810	.09737	1.000	-.1161	.4323
	2-3yr	0-1 year	-.20347	.09673	.358	-.4759	.0689
		4-5yr	-.07016	.12276	1.000	-.4159	.2755
		6-10yr	-.13169	.09135	1.000	-.3889	.1256
		11+	-.04537	.09639	1.000	-.3168	.2261
	4-5yr	0-1 year	-.13332	.12353	1.000	-.4812	.2145
		2-3yr	.07016	.12276	1.000	-.2755	.4159
		6-10yr	-.06154	.11936	1.000	-.3977	.2746
		11+	.02479	.12326	1.000	-.3223	.3719
	6-10yr	0-1 year	-.07178	.09238	1.000	-.3319	.1884
		2-3yr	.13169	.09135	1.000	-.1256	.3889
		4-5yr	.06154	.11936	1.000	-.2746	.3977

		11+	.08633	.09203	1.000	-.1728	.3455
	11+	0-1 year	-.15810	.09737	1.000	-.4323	.1161
		2-3yr	.04537	.09639	1.000	-.2261	.3168
		4-5yr	-.02479	.12326	1.000	-.3719	.3223
		6-10yr	-.08633	.09203	1.000	-.3455	.1728
Recognition and acknowledge- ment	0-1 year	2-3yr	.03113	.09534	1.000	-.2374	.2996
		4-5yr	.05944	.12222	1.000	-.2848	.4036
		6-10yr	.07149	.09119	1.000	-.1853	.3283
		11+	.17392	.09580	.699	-.0959	.4437
	2-3yr	0-1 year	-.03113	.09534	1.000	-.2996	.2374
		4-5yr	.02832	.12121	1.000	-.3130	.3696
		6-10yr	.04037	.08983	1.000	-.2126	.2933
		11+	.14279	.09451	1.000	-.1234	.4089
	4-5yr	0-1 year	-.05944	.12222	1.000	-.4036	.2848
		2-3yr	-.02832	.12121	1.000	-.3696	.3130
		6-10yr	.01205	.11797	1.000	-.3202	.3443
		11+	.11448	.12157	1.000	-.2279	.4568
	6-10yr	0-1 year	-.07149	.09119	1.000	-.3283	.1853
		2-3yr	-.04037	.08983	1.000	-.2933	.2126
		4-5yr	-.01205	.11797	1.000	-.3443	.3202
		11+	.10243	.09032	1.000	-.1519	.3568
	11+	0-1 year	-.17392	.09580	.699	-.4437	.0959
		2-3yr	-.14279	.09451	1.000	-.4089	.1234
		4-5yr	-.11448	.12157	1.000	-.4568	.2279
		6-10yr	-.10243	.09032	1.000	-.3568	.1519

\*. The mean difference is significant at the 0.05 level.



**Job Level****Multiple Comparisons**

Bonferroni

Dependent Variable	(I) Job level	(J) Job level	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Organisational Climate	Executive	Middle & Senior management	-.00841	.13227	1.000	-.3259	.3091
		Junior management, supervisors & clerical	-.19656	.12535	.352	-.4975	.1044
	Middle & Senior management	Executive	.00841	.13227	1.000	-.3091	.3259
		Junior management, supervisors & clerical	-.18815*	.05583	.002	-.3222	-.0541
	Junior management, supervisors and clerical	Executive	.19656	.12535	.352	-.1044	.4975
		Middle & Senior management	.18815*	.05583	.002	.0541	.3222
Job Satisfaction	Executive	Middle & Senior management	-.07578	.19345	1.000	-.5402	.3886
		Junior management, supervisors and clerical	-.24070	.18334	.569	-.6808	.1994
	Middle & Senior management	Executive	.07578	.19345	1.000	-.3886	.5402
		Junior management, supervisors & clerical	-.16492	.08166	.132	-.3609	.0311

	Junior management, supervisors & clerical	Executive Middle & Senior management	.24070 .16492	.18334 .08166	.569 .132	-.1994 -.0311	.6808 .3609
Leadership of immediate manager	Executive	Middle & Senior management	.00777	.16962	1.000	-.3994	.4149
		Junior management, supervisors & clerical	-.27500	.16075	.263	-.6609	.1109
	Middle & Senior management	Executive	-.00777	.16962	1.000	-.4149	.3994
		Junior management, supervisors & clerical	-.28276*	.07160	.000	-.4546	-.1109
	Junior management, supervisors & clerical	Executive	.27500	.16075	.263	-.1109	.6609
		Middle & Senior management	.28276*	.07160	.000	.1109	.4546
Transformation and diversity	Executive	Middle & Senior management	.00907	.15820	1.000	-.3707	.3888
		Junior management, supervisors & clerical	-.09954	.14993	1.000	-.4594	.2604
	Middle & Senior management	Executive	-.00907	.15820	1.000	-.3888	.3707
		Junior management, supervisors & clerical	-.10861	.06678	.313	-.2689	.0517
	Junior management, supervisors & clerical	Executive	.09954	.14993	1.000	-.2604	.4594
		Middle & Senior management	.10861	.06678	.313	-.0517	.2689

Personal growth and development	Executive	Middle & Senior management	-.17412	.20981	1.000	-.6778	.3295
		Junior management, supervisors & clerical	-.38453	.19884	.161	-.8618	.0928
	Middle & Senior management	Executive	.17412	.20981	1.000	-.3295	.6778
		Junior management, supervisors & clerical	-.21041	.08856	.053	-.4230	.0022
	Junior management, supervisors & clerical	Executive	.38453	.19884	.161	-.0928	.8618
		Middle & Senior management	.21041	.08856	.053	-.0022	.4230
Interpersonal belonging and fit	Executive	Middle & Senior management	-.03727	.15877	1.000	-.4184	.3439
		Junior management, supervisors & clerical	-.16970	.15031	.778	-.5305	.1911
	Middle & Senior management	Executive	.03727	.15877	1.000	-.3439	.4184
		Junior management, supervisors & clerical	-.13243	.06736	.149	-.2941	.0293
	Junior management, supervisors & clerical	Executive	.16970	.15031	.778	-.1911	.5305
		Middle & Senior management	.13243	.06736	.149	-.0293	.2941
Employee wellness	Executive	Middle & Senior management	-.02057	.19913	1.000	-.4986	.4575

		Junior management, supervisors & clerical	-.26234	.18900	.497	-.7160	.1914
	Middle & Senior management	Executive	.02057	.19913	1.000	-.4575	.4986
		Junior management, supervisors & clerical	-.24177*	.08280	.011	-.4405	-.0430
	Junior management, supervisors & clerical	Executive	.26234	.18900	.497	-.1914	.7160
		Middle & Senior management	.24177*	.08280	.011	.0430	.4405
Image	Executive	Middle & Senior management	.16601	.18645	1.000	-.2816	.6136
		Junior management, supervisors & clerical	.01251	.17651	1.000	-.4112	.4362
	Middle & Senior management	Executive	-.16601	.18645	1.000	-.6136	.2816
		Junior management, supervisors & clerical	-.15350	.07910	.158	-.3434	.0364
	Junior management, supervisors & clerical	Executive	-.01251	.17651	1.000	-.4362	.4112
		Middle & Senior management	.15350	.07910	.158	-.0364	.3434
Pay	Executive	Middle & Senior management	-.30559	.23322	.572	-.8655	.2543
		Junior management, supervisors & clerical	-.00208	.22082	1.000	-.5322	.5280

	Middle & Senior management	Executive Junior management, supervisors & clerical	.30559 .30351 *	.23322 .09901	.572 .007	-.2543 .0658	.8655 .5412
	Junior management, supervisors and clerical	Executive Middle & Senior management	.00208 -.30351 *	.22082 .09901	1.000 .007	-.5280 -.5412	.5322 -.0658
Challenging and interesting work	Executive	Middle & Senior management	-.09096	.22770	1.000	-.6375	.4556
		Junior management, supervisors & clerical	.00680	.21567	1.000	-.5109	.5245
	Middle & Senior management	Executive Junior management, supervisors & clerical	.09096 .09776	.22770 .09636	1.000 .932	-.4556 -.1335	.6375 .3291
		Executive Middle & Senior management	-.00680 -.09776	.21567 .09636	1.000 .932	-.5245 -.3291	.5109 .1335
	Junior management, supervisors & clerical	Executive Middle & Senior management	-.00680 -.09776	.21567 .09636	1.000 .932	-.5245 -.3291	.5109 .1335
		Executive Junior management, supervisors & clerical	.00680 .09776	.21567 .09636	1.000 .932	-.5109 -.1335	.5245 .3291
Physical work environment	Executive	Middle & Senior management	.24622	.19497	.621	-.2218	.7142
		Junior management, supervisors & clerical	.04493	.18479	1.000	-.3987	.4885
	Middle &	Executive	-.24622	.19497	.621	-.7142	.2218

	Senior management	Junior management, supervisors & clerical	-.20129*	.08232	.044	-.3989	-.0037
	Junior management, supervisors & clerical	Executive Middle & Senior management	-.04493	.18479	1.000	-.4885	.3987
			.20129*	.08232	.044	.0037	.3989
Recognition and acknowledge-ment	Executive	Middle & Senior management	-.04199	.19318	1.000	-.5057	.4217
		Junior management, supervisors & clerical	-.21645	.18288	.711	-.6555	.2226
	Middle & Senior management	Executive	.04199	.19318	1.000	-.4217	.5057
		Junior management, supervisors & clerical	-.17446	.08197	.101	-.3712	.0223
	Junior management, supervisors & clerical	Executive	.21645	.18288	.711	-.2226	.6555
		Middle & Senior management	.17446	.08197	.101	-.0223	.3712

\*. The mean difference is significant at the 0.05 level.

**Region****Multiple Comparisons**

Bonferroni

Dependent Variable	(I) REGION	(J) REGION	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Organisational Climate	JHB	PTA	.07074	.04572	.367	-.0390	.1804
		Client Site	-.11287	.07400	.383	-.2905	.0647
	PTA	JHB	-.07074	.04572	.367	-.1804	.0390
		Client Site	-.18361*	.07637	.049	-.3669	-.0003
	Client Site	JHB	.11287	.07400	.383	-.0647	.2905
		PTA	.18361*	.07637	.049	.0003	.3669
Job Satisfaction	JHB	PTA	.07146	.06693	.858	-.0892	.2321
		Client Site	-.07360	.10834	1.000	-.3336	.1864
	PTA	JHB	-.07146	.06693	.858	-.2321	.0892
		Client Site	-.14506	.11182	.585	-.4134	.1233
	Client Site	JHB	.07360	.10834	1.000	-.1864	.3336
		PTA	.14506	.11182	.585	-.1233	.4134
Leadership of immediate manager	JHB	PTA	.08739	.05888	.415	-.0539	.2287
		Client Site	-.03877	.09531	1.000	-.2675	.1899
	PTA	JHB	-.08739	.05888	.415	-.2287	.0539
		Client Site	-.12616	.09836	.600	-.3622	.1099
	Client Site	JHB	.03877	.09531	1.000	-.1899	.2675
		PTA	.12616	.09836	.600	-.1099	.3622
Transformation and diversity	JHB	PTA	.10765	.05523	.155	-.0249	.2402
		Client Site	-.06821	.08940	1.000	-.2827	.1463
	PTA	JHB	-.10765	.05523	.155	-.2402	.0249
		Client Site	-.17587	.09226	.171	-.3973	.0455
	Client Site	JHB	.06821	.08940	1.000	-.1463	.2827

		PTA	.17587	.09226	.171	-.0455	.3973
Personal growth and development	JHB	PTA	.21424*	.07161	.009	.0424	.3861
		Client Site	-.35036*	.11579	.008	-.6282	-.0725
	PTA	JHB	-.21424*	.07161	.009	-.3861	-.0424
		Client Site	-.56459*	.11955	.000	-.8515	-.2777
	Client Site JHB		.35036*	.11579	.008	.0725	.6282
	PTA		.56459*	.11955	.000	.2777	.8515
Interpersonal belonging and fit	JHB	PTA	.04857	.05425	1.000	-.0816	.1788
		Client Site	-.02520	.08752	1.000	-.2352	.1848
	PTA	JHB	-.04857	.05425	1.000	-.1788	.0816
		Client Site	-.07377	.09043	1.000	-.2908	.1433
	Client Site JHB		.02520	.08752	1.000	-.1848	.2352
	PTA		.07377	.09043	1.000	-.1433	.2908
Employee wellness	JHB	PTA	-.03160	.06698	1.000	-.1924	.1292
		Client Site	-.16888	.10761	.351	-.4271	.0894
	PTA	JHB	.03160	.06698	1.000	-.1292	.1924
		Client Site	-.13728	.11129	.653	-.4044	.1298
	Client Site JHB		.16888	.10761	.351	-.0894	.4271
	PTA		.13728	.11129	.653	-.1298	.4044
Image	JHB	PTA	.08904	.06301	.474	-.0622	.2403
		Client Site	-.04528	.10165	1.000	-.2892	.1987
	PTA	JHB	-.08904	.06301	.474	-.2403	.0622
		Client Site	-.13433	.10503	.604	-.3864	.1177
	Client Site JHB		.04528	.10165	1.000	-.1987	.2892
	PTA		.13433	.10503	.604	-.1177	.3864
Pay	JHB	PTA	.15289	.08092	.178	-.0413	.3471
		Client Site	.17472	.13081	.546	-.1392	.4886
	PTA	JHB	-.15289	.08092	.178	-.3471	.0413
		Client Site	.02183	.13522	1.000	-.3027	.3464
	Client Site JHB		-.17472	.13081	.546	-.4886	.1392
	PTA		-.02183	.13522	1.000	-.3464	.3027



Challenging and interesting work	JHB	PTA	.12646	.07817	.318	-.0611	.3141
		Client Site	-.09610	.12635	1.000	-.3993	.2071
	PTA	JHB	-.12646	.07817	.318	-.3141	.0611
		Client Site	-.22257	.13042	.265	-.5356	.0904
	Client Site	JHB	.09610	.12635	1.000	-.2071	.3993
		PTA	.22257	.13042	.265	-.0904	.5356
Physical work environment	JHB	PTA	-.19302*	.06627	.011	-.3521	-.0340
		Client Site	-.54817*	.10716	.000	-.8053	-.2910
	PTA	JHB	.19302*	.06627	.011	.0340	.3521
		Client Site	-.35515*	.11064	.004	-.6207	-.0896
	Client Site	JHB	.54817*	.10716	.000	.2910	.8053
		PTA	.35515*	.11064	.004	.0896	.6207
Recognition and acknowledgment	JHB	PTA	-.01850	.06634	1.000	-.1777	.1407
		Client Site	-.18454	.10698	.255	-.4413	.0722
	PTA	JHB	.01850	.06634	1.000	-.1407	.1777
		Client Site	-.16603	.11052	.400	-.4313	.0992
	Client Site	JHB	.18454	.10698	.255	-.0722	.4413
		PTA	.16603	.11052	.400	-.0992	.4313

\*. The mean difference is significant at the 0.05 level.