The role of authentic leadership and ethical leadership in an organisational setting – predictors for ethical climate, organisational citizenship behaviour, affective organisational commitment and in-role performance

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

Doctor of Philosophy

Brad Predrag Nikolic
B.A. (Universität Karlsruhe TH), 2005
MBus in Sport Management (Griffith University), 2006

RMIT College of Business
School of Management
RMIT University
December 2015
DECLARATION

I certify that except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program; any editorial work, paid or unpaid, carried out by a third party is acknowledged; and, ethics procedures and guidelines have been followed.

________________________________________

Brad Predrag Nikolic
22nd December 2015
ACKNOWLEDGEMENTS

I would like to sincerely thank all those who have been involved in my journey to successfully complete this thesis. I have met many amazing individuals who have inspired, encouraged and supported me along this journey. I appreciate their dedication, precious time and patience they have invested into the development and progression of this thesis. There were countless lengthy academic, philosophical and technical conversations needed to continually tease out, elaborate, refine, and ultimately keep pinpointing the essence of each component part of this thesis.

First of all, I would like to thank my original supervisor A/Prof. David A. Robinson who transformed my strong interests in leadership and management into a belief in myself to the point where I commenced this journey to do my PhD. Not long into this thesis journey, our mutual professional circumstances changed, which were beyond our control, which further meant that A/Prof. David A. Robinson could no longer continue being my supervisor.

Dr. Michael Muchiri became my second supervisor as well as the primary supervisor, along with Prof. Adela McMurray. Both Dr. Michael Muchiri and Prof. Adela McMurray willingly took on being supervisors mid-thesis, and this is always a very difficult and challenging leadership task when they were not privy to the original foundation stones to this project. I am especially indebted to them for their tenacity and resilience with coming on board mid-project and being able to lead and bring this thesis through to completion. Additionally, I would like to thank them for their encouragement, support and dedication to me personally and in the thesis itself, as without their supervision and expertise, I doubt this thesis would have found completion.

There were many other academic colleagues who gladly engaged with me as researchers, and have consequently made a direct or indirect contribution with support to me personally, or with contributing in some way to embellishing this thesis. In particular I would like to mention Dr. Raymond Trau, Dr. Warren Staples, Dr. Jason Downs, Dr. Ivan Butarbutar, and Prof. Giles Hirst. I want to thank them for their time, energy and expertise for making this thesis journey and my personal thesis experience richer for their involvement.

A big thank you to my other fellow research students, your companionship made this last year of my thesis a truly memorable experience. All the chats, coffee breaks, and jokes
were a fundamental support and a refreshing way of having a balance between being highly concentrated and being human.

Outside of the direct University setting, I have had lengthy mentor support from Paul Collins over a number of years. Paul also had incredible belief in me, my research and to not give up before the finish line. His practical experience related to all aspects of my research and he happily shared this experience with me along the way.

Finally, I want to thank my parents Djordje Nikolic and Zorica Steinseufzer-Nikolic for their belief and support in me, and being able to follow my dreams to accomplish a PhD. The unconditional love and support given to me during this incredible challenge has been invaluable. Also, my partner Debbie for her loving support and encouragement during some of the difficult times towards the end of this journey.
ABSTRACT

The purpose of this study was to investigate the direct and indirect effects of leadership behaviours on organisational outcomes within the context of organisations from the private industry sector in Australia. Specifically, this study was interested in examining the influence of authentic leadership and ethical leadership on perceived ethical climate, subordinates’ organisational citizenship behaviours, affective organisational commitment, and in-role performance. A conceptual research framework was developed and several hypotheses were postulated and tested. Potential moderating and mediating relationships that could explicate the relationship between authentic leadership and organisational outcomes were assessed.

This thesis applied a survey methodology to gather quantitative data from medium to large size organisations in the private sector in Australia. These organisations were identified as workplaces that are committed to delivering an ethical and innovative work environment, good leadership practices and good culture according to an annual industry survey conducted by the Business Review Weekly. The sample comprised a total of 112 fulltime employees from various job levels. The questionnaire comprised of Authentic Leadership Questionnaire, Ethical Leadership Scale, Ethical Climate Questionnaire, Organisational Citizenship Behaviour Questionnaire, Affective Organisational Commitment Questionnaire, and In-role Performance Questionnaire.

The thesis revealed several substantive findings. First, the study found that each leadership construct, authentic leadership and ethical leadership, had unique and positive effects on follower criterion variables. Authentic leadership was significantly and positively related to ethical climate, organisational citizenship behaviours, affective organisational commitment and in-role performance. Ethical leadership was also significantly and positively related to ethical climate, organisational citizenship behaviour, affective organisational commitment and in-role performance. Second, this study revealed that ethical climate mediated the relationship between authentic leadership and organisational citizenship behaviour. Subordinates demonstrated higher levels of organisational citizenship behaviours when authentic leadership was supported by a perceived ethical climate. In addition, this study showed that ethical climate mediated the relationship between authentic leadership and organisational citizenship behaviour. Subordinates exhibited higher levels of in-role performance when authentic leadership was supported by a perceived ethical climate. Third, this study demonstrated that ethical leadership moderated the relationship between authentic
leadership and organisational citizenship behaviour and the relationship between authentic leadership and subordinates’ performance.

This thesis proposes several theoretical and managerial implications. First, the study expands our understanding of the unique and direct effects of both authentic leadership and ethical leadership, examined through an integrative model of both leader behaviours in explaining various organisational outcomes. Second, the integrative examination of both leadership constructs advances our theoretical understanding of the ability of ethical leadership to complement authentic leadership behaviours in impacting organisational outcomes. Third, this study adds to our theoretical understanding of the mediation mechanisms of ethical climate in the explanation of the effectiveness of authentic leadership behaviour. Finally, and relating to managerial implications, the study highlights the importance of developing and cultivating authentic leadership behaviours and ethical leadership behaviours in the workplace to attain positive organisational outcomes.
PUBLICATIONS AND CONFERENCES

Publications:


Conference Presentations:


TABLE OF CONTENTS

CERTIFICATE OF AUTHORSHIP ......................................................... III

ACKNOWLEDGEMENTS ................................................................. III

ABSTRACT .................................................................................. V

PUBLICATIONS AND CONFERENCES ............................................ VII

LIST OF TABLES ........................................................................... XI

LIST OF FIGURES ........................................................................ XIII

LIST OF ACRONYMS ...................................................................... XIV

CHAPTER 1 – INTRODUCTION ......................................................... 1

  1.1 INTRODUCTION .................................................................. 1

  1.2 BACKGROUND OF THE STUDY ......................................... 1

  1.3 PROBLEM STATEMENT ..................................................... 5

  1.4 RESEARCH AIM AND OBJECTIVE ..................................... 7

  1.5 RATIONALE FOR THE RESEARCH ..................................... 8

  1.6 THE CONTEXT OF THE STUDY ........................................... 10

  1.7 SIGNIFICANCE OF THE STUDY ......................................... 10

  1.8 STRUCTURE OF THE THESIS ............................................. 11

  1.9 SUMMARY .......................................................................... 12

CHAPTER 2 – LITERATURE REVIEW ................................................ 13

  2.1 INTRODUCTION .................................................................. 13

  2.2 THEORETICAL BACKGROUND .......................................... 13

    2.2.1 The relevance of Organisational Leadership .................. 13

    2.2.2 Authentic Leadership and its construct development ......... 16

    2.2.3 Ethical Leadership ...................................................... 30

    2.2.4 Organisational Outcomes ............................................ 35

    2.2.5 Theoretical framework ................................................ 45

  2.3 IDENTIFYING OVERSIGHTS IN THE LITERATURE ................. 46

  2.4 HYPOTHESIS DEVELOPMENT ........................................... 48

    2.4.1 Linking Authentic Leadership to Ethical Climate ............ 48

    2.4.2 Linking Authentic Leadership to Organisational Citizenship Behaviour ........................................ 49

    2.4.3 Linking Authentic Leadership and Affective Organisational Commitment ........................................ 50

    2.4.4 Linking Authentic Leadership to In-role Performance ........ 52

    2.4.5 Linking Ethical Leadership to Ethical Climate ................ 53

    2.4.6 Linking Ethical Leadership to Organisational Citizenship Behaviour ........................................ 55

    2.4.7 Linking Ethical Leadership to Affective Organisational Commitment ........................................ 56

    2.4.8 Linking Ethical Leadership to Performance .................... 57

    2.4.9 Moderating effect of Ethical Leadership on the relationship of authentic leadership and organisational outcomes ........................................................................ 58

    2.4.10 Mediating effect of Ethical Climate on the relationship of authentic leadership and organisational outcomes ................................................................................... 62

  2.5 CONTROL VARIABLES .......................................................... 65

  2.6 CONCEPTUAL FRAMEWORK ................................................ 66

  2.7 SUMMARY .......................................................................... 67

CHAPTER 3 – RESEARCH METHODS .................................................. 68

  3.1 INTRODUCTION .................................................................. 68

  3.2 RESEARCH PARADIGM ...................................................... 68

  3.3 OVERVIEW OF RESEARCH METHOD AND DESIGN ........... 69

  3.4 RESEARCH INSTRUMENT DEVELOPMENT .......................... 72

    3.4.1 Demographic Information ............................................ 75

    3.4.2 Authentic Leadership .................................................. 76
<table>
<thead>
<tr>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.4.3 Ethical Leadership</td>
</tr>
<tr>
<td>3.4.4 Ethical Climate</td>
</tr>
<tr>
<td>3.4.5 Organisational Citizenship Behaviour</td>
</tr>
<tr>
<td>3.4.6 Affective Organisational Commitment</td>
</tr>
<tr>
<td>3.4.7 Subordinates In-role Performance</td>
</tr>
<tr>
<td>3.5 SAMPLING</td>
</tr>
<tr>
<td>3.5.1 Population</td>
</tr>
<tr>
<td>3.5.2 Sample Size</td>
</tr>
<tr>
<td>3.6 ETHICAL CONSIDERATION</td>
</tr>
<tr>
<td>3.7 MODE OF DATA COLLECTION</td>
</tr>
<tr>
<td>3.8 VALIDITY AND RELIABILITY</td>
</tr>
<tr>
<td>3.9 PRE – TEST</td>
</tr>
<tr>
<td>3.10 PILOT - STUDY</td>
</tr>
<tr>
<td>3.11 MODE OF DATA ANALYSIS</td>
</tr>
<tr>
<td>3.11.1 Data screening</td>
</tr>
<tr>
<td>3.11.2 Preliminary analysis</td>
</tr>
<tr>
<td>3.11.3 Exploratory Factor Analysis (EFA)</td>
</tr>
<tr>
<td>3.11.4 Hierarchical Multiple Regression Analysis</td>
</tr>
<tr>
<td>3.11.5 Approach to Testing Mediation and Moderation effects</td>
</tr>
<tr>
<td>3.12 SUMMARY</td>
</tr>
</tbody>
</table>

CHAPTER 4 – DATA ANALYSIS 100
<table>
<thead>
<tr>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 INTRODUCTION</td>
</tr>
<tr>
<td>4.2 DATA SCREENING AND DATA PREPARATION</td>
</tr>
<tr>
<td>4.2.1 Missing Data</td>
</tr>
<tr>
<td>4.2.2 Sample demographics</td>
</tr>
<tr>
<td>4.2.3 Assessing Normality Distribution</td>
</tr>
<tr>
<td>4.2.4 Assessing for Outliers</td>
</tr>
<tr>
<td>4.2.4 Assessing for Homoscedasticity</td>
</tr>
<tr>
<td>4.3 RELIABILITY OF SCALES</td>
</tr>
<tr>
<td>4.4 CONSTRUCT VALIDITY</td>
</tr>
<tr>
<td>4.4.1 Exploratory Factor Analysis</td>
</tr>
<tr>
<td>4.4.2 Correlation</td>
</tr>
<tr>
<td>4.5 HYPOTHESIS TESTING</td>
</tr>
<tr>
<td>4.5.1 Section 1 - Testing for the main effects of authentic leadership and ethical leadership on organisational outcomes</td>
</tr>
<tr>
<td>4.5.2 Section 2 - Testing for mediation and moderation effects on the relationship between authentic leadership and organisational outcomes</td>
</tr>
<tr>
<td>4.6 SUMMARY</td>
</tr>
</tbody>
</table>

CHAPTER 5 – DISCUSSION AND IMPLICATIONS 155
<table>
<thead>
<tr>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1 INTRODUCTION</td>
</tr>
<tr>
<td>5.2 MAJOR CONCLUSIONS</td>
</tr>
<tr>
<td>5.2.1 Scale dimensionalities</td>
</tr>
<tr>
<td>5.2.2 Demographic Characteristics</td>
</tr>
<tr>
<td>5.2.3 Authentic leadership behaviour and its influence on perceived ethical climate</td>
</tr>
<tr>
<td>5.2.4 Authentic leadership behaviour and its influence on subordinates’ organisational citizenship behaviours</td>
</tr>
<tr>
<td>5.2.5 Authentic leadership behaviour and its influence on affective organisational commitment</td>
</tr>
<tr>
<td>5.2.6 Authentic leadership behaviour and its influence on in-role performance</td>
</tr>
<tr>
<td>5.2.7 Ethical leadership behaviour and its influence on perceived ethical climate</td>
</tr>
<tr>
<td>5.2.8 Ethical leadership behaviour and its influence on subordinates’ organisational citizenship behaviours</td>
</tr>
<tr>
<td>5.2.8 Ethical leadership behaviour and its influence on affective organisational commitment</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 2.1</td>
<td>Summary of authentic leadership definitions</td>
<td>18</td>
</tr>
<tr>
<td>Table 3.1</td>
<td>Structure of the survey instrument</td>
<td>74</td>
</tr>
<tr>
<td>Table 3.2</td>
<td>Licensing Requirements of measurement scales</td>
<td>75</td>
</tr>
<tr>
<td>Table 3.3</td>
<td>Absolute values for Pearson’s coefficient ($r$)</td>
<td>95</td>
</tr>
<tr>
<td>Table 4.1</td>
<td>Gender of Respondents</td>
<td>103</td>
</tr>
<tr>
<td>Table 4.2</td>
<td>Age group of Respondents</td>
<td>103</td>
</tr>
<tr>
<td>Table 4.3</td>
<td>Education Level of Respondents</td>
<td>104</td>
</tr>
<tr>
<td>Table 4.4</td>
<td>Role in the organisation</td>
<td>105</td>
</tr>
<tr>
<td>Table 4.5</td>
<td>Organisational tenure of Respondents</td>
<td>105</td>
</tr>
<tr>
<td>Table 4.6</td>
<td>Pearson chi-square values for cross tabulation</td>
<td>106</td>
</tr>
<tr>
<td>Table 4.7</td>
<td>Normality Statistics for each Variable</td>
<td>107</td>
</tr>
<tr>
<td>Table 4.8</td>
<td>Outliers with z-score exceeding $</td>
<td>z</td>
</tr>
<tr>
<td>Table 4.9</td>
<td>Cronbach’s coefficient alpha values of measurement scales</td>
<td>111</td>
</tr>
<tr>
<td>Table 4.10</td>
<td>Factor loading</td>
<td>114</td>
</tr>
<tr>
<td>Table 4.11</td>
<td>Means, standard deviations, and correlations</td>
<td>119</td>
</tr>
<tr>
<td>Table 4.12</td>
<td>Pattern of hierarchical regression model tests of the research framework presented in Figure 2.2 of Chapter 2</td>
<td>122</td>
</tr>
<tr>
<td>Table 4.13</td>
<td>Linear Regression Analysis Authentic Leadership and Ethical Leadership</td>
<td>123</td>
</tr>
<tr>
<td>Table 4.14</td>
<td>Hierarchical Multiple Regression Analysis Summary predicting Ethical Climate from Demographic Variables and Authentic Leadership</td>
<td>126</td>
</tr>
<tr>
<td>Table 4.15</td>
<td>Hierarchical Multiple Regression Analysis Summary predicting Organisational Citizenship Behaviour from Demographic Variables and Authentic Leadership</td>
<td>127</td>
</tr>
<tr>
<td>Table 4.16</td>
<td>Hierarchical Multiple Regression Analysis Summary predicting Affective Organisational Commitment from Demographic Variables and Authentic Leadership</td>
<td>129</td>
</tr>
<tr>
<td>Table 4.17</td>
<td>Hierarchical Multiple Regression Analysis Summary predicting In-role Performance from Demographic Variables and Authentic Leadership</td>
<td>130</td>
</tr>
<tr>
<td>Table 4.18</td>
<td>Hierarchical Multiple Regression Analysis Summary predicting Ethical Climate from Demographic Variables and Ethical Leadership</td>
<td>131</td>
</tr>
<tr>
<td>Table 4.19</td>
<td>Hierarchical Multiple Regression Analysis Summary predicting Organisational Citizenship Behaviour from Demographic Variables and Ethical Leadership</td>
<td>132</td>
</tr>
<tr>
<td>Table 4.20</td>
<td>Hierarchical Multiple Regression Analysis Summary predicting Affective Organisational Commitment from Demographic Variables and Ethical Leadership</td>
<td>133</td>
</tr>
<tr>
<td>Table 4.21</td>
<td>Hierarchical Multiple Regression Analysis Summary predicting In-role Performance from Demographic Variables and Ethical Leadership</td>
<td>134</td>
</tr>
<tr>
<td>Table 4.22</td>
<td>Hierarchical Multiple Regression Analysis Summary predicting Organisational Citizenship Behaviour from Demographic Variables and Ethical Climate</td>
<td>138</td>
</tr>
<tr>
<td>Table 4.23</td>
<td>Hierarchical Multiple Regression Analysis Summary predicting Affective Organisational Commitment from Demographic Variables and Ethical Climate</td>
<td>139</td>
</tr>
<tr>
<td>Table 4.24</td>
<td>Hierarchical Multiple Regression Analysis Summary predicting In-role Performance from Demographic Variables and Ethical Climate</td>
<td>140</td>
</tr>
<tr>
<td>Table 4.25</td>
<td>Mediating effects of Ethical Climate to Authentic Leadership and Organisational Citizenship Behaviour after controlling for Demographic Variables</td>
<td>142</td>
</tr>
<tr>
<td>Table 4.26</td>
<td>Mediating effects of Ethical Climate to Authentic Leadership and Affective Organisational Commitment after controlling for Demographic Variables</td>
<td>144</td>
</tr>
<tr>
<td>Table 4.27</td>
<td>Mediating effects of Ethical Climate to Authentic Leadership and In-role Performance after controlling for Demographic Variables</td>
<td>145</td>
</tr>
<tr>
<td>Table 4.28</td>
<td>Moderating effects of Ethical Leadership to Authentic Leadership and Ethical Climate after controlling for Demographic Variables</td>
<td>147</td>
</tr>
<tr>
<td>Table 4.29</td>
<td>Moderating effects of Ethical Leadership to Authentic Leadership and Organisational Citizenship Behaviour after controlling for Demographic Variables</td>
<td>149</td>
</tr>
<tr>
<td>Table 4.30</td>
<td>Moderating effects of Ethical Leadership to Authentic Leadership and Affective Organisational Commitment after controlling for Demographic Variables</td>
<td>151</td>
</tr>
<tr>
<td>Table 4.31</td>
<td>Moderating effects of Ethical Leadership to Authentic Leadership and In-role Performance after controlling for Demographic Variables</td>
<td>153</td>
</tr>
<tr>
<td>Figure</td>
<td>Description</td>
<td>Page</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>2.1</td>
<td>Theoretical Framework based on the literature review</td>
<td>46</td>
</tr>
<tr>
<td>2.2</td>
<td>Conceptual framework based on the literature review of authentic leadership, ethical leadership, ethical climate, organisational citizenship behaviour, organisational commitment and performance</td>
<td>67</td>
</tr>
<tr>
<td>3.1</td>
<td>Research design</td>
<td>70</td>
</tr>
<tr>
<td>4.1</td>
<td>Ethical climate mediating the relationship between authentic leadership and organisational citizenship behaviour</td>
<td>141</td>
</tr>
<tr>
<td>4.2</td>
<td>Ethical climate mediating the relationship between authentic leadership and affective organisational commitment</td>
<td>143</td>
</tr>
<tr>
<td>4.3</td>
<td>Ethical climate mediating the relationship between authentic leadership and in-role performance</td>
<td>144</td>
</tr>
<tr>
<td>4.4</td>
<td>Plotting the interaction of ethical leadership moderating the relationship between authentic leadership and ethical climate</td>
<td>148</td>
</tr>
<tr>
<td>4.5</td>
<td>Plotting the interaction of ethical leadership moderating the relationship between authentic leadership and organisational citizenship behaviour</td>
<td>150</td>
</tr>
<tr>
<td>4.6</td>
<td>Plotting the interaction of ethical leadership moderating the relationship between authentic leadership and affective organisational commitment</td>
<td>152</td>
</tr>
<tr>
<td>4.7</td>
<td>Plotting the interaction of ethical leadership moderating the relationship between authentic leadership and in-role performance</td>
<td>154</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>$\alpha$</td>
<td>Cronbach’s alpha coefficient</td>
<td></td>
</tr>
<tr>
<td>AL</td>
<td>Authentic Leadership</td>
<td></td>
</tr>
<tr>
<td>ALQ</td>
<td>Authentic Leadership Questionnaire</td>
<td></td>
</tr>
<tr>
<td>AOC</td>
<td>Affective Organisational Commitment</td>
<td></td>
</tr>
<tr>
<td>$\beta$</td>
<td>Beta coefficient</td>
<td></td>
</tr>
<tr>
<td>BRW</td>
<td>Business Review Weekly</td>
<td></td>
</tr>
<tr>
<td>$\chi^2$</td>
<td>Chi-squared</td>
<td></td>
</tr>
<tr>
<td>CI</td>
<td>Confidence interval</td>
<td></td>
</tr>
<tr>
<td>CMV</td>
<td>Common method variance</td>
<td></td>
</tr>
<tr>
<td>$df$</td>
<td>Degrees of freedom</td>
<td></td>
</tr>
<tr>
<td>DVs</td>
<td>Dependent variables</td>
<td></td>
</tr>
<tr>
<td>EC</td>
<td>Ethical Climate</td>
<td></td>
</tr>
<tr>
<td>ECQ</td>
<td>Ethical Climate Questionnaire</td>
<td></td>
</tr>
<tr>
<td>ECT</td>
<td>Ethical Climate Theory</td>
<td></td>
</tr>
<tr>
<td>EFA</td>
<td>Exploratory Factor Analysis</td>
<td></td>
</tr>
<tr>
<td>EL</td>
<td>Ethical Leadership</td>
<td></td>
</tr>
<tr>
<td>ELS</td>
<td>Ethical Leadership Scale</td>
<td></td>
</tr>
<tr>
<td>EM</td>
<td>Expected-Maximization</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>F-ration</td>
<td></td>
</tr>
<tr>
<td>HMRA</td>
<td>Hierarchical multiple regression analysis</td>
<td></td>
</tr>
<tr>
<td>IVs</td>
<td>Independent variables</td>
<td></td>
</tr>
<tr>
<td>KMO</td>
<td>Kaiser-Meyer-Olkin (KMO)</td>
<td></td>
</tr>
<tr>
<td>$M$</td>
<td>Mean</td>
<td></td>
</tr>
<tr>
<td>MCAR</td>
<td>missing completely at random (MCAR).</td>
<td></td>
</tr>
<tr>
<td>$n$</td>
<td>Number of participants</td>
<td></td>
</tr>
<tr>
<td>OC</td>
<td>Organisational Commitment</td>
<td></td>
</tr>
<tr>
<td>OCB</td>
<td>Organisational Citizenship Behaviour</td>
<td></td>
</tr>
<tr>
<td>OCBi</td>
<td>Organisational Citizenship Behaviour directed towards individuals</td>
<td></td>
</tr>
<tr>
<td>OCBio</td>
<td>Organisational Citizenship Behaviour directed towards the organisation</td>
<td></td>
</tr>
<tr>
<td>OLS</td>
<td>Ordinary Least Square</td>
<td></td>
</tr>
<tr>
<td>$p$</td>
<td>p-value</td>
<td></td>
</tr>
<tr>
<td>PAF</td>
<td>Principal Axis Factor analysis (PAF)</td>
<td></td>
</tr>
<tr>
<td>PCIF</td>
<td>Participant Information Sheet and Consent Form</td>
<td></td>
</tr>
<tr>
<td>$r$</td>
<td>Pearson correlation coefficient</td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>Coefficient of multiple determination</td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td>Standard deviation</td>
<td></td>
</tr>
<tr>
<td>SE</td>
<td>Standard error</td>
<td></td>
</tr>
<tr>
<td>SET</td>
<td>Social Exchange Theory</td>
<td></td>
</tr>
<tr>
<td>SLT</td>
<td>Social Learning Theory</td>
<td></td>
</tr>
<tr>
<td>SMEs</td>
<td>Small and Medium Size Enterprises</td>
<td></td>
</tr>
<tr>
<td>SPSS</td>
<td>Statistical software package</td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>United States</td>
<td></td>
</tr>
<tr>
<td>$z$-score</td>
<td>standardised score</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 1 – INTRODUCTION

1.1 Introduction

Chapter one forms the introduction to the thesis outlining the research problem, the context and the structure of the study. First, the main statement of the research problem is presented providing a brief overview on the key variables to be examined. Second, the research aim and objectives are presented. Third, the research context is defined for the study. Fourth, the need for the research topic is discussed and justified. Last, an overview of the thesis is provided.

1.2 Background of the Study

An emerging trend within the modern day business environment is a growing interest in leader behaviour that is based on authenticity, integrity, transparency and what is considered as ethical (Cianci et al. 2014; Ciulla & Forsyth 2011; Gardner et al. 2011; Trevino & Nelson 2014). This is a reaction to persistent questionable corporate practices over recent decades, which not only revealed significant shortcoming in leadership, management and governance, but became full blown corporate scandals (Ciulla & Forsyth 2011; Eubanks, Brown & Ybema 2012; Thiel et al. 2012; Zona, Minoja & Coda 2013). One of the prime examples for such practices can be found in the financial industry with the collapse of Lehman Brothers’ through subprime lending practices, which had their peak with the Global Financial Crises in 2008/09 (Stein 2013). There are several other examples that mass media has continuously reported on, found not only in large corporation but also in organisations of any size and purpose.

Such questionable practices powerfully demonstrate how real or perceived loopholes in the law and governance were extremely attractive pursuits to some leaders, whose conduct and management systems were used solely to satisfy their egoistic views (Rijsenbilt & Commandeur 2012). This drive for unscrupulous personal gains could have had some overt degree of benefit for the organisation but in fact had no regard to ethical consideration in the decision-making process (Mathieu et al. 2014; Spalding 2003). These leadership behaviours consistently masqueraded as proper business leadership conduct and standards, but it appears, they undermined, manipulated and weakened the core of the business and its management systems, sometimes to the point where the viability of the business came into question, and by extension, caused the business to fail (Padilla, Hogan & Kaiser 2007; Rijsenbilt & Commandeur 2012; Sendjaya et al. 2014).

These malfeasant practices evoked doubts in the minds of all layers of contemporary society whether there are genuine intentions and integrity in corporate leadership and
decision-making (Hannah, Avolio & May 2011). In fact, it is increasingly unacceptable for mainstream corporate practices and leadership behaviours to be misinterpreted as credible, proper and ethical when they actually mask blatant self-interest with disguised impropriety (Kish-Gephart, Harrison & Treviño 2010; Mathieu et al. 2014; Padilla, Hogan & Kaiser 2007; Trevino & Nelson 2014). Consequently, there has been an emerging desire from broader society for their organisational leaders to act not only with professionalism, while their behaviours needed to be in alignment with the leader’s core values (Avolio 2007; Gardner et al. 2011; Yammarino et al. 2008). These core values need to be clearly and openly communicated, known and transparent to all, and also endorsed by other stakeholders and most importantly be in alignment with everyday people’s needs that also have relevance and purpose for the greater good (Avolio & Gardner 2005; Avolio & Luthans 2006; Ladkin & Taylor 2010; Peus et al. 2012).

Authenticity and ethical conduct have become critically important in contemporary leadership theory (Brown & Mitchell 2010; Cianci et al. 2014; Gardner et al. 2011; Kalshoven, Den Hartog & De Hoogh 2013), and organisational performance is viewed against the imperative of demonstrated leadership that integrates these factors (Yukl 2012). The concept of authentic leadership and ethical leadership emerged as a result of this growing interest in ethical and unethical conduct within the business context (Brown & Mitchell 2010; Gardner et al. 2011). Authentic leadership was defined by Walumbwa et al. (2008) as ‘a pattern of leader behaviour that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development’ (p. 94). Ethical leadership was defined by Brown, Trevino and Harrison (2005) as ‘the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making’ (p. 120).

These two leadership constructs, representing two distinguishable leadership styles and behaviours. Both constructs represent two leadership styles and behaviours that have been theoretically and empirically distinguished, yet have similarities that generally stress the importance of integrity, morality, and honesty. Proponents of both leader behaviours and styles believe that authentic leadership (Avolio & Gardner 2005; Walumbwa et al. 2008), as well as ethical leadership (Brown, Trevino & Harrison 2005; Trevino, Hartman & Brown 2000) have various positive impacts on organisational outcomes and performance. In other words, while business leaders today are still expected to ensure profitability, they need to do this in an authentic manner that embraces ethical consideration. As argued by Ciulla (1999),
it is not a question of what comprises good leadership but rather what comprises morally
good and effective leadership to achieve long term organisational success.

Related to the above discussion, a major concern has been that despite there being
an awareness on the importance of authentic and ethical decision making among business
leaders, this has not only failed to inform appropriate ethical and responsible leadership and
management practices but it was also actively disregarded (Kish-Gephart, Harrison &
Treviño 2010; Mathieu et al. 2014; Stein 2013). Past studies proposed substantial benefits
eemanating from organisational leaders who exhibited both authentic and ethical leadership
behaviours and styles in order to prevent the recurrence of questionable corporate practices.
Indeed, authentic leadership and ethical leadership styles and behaviours are explained in
positive terms and comprised of actions that were based on core values within an
organisational structure, intentionality in terms of a vision towards the benefit of all members
of the organisation, and sensibility towards the needs of others (Brown & Mitchell 2010;
Gardner et al. 2011; Walumbwa et al. 2008). However, a lack of integrative theory testing,
which examined both authentic and ethical leadership within the one study meant that little
was known about their unique and direct combined influence on a variety of organisational
outcomes. This study set out to examine whether authentic leadership and ethical leadership
facilitated an ethical climate, encouraged employees to engage in organisational citizenship
behaviours, enhanced subordinates’ affective organisational commitment and in-role
performance. Furthermore, this study set out to investigate whether ethical climate enhances
subordinates’ organisational citizenship behaviours, affective organisational commitment
and in-role performance. In addition this study set out to assess whether ethical leadership
complements authentic leadership with regard to fostering an ethical climate, subordinates’
organisational citizenship behaviour, affective organisational commitment and in-role
performance.

Clearly, the establishment of an ethical climate in an organisation influences an
individual’s outlook towards work involvement and behaviours that contribute to
organisational performance (Simha & Cullen 2012). Ethical climate, comprising an
employee’s perception of policies and procedures in an organisation that promote
appropriate ethical conduct, improves attitudes and behaviours among employees (Elçi &
Alpkan 2009; Victor & Cullen 1988; Wimbush, Shepard & Markham 1997). Specifically,
research findings on ethical climates indicate positive impacts on employees’ organisational
citizenship behaviour (Leung 2008), organisational commitment (Cullen, Parboteeah &
Victor 2003), and job performance (Mulki, Jaramillo & Locander 2009). Besides, an ethical
climate impacts on decision-making processes and consequences with regard to ethical
issues by determining which moral criteria individuals apply to grasp and resolve these
issues (Cullen, Victor & Stephens 1989). Therefore, when employees perceive that an
ethical climate is fostered and maintained in an organisation, they are inclined to demonstrate positive attitudes and behaviours.

The attention towards organisational citizenship behaviour results from the argument that such behaviour contributes to organisational effectiveness for the long-term through cultivating the organisational social system (Brief & Motowidlo 1986; LePine, Erez & Johnson 2002; Luthans & Youssef 2007; Organ 1997; Organ, Podsakoff & MacKenzie 2006; Podsakoff & MacKenzie 1997). These behaviours are not necessarily task-focused or enforced by reward systems and benefit the overall organisational effectiveness (Farooqui 2012; Ilies et al. 2009; Podsakoff et al. 2009; Podsakoff et al. 2000; Snape & Redman 2010). Organisational citizenship behaviour influences their understanding of what kind of ethical behaviour is expected within the organisation, it encourages pro-social behaviour in the workplace and encourages employees to fulfil their role beyond their job requirements (Podsakoff et al. 2009). For example, employees exhibiting such behaviours could contribute to a more collaborative work environment with their colleagues through helping behaviours, which are outside of their job descriptions and thus elevate teamwork in the group. Such behaviours are commonly referred to as extra-role behaviours are by some scholars referred to as pro-social behaviours (Podsakoff et al. 2000; Van Dyne, Cummings & McLean Parks 1995). Without a doubt, the willingness to put extra effort into the job demonstrates a certain degree of organisational commitment and how attached employees are towards the organisation they work for.

Research has shown that organisational commitment is a vital construct in management and has been widely included in research on organisational psychology and behaviour (Johnson, Chang & Yang 2010; Lavelle et al. 2009; Meyer, Becker & Vandenberghe 2004; Meyer et al. 2002). Studies on organisational commitment found various positive linkages between organisational commitment and variables such as employees’ job satisfaction, turnover intentions, attendance, as well as performance effectiveness (Johnson, Chang & Yang 2010; Kinnie & Swart 2012; Panaccio & Vandenberghe 2009; Riketta 2002). Furthermore, organisational commitment has been found to result in healthier relationships between leaders and subordinates in which subordinates learn about norms and expectations required by an organisation (Kinnie & Swart 2012; Meyer & Herscovitch 2001; Meyer et al. 2002; Neubert et al. 2009).

Whilst engagement with colleagues at work and commitment towards the organisation are considered an important factor of positive organisational outcomes, employees also need to perform the required tasks that are employed for by the organisation (Katz & Kahn 1978). Organisational processes rely on success and completion of various tasks that respectively are assigned to various roles (Earley 1997; Hatch & Cunliffe 2012; Williams & Anderson 1991). To put it differently, in-role performance of employees relates to
behaviours that are associated with formal role requirements (Motowildo, Borman & Schmit 1997). Thus, in-role performance is an important indicator for specific standards that an organisation requires in order to achieve effectiveness in its operations.

1.3 Problem Statement

With the interest in ethical issues within the business environment (Caza, Barker & Cameron 2004), ethics has evolved into a fundamental element of modern-day business (Trevino & Nelson 2014). More importantly, society is desiring their leaders to act significantly more professionally where their behaviours are authentically in alignment with core values, and where leaders are genuinely concerned about peoples’ real needs without any false sincerity (Gardner et al. 2011; McShane & Cunningham 2011; Trevino & Brown 2004; Trevino, Weaver & Reynolds 2006). Good leadership then, has become inextricably linked with good business practices and performances that have ethical propriety, transparency and integrity. In other words, there is a strong need for leaders to establish a work environment that contributes to positive organisational outcomes that are not only concerned with economic performance of an organisation but more so stimulate employees’ attitudes and behaviours positively. The research problem that emanates from this discussion is that even though there is an immense breadth of leadership theory and practice to address issues on organisational effectiveness, yet there still is a recurrence of questionable corporate practices (Jory et al. 2015). More precisely, there is limited understanding of how authentic leadership and ethical leadership influence ethical climate, organisational citizenship behaviours, and subordinates’ affective organisational commitment and in-role performance.

Contemporary leadership theories such as authentic leadership and ethical leadership are regarded as positive leadership behaviours that help to prevent questionable corporate behaviours to occur. A considerable amount of research has evolved around the theory of authentic leadership and its potential positive impacts on overall organisational outcomes (Avolio & Gardner 2005; Cianci et al. 2014; Clapp-Smith, Vogelgesang & Avey 2009; Ilies, Morgeson & Nahrgang 2005; Leroy et al. 2012; Wang et al. 2014). Furthermore, researchers argued that the concept of authentic leadership being inherently concerned with a leaders ethics and morality (Avolio et al. 2004; Avolio & Luthans 2006; Luthans & Avolio 2003). This, in turn, addresses the global demand for a leader’s responsibility, integrity and transparency with regard to business scandals and unethical practices (Avolio & Gardner 2005; Bass & Steidlmeier 1999; Ladkin & Taylor 2010). Similarly, economic events and ethically questionable business practices evoked an increasing interest in the research on ethical leadership demonstrating its potential for positive organisational outcomes (Brown & Mitchell 2010).
Chapter 1 Introduction

There is theoretical and empirical support from previous research that authentic leadership has significant impact on perceived ethical climate (Avolio & Luthans 2006; Gardner et al. 2005; Walumbwa et al. 2008), subordinates’ organisational citizenship behaviours (Walumbwa et al. 2008; Yammarino et al. 2008), subordinates’ organisational commitment (Leroy, Palanski & Simons 2012; Peus et al. 2012; Rego et al. 2013), and subordinates’ performance (Wang et al. 2014). Similarly there is theoretical and empirical support from previous research that ethical leadership has significant impact on perceived ethical climate (Lu & Lin 2013; Mayer, Kuenzi & Greenbaum 2010; Neubert et al. 2009), subordinates’ organisational citizenship behaviour (Kacmar et al. 2011; Kalshoven, Den Hartog & De Hoogh 2013; Philipp & Lopez 2013), subordinates’ organisational commitment (Kim & Brymer 2011; Neubert et al. 2009), and subordinates’ performance (Brown, Trevino & Harrison 2005; De Hoogh & Den Hartog 2008).

Considering previous empirical studies, there is limited but growing critique about the positive moral intent of authentic leadership (Algera & Lips-Wiersma 2012; Cianci et al. 2014; Diddams & Chang 2012; Sendjaya et al. 2014; Tang & Liu 2011). That is, from an authentic leadership theory point of view, while authentic leaders may well be true to their core beliefs, and act with conviction from a personal values framework, this does not necessarily mean that they act with moral integrity. Having moral integrity or the lack of it could influence the perception of ethical climate among subordinates, subordinates’ organisational citizenship behaviours, affective organisational commitment and in-role performance. Given that authentic leadership, just like any other leadership construct, is a mutual influencing process between a leader and subordinates, it is clear that the personal values framework is the deciding factor on whether authentic leadership is genuinely ethically good authentic leadership or malfunctioned authentic leadership. A further problem that arises is whether authentic leadership has the capacity to establish an ethical climate within an organisation. In addition, through an ethical climate the effectiveness of authentic leadership on subordinates’ organisational citizenship behaviours, affective organisational commitment and in-role performance could be explained.

The research questions to be answered are as follows:

1. In what way, if any, does authentic leadership foster an ethical climate, stimulate subordinates organisational citizenship behaviours, affective organisational commitment and in-role performance?
2. In what way if any, does an ethical climate enhance the effectiveness of authentic leadership towards subordinates’ organisational citizenship behaviours, affective organisational commitment and in-role performance?
3. In what way, if any, does ethical leadership complement the effectiveness of authentic leadership when impacting ethical climate, stimulate subordinates' organisational citizenship behaviours, affective organisational commitment and in-role performance?

### 1.4 Research aim and objective

The aim of this research was to demonstrate whether factors such as authenticity and ethical behaviour within leadership are essential determinants of positive organisational outcomes such as ethical climate, organisational citizenship behaviour, affective organisational commitment and in-role performance to occur. Therefore, this research aimed to investigate direct influencing relationships of both, authentic leadership and ethical leadership, on the aforementioned organisational outcomes. Specifically, it aimed at demonstrating that through an ethical climate authentic leadership effectiveness would be enhanced, and thus functioned as a mediator in the relationship between authentic leadership and several organisational outcomes. Moreover, the focus was on authentic leadership and the importance and centrality of an ethical dimension, which is ethical leadership behaviour. It aimed at demonstrating that ethical leadership complemented authentic leadership and thus functioned as a moderator in the relationship between authentic leadership and several organisational outcomes.

By applying a quantitative research design to test the hypotheses, the objective of this research was to examine influencing relationships between leadership processes and subordinates' organisational outcomes. In particular, this study analysed the direct relationships between authentic leadership, ethical leadership, ethical climate, organisational citizenship behaviours, affective organisational commitment and in-role performance. Further, this study investigated the mediating effects of ethical climate on the relationships between authentic leadership and organisational outcomes. In addition, this research examined the moderating effect of ethical leadership on the relationship between authentic leadership and organisational outcomes.

The objective of this thesis was to demonstrate through an empirical research design whether authentic leadership and ethical leadership were effective predictors for organisational outcomes. A conceptual research framework was developed and addressed the three overarching research questions, which were based on a literature review. Based on the conceptual research framework and in order to examine the cause and effect relationships between the aforementioned variables of interest, a questionnaire was employed. This questionnaire comprised of various well established and publicised measurement scales for each of the variables included in this study.
The main predictor variable authentic leadership was theorised in accordance with the definitions presented by Avolio and Gardner (2005), Ilies, Morgeson and Nahrgang (2005), and Walumbwa et al. (2008), and was measured with the Authentic Leadership Questionnaire (ALQ). The second main predictor variable ethical leadership was theorised in accordance with the definition of Brown, Trevino and Harrison (2005) and was measured with the Ethical Leadership Scale (ELS). Ethical climate was theorised in accordance with the ethical climate theory introduced by Victor and Cullen (1988) and measured with the Ethical Climate Questionnaire (ECQ). Organisational citizenship behaviour was theorised in accordance with definitions by Organ (1988) and further advancements made by Podsakoff et al. (2000) and measured with the Organisational Citizenship Behaviour Scale. Affective organisational commitment was theorised in accordance with the definition provided by Meyer, Allen and Smith (1993) and measured using the Affective Organisational Commitment Scale. In-role performance was theorised in accordance with work provided by Williams and Anderson (1991) and was measured using the In-role Performance Scale.

1.5 Rationale for the research

Authentic leadership and ethical leadership and their impacts on organisational outcomes build one of the key themes of this thesis to demonstrate how both constructs can be applied to address organisational outcomes and performance. Specifically, this thesis contends that employees’ perception of ethical climate, willingness to demonstrate organisational citizenship behaviour towards individuals, affective organisational commitment and in-role performance are influenced by leadership dynamics based on authenticity and ethical behaviour. An ethical climate, employees’ organisational citizenship behaviours, affective commitment towards an organisation, and in-role performance are widely accepted to significantly contribute to positive workplace attitudes and overall organisational performance (Lavelle et al. 2009; LePine, Erez & Johnson 2002; Martin & Cullen 2006; Peterson et al. 2012; Podsakoff et al. 2009; Podsakoff et al. 2000; Riketta 2002; Simha & Cullen 2012; Yukl 2012). The importance of these organisational outcomes is that, these address issues of ethical awareness within organisations in the form of ethical climate, pro-social behaviour at the workplace demonstrated through organisational citizenship behaviours, identification with organisational values through affective organisational commitment, and performance of required tasks demonstrated as in-role performance. It is therefore important to investigate the influencing factors that predict these organisational outcomes to occur.

This thesis was inspired by the call for an integrated approach of related leadership constructs to the construct of authentic leadership (Peus et al. 2012; Walumbwa et al. 2008). It has been documented in the literature that ethical leadership can positively contribute
towards ethical issues in an organisations because leaders who apply ethical leadership pay attention to maintain an ethical standard within an organisation and among their subordinates (Schaubroeck et al. 2012; Toor & Ofori 2009). Both leadership theories, authentic leadership and ethical leadership, have been documented in the literature to stress the importance on integrity, morality, and honesty and thus serve as important factors to contribute to ethical practices in organisations (Brown & Mitchell 2010; Gardner et al. 2011). Therefore, linking both leadership constructs into one conceptual model is well worth considering, given that the integration of related leadership theories could expand the understanding of effects of both leadership constructs when examined together. Examining both leadership constructs in an integrated study would prove beneficial to provide a clearer understanding whether authentic leadership and ethical leadership complement one another and hence if ethical leadership has moderating effect on authentic leadership. Therefore, the examination of authentic leadership and ethical leadership claimed as effective with regard to ethical practices, would support and extend the current understanding of the practicality of both theories. Both are regarded to be predictors for fostering an environment that is based on ethical principles, that is an ethical climate, and achieving positive organisational behaviour among subordinates, that is organisational citizenship behaviour, organisational commitment and in-role performance.

Furthermore, business leaders need to think critically about the moral intent within the decision-making process (Foster 2003), as they play an essential part in establishing an ethical climate (Grojean et al. 2004; Neubert et al. 2009). Research findings on ethical climates in organisations revealed positive influences on employees’ organisational citizenship behaviours, organisational commitment and in-role performance (Arnaud 2010; Cullen, Parboteeah & Victor 2003; Simha & Cullen 2012). Thus, a strong value system and ethical standards imparted by business leaders in an organisation can represent a valuable ethical setting for its members, which, in turn, has the potential to subdue unethical practices. As such an ethical climate could potentially be a factor that explains the effectiveness of authentic leadership, in other words ethical climate could be considered as a mediator in the relationship between authentic leadership and organisational outcomes. However, empirical findings on the influencing factors of authentic leadership on fostering an ethical climate are limited (Gardner et al. 2011). Thus, this thesis provides empirical support on influencing processes of authentic leadership behaviour on ethical climate, which is believed to be beneficial for organisations as to whether leadership based on transparent communication and actions being aligned with core beliefs does foster a supportive environment based on ethical principles.

Considering the above, there is a clear rationale to investigate under which conditions authentic leadership may foster ethically positive outcomes in an organisation.
The significance of this thesis for organisations is that this thesis demonstrates that leadership behaviours that place high importance on integrity and the establishment of an ethical work climate have the potential to enhance cooperative behaviours, build commitment towards the organisation and improve task performance among its employees.

1.6 The Context of the Study

This thesis examines leadership processes within the context of for-profit organisations in Australia. Specifically, the context of this thesis is defined as companies from the for-profit sector within Australia known as the best places to work for in Australia. The ranking for these companies is based on an annually conducted survey by the well-established Australian business magazine called Business Review Weekly (BRW) (*Business Review Weekly* 2014). BRW reports on economy, business strategies, investments and entrepreneurialism in Australia and compiles regularly various rankings on corporations with regard to certain criteria. For this study, the target population was ranked according to a company’s leadership, culture, and valuation of employees resulting in a list representing the best twenty-five (25) places to work for in Australia.

The majority of these companies included on this list represent small and medium size enterprises (SMEs). According to the Roy Morgan’s State of the Nation Report 2012 for Australia small businesses (19 employees or less) form almost 95.6% of all businesses in Australia. Medium size businesses (20 to 199 employees) represent only 4% while large companies (200 employees or more) represent only 0.4%. Further the report reveals that the majority of SMEs operate in the Constructions Industry followed by Professional, Rental and Real Estate and Agriculture. However, the focus of this thesis is not on SMEs, but on companies in general from the private sector representing a workplace that is considered as likeable to work for. In particular with regard to the private sector where company decisions are mainly made on the basis of creating profits, the selection of this particular population of best places to work for is expected to reveal insights on leadership practices that impact on employees’ workplace attitudes and performance in a positive manner.

1.7 Significance of the study

This thesis contributes to the extant literature on authentic leadership theory in a number of ways. First, this thesis contributes to the current understanding of the influencing relationship between authentic leadership and organisational outcomes including perceived ethical climate, subordinates’ organisational citizenship behaviours, subordinates’ organisational commitment, and subordinates’ in-role performance. Even though previous studies have investigated these direct influencing relationships, there is only limited evidence from an Australian context in for-profit organisations. This is worthwhile for investigating the generalisability of authentic leadership theory.
Second, this thesis addresses a call for future research on the relationship between authentic leadership and ethical climate by Gardner et al. (2011) to empirically support that authentic leadership fosters an ethical climate. Furthermore, this thesis investigates the condition under which effects of ethical climate on the relationship between authentic leadership and subordinates’ organisational citizenship behaviours, organisational commitment, and in-role performance. Ethical climate is proposed as a mediator in the relationship between authentic leadership and organisational outcomes. This contributes important findings including whether authentic leadership effectiveness can be explained through the influence of ethical climate in an organisation. Therefore, this thesis expands research on authentic leadership by investigating under what condition authentic leadership facilitates positive attitudes and behaviours among subordinates.

Third, the thesis addresses the call for future research by Walumbwa et al. (2008) to expand research on authentic leadership by integrating other related leadership theories such as ethical leadership, transformational leadership or servant leadership. Specifically, this thesis examined the interaction of ethical leadership as a moderator variable in the relationship between authentic leadership and subordinates’ behaviour outcomes. This may provide a clearer understanding whether these established leadership styles and behaviours complement one another and hence if ethical leadership has a moderating effect on authentic leadership.

Assessing the relationships between the key variables will provide managerial implications for organisational effectiveness and efficiency including employees’ performance. To conclude, this study encompasses various theories that are addressing important dynamics within the study on leadership. Further practical implications include advice for leadership development and selection criteria. Having a mismatched individual in a leadership role can bring various problematic issues, including financial, environmental or even personal disasters to the corporation if individuals in leadership roles are driven by the wrong motivational factors.

1.8 Structure of the thesis

This thesis is structured into six chapters. This chapter one, the introduction, provides the overview of the research aim and the rationale for the research. Chapter two reviews the literature including extant studies on the main variables in this thesis: authentic leadership, ethical leadership, ethical climate, organisational citizenship behaviour, organisational commitment, and in-role performance. The discussion of these variables forms the basis for a conceptual research framework and subsequently development of hypotheses. Chapter three explains the research methodology, which directs the execution of this study. Information on research design, sample, recruitment strategy,
operationalisation of the research instrument, and data analysis procedure are described. Chapter four presents the analysis of the empirical data gathered for this thesis. Chapter five provides a general discussion of findings with theoretical and practical implications and addressing limitations of the study including recommendations for future research. Chapter six draws concluding remarks of this thesis.

1.9 Summary

This chapter informed on the background of this study and identified the problem that indicates a need for further research. Furthermore, the research aim and objective are presented which address the three overarching research questions to guide the direction of this study. Additionally, the rational of this study is clarified as to why this study is important and the significance for the contribution to theory is illustrated. An outline of chapters is provided for the reader to inform about the structure of this thesis.
CHAPTER 2 – LITERATURE REVIEW

2.1 Introduction

The aim of this chapter is to provide the theoretical background by reviewing relevant literature on the key variables of this study. First, in section 2.2 the theoretical background to each of the core variables of this study are explained and described. In particular, the aim of section 2.2 is to summarise research findings on authentic leadership, ethical leadership, ethical climate, organisational citizenship behaviour, organisational commitment and in-role performance. In addition, a theoretical framework will be presented on the basis of the discussion of the key variables. Second, in section 2.3 oversights in the literature are argued, which, in turn, will demonstrate how this study will address this research domain and expand on current research to contribute to the body of knowledge on authentic leadership. Third, in section 2.4 the development of the hypotheses is discussed with regard to the relationships between the key variables. Fourth, in section 2.5 control variables are considered. Fifth, in section 2.6 a conceptual framework is proposed, which is subject to empirical investigation in this study. This, Last, section 2.7 provides a summary of this chapter.

2.2 Theoretical Background

2.2.1 The relevance of Organisational Leadership

The way people culturally organise together as a society has continually morphed and grown in complexity, which, in turn, shaped the way a social order has been structured and managed (Bass 2008; Yukl 2012). Likewise, the theory of leadership has evolved significantly over time in response to growing and changing understandings of people, societies, workplaces and organisations (Grint 2011). This multifacetedness of leadership theory and practice is evidenced by the breadth of leadership concepts contained within this field (Hernandez et al. 2011). This, in turn, has revealed vast differences in definitions of leadership that have also demonstrated little consensus on how leadership is defined (Northhouse 2009; Rost 1991; Yukl 2012). Part of the reason why there is little consensus on a single definition of leadership is that definitions vary according to the focus of the studied phenomenon. While this is the case, Rost (1991) found in a review of leadership definitions over a period of more than 15 years that the majority of published articles and textbooks in the field of leadership written by practitioners and academics did not work from a definition of leadership that was common or accepted as a core definition amongst the authors studied. However, Rost (1991) did find common components of leadership such as authority,
authenticity, communication skills, courage, trust-building, collaborative interaction, focus on results and setting direction, in the various definitions used by authors within his review.

Notwithstanding, there is a breadth of leadership theory and scholars from this field of study generally agree that the nature of leadership is a relationship between a leader and a follower(s) that can be understood as a liaison, which includes mutual influence, communication and obligations (Bass 2008; Dinh et al. 2014; Rosenbach & Taylor 2006; Shriberg & Shriberg 2011; Yukl 2012). In other words, there is a reciprocal influencing process taking place that engages parties, that is leader and follower, to accomplish a mutual purpose. It remains however, that researchers still grapple with trying to understand what makes a leader effective and subsequently what makes an organisation effective (Clark, Murphy & Singer 2014; Hernandez et al. 2011). This is mainly because there still is considerable complexity and variation in leadership theory and practice, which is characterised by character traits, interpersonal relationships, and contextual factors.

The concept of leadership in modern-day business refers to a sum of attributes, skills and processes, which form key factors for organisational success to occur (Avolio, Walumbwa & Weber 2009; Dinh et al. 2014). Moreover, leadership within an organisation is intended to provide guidance for organisational sub-units so that all members within the organisation will perform required tasks, purposes and goals (Bass 2008; Dinh et al. 2014; Gardner et al. 2010; Northouse 2009; Yukl 2012; Zaccaro & Klimoski 2002). Accordingly, various elements are considered critical for effective leadership to occur. The leadership elements that Zaccaro and Klimoski (2002) propose as critical include being able to contextually define the role(s) of leadership that is appropriate for the organisation, the capacity to link an organisation’s purpose with business processes and outcomes, the capacity to be dynamic and responsive to all organisational influences, needs and requirements, and a leader's requirements for affective and cognitive capabilities. Further, Bass (2008) summarised leadership elements suggesting the leader should formulate and articulate mission and goals for organisational members, provide direction for goal attainment, provide the structure and methods to achieve organisational goals, resolve issues, and the leader should evaluate members’ contribution to the overall effort. Similarly, Yukl (2012) described leadership elements as requiring organisational vision and mission so that members can achieve a holistic view of the organisation and become and remain committed to the organisations’ purpose.

Not only are various elements of importance to the construct of leadership, but it is equally important to consider the perspective from which leadership is analysed. According to Yammarino, Dansereau and Kennedy (2001) organisational leadership can be analysed from multiple perspectives. These perspectives are reflected at four different conceptual levels of analysis. There is an intra-individual process, a dyadic process, a group process, or
Chapter 2 Literature Review

an organisational process (Yammarino, Dansereau & Kennedy 2001; Yammarino et al. 2005). To clarify, intra-individual processes focus on the personal traits within an individual that in turn informs and directs their leadership approach. Dyadic processes focus on the relationship between a leader and a follower and how this relationship is unique with its own set of characteristics. Group processes focus on the relationship between a leader and a group within the organisation and how these relationships interact. Organisational processes focus on a holistic view of the organisation in totality with all its subgroups and hierarchical structures together with its shared purposes and goals. These processes on various levels have been found as fundamental for leadership to occur (Chun et al. 2009; DeChurch et al. 2010; Zaccaro & Klimoski 2002).

Literature and various studies on organisational leadership show that organisational leadership is a vital factor for positive organisational outcomes to occur, and there is a direct link between leadership and organisational performance at individual, team, and collective levels (Avolio, Walumbwa & Weber 2009; Bass 2008; Clark, Murphy & Singer 2014; Kaiser, Hogan & Craig 2008; Lussier & Achua 2013; McDermott, Kidney & Flood 2011; Sarros 2009; Yukl 2012). Leaders are the key influential factor that regulates the fate of their organisations through their decisions, strategies, and influences on others (Bass 2008; Kaiser, Hogan & Craig 2008). In addition to that, Schein (2010) notes that organisational leadership has the responsibility to specifically create and develop the organisation’s culture; because culture transmits values, attitudes and expectations between employees on all levels that results in it being the main vehicle to achieve the organisation’s desired workplace behaviours (Mayer et al. 2009). With this in mind, effective leadership might be a virtue, an innate ability to make strategic decisions and lead others toward an envisioned goal.

From the above discussion it can be concluded that leadership can be seen as a multidimensional, interpersonal and relational interaction between individuals in a specific context. In addition to that, leadership is a social influencing process among individuals working toward a common goal. Whilst task orientation remains as important as ever, there is greater demand for leadership being more transparent, demonstrating integrity and being concerned about ethical issues (Avolio, Walumbwa & Weber 2009; Brown & Mitchell 2010; Ciulla & Forsyth 2011; Trevino & Nelson 2014). In other words, a business leader is expected to be a moral architect, who acts as an authentic person establishing a moral foundation as a guiding reference for values and conduct within an organisation. Such an ethically functioning leader has the personal strength and moral fortitude that drives their motivation and thinking and is represented as authentic behaviour with clear processes of managerial accountability and transparency (Stanwick & Stanwick 2003; Trevino, Hartman & Brown 2000). To clarify further, some of the leadership characteristics that are necessary, in addition to the technically correct managerial expertise, include standing for what they
believe in, having open and transparent communication that is meaningful and engaging, building trust relationships with employees and all other stakeholders, demonstrating integrity in all relationships and ensuring they do not mislead or deceive in thinking processes, decision-making or in any communication to any extent. This, in turn, is expected to have positive impacts on subordinates’ attitudes and performance within an organisation.

This thesis therefore focuses on two specific leadership theories, authentic leadership and ethical leadership, which are both based on the previously described characteristics. The first leadership theory, authentic leadership describes leaders as being aware of and act in accordance to their core values and beliefs, focus on followers’ development, having relational transparency with their followers, and forming a positive and engaging organisational environment based on mutual trust (Avolio & Gardner 2005; Gardner et al. 2011; Luthans & Avolio 2003; Walumbwa et al. 2008). The second leadership theory, ethical leadership encompasses the principles of ethics expressed as ethical behaviours (Brown & Mitchell 2010; Brown, Trevino & Harrison 2005; Stouten, van Dijke & De Cremer 2012; Trevino, Hartman & Brown 2000). These two leadership theories emerged as a result from a growing interest in ethical and unethical conduct within the business context (Brown & Mitchell 2010; Gardner et al. 2011). While authentic leadership has been both theoretically and empirically distinguished from ethical leadership, there are similarities as both leadership constructs stress the importance of integrity, morality, and honesty. Proponents of both theories believe that authentic leadership (Avolio & Gardner 2005; Cianci et al. 2014; Wang et al. 2014; Yammarino et al. 2008), as well as ethical leadership (Avey, Wernsing & Palanski 2012; Brown & Mitchell 2010; Brown, Trevino & Harrison 2005; Schaubroeck et al. 2012; Stouten, van Dijke & De Cremer 2012) have various positive impacts on organisational outcomes and performance on the individual as well as group level. Therefore, in the review of the literature this thesis will illustrate the importance of authentic leadership and ethical leadership to an organisation’s ethical climate, subordinates’ organisational citizenship behaviours, subordinates’ organisational commitment and subordinates’ in-role performance.

2.2.2 Authentic Leadership and its construct development

The construct of authentic leadership emerged as a result of growing demand from society for more transparency and integrity within all levels of business operations (Clapp-Smith, Vogelgesang & Avey 2009; Diddams & Chang 2012; Gardner et al. 2011). This has given rise to the notion that corporate behaviours need to be authentic and not in any way misleading or deceptive in either intentions or actions. In other words, authentic behaviour based on good ethical intentions has become critically important in contemporary leadership
theory, and organisational performance is viewed against the imperative of demonstrated authentic leadership (Gardner et al. 2011).

Over the past two decades researchers provided valuable results on the construct development of authentic leadership and its potential benefits for organisational performance outcomes to occur (Avolio et al. 2004; Avolio, Walumbwa & Weber 2009; Gardner et al. 2005; Gardner et al. 2011; Ilies, Morgeson & Nahrgang 2005; Luthans & Avolio 2003; Peus et al. 2012; Sendjaya et al. 2014; Walumbwa et al. 2008; Wang et al. 2014). In an extensive review of authentic leadership theory, Gardner et al. (2011) revealed that authenticity and respectively authentic leadership have been applied in an organisational context only as recently as the 1960s with the majority of published work being conceptual, even though there has been interest from both, practitioners (George 2003) and theorists (Avolio, Walumbwa & Weber 2009; Gardner et al. 2011; Peus et al. 2012). Furthermore, it was argued that authentic leadership could be seen as a ‘root construct in leadership theory’ (Avolio & Gardner 2005, p. 315), which characteristics complement other positive leadership theories, such as charismatic, transformational or ethical leadership (Gardner et al. 2011). Consequently various definitions regarding the construct of authentic leadership evolved over the past two decades as illustrated in Table 2.1.

Henderson and Hoy (1983) focused on attempting to formally conceptualise the construct of authentic leadership and on developing a measurement scale to measure a leader’s authenticity. Their study on authentic leadership and the development of an authenticity scale drew inspiration from Seeman’s (1966) work on inauthenticity. Seeman (1966) discussed differing views for conceptualising inauthenticity, and concluded that inauthenticity was a reflection on an individual’s distorted view of reality arising from their perceived demands of the role, and how they perceived that they needed to fulfil it. Further, an inauthentic individual has distorted conceptions about what others think of him/her and acts on mistaken perceptions of self-image. Additionally, an inauthentic individual has a distorted view of their beliefs system and their role status. Hence, an inauthentic individual’s actions are the result of discrepancies in their self-image.

Seeman (1966) developed his Ambivalence Toward Leadership Ideology (Inauthenticity) Scale, which was, thus far, the only attempt to conceptualise such a measurement scale. Henderson and Hoy (1983) utilised Seeman’s (1966) work and measuring scale to develop their Leader Authenticity Scale (LAS). Their research resulted in a new conceptualisation of authentic leadership that contained three components: an individual’s acceptance for personal and organisational responsibilities for their actions, outcomes and mistakes; secondly not being manipulative towards subordinates, and thirdly, the self-awareness of one’s personal values that align with one’s role requirements.
### Table 2.1: Summary of authentic leadership definitions

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Authentic Leadership Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Henderson and Hoy (1983, p. 67-68)</td>
<td>Leader authenticity is therefore defined as the extent to which subordinates perceive their leader to be maximizing the acceptance of organisational and personal responsibility for actions, outcomes, and mistakes; to be non-manipulating of subordinates; and to demonstrate a salience of self over role. Leadership inauthenticity is defined as the extent to which subordinates perceive their leader to be ‘passing the buck’ and blaming others and circumstances for errors and outcomes; to be manipulative of subordinates; and to be demonstrating a salience of role over self.</td>
</tr>
<tr>
<td>Bhindi and Duignan (1997, p. 119)</td>
<td>In this article the authors argue for authentic leadership based on: authenticity, which entails the discovery of the authentic self through meaningful relationships within organizational structures and processes that support core, significant values; intentionality, which implies visionary leadership that takes its energy and direction from the good intentions of current organizational members who put their intellects, hearts and souls into shaping a vision for the future; a renewed commitment to spirituality, which calls for the rediscovery of the spirit within each person and celebration of the shared meaning, with purpose of relationship; a sensibility to the feelings, aspirations and needs of others, with special reference to the multicultural settings in which many leaders operate in the light of the increasing globalizing trends in life and work.</td>
</tr>
<tr>
<td>George (2003, p.12)</td>
<td>Authentic leaders use their natural abilities, but they also recognize their shortcomings, and work hard to overcome them. They lead with purpose, meaning, and values. They build enduring relationships with people. Others follow them because they know where they stand. They are consistent and self-disciplined. When their principles are tested, they refuse to compromise. Authentic leaders are dedicated to developing themselves because they know that becoming a leader takes a lifetime of personal growth.</td>
</tr>
<tr>
<td>Luthans and Avolio (2003, p. 243)</td>
<td>We define authentic leadership in organizations as a process that draws from both positive psychological capacities and a highly developed organizational context, which results in both greater self-awareness and self-regulated positive behaviors on the part of leaders and associates, fostering positive self-development. The authentic leader is confident, hopeful, optimistic, resilient, transparent, moral/ethical future-oriented, and gives priority to developing associates into leaders themselves. The authentic leader does not try to coerce or even rationally persuade associates, but rather the leader's authentic values, beliefs, and behaviours serve to model the development of associates.</td>
</tr>
<tr>
<td>Ilies, Morgeson and Nahrgang (2005, p. 374)</td>
<td>Authentic leaders are deeply aware of their values and beliefs, they are self-confident, genuine, reliable and trustworthy, and they focus on building followers' strengths, broadening their thinking and creating a positive and engaging organizational context.</td>
</tr>
<tr>
<td>Walumbwa et al. (2008, p. 94)</td>
<td>We define authentic leadership as a pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development.</td>
</tr>
</tbody>
</table>

Researchers from the 1990s built on the limited conceptual development of earlier researchers to more fully expand the conceptualisation of authentic leadership theory (Avolio et al. 2004; Begley 2001; Bhindi & Duignan 1997; Gardner et al. 2005; Ilies, Morgeson &
Nahrgang 2005; Luthans & Avolio 2003; Walumbwa et al. 2008). Bhindi and Duignan (1997) argued that authentic leadership comprises four components; authenticity as actions that are based on core values within an organisational structure, intentionality in terms of a vision towards the benefit of all members of the organisation, spirituality in terms of a collective sense of unity among organisational members, and sensibility towards the needs of others. Begley (2001) further explored the prevailing concept of authentic leadership, and how it differentiates from effective leadership. He argued that ethical considerations were essential if leaders were acting with genuineness and care towards their subordinates, which revealed integrity for a leader in the eyes of the subordinates.

George (2003), describing authentic leadership from a practitioner’s point of view, argued that authentic leaders had self-awareness of their own values set, and practised them. This resulted in leaders knowing what they stand for, they lead with a strong sense of purpose and meaning, and they created organisations for the long-term that benefited the greater collective good. He also described that authentic leaders understood that leadership was a formative journey, and that each leader had a personal development growth journey to fulfil in order to become an authentic person as well as an authentic leader.

Luthans and Avolio (2003) defined authentic leadership as a process that is based on positive psychological capacities of confidence, hope, optimism, and resilience in a highly developed organisational context. Ilies, Morgeson and Nahrgang (2005) further refined this definition by proposing a four-component framework of authentic leadership more focused on self-awareness, unbiased processing, authentic behaviour and authentic relational orientation. Gardner et al. (2005) refined previous perspectives and conceptualisations and proposed a framework that focused on self-awareness and self-regulation processes, internalised regulation, balanced processing, relational transparency, and authentic behaviour. Moreover, Ilies, Morgeson and Nahrgang (2005) and Gardner et al. (2005) work was grounded in Kernis (2003) research findings that authenticity was a multidimensional construct, which included a positive moral perspective arising from a person having ethical standards with their decision-making.

In reviewing the existing conceptualisations on authentic leadership, Walumbwa et al. (2008) noted that these conceptualisations in themselves and their implications were firstly insufficient and secondly not enough to expect leaders to be more authentic. In developing the Authentic Leadership Questionnaire (ALQ), which measures authenticity of a leader, Walumbwa et al. (2008) found that besides the four key components authentic leadership additionally draws upon positive psychological capacities and a positive ethical climate. Consequently, Walumbwa et al. (2008) refined the definition of authentic leadership as ‘a pattern of leader behaviour that draws upon both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalised moral perspective,
balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development' (p. 94). In sum, authentic leadership is set in positive aims and comprised of actions that are based on core values within an organisational structure, intentionality in terms of a vision towards the benefit of all members of the organisation, spirituality in terms of a collective sense of unity among organisational members, and sensibility towards the needs of others.

A common thread throughout the definitions of authentic leadership is that authentic leadership is comprised of four main factors, namely internalised moral perspective, self-awareness, relational transparency, and balanced processing (Avolio, Walumbwa & Weber 2009; Cianci et al. 2014; Diddams & Chang 2012; Gardner et al. 2011; Peus et al. 2012; Weischer, Weibler & Petersen 2013). These four factors were recognised as being interconnected with each other, and they were also characterised as self-regulatory processes (Avolio & Gardner 2005; Luthans & Avolio 2003). Furthermore, these four factors result from an individual’s personal history accumulated through various life events stimulating different coping mechanisms; and an individual’s capacity to reflect on one’s personal identity and values as well as the capability to exert self-control (Gardner et al. 2005). Following this, the four key components will be further clarified.

The first key factor of authentic leadership is an internalised moral perspective, which refers to a leader’s well-developed values set that guides their thinking and actions through an internal locus of control, regardless of any external pressures. Values are part of a leader’s character, which is determined by his/her ethical mindset and an internalised set of behaviours, such as showing integrity and justice (Bass 2008; Hannah & Avolio 2011). In fact, values are an important factor for leaders to perform ethical decisions and implement strategic action. Core values set guidelines for an individual’s decisions and reflect which moral beliefs an individual valuates (Fry & Slocum Jr. 2008). The second key factor of authentic leadership is self-awareness, which refers to an individual’s knowledge and understanding about themselves, which includes cognitive, emotional, and moral development. Each individual has a certain sense of self-awareness based on their self-concept that relates to an individual’s beliefs and evaluations about themselves, which, in turn, guides their attitudes and behaviours (Earley 1997; Guignon 2012). To clarify, an individual is defined by his/her self-concept, which is a response to internal and external stimuli (Marsh & Shavelson 1985). Thus, self-awareness encompasses an individual’s capability to clearly and confidently identify one’s strength and weaknesses and hence act goal directed with a degree of consistency and stability over time based on one’s self concept (Campbell, Assanand & Di Paula 2003). The third key factor of authentic leadership is relational transparency, which refers to a leader’s capacity to articulate and process their values and thoughts with their subordinates, thus creating a mutual and open trust
relationship. Relational transparency implicates an individual’s aspiration to share and communicate information in an open and truthful manner instead of masking or obfuscating their intentions or actions. According to Popper and Lipshitz (2000), transparency and leadership are regarded as important factors that contribute to organisational learning. Moreover, such openness in communication of a leader also results in various performance outcomes among their subordinates because authentic leaders present a genuine self (Avolio & Luthans 2006). The fourth key factor of authentic leadership is balanced processing, which refers to a leader’s capacity to objectively process information and critically reflect on tasks and circumstances before making any decisions. Furthermore, balanced processing includes an individual’s evaluation on self-related information in an unbiased manner accepting one’s strengths and weaknesses (Kernis 2003). In other words, individuals are able to objectively acknowledge both positive and negative characteristics and qualities of themselves.

In essence, authentic leadership theory rests on the notion of a leader acting true to his/her true self and this, in turn, his/her action and behaviour is instinctively regarded as being based on good ethical intent (Avolio et al. 2004; Diddams & Chang 2012; Gardner et al. 2011; Ladkin & Taylor 2010). Furthermore, authentic leadership theory advocates that authentic leaders have a highly developed sense of self-awareness and knowledge of their core beliefs (Avolio & Gardner 2005; Peus et al. 2012; Yammarino et al. 2008). A highly developed self-awareness leads to a pure connection with the leader’s intentions and their behaviours and actions. Consequently, the majority of the literature on authentic leadership theory argued that there is no room for unethical conduct (Gardner et al. 2011).

More recent research has challenged the previous positive paradigm of authentic leadership theory and assumptions that it was inherently anchored in goodness and with good ethical intentions (Algera & Lips-Wiersma 2012; Sendjaya et al. 2014; Weischer, Weibler & Petersen 2013); hence to what extent a leader’s self-awareness is based on good ethical intentions is questionable. To clarify, there is a concern with authentic leadership theory on the grounds that, while authentic leaders may well be true to themselves and act with conviction from a personal values framework, this does not necessarily guarantee moral integrity. Business leaders are faced with the challenge of being true to oneself because of different roles (House & Rizzo 1972; Weischer, Weibler & Petersen 2013); hence they have to adjust to expectations at work, home and society.

Authentic leadership can be understood as a formative journey of development and growth, which an individual has to pass through in order to become an authentic person as well as an authentic leader (Erickson 1995; George 2003). In addition to that, researchers concur that authentic leadership requires higher levels of moral development to attain true authenticity (Gardner et al. 2005; Luthans & Avolio 2003; Walumbwa et al. 2008). In other
words, an individual needs to have clear cognitive capabilities and higher order thinking skills that enables purity in the coordination of a self-regulatory processes and managerial excellence, which then results in true authenticity (Grene 1952; Hannah, Lester & Vogelgesang 2005). Therefore, in order to clarify this issue of the positive moral intent of authentic leadership, it is essential to understand the philosophical roots of authenticity as it is described in the theory of existentialism.

2.2.2.1 The concept of Authenticity within Authentic Leadership Theory

The concept of authenticity has existed in many different forms for a long period of time and has been regarded differently according to different contexts (McShane & Cunningham 2011; Steiner & Reisinger 2006). For example, in the social sciences authenticity refers to an individual’s alignment with internal beliefs and values, while in the fine arts it refers to the originality of produced work. More contemporary conceptions of authenticity are situated in the domain of positive psychology (Snyder & Lopez 2007). A common thread throughout these various contexts in which the concept of authenticity can be found is the notion of being true to oneself (Baugh 1988; Harter, S 2002).

While somewhat questioned, the concept of authenticity is rooted in and most widely theorised from the philosophical discipline of existentialism (Algera & Lips-Wiersma 2012; Grene 1952; Taylor 1991) and is derived from Greek philosophy ‘To thine own self be true’ (Avolio & Gardner 2005; Harter 2002; Kernis & Goldman 2006; Snyder & Lopez 2007). Existentialism expresses the viewpoint that individuals have the freedom and therefore the choice to shape their own reality, and to subsequently commit and engage in activities with other beings in this shaped reality (Baugh 1988; Deranty 2009; Grene 1952; Kernis & Goldman 2006; Mills 1997). An individual then takes part in the world by autonomously deciding prior to engagement with the world, how to exist in it, all the while remaining true to their core values and beliefs.

Contemporary proponents of existentialism who further developed the concept of authenticity from its original roots were Martin Heidegger (1889 – 1976) and Jean-Paul Sartre (1905 – 1980). For Heidegger the concept of authenticity is a state of being (Heidegger 1996), which refers to one’s existence in the world in accordance with one’s indisputable inherent urges (Mills 1997). This entails the autonomous decision of an individual on how to exist among others in the world (Baugh 1988). Depending on an individual’s experience, which includes their inherited past and their immediate social environment, the possibilities available for an individual to process and perceive their world are multi-faceted (Guignon & Pereboom 2001; Steiner & Reisinger 2006).

Sartre differed from Heidegger with his concept by emphasising that while freedom of choice was paramount, it was essential that an individual took responsibility for his/her
actions (Guignon & Pereboom 2001; Steiner & Reisinger 2006). Moreover, freedom of choice is paramount because external pressure can potentially influence an individual’s own moral processing and decision-making (Baugh 1988; Grene 1952). This freedom is generated by the values that an individual lives by, hence the responsibility for the choices and actions to be taken. In other words, Sartre believed an individual needed to have clear cognitive capabilities and higher-order thinking skills that enabled a purity in the coordination of transcendence and facticity to avoid ‘bad faith’ occurring, which would result in polluting that purity of being (Grene 1952).

Sartre and Heidegger both agreed that authenticity was essentially about an individual’s ability to shape their own world through using their own free choice that is aligned to their self-identity (Guignon & Pereboom 2001). Each individual not only has the capacity for free choice, but also has the capacity to ignore and not utilise their free choice, which, in turn, exposes them to fictive realities of self, others’ or societal views (Seeman 1966). Consequently, an individual is either prepared to use it or it becomes dormant or absent altogether; or it can disappear completely, and the individual presents a false self to others.

In its simplicity, authenticity comes down to the choices and decisions one makes amid the facts and the possibilities of the situation that determine how aligned actions of an individual are with his/her core beliefs (Baugh 1988; Maltby et al. 2012; Weischer, Weibler & Petersen 2013). A prerequisite for authenticity to occur therefore lies within an individual’s ability to articulate thoughts and views that are consistent with their inner beliefs and values (Harter, S 2002; Liedtka 2008). In other words, an individual has the capability to act upon one’s core values and beliefs.

Kernis and Goldman (2006) investigated various mental and behavioural processes with how an individual comes to understand what represents one’s true self. They identified four interrelated components of authenticity: self-awareness, unbiased processing, behaviours, and relational orientation. The awareness component of authenticity is where an individual has an understanding of one’s own personality and predispositions. The unbiased processing of the self-relevant information component of authenticity is where an individual has an accurate objective view of one’s self. The behaviour component of authenticity is where an individual behaves in accordance with their values and is not influenced by external factors. The relational orientation component of authenticity is where an individual has an open and honest relationship with others that is not in any way a misrepresentation of themselves.

These four interrelated components of authenticity concur with the four key components identified in various definitions of authentic leadership; self-awareness, relational transparency, balanced processing and internalised moral perspective (Avolio &
Gardner 2005; Gardner et al. 2005; Ilies, Morgeson & Nahrgang 2005; Luthans & Avolio 2003; Walumbwa et al. 2008). These four components are not only interconnected with each other, but also characterised as self-regulatory processes (Gardner et al. 2005). In other words, these four key components of authenticity enable an individual to exert self-regulatory processes and thus act by that act true to ones core values and beliefs.

An individual’s authenticity succumbs to a developmental process that is influenced by various personal experiences (Harter 2002). This process forms an individual’s judgments, aspirations and beliefs, which involves acting in accordance with those developed standards of the true self (Erickson 1995; Liedtka 2008). This acquired knowledge about the true self is discovered and maintained through various mental and behavioural processes (Kernis & Goldman 2006). In this sense, authentic leaders demonstrate self-awareness, balanced processing, internalised moral perspective, and relational transparency. In particular, internalised moral perspective of an authentic leader is related to higher levels of cognitive moral development (Hannah, Avolio & Walumbwa 2011; Walumbwa et al. 2008) and hence determines an individual’s moral compass.

Drawing on the field of developmental psychology, an individual develops and learns cognitive abilities and norms that are applied when processing ethical manners (Dukerich et al. 1990; Jordan et al. 2013; Kohlberg 1984; Trevino 1992). This developmental process of cognitive abilities and norms result from an individual’s moral maturation where values develop as a stepwise progression from a simple egocentric point of view through to a more sophisticated universal rationale (Kohlberg 1984; Kohlberg, Levine & Hewer 1983; Krebs & Denton 2005; Snell 1996; Trevino 1992). Further, the process of cognitive moral development is influenced by two factors, cognitive-structural reformation of mind-set and the socio-moral perspective (Kohlberg 1984). Cognitive-structural reformation relates to an individual’s ability to apply multiple perspectives to a given situation that has potentially multiple moral consequences. The socio-moral perspective refers to an individual’s ability to respond to an ethical issue proactively, whether that is a social benefit or a benefit to self.

Referring back to authenticity, an individual’s authenticity starts evolving from an early age and develops as cognitive development processes occur and in conjunction with socialisation processes over an individual’s lifespan (Harter 2002). These combined processes evolve and continue to form and shape the judgments, aspirations and beliefs of an individual that, in turn, informs their actions, which continue over time to illuminate their true self (Erickson 1995). Authenticity then, is a continually evolving dynamic process that grows and develops as a multi-dimensional dynamic process that evolves from the simple to the more advanced. Cognitive capabilities develop in a similar way.

The internalised moral perspective of an authentic leader is determined by his/her ethical mindset and an internalised set of behaviours, such as showing integrity and justice
(Hannah, Lester & Vogelgesang 2005; Hannah, Walumbwa & Fry 2011). This ethical mindset is an important factor for leaders to perform ethical decisions, which in turn reflect which moral beliefs an individual values. Considering that cognitive capability of an individual guides their moral decision-making processes towards moral actions (Kohlberg 1984), these individuals will have a developed internal moral perspective, which in turn stands for higher developed authenticity (Gardner et al. 2005). However, Sendjaya et al. (2014) found that there is no direct relationship between moral reasoning of an authentic leader and his/her moral actions. Specifically their study demonstrated that an authentic leader's moral orientation, which in their case was based on Machiavellianism, has a negative effect on an authentic leader's moral reasoning. Therefore it is necessary to elaborate on the ethical orientation an individual has.

2.2.2.2 The ethical orientation of internalised moral perspective of authentic leadership

The French philosopher René Descartes (1596 – 1650) stated ‘I think therefore I am’ referring to being alive and on a more holistic level knowing about oneself. Referring to the concept of authenticity and its dimension of self-awareness, it can be broadly stated that each individual knows about himself or herself, hence has self-awareness to some degree. Nevertheless, a crucial aspect of being authentic is the way individuals enact their self, which can be associated with a certain ethical dimension that motivates their actions. Furthermore, individual’s behaviours are motivated and enacted by certain goal-directed outcomes to satisfy felt needs (Cantril 1967; Herzberg 1966; Maslow 1943; Salancik & Pfeffer 1977). With this in mind, it is argued that individual’s base their reasoning about their decision on certain ethical dimensions conscientiously.

Ethics, as a sub-discipline of philosophy, provides an understanding on morals and how to act in a morally right way as a member of society. The view of ethics being concerned with explaining moral aspirations and behaviours indicates that there are behavioural standards expressed in universal principles and values for a society to act upon (Ciulla 2004; Ciulla & Forsyth 2011; Fry & Slocum Jr. 2008; Minkes, Small & Chatterjee 1999). It is noted that ethics represents a discipline in itself and that being the case, to discuss the field in its entirety would go beyond the scope of this thesis. What is intended however within this doctoral thesis, is to illustrate a brief overview on the main dimensions and how these relate back to authenticity and authentic leadership theory.

In brief, there are three major dimensions of ethical principles; Consequentialism, Deontology and Virtue Ethics (Ciulla & Forsyth 2011; Dion 2012; Donaldson, T, Werhane & Cording 2002; Ferrell, Fraedrich & Ferrell 2009; Gewirth 1960; Paxton & Greene 2010). These dimensions of ethical principles provide useful insights for exploring ethical dynamics, which represent moral norms and guidelines for social interactions that illustrate a desirable
ideal state for a community and its members to act upon (Arnold et al. 2013). Each of the presented concepts is valid in its own right and can potentially be related to the internalised moral perspective dimension of authentic leadership. Consequentialism processes thinking as it applies to a situation that contains varying levels of moral stimulus, which is processed and acted upon on the basis that certain moral consequences apply. Deontology processes thinking as being able to identify a known moral rule that applies in a certain situation. This moral rule becomes the correct moral action to be implemented without any further additional deliberation. Virtue Ethics is where an individual processes thinking by evaluating and discerning multiple moral perspectives using ethical virtues to apply to simple and complex situations.

All three dimensions are valid in their own right and can contribute to an individual’s self-awareness, that is getting to know one’s motivation behind a decision. Additionally, it has to be considered in what particular context a person is immediately in, which can influence the way an individual perceives themselves (Kraus, Chen & Keltner 2011). Some of the contexts where a person could be influenced include differing business environments, social environments, a particular cultural context or a differing relationship context especially if it was interpersonal. According to Kraus, Chen and Keltner (2011) some individuals in high-powered roles within a business environment can personally adapt and adopt a certain persona that they feel matches a heightened perception of authenticity, relative to the expectations of the high-powered role. This persona may not be true to their authentic self, and this capacity for the self to adapt to different contexts, opens up the possibility for the self to, at least in part, become non-authentic (Shamir & Eilam 2005; Weischer, Weibler & Petersen 2013). Similarly, role expectations (Stets & Carter 2011), as perceived by others can also influence and cause an individual to adapt and potentially demonstrate in-authentic behaviour (Harter 2002).

Luthans and Avolio (2003) assert that authentic leadership inherently is concerned with one’s ethics and morality. Further, it has been argued that an act carried out by a business leader is ethically right, as long as such act is in accordance with established moral principles (Liedtka 2008). Moreover, proponents of authentic leadership theory argue that these core values and beliefs of a business leader impact positively on an organisation if these are displayed authentically (Avolio & Gardner 2005; Avolio, Walumbwa & Weber 2009; Ciulla 1999; Gardner et al. 2011; Ilies, Morgeson & Nahrgang 2005; Peus et al. 2012). Bearing in mind, values reflect what an individual, a group or a society regards as desirable, and thus depict conceptions on the quality of reality (Schwartz & Bilsky 1987). In particular, values can be distinguished in core values, which express a status quo, and guiding values, which describe targeted conditions. It is therefore necessary to evaluate how relevant
particular values are and how they influence actions in order to distinguish between the two understandings of values.

Various researchers argued that the internalised moral perspective of an authentic leader is driven by the positive ethical dimension behind the intended purpose for the outcome of his/her actions (Gardner et al. 2011). However, there is no law that an individual must act benevolently. Still moral behaviour evolved because it is often worthwhile for the individual and for the group. To what extent an individual makes use of it seems to be a matter of self-awareness and self-regulation to have the capacity and understanding to act on one’s inner beliefs (Harter 2002; Liedtka 2008; Maltby et al. 2012).

2.2.2.3 Authentic Leadership and its importance for organisational outcomes

Authentic leadership is regarded as a root construct of contemporary positive leadership theory and is inherently concerned with one’s ethics and morality (Gardner et al. 2011; Peus et al. 2012; Weischer, Weibler & Petersen 2013). The reasons why some recent researchers believe that authentic leadership is a core construct is because when this theory is applied to practice, that is in the workplace, they have found that authentic leaders positively impact on organisational outcomes at various organisational levels, plus the performances of subordinates significantly improved on both an individual as well as group level (Avolio, Walumbwa & Weber 2009; Cianci et al. 2014; Leroy et al. 2012; Peus et al. 2012; Wang et al. 2014). Accordingly, a number of benefits in the delivery of authentic leadership have been found.

Authentic leadership has the capacity to generate an ethical climate, which arises from exhibiting behaviours based on transparency, integrity, trust and moral standards, which, in turn, creates and sustains a healthy organisation (Gardner et al. 2005; Walumbwa et al. 2008) as well as enhanced workplace attitudes and behaviours (Gardner et al. 2011). Furthermore, based on social learning theory (Bandura 1977) a consequence of these positive fundamental characteristics of authentic leadership on subordinates is that these characteristics start to permeate into these individuals and, in turn, subordinates incorporate these characteristics into their role delivery and behaviours. Authentic leaders lead by example, which means that they deliberately exemplify their actions in a consistent manner, which positively empowers subordinates with work-place engagement (Avolio & Gardner 2005; Gardner et al. 2005; Gardner et al. 2011). This role modelling behaviour represents actions that are a clear and emphatic expression of their commitment to organisational tasks, which, in turn, gives direction to followers about how to remain engaged emotionally, physically and cognitively during work performance (Wang et al. 2014). Furthermore, authentic leaders display relational transparency, which means they demonstrate openness and acceptance in communication and collaboration with their subordinates that, in turn,
stimulates subordinates’ motivation to exhibit positive behaviours and increases their well-being and self-esteem (Ilies, Morgeson & Nahrgang 2005). Moreover, authentic leaders create an environment where subordinates have opportunities for self-actualisation, higher levels of work satisfaction, enhanced commitment and organisational citizenship behaviour, increased trust relationships with the leader and heightened efficacy beliefs (Avolio et al. 2004; Gardner et al. 2005; Gardner et al. 2011; Leroy, Palanski & Simons 2012; Peterson et al. 2012; Peus et al. 2012; Walumbwa et al. 2008).

It is evident from the above that authentic leadership is set in positive aims and comprises actions that are based on core values within an organisational structure, intentionality of vision towards the benefit of all members of the organisation, spirituality in the collective sense of unity among organisational members, and sensibility towards the needs of others. From the above discussion, it is clear that there are substantial benefits with authentic leadership as this construct is now widely theoretically accepted as a core component in contemporary positive leadership theory alongside ethical leadership and transformational leadership (Wang et al. 2014).

Notwithstanding, it is also clear that delivering authentic leadership has a number of significant difficulties and challenges (Algera & Lips-Wiersma 2012; Sendjaya et al. 2014; Weischer, Weibler & Petersen 2013). To clarify further, individuals have the capacity to change and adapt to real or perceived environmental influences and contexts, as well as the capacity to intentionally or unintentionally change or adapt to their own real or perceived needs or purposes (Ladkin & Taylor 2010; McShane & Cunningham 2011; Seeman 1966). Previous research in the business context found that some leaders intentionally present a false image of themselves to their subordinates to not only enhance their use of power by putting themselves on a pedestal granting themselves more power than was actually in their role (Bass & Steidlmeier 1999). In this scenario, a leader can manipulate their role and grant themselves added power to pursue their personal goals while falsely showing interest in their subordinates’ wellbeing. The outcomes of inauthenticity of a leader, e.g. manipulative way for the sake of power and personal gain and the disrespect to subordinates in the way they are treated, will sooner or later be realised and subordinates’ respect and confidence in the leader gets damaged and starts an irreversible decline. Consequently, subordinates may or may not be able to continue to perform their role as this lack of respect and confidence generates increased unwillingness to continue support for their leader at previous support levels.

The discussion above clearly indicates that authentic leadership behaviour is emerging as having an utmost capacity to deliver leadership behaviour that meets today’s societal expectations. This includes not only technically correct leadership from a managerial perspective, but more so incorporates various essential leadership characteristics such as
integrity in all relationships, transparency in communication, action being in alignment with words and building relationships based on trust with all stakeholders involved. The intentions through such leadership behaviour should therefore then be to establish a supportive ethical work climate that highlights what is considered as appropriate conducts and hence subdued unethical behaviour in the workplace. Such leaders understand deeply about their leadership purpose and know what they stand for in order to get the best out of themselves as well as others in order to follow through with a purpose and a vision. This in turn can then lead to an improvement of workplace attitudes and behaviours of organisational members where helping behaviours are stimulated, employees being motivated to go the ‘extra mile’, an emotional attachment towards the organisation is formed and employees increase their task performance.

Undeniably, there is a demand for leaders who demonstrate transparency, integrity and act upon their beliefs in an authentic way (Bass & Steidlmeier 1999; Gardner et al. 2011; Peus et al. 2012; Sendjaya et al. 2014; Wang et al. 2014; Zhu et al. 2011). Therefore, it has been previously argued that ethical principles have to be understood and embedded into leadership theory and practice and exercised on an ongoing basis (Algera & Lips-Wiersma 2012). Once these ethical principles are understood and acted upon, this adds to a leader’s authenticity because the internalised moral perspective and hence a leader’s decisions will be guided by these ethical principles.

The above example illustrates one dimension of a multifaceted dilemma where there is an interplay between leadership intentions, integrity and workplace performance delivery. The question arising from this multifaceted dilemma is how does one remain able to be like a chameleon on the one hand and be able to remain truly authentic in the delivery of their leadership role on the other. In other words the construct of authentic leadership should be based on an ethical ground, have a solid foundation stone of internalised moral perspective, support the structure with self-awareness, balanced processing and relational transparency. Referring to Toor and Ofori (2009), who proposed that leadership needs to be based on ethical principles in order to be effective for the long term, otherwise it might become toxic.

Up until the beginning of the millennium leadership literature hardly mentioned the ethical dimension of leadership (Trevino, Brown & Hartman 2003). However, scholars have noted the importance of certain traits such as integrity, honesty and fairness to be associated with effective leadership but these traits focus only on the general conceptualisation of leadership (Bass 2008; Yukl 2012). Ethical leadership stresses the importance of an ethical framework that individuals need to incorporate in their leadership approach (Brown & Trevino 2006; Trevino, Hartman & Brown 2000). Therefore the construct of ethical leadership is included in this study and will be further discussed in the following section.
2.2.3 Ethical Leadership

This thesis also focuses on the inclusion of ethical leadership with the concept and practices of authentic leadership. The reason why this was incorporated is because it is possible that a leader can demonstrate authentic leadership and not necessarily act upon their true beliefs. In other words, it is possible that a person can demonstrate authentic leadership and in fact be or remain being unethical. This in turn can result in the occurrence of corporate misbehaviour and dubious corporate practices.

The theory on ethical leadership has incrementally developed and blossomed from the early 1980s, to the point where it is now recognised as a significant leadership theory in its own right (Brown & Mitchell 2010). While the construct of ethical leadership within the broad field of theory on leadership is relatively new, there has been growing empirical work conducted on ethical leadership, its effects on individual or group performance in the workplace, or the antecedents of ethical leadership (Brown & Mitchell 2010; Brown & Trevino 2014; Eisenbeiss 2012; Jordan et al. 2013; Mayer, Kuenzi & Greenbaum 2010; Mayer et al. 2009; Walumbwa et al. 2011; Walumbwa & Schaubroeck 2009). Conceptually, ethical leadership encompasses the principles of ethics expressed as ethical behaviours, and thus ethical leadership manifests as behavioural patterns exhibited by leaders who act in accordance with ethics at all times (Brown & Mitchell 2010). Thus, an ethical leader is an ethical role model who engenders ethical conduct, ethical decision-making and pro-social behaviour in subordinates (Den Hartog & Belschak 2012; Hunter 2012).

The construct of ethical leadership rests upon two essential pillars: the perception of an individual as a moral person combined with the perception of an individual as a moral manager (Brown & Mitchell 2010; Brown & Trevino 2014; Trevino, Hartman & Brown 2000). The first pillar refers to whether an individual as a moral person displays traits such as integrity, trustworthiness and honesty. The second pillar refers to whether an individual’s actions as a moral manager represent ethical right conduct and actively adjudicates behaviours by rewarding ethical actions and conduct and disciplining ethical misconduct in the workplace. The ethical leader displays moral management by communicating and compensating ethical conduct, which indicates the importance of authentic behaviour (Trevino, Brown & Hartman 2003; Trevino, Hartman & Brown 2000). Both dimensions are considered a necessary requirement for ethical leadership (Brown & Mitchell 2010; Brown & Trevino 2014; Weaver, Trevino & Agle 2005).

Brown, Trevino and Harrison (2005, p. 120) formally conceptualised the theory of ethical leadership based on the social learning theory by emphasising behaviour as ‘the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making’. Significantly, this definition of ethical
leadership by Brown, Trevino and Harrison (2005) became widely accepted as a benchmark definition and consequently was used by later researchers (Brown & Trevino 2014; Hunter 2012; Mayer, Kuenzi & Greenbaum 2010; Neubert et al. 2009; Piccolo et al. 2010; Stouten, van Dijke & De Cremer 2012). This definition by Brown, Trevino and Harrison (2005) offers a descriptive perspective of ethical leadership encompassing various personal attitudes and behavioural characteristics. To clarify, ethical leaders aspire for integrity and actively promote and demand ethical conduct among their subordinates.

Further, Brown, Trevino and Harrison (2005) highlighted the importance of three key building blocks of ethical leadership. First, an ethical leader must lead by ethical example. Second, an ethical leader treats people fairly. Third, an ethical leader actively manages morality. In other words, the moral person leads by example and treats people fairly, and the moral manager actively manages morality within the organisation. Thus, an ethical leader is an ethical role model who engenders ethical conduct, ethical decision-making and pro-social behaviour in subordinates (Brown & Trevino 2014; Den Hartog & Belschak 2012; Hunter 2012).

Ethical leadership is based on normative ethical principles, specified as a consequentialist approach, a deontologist approach or a virtue ethics approach (Ciulla & Forsyth 2011; Dion 2012; Donaldson, Werhane & Cording 2002; Ferrell, Fraedrich & Ferrell 2009; Gewirth 1960; Paxton & Greene 2010). Caza, Barker and Cameron (2004) indicated that ethics has evolved into a fundamental element of modern day business. Ethics within leadership concepts has been related to a philosophical perspective directed to the question of how leaders ought to behave (Brown, Trevino & Harrison 2005). To clarify, the discipline of ethics provides an understanding on morals and how to act in a morally right way as a member of society (Ciulla & Forsyth 2011). However, it is a matter of which ethical perspective a leader applies in the decision making process.

From a deontological perspective, morally right conduct lies in the conformity with established moral principles and the voluntary intent that makes an action right (Ferrell, Fraedrich & Ferrell 2009). These principles are stable and enduring and provide individuals with rights such as the freedom of conscience, freedom of speech, freedom of consent or the right to privacy (Knights & O'Leary 2006). In this case what is referred to as right action by those moral principles has a higher priority and is considered as good outcome. An individual guided by these ethical principles is rather accommodating to societal established guidelines than acting to the true self, hence there is only little presence of an individual’s true self.

From a consequentialist perspective; a leader anticipates the consequences of an act, which then defines the moral rightness of the act itself (Foot 1985; Sinnott-Armstrong 2011). This concept sets the emphasis on evaluating the consequences of human action.
respectively to its moral rightness or wrongness and thus consequential results of that action (Donaldson, Werhane & Cording 2002). In other words, the end justifies the means; the overall outcome is regarded as good (Donaldson, Werhane & Cording 2002; Sinnott-Armstrong 2011). These actions can be categorised on a continuum ranging from egoism, which serves for the maximisation of good for the personal self-interest of an individual; utilitarianism, which emphasises the augmentation of utility as a consequence of behaviour that brings about maximum social-utility for all parties involved; and altruism, which is the principle of selfless desire to ensure that interests of welfare of others are met by putting self-interest last (Harsanyi 1980; Nagel 1978; Warneken & Tomasello 2009).

From a virtue ethics perspective, the emphasis is on the importance of character and virtues of an individual when making a decision about what is the morally right thing to do (Ladkin & Taylor 2010). The focus is on an individual’s moral character and the individual’s application of virtues for the right conduct within a specific situation (Hursthouse 1999, 2012). To explain further, virtues can be seen as character traits that individuals aspire to (Caza, Barker & Cameron 2004), which enable them to strive towards excellence and thus express a certain mind-set of an individual. In addition, virtues are obtained from societal environment, are chosen with purpose and can forecast behaviour (Ciulla & Forsyth 2011).

An extensive review conducted by Brown and Mitchell (2010) illustrates that research on ethical leadership is based on two main underlying theories, namely the social learning theory (Bandura 1977) and the social exchange theory (Blau 1964). According to the social learning theory, individuals adopt new patterns of behaviour and values by observing others and subsequently emulating those behaviours and values into their own set. In other words, subordinates look for external sources for ethical guidance (Trevino 1986). Further, Avey, Wernsing and Palanski (2012) postulate that if a leader is regarded as a role model by his subordinates, then this has the capacity to influence and change the subordinates’ behaviours and values. On the contrary, social exchange theory proposes that relationships are purely transactional, which means that an action will reoccur based on how much reward an individual will receive. Considering this, ethical leadership could be regarded as purely transactional through implementation of reward and punishment in order to impact on subordinates’ ethical conduct (Brown & Trevino 2006; Brown & Trevino 2014). Ethical leadership then can be considered as providing ethical guidance as a role model and enforcing ethical conduct through managing ethical behaviours.

Business leaders should bear in mind that they set the scene for ethical standards in an organisation through the way their leadership is exerted (Harshman & Harshman 2007; Hood 2003; Schein 2010). In other words, business leaders are a key influential factor that determines the fate of their organisations through their decisions, strategies, and influences on others (Kaiser, RB, Hogan & Craig 2008). Considering this, ethical conduct has become
critically important in contemporary leadership theory, and organisational performance is viewed against the imperative of demonstrated ethical leadership.

2.2.3.1 Ethical Leadership and its importance for organisational outcomes

Research on ethical leadership has shown that there are significant benefits to an organisation that incorporates it as well as the leader who applies it. Notably, research on ethical leadership has revealed that this leadership style is a significant force that positively drives beneficial organisational outcomes, especially with regard to the behaviour and performance of employees on an individual as well as a group level (Brown & Mitchell 2010; Brown & Trevino 2014; De Hoogh & Den Hartog 2008; Den Hartog & Belschak 2012; Jordan et al. 2013; Mayer et al. 2012; Piccolo et al. 2010). Some of the positive outcomes of practised ethical leadership include higher perceptions of leadership effectiveness (Dion 2012; Eisenbeiss 2012; Mayer et al. 2012; Schaubroeck et al. 2012), developing and fostering an ethical climate (Caldwell et al. 2007; Grojean et al. 2004; Mayer, Kuenzi & Greenbaum 2010), encouraging subordinates to demonstrate organisational citizenship behaviours (Shin 2012), and generating organisational commitment among subordinates (De Cremer, Brebels & Sedikides 2008; Den Hartog & Belschak 2012; Neubert et al. 2009).

The positive effects that an ethical leader has on subordinates’ workplace attitudes and behaviours is that ethical leaders are perceived as a worthy role model because his/her decisions are based on what is morally right (Brown & Trevino 2014; Brown, Trevino & Harrison 2005). Such leaders not only display moral character in their behaviours but also use influencing processes and behaviours to manage and have a positive change impact on subordinates’ moral actions, which then typically occurs voluntarily. Caldwell et al. (2007) similarly support this notion by arguing that great leaders are viewed by subordinates as ethical stewards who engender remarkable dedication and work ethic in their followers. Upholding this influential relationship, a sense of trust emerges between an ethical leader and their subordinates, which, in turn, influences subordinates’ workplace attitudes and behaviours in an ethically positive manner.

The significant benefits of ethical leadership cascade down from top management levels to employee levels (Mayer et al. 2009). The benefits of ethical leadership and its application include higher levels of trust developed between followers and leaders because interactions are characterised by fairness, honesty and a supportive workplace culture and environment (Brown & Mitchell 2010). These relationships that are based on fairness and consideration stimulate productive and healthy interactions and ethical behaviours (Walumbwa & Schaubroeck 2009) that enhance and sustain followers’ motivation levels which, in turn, contribute to a continuous improvement organisational culture, productivity and outcomes (Piccolo et al. 2010).
At its core, ethical leadership is about what is considered as the right course of action with the best interest of the organisation as well as each individual. Further, ethical leadership stresses the importance of an ethical framework that individuals need to incorporate in their leadership approach so that they do not gravitate towards and succumb to egoistic motivation, which uses power for power’s sake with no ethical compass present in their leadership practice. Ethical leadership is not used for any self-serving capacity. In other words, an ethical functioning leader has the personal strength and moral fortitude that drives their motivation and thinking, represented as authentic behaviour with clear processes of managerial accountability and transparency.

From the discussion above it is evident that ethical leadership is related to various organisational outcomes including fostering an ethical climate (Lu & Lin 2013; Mayer, Kuenzi & Greenbaum 2010), organisational citizenship behaviours (Avey, Palanski & Walumbwa 2011; Kacmar et al. 2011; Kacmar, Carlson & Harris 2013; Piccolo et al. 2010), organisational commitment (Kim & Brymer 2011; Neubert et al. 2009), and performance (Kacmar, Carlson & Harris 2013; Piccolo et al. 2010). These effects of ethical leadership onto organisational outcomes are explained through social learning processes and social exchange processes. Subordinates either learn the social learning process (Bandura 1977), where the leader is considered a worthy role model for ethical guidance; or through social exchange processes (Blau 1964), where a leader creates an environment that fosters trust relationships and subordinates feel appreciative to reciprocate benevolent behaviour.

Ethical behaviour with regard to leadership therefore concerns to proactively enhance moral awareness among organisational members of what is regarded as ethically right behaviour hence how an individual ought to behave. The individual who holds a leadership position has to skilfully apply decision-making processes that include responsibility towards organisational goal attainment but also include responsibility towards organisational members. That is, leading by example of what is morally right so that organisational members vicariously learn to act ethically. In an organisational setting, in which ethically right collective norms are exhibited through ethical leadership behaviour, the social and psychological aspects among organisational members are likely to improve. Organisational members are likely to develop helping behaviour that are outside the scope of individuals’ compulsory job obligation. Further, being an ethical role model has the potential to establish an emotional attachment with organisational members, which in turn can possibly create heightened levels of workplace engagement and heightened performance.

In order to investigate when relationships between predictor and outcome variables occur it is necessary to investigate moderating effects of intervening variables (Baron & Kenny 1986). Considering this, ethical leadership has the potential to be a moderator in the
influencing relationship between various leadership construct and organisational outcomes to achieve desirable ethical outcomes. Previous research has demonstrated that ethical leadership moderated the relationship between psychological contracts and organisational outcomes, specifically affective organisational commitment and organisational citizenship behaviours (Philipp & Lopez 2013). A further study demonstrated that ethical leadership moderated the relationship between change management and turnover intentions (Babalola, Stouten & Euwema 2015). Therefore, with regard to this thesis, it is argued that ethical leadership is a potential moderator in the relationship between authentic leadership behaviours and organisational outcomes.

This study was designed to investigate the relationships between authentic leadership, ethical leadership and organisational outcomes. In particular, organisational outcomes such as the establishment of an ethical climate, enhanced organisational citizenship behaviours, greater organisational commitment and improved performance are acknowledged to be vital for an organisation’s effectiveness. Therefore these variables of organisational outcomes will be clarified before hypothesis on the relationships with authentic leadership and ethical leadership are discussed.

### 2.2.4 Organisational Outcomes

Organisational outcomes are mostly measured against certain job attitudes experienced in the workplace (Judge & Kammeyer-Mueller 2012). To clarify, job attitudes represent an individual’s affective attachment and cognitive assessment about aspects of a specific job. Such attitudes are important indicators to predict individual behaviours that contribute to organisational performance outcomes.

Studies conducted on leadership and organisational effectiveness have measured how different leadership theories have different influences and impacts on employees’ attitudes in order to benefit organisational performance outcomes (Avey, Wernsing & Palanski 2012; Avolio, Walumbwa & Weber 2009; Bass et al. 2003; Euwema, Wendt & van Emmerik 2007; Hernandez et al. 2011; Kalshoven, Den Hartog & De Hoogh 2013; Leroy et al. 2012; Peterson 2002a; Pinder 1998; Schein 2010; Stahl & De Luque 2014). These studies on leadership effectiveness have explored the influencing relationships between leadership theories and contextual variables such as ethical climate (Shin 2012), as well as central attitudinal variables measured in terms of organisational citizenship behavior (MacKenzie, Podsakoff & Podsakoff 2011), organisational commitment (Johnson, Chang & Yang 2010), and in-role performance (Williams & Anderson 1991).

It has been generally accepted that variables such as an organisation’s ethical climate, organisational citizenship behaviour and organisational commitment significantly contribute to positive workplace attitudes and overall organisational performance (Lavelle et

Keeping the above in mind, this thesis investigates the effect of authentic leadership on the aforementioned organisational outcomes. Also, this thesis investigates the effect of ethical leadership on the aforementioned organisational performance outcomes. These variables of organisational performance outcomes are clarified in the following section of this thesis before several hypotheses on the relationships between authentic leadership and organisational performance outcomes and ethical leadership and organisational outcomes are discussed.

2.2.4.1 Ethical Climate

Ethical climate theory (ECT) is based upon the work on organisational work climate. An organisational work climate comprises of both formal and informal organisational norms with shared views on policies, practices and procedures, which are expected, supported and rewarded by an organisation (Reichers & Schneider 1990; Schneider 1975). Furthermore, ethical climate represents a subset of the overall organisational culture, which is represented in various layers (Cullen, Victor & Stephens 1989; Schaubroeck et al. 2012). An organisational culture is manifested in visible and invisible components, such as hierarchical structures, espoused values, environment, organisational jargon, corporate identity or policies (Schein 2010). Thus an ethical climate varies according to these components of an organisational culture and its individuals (Victor & Cullen 1988).

Ethical climate within organisations has been defined as ‘the prevailing perceptions of typical organisational practices and procedures that have ethical content’ (Victor & Cullen 1988, p. 101). It is considered to be part of an organisational work climate (Martin & Cullen 2006; Reichers & Schneider 1990; Simha & Cullen 2012), and symbolises employee awareness about organisational processes, policies, and principles according to an ethical perspective (Cullen, Victor & Stephens 1989; Schwepker Jr. 2001). Specifically, an organisation’s ethical climate indicates and highlights what is considered to be ethically suitable conduct among its members (Arnaud 2010; Simha & Cullen 2012; Trevino, Butterfield & McCabe 1998; Wang & Hsieh 2012). As such, ethical climates in organisations shape the setting in which members of an organisation operate, which in turn has an effect on their overall work attitudes and employee outcomes (Cullen, Parboteeah & Victor 2003; Kuenzi & Schminke 2009; Trevino, Butterfield & McCabe 1998).
Various studies have been conducted on ethical climates in both profit and non-profit organisations (Duh, Belak & Milfelner 2010; Martin & Cullen 2006; Simha & Cullen 2012) with seminal work on ethical climate and its classification conducted by Victor and Cullen (1987). Victor and Cullen (1987) based their work on psychological and sociological theories combining work of Kohlberg’s (1984) cognitive moral development theory and Schneider’s (1983) sociocultural theories (Ambrose, Arnaud & Schminke 2008). Their research revealed that ethical work climates are two-dimensional, namely the ethical criteria applied within decision-making and the locus of analysis.

According to Victor and Cullen (1987) the first dimension, the ethical criteria for decision-making, comprises three levels labelled egoism, benevolence and principle. These levels are congruent with the three levels of Kohlberg’s (1984) cognitive moral development (Ambrose, Arnaud & Schminke 2008; Arnaud 2010; Cullen, Parboteeah & Victor 2003; Duh, Belak & Milfelner 2010; Elçi & Alpkan 2009). The first level, egoistic climate, which conforms to Kohlberg’s pre-conventional stage, refers to organisational norms that maintain fulfilment of self-interest. The second level, benevolence climate, which conforms to Kohlberg’s conventional stage, refers to organisational norms that help maximise interest for the greatest number of people. The third level, principle climate, which conforms to Kohlberg’s post-conventional level, refers to organisational norms that follow rules, procedures and codes.

According to Victor and Cullen (1987) the second dimension, the locus of analysis, describes the scope of how an ethical matter is approached and comprises three levels labelled individual, local, and cosmopolitan. These levels describe whether individuals within an organisation base their ethical decision-making on self-interest, which refers to individual locus of analysis; whether ethical decision-making is based on organisational interest, which is labelled local locus of analysis; or ethical decision-making is based on societal interest, which is labelled cosmopolitan locus of analysis.

Victor and Cullen (1987) illustrate the two major dimensions, namely ethical criteria and locus of analysis that are represented in five sub-dimensions of ethical climate, namely dimension of caring (i.e. being concerned about the well-being of others), independence (i.e. conforming to and acting upon personal values), instrumentality (i.e. practicing self-interest), rules (i.e. complying with organisational procedures and policies), and law and code (i.e. complying with legal requirements). These sub-dimensions indicate various combinations of ethical climates within organisations with difference according to position, tenure and workgroup affiliation (Simha & Cullen 2012). Correspondingly, as a subcategory of organisational culture, ethical climates have an impact on various important organisational outcomes (Schein 2010).
According to Arnaud (2010) an ethical climate in the workplace is a critical factor that influences employees’ ethical conduct. Also, an ethical climate has the capacity to improve interpersonal relationships among employees, improve attitudes and behaviours, and enhance overall performance outcomes (Elçi & Alpkan 2009). Empirical studies on ethical climate have revealed the importance of an ethical climate for organisations. Research findings on ethical climate indicate positive impacts on organisational commitment (Cullen, Parboteeah & Victor 2003; Okpara & Wynn 2008), organisational citizenship behaviours (Ambrose, Arnaud & Schminke 2008), or ethical behaviour in the workplace (Duh, Belak & Milfelner 2010). Furthermore, research has shown that organisational leadership in general has an important influence on an organisation’s ethical climate (Ehrhart 2004; Grojean et al. 2004; Lu & Lin 2013; Mayer et al. 2009; Mulki, Jaramillo & Locander 2009; Schminke, Ambrose & Neubaum 2005). Specifically, ethical leadership has been identified as one of the antecedents of ethical climate (Shin 2012). Furthermore, it has been advocated that authentic leadership promote an ethical climate within an organisation (Gardner et al. 2005; Walumbwa et al. 2008).

From the discussion above it is evident that organisational leadership plays an important role in shaping an ethical climate in an organisation. An environment that values doing what is considered as ‘the right thing’ increases employees’ awareness of ethical issues, which in turn can potentials enhance their desire to maintain higher ethical standards. Having an ethical climate within an organisational setting is characterised as a place where ethical considerations are inbuilt into workplace processes and decision-making could potentially subdue unethical behaviour due to an enhanced ethical ethos and functioning of all members of the workplace. Organisational members learn about desirable and appropriate ethical conduct, which in turn has positive impacts on individual’s attitudes and behaviours towards others (Elçi & Alpkan 2009; Victor & Cullen 1988; Wimbush, Shepard & Markham 1997). This in turn potentially engenders beliefs and practices that value transparency, integrity, trust and high moral standards. Furthermore, a climate that proactively promotes an environment based on ethical principles can possibly transmit the impact of organisational leadership onto subordinates’ workplace attitudes and behaviours and hence is considered as an important factor for various organisational outcomes to occur. Additionally, an ethical climate has the potential to sustain a healthy organisational environment in which organisational members are willing to go beyond their job requirements and engage in helping and extra-role behaviour, develop an attachment towards the organisation and improve their task performance.

In order to investigate when relationships between predictor and outcome variables occur it is necessary to examine mediating effects of intervening variables (Baron & Kenny 1986). In fact, research demonstrated that ethical climate does have a significant mediating
role in the relationship between organisational predictor variables and important organisational outcomes (Lu & Lin 2013; Mayer, Kuenzi & Greenbaum 2010; Neubert et al. 2009; Schminke, Ambrose & Neubaum 2005). Considering this, ethical climate has the potential to be a mediator in the influencing relationship between authentic leadership behaviour and organisational outcomes to achieve desirable ethical outcomes. Therefore, with regard to this thesis, it is argued that ethical climate is a potential mediator in the relationship between authentic leadership behaviours and subordinates’ attitudes and behaviours.

2.2.4.2 Organisational Citizenship Behaviour

The attention towards organisational citizenship behaviours results from the argument that such behaviour contributes to organisational effectiveness for the long-term through cultivating the organisational social system (Brief & Motowidlo 1986; Organ 1988, 1997; Podsakoff et al. 2009; Podsakoff & MacKenzie 1997; Smith, Organ & Near 1983; Van Dyne, Cummings & McLean Parks 1995; Williams & Anderson 1991). Organisational Citizenship Behaviour has initially been defined by Organ (1988) as ‘individual behaviour that is discretionary, not directly or explicitly recognized by the formal reward system, and in the aggregate promotes the efficient and effective functioning of the organization’ (p. 4). Organ (1988) refers to the work of Katz (1964) and Katz and Kahn (1966) who describe citizenship behaviour as individual behaviour that is represented in extra-role behaviours, which support enhancement of organisational effectiveness (Bergeron et al. 2011; Farooqui 2012). Organisational citizenship behaviours encompass employee behaviours that are not necessarily critical to the task at hand but exceed official job requirements for the benefit of the overall organisational effectiveness (Organ 1988, 1997; Podsakoff et al. 2009).

Katz (1964) described three kinds of behaviour that contribute to organisational performance, namely an individual being stimulated to join and stay with the organisation, these individuals have obligations towards task-compliance, and essentially activities that go beyond job descriptions. This relationship, which is formed between a member of the organisation and the organisation involves some sort of economic or social exchange (Blau 1964). Economic exchange is a form of a contract based relationship entailing specific termed performance obligations. Social exchange is a non-specified form of reciprocity which provides benefits for the parties involved. One such social exchange process is organisational citizenship behaviour, which includes voice behaviours, supporting organisational climate, inspiring leadership, or extra-role behaviours (Organ, Podsakoff & MacKenzie 2006).
According to Bolino et al. (2013) organisational citizenship behaviour forms a prototypical positive organisational behaviour (POB). This stems from findings that organisational citizenship behaviour results in an overall positive work environment that attracts and retains employees (Bolino et al. 2013; Organ, Podsakoff & MacKenzie 2006; Podsakoff et al. 2009). Considering this, individuals participate in different acts of citizenship behaviours that are often discretionary and not necessarily task-focused or enforced by reward systems (Organ 1988; Podsakoff et al. 2009; Podsakoff et al. 2000).

Research by Smith, Organ and Near (1983) found two factors, namely altruism and generalised compliance, to predict organisationally beneficial behaviour, both not being rewards driven or enforced through organisational job expectations. Altruism refers to behaviour that is illustrated through helping co-workers in their workload, volunteering for tasks outside one’s job requirements, or helping new members of the organisation to learn the ropes. Generalised compliance is demonstrated in behaviours that help to fulfil job requirements effectively such as low rates of absenteeism, not using time at work for personal matters or spending excessive time on breaks.

Organ (1988) expanded these categories of organisational citizenship behaviours to a framework consisting of five dimensions including altruism, conscientiousness, sportsmanship, courtesy, and civic virtue. This widely used framework describes a cluster of behaviours categorising organisational citizenship behaviour (LePine, Erez & Johnson 2002). Altruism remained as it was defined by Smith, Organ and Near (1983). Conscientiousness refers to behaviours that comply with rules and regulations to be a good citizen within the organisation and go beyond the specified job requirements. Sportsmanship entails an employee’s tolerance of organisational circumstances that are less than ideal and complaining about or elevating issues at hand. Courtesy involves prevention of work-related discrepancies by exhibiting politeness towards and consideration of others. Civic virtue refers to an employee’s active interest and involvement in the daily events of the organisation.

Williams and Anderson (1991) proposed an alternate conceptual framework of organisational citizenship behaviours, which does not divide behaviours into dimensions but instead to the targeted beneficiary. These targeted beneficiaries can either be individuals, labelled as OCBI, or the organisation in its entirety, labelled as OCBO (Ilies et al. 2009; Lee & Allen 2002; Podsakoff et al. 2009). In particular, OCBI comprises behaviours that direct help towards other organisational members and demonstrate a personal interest for others. While, OCBO refers to behaviour directed to keep a societal order, for example to follow informal guidelines, protect organisational resources, or show interest in the overall organisational success. In other words, organisational citizenship behaviours have an immediate effect on those who directly benefit from them as well as the collective itself.
Chapter 2 Literature Review

through task-performance. They often go beyond job requirements. To sum up, both of these frameworks indicate various outcomes of organisational effectiveness with regard to OCBs.

Some of the antecedent research revealed about organisational citizenship behaviour included personality, individual attitudes or task characteristics (Ilies et al. 2009; Konovsky & Organ 1996; Organ, Podsakoff & MacKenzie 2006; Podsakoff, NP et al. 2009). Furthermore, research revealed that organisational citizenship behaviour was influenced through leadership behaviours (Euwema, Wendt & van Emmerik 2007). In particular, research findings indicate that authentic leadership fosters organisational citizenship behaviours on an individual level as well as on a group level (Valsania et al. 2012; Yammarino et al. 2008). Likewise, research revealed that ethical leadership significantly and positively influences organisational citizenship behaviours among subordinates (Shin 2012).

Research demonstrated that OCB has a significant positive effect on organisational effectiveness and employee job satisfaction (Bergeron et al. 2011; Ilies et al. 2009; LePine, Erez & Johnson 2002; Podsakoff et al. 2000). Other positive outcomes of OCB have been found in improved productivity, better financial performance and reduced employee turnover (Podsakoff et al. 2009). More importantly, OCB is not necessarily driven by tangible remuneration or promotion but enhances performance outcomes through improved interpersonal relationships in the workplace (Organ 1997). Such willingness to put extra effort into the job demonstrates a certain degree of concern for co-workers and for the organisation in general. In other words, organisational citizenship behaviours play an integral role in organisational effectiveness where employees are willing to contribute to organisational success.

Few organizations would be successful for the long-term if their employees completed only their formal job obligations. To have effective organisational performance for the long-term, employees also need to engage in various forms of teamwork and helpfulness amongst each other. As indicated in the discussion above, this in turn supports the organisation’s social and psychological context. For example, these organisational citizenship behaviours might be exhibited as helping behaviours towards co-workers with their work problems, demonstrating genuine courtesy towards co-workers, helping new co-workers to integrate into the workplace or sharing work resources with co-workers. In other words, organisations perform exceptionally when their employees go the ‘extra-mile’ beyond their required job obligations. These behaviours also potentially contribute to a more positive workplace in which employees’ commitment levels towards the organisation can intensify and elevate their task performance.
2.2.4.3 Organisational Commitment

The concept of organisational commitment is rather complex and has been researched in different organisational disciplines such as psychology and behaviour (Meyer et al. 2002; Riketta 2002). Several studies revealed that organisational commitment emerges in different forms, namely affective, continuance, and normative commitment (Allen & Meyer 1990; Kinnie & Swart 2012; Meyer & Allen 1991; Meyer, Becker & Vandenberghe 2004; Meyer et al. 2002; Riketta 2002). Furthermore, differences in foci, forms and origins of commitment can be found among the literature on organisational commitment (Meyer, Becker & Vandenberghe 2004). A common thread among various definitions is the linkage from an individual to an organisation and how this link has evolved.

On the basis of the work by Porter et al. (1974), organisational commitment was conceptualised by Mowday, Porter and Steers (1982, p. 27) as ‘the relative strength of an individual’s identification with and involvement in an organization’. This incorporates belief and acceptance of organisational values and goals, willingness to exert considerable effort on behalf of the organisation, and a clear desire to maintain organisational membership.

Meyer and Allen (1991) further advanced the concept of organisational commitment and proposed that a distinction has to be made between three dimensions of commitment, namely affective, continuance, and normative commitment. Affective commitment refers to an individual’s emotional attachment, hence a desire to identify with and get involved with the organisation (Allen & Meyer 1990; Porter et al. 1974). Continuance commitment refers to a need to stay with an organisation due to perception of costs that might occur if the individual decides to leave the organisation (Becker 1960; Meyer & Herscovitch 2001). Normative commitment refers to a sense of obligation to remain with the organisation (Wiener 1982). All three forms of organisational commitment relate to each other but are unique with regard to their focal behaviour (Johnson, Chang & Yang 2010; Meyer & Herscovitch 2001).

Each of these dimensions describes commitment as a psychological state, which has effects on an individual’s decision to stay in or leave an organisation (Meyer et al. 2002; Panaccio & Vandenberghe 2009). Further, organisational members experience the three dimensions of organisational commitment in varying degrees depending on the nature of the exchange relationship between the individual and the organisation (Mowday, Porter & Steers 1982). In essence, organisational members remain with an organisation because they desire to do so, they have an obligation to do so, or they feel it is the right thing to do.

Organisational leadership appears to be an important influence factor for organisational commitment. Specifically, research on authentic leadership revealed that authentic leaders stimulate commitment among subordinates towards the organisation (Dale & Fox 2008; Leroy, Palanski & Simons 2012; Rego et al. 2013). Similarly, research on
ethical leadership revealed that ethical leaders create an environment that enhances subordinates’ commitment towards the organisation (Cremer & Knippenberg 2003; De Cremer, Brebels & Sedikides 2008; Neubert et al. 2009). It is the social interaction between a leader and his/her subordinates that creates the degree of influence on organisational commitment. Furthermore, role-modelling behaviour of leaders has a positive impact on subordinates who in turn develop a desire to identify with and be supportive of their leader, and in doing so get more involved and committed to the organisation. In this social interaction followers learn about norms and expectations required by their leader and indirectly by their organisation. Employees who develop an affective commitment demonstrate an emotional attachment with their organisation and hence stay for voluntary reasons (Allen & Meyer 1990; Meyer & Herscovitch 2001, van Knippenberg & Sleebos 2006). Subordinates believe that their personal values and goals are congruent with either the values or goals of their leader or the organisation they are part of. Therefore, in order to prevent corporate misbehaviours to occur it appears to be logical and necessary to ensure that factors such as organisational activities and leadership behaviours are based on morally good intent and are exhibited in an authentic manner.

Organisational commitment has been found to have positive impacts on employees’ attitudes and behaviours. Research found that organisational commitment has a positive impact on performance (Conway & Briner 2012; Meyer et al. 1989). Further, research found that organisational commitment has a positive impact on the willingness to demonstrate organisational citizenship behaviours (Conway & Briner 2012; Meyer, Allen & Smith 1993). Hence committed organisational members bring leverage to their organisation’s effectiveness. For this thesis in particular, the dimension of affective organisational commitment is of interest as this particular dimension represents an individual’s emotional attachment towards the organisation and subsequently with a leader.

2.2.4.4 In-role performance

Roles inform about expected behaviours of an individual related to a particular position within an organisation (Katz & Kahn 1978; Schuler, Aldag & Brief 1977). Role theory describes a role as a specific behavioural expectation for a defined position within a social structure that includes intrapersonal relationships (Kahn et al. 1964). In this intrapersonal relationship one person is considered as the role sender, who communicates what the expectations are for a specified role, and the focal person, who, in turn, receives these structured expectations from the role sender. In other words, roles facilitate interaction among members of a social structure. With regard to an organisation, organisational
members have to fulfil certain expectations and defined tasks as part of their job specifications within an organisation (Rizzo, House & Lirtzman 1970).

In-role behaviours are regarded as necessary behaviours to complete a given task in a responsible manner and are acknowledged through formal remuneration systems within an organisation (Katz & Kahn 1978). These in-role behaviours are also considered as performance determinants being measured by ratings, quality measured, quantity measures, and recorded data concerning safety, absence or tardiness (Barksdale & Werner 2001; Williams & Anderson 1991). In other words, such behaviours represent an employees’ performance measured against various key performance indicators (Zhu 2013). In short, in-role behaviours help to understand how well individuals contribute to the overall success of an organisation.

It has to be clarified further that behaviours consist of what individuals do while performance is more specifically understood as behaviours characterised by a measurable aspect (Motowildo, Borman & Schmit 1997). That is, performance is measured as either positive or negative, providing certain results that contribute to organisational effectiveness. In other words, performance reflects how individuals perform given tasks that contribute to an overall goal. According to Bandura (1993) individuals act in a target-oriented manner, regulated by forethought on the belief about what can be achieved and projected outcomes. What follows is the process of goal setting and creating courses of action to achieve the projected outcomes (Bandura & Locke 2003; Locke & Latham 2002). Specifically, individuals with high levels of self-efficacy are more likely to visualise success scenarios and set higher goal challenges than individuals low in self-efficacy (Bandura 1993). Hence, individuals with similar capabilities might vary in performance due to variation in efficacy beliefs. Efficacy beliefs encompass motivational processes that are cognitively evoked (Bandura 2010).

Studies in leadership have shown that organisational leadership has an impact on individuals’ performance (Bass 2008; Dinh et al. 2014; Northouse 2009; Sarros 2009; Yukl 2012). Specifically with regard to this thesis, studies on authentic leadership have revealed that authentic leadership has a positive impact on performance of individuals in organisations (Wang et al. 2014). Similarly, studies on ethical leadership have revealed that ethical leadership has a positive impact on performance of individuals in organisations (Walumbwa et al. 2011; Walumbwa, Morrison & Christensen 2012). These results are based on the fact that organisational leaders are mostly perceived as role models through whom subordinates can expand their expertise by learning and improving new skills and knowledge, which enhance their performance. In fact, social learning theory implies that human behaviour is formed through exemplary behaviours (Bandura 1977). Hence, leadership influences follower performance, as leaders are perceived by subordinates as role models from whom adequate conduct and skills can be learned. It is through this social
learning process that subordinates learn from exemplary leader behaviour, which, in turn, provides subordinates with positive self-efficacy beliefs to perform a given task within their role (Bandura 1977, 2010; Bandura & Locke 2003; Stajkovic 2006).

Performance can be regarded as an essential indicator to understand an organisation’s overall effectiveness. This is because performance is an indicator for various factors such as an organisation’s human resource, financial or cultural aspects (Behn 2003). Consequently, it is a valuable outcome variable to measure organisational effectiveness, especially with regard to leadership and its impacts on subordinates’ attitudes within an organisation.

More importantly, by leading by example, leaders need to be aware of their impact on subordinates and how to prevent corporate misbehaviour to occur. There appear to be various benefits when leaders align their words and actions in an authentic manner based upon moral norms and communicate these in an inspiring way to their followers. In doing so, such leaders have the potential to create an ethical work climate that is above and beyond its formal policies, in which employees would be willing to demonstrate cooperative behaviours beyond their job obligations, improve the levels of workplace engagement and increase their task performance.

In sum, organisational leaders need to be aware that they set the agenda for an organisation’s direction; hence they impart the moral tone within policies, procedures and principles of an organisation. Leaders therefore should think critically about the moral intent within their decision-making processes, as they play an essential part in establishing an ethical climate. This, in turn, contributes to positive organisational outcomes such as organisational citizenship behaviours, affective organisational commitment and in-role performance.

2.2.5 Theoretical framework

From the previous discussion of the literature on each variable included in this thesis, a theoretical framework (Figure 2.1) was established. This theoretical framework illustrates in general the relationships between the main independent variables and dependent variables. Also, this theoretical framework indicates established influencing paths of each variable in this thesis.

Authentic leadership and ethical leadership were classified as the main influencing variables. Both leadership concepts, authentic leadership and ethical leadership, independently influence ethical climate and organisational outcomes. Likewise, as discussed previously and in accordance with the literature, there is evidence to support the argument that there are influencing relationships between organisational outcomes. To give an example, dimensions of ethical climate influence organisational citizenship behaviour and
affective organisational commitment. In turn, these organisational outcomes have an impact on subordinate performance. Lastly, it is theorised that perceived ethical climate will impact on the relationship of authentic leadership and subordinates’ attitudinal outcomes and performance.

Figure 2.1: Theoretical Framework based on the literature review

![Theoretical Framework](image)

---

**Chapter 2 Literature Review**

2.3 Identifying oversights in the literature

As previously noted, Walumbwa et al. (2008) reported that in the current corporate environment there remained persistent occurrences of small, medium and large scale corporate scandals as well as management malfeasance, including repeated and spectacular lapses in ethical judgment by leaders with significant corporate or political standing. Executive behaviour is still characterised by inconsistency between their words and deeds, and there is an unwillingness with organisational stakeholders to tolerate inconsistencies between executives’ espoused principles, values, and conduct. The construct of Authentic Leadership can, in part, contribute to change and improvement in the current corporate leadership environment, as Bass and Steidlmeier (1999) have argued, leadership cannot free itself of corporate misbehaviour and scandals and can never be truly effective if leadership does not include authenticity. The reason why corporate leadership cannot free itself from misbehaviour and scandals and will never be truly effective is, as Seeman (1966) concluded, that individuals have a distorted view of reality, which arises from a biased view of their own belief system that potentially reflects inauthentic behaviour. As well individuals filter distorted conceptions about what others think about them, and their actions are based on mistaken perceptions of self-image. These discrepancies in their self-image distort their thinking processes and decision making resulting in their actions being
inauthentic and not fully representing rational thinking and lived realities. In these circumstances these actions can never be truly effective.

Luthans and Avolio (2003) assert that authentic leadership inherently is concerned with one’s ethics and morality. While authentic leadership has also been both theoretically and empirically (Brown & Mitchell 2010; Gardner et al. 2011) distinguished from ethical leadership, there are similarities as both constructs stress the importance of integrity, morality and honesty. The construct of Ethical Leadership can, in part, contribute to change and improvement in the current corporate leadership environment through its ethical understanding and ethical framework because studies on ethical leadership reveal that misconduct and mismanagement behaviours occur because such leaders pay no regard to ethical considerations (Padilla, Hogan & Kaiser 2007; Schaubroeck et al. 2007; Toor & Ofori 2009); and they succumb to egoistic motivation that becomes self-serving; they use power for power’s sake and they demonstrate no ethical compass in their leadership practice. It is a developed moral framework that drives an ethically functioning leader’s motivation, thinking and actions (Trevino, Hartman & Brown 2000), and these also represent characteristics of authentic leadership.

From the previous discussion in the literature review on the theoretical background of this thesis, the question arises how business leadership can potentially influence ethical climate of a workplace and subsequently influence employees’ workplace attitudes and performance. Specifically, this thesis focuses on targeting the concepts of authentic leadership and ethical leadership, how both can interact positively and can consequently contribute to foster an ethical climate and thus enhance organisational citizenship behaviours, organisational commitment and performance among employees. Hence, this thesis aims to address specific limitations, which have been identified from previous studies, to specifically extend the theory on authentic leadership. First, research on authentic leadership and ethical leadership is still at an early stage. Extant literature is available on leadership concepts including aspects of authentic behaviour and ethical behaviour, however little research has been conducted combining both leadership concepts and their influence on organisational outcomes and follower performance. Therefore this thesis addresses the call for further research by Walumbwa et al. (2008) to integrate other leadership constructs to the theory of authentic leadership. Second, there has been limited research on authentic leadership and its relationship to perceived ethical climate. Therefore this thesis addresses the call for further research by Gardner et al. (2011) on the influencing effects of authentic leadership on perceived ethical climate. Additionally, this thesis extends this call for future research by investigating the mediating effects of ethical climate on the relationship between authentic leadership and subordinates’ organisational citizenship behaviour, affective organisational commitment, and in-role performance.
To summarise, referring to the reviewed literature, this thesis will contribute to the body of knowledge on authentic leadership theory by investigating how the combination of authentic leadership and ethical leadership will influence organisational outcomes and follower performance. Specifically, authentic leadership and ethical leadership are expected to each have direct impact on organisational outcomes and follower performance. Further, this thesis investigates the mediating effect of ethical climate on the relationship of authentic leadership and organisational outcomes. Lastly, this thesis will investigate if the relationship between authentic leadership and organisational outcomes are moderated through ethical leadership.

2.4 Hypothesis development

2.4.1 Linking Authentic Leadership to Ethical Climate

Research on organisational leadership in general has revealed that leadership is an important influencing factor on an organisation’s ethical climate (Grojean et al. 2004; Schein 2010; Yukl 2012). Findings show that organisational leadership cultivates an organisation’s ethical climate as leaders focus on instilling organisational values and building harmonious culture that shares common values and ideals among organisational members. Among various concepts of organisational leadership, authentic leadership is regarded as a possible influencing factor for ethical climate (Gardner et al. 2005; Nelson et al. 2014; Walumbwa et al. 2008).

Gardner et al. (2005) proposed that authentic leadership can generate an ethical climate and an ethical climate can foster the development of authentic leadership. This is because an ethical climate arises from the use of transparency, integrity, trust and high moral standards, and this creates and sustains a healthy organisation. These characteristics are inherent within the construct of authenticity (Kernis & Goldman 2006), and in the conceptualisation of authentic leadership (Avolio et al. 2004; Gardner et al. 2005; Ilies, Morgeson & Nahrgang 2005; Luthans & Avolio 2003; Walumbwa et al. 2008). This, in turn, demonstrates that authenticity per se as well as authentic leadership be not only an ideal state, but a sustainable one for all in the organisation.

Authentic leaders show interest in subordinates’ needs for growth and achievement by actively supporting subordinates and creating development opportunities (Avolio & Gardner 2005; Gardner et al. 2011; Yammarino et al. 2008). Walumbwa et al. (2008) advocate that authentic leadership draws upon positive psychological capacities and a positive ethical climate. These two factors build the core of their definition of authentic leadership. Furthermore, Walumbwa et al. (2008) research supported Gardner et al. (2005) who proposed that authentic leadership can generate an ethical climate through higher
levels of subordinates’ organisational citizenship behaviour, improved organisational commitment, better satisfaction with their supervisor, higher levels of job satisfaction and heightened job performance. These findings support empirical work on ethical climate, which revealed that ethical climate fosters a cooperative environment that functions for leaders and subordinates equally to achieve organisational goals (Martin & Cullen 2006; Simha & Cullen 2012).

Hannah, Avolio and Walumbwa (2011) found that the delivery of authentic leadership with its characteristics of relational transparency, leading by example and role modelling has a permeating effect on subordinates, which, in turn, acts as building blocks to elevate their moral courage and strengthens their capacity and intent to act morally. They also found that potential unethical behaviour became subdued. Cianci et al. (2014) also found that authentic leadership not only subdued unethical behaviour but also reduced the temptation to think and act unethically. In other words, these findings support that authentic leadership not only draws upon an ethical climate and psychological capital (Walumbwa et al. 2008) but more importantly can foster an ethical climate. However, further research is required on the potential influence of authentic leadership to ethical climate as empirical research on this relationship is limited or only conceptual (Gardner et al. 2011). Therefore, to extend the theory on authentic leadership, it is hypothesised that perceived authentic leadership will influence the perceptions of ethical climate among subordinates in the workplace.

Hypothesis 1: Authentic leadership positively and significantly predicts perceptions of ethical climate among subordinates.

2.4.2 Linking Authentic Leadership to Organisational Citizenship Behaviour

Research on leadership behaviours has revealed that leadership does correlate significantly and positively with subordinates’ organisational citizenship behaviours (Podsakoff et al. 2000). In particular, research on authentic leadership revealed that authentic leadership triggers organisational citizenship behaviours among subordinates (Walumbwa et al. 2008). The reason for this is that authentic leadership stimulates subordinates’ identification with the organisation through relational transparency by sharing information openly and thus making subordinates understand how these can contribute to the overall organisational success (Avolio et al. 2004; Yammarino et al. 2008). Such open communication between subordinates with an authentic leader results in enhanced levels of trust, when opportunities for subordinates’ self-development were made available and actioned. In other words, a relationship based on openness, trust and honesty between a leader and subordinates causes higher levels of organisational citizenship behaviours in
subordinates, who understand the significance of mutual support within the organisation (Organ, Podsakoff & MacKenzie 2006; Walumbwa et al. 2008).

Furthermore, through leading by example and becoming a reference point for subordinates, authentic leadership triggers a sense of personal identification among subordinates with the leader as well as a social identification with the organisation (Avolio et al. 2004; Billig & Tajfel 1973). In turn, subordinates develop higher levels of trust and optimism, which result in enhanced satisfaction and commitment to the leader and the organisation (Gardner et al. 2005; Gardner et al. 2011; Ilies, Morgeson & Nahrgang 2005). This developed trust and commitment then impacts positively on subordinates' willingness to demonstrate organisational citizenship behaviours (Wong & Cummings 2009). However, studies on the relationship between authentic leadership and organisational citizenship behaviours focused only on the holistic construct of organisational citizenship behaviours.

Notwithstanding that authentic leadership promotes organisational citizenship behaviour among subordinates, only limited research is available on the impacts of authentic leadership on the specific dimension of individual organisational citizenship behaviours (OCBIs). As previously discussed organisational citizenship behaviours differ with regard to the targeted beneficiary, individuals (OCBIs) or the organisation (OCBOs) (LePine, Erez & Johnson 2002). It is plausible that authentic leadership will have a positive influence on individual-level organisational citizenship behaviours (OCBIs). Therefore, this thesis hypothesises that authentic leadership will have a positive influence on individual-level organisational citizenship behaviours (OCBIs).

**Hypothesis 2:** Authentic Leadership positively and significantly influences individual-level organisational citizenship behaviours (OCBIs).

### 2.4.3 Linking Authentic Leadership and Affective Organisational Commitment

Affective committed employees stay in their organisation for voluntary reasons. Affective commitment is characterised as an emotional attachment to an organisation that results from identification with and involvement in an organisation (Allen & Meyer 1990; Meyer & Herscovitch 2001). Subordinates believe that congruence exists between their personal values and goals and the values and goals of the organisation they are part of (van Knippenberg & Sleebos 2006).

Research on organisational leadership indicates that various leadership styles influence subordinates’ organisational commitment (Dale & Fox 2008; Podsakoff, MacKenzie & Bommer 1996; Yiing & Ahmad 2009). According to Dale and Fox (2008) leaders who demonstrate consideration for their subordinates and develop a supportive work
climate based on mutual trust and psychological support, will stimulate commitment among subordinates towards the organisation. Specifically, a key component in the concept of authentic leadership is relational transparency, which indicates that an authentic leader communicates in an open and honest manner about values and beliefs, which, in turn, creates a reciprocal trusting relationship with their subordinates (Walumbwa et al. 2008). Such a reciprocal trust relationship enables subordinates to get to know a leader and develop a more comprehensive understanding of what the leader stands for as well as greater clarity with the duties of the leader’s role in the organisation (Ilies, Morgeson & Nahrgang 2005). Subordinates develop an emotional attachment to the authentic leader that results in a desire by the subordinate to identify with and get involved in the organisation (Allen & Meyer 1990; Avolio et al. 2004; Porter et al. 1974). This, in turn, has an impact on the subordinates’ affective commitment.

Walumbwa et al. (2008) found positive and significant correlations between authentic leadership and subordinates’ organisational commitment. Their study revealed that the concept of authentic leadership with its core components, namely self-awareness, relational transparency, balanced processing and internalised moral perspective impact positively on subordinates’ organisational commitment. In support, Peus et al. (2012) revealed that two factors, namely self-knowledge and self-consistency, that is knowing about one’s values and beliefs and acting in a consistent manner, form antecedents of authentic leadership, which, in turn, have positive and significant impact on subordinates’ commitment.

Although research has demonstrated that authentic leadership has a direct positive influence on subordinates’ organisational commitment (Peus et al. 2012; Walumbwa et al. 2008), there is no doubt that more research is needed in this area. Substantial empirical support is still scarce with regard to impacts of authentic leadership on subordinates’ workplace attitudes and behaviours (Peus et al. 2012). Specifically, with regard to the correlation between authentic leadership and subordinates’ affective organisational commitment, further research is required to expand the theory on authentic leadership and hence generalise existing findings. Therefore, in line with earlier research findings that authentic leadership influences organisational commitment, this thesis hypothesises that authentic leadership will enhance affective organisational commitment among subordinates within the workplace in the Australian context.

**Hypothesis 3:** Authentic leadership positively and significantly influences affective organisational commitment of subordinates in an organisation.
2.4.4 Linking Authentic Leadership to In-role Performance

Research has revealed that authentic leaders positively impact on organisational outcomes at various organisational levels, as well as significantly enhanced subordinates’ performances on an individual as well as group level (Clapp-Smith, Vogelgesang & Avey 2009; Gardner et al. 2011; Walumbwa et al. 2008; Wang et al. 2014). Consequently, a number of fundamental characteristics embedded in the delivery of authentic leadership have been found. Authentic leaders display relational transparency which means they demonstrate openness and acceptance in communication and collaboration with their subordinates, which, in turn, leads to positive performance outcomes (Avolio et al. 2004; Gardner et al. 2005; Leroy, Palanski & Simons 2012; Peus et al. 2012). Authentic leaders lead by example, which means that they deliberately role model their actions in a consistent manner which positively empowers subordinates with work-place engagement (Gardner et al. 2011). This role modelling represents actions that are a clear and emphatic expression of their commitment to organisational tasks, which, in turn, gives direction to followers about how to remain engaged emotionally, physically and cognitively during work performance (Wang et al. 2014).

Authentic leader’s relational transparency, an internalised moral perspective and role modelling leads to the subordinate harnessing those characteristics as core beliefs to their functioning, which leads to heightened performance (Avolio & Gardner 2005; Avolio et al. 2004; Gardner et al. 2005). Subsequently, subordinates believe and demonstrate heightened levels of efficacy, hope, optimism, and resilience. These components are known as psychological capital, where self-efficacy is the belief to accomplish given tasks, having optimism to succeed in the given task, demonstrating hope in one’s capacity to adjust one’s actions in order to still achieve a goal, and showing resilience when experiencing difficulties and obstacles in order to still achieve the given task (Luthans et al. 2007). Clapp-Smith, Vogelgesang and Avey (2009) study revealed that subordinates’ psychological capital was greatly enhanced through the mutual trust relationship that developed and grew because of authentic leadership. The trust levels between subordinates and leaders were strengthened when opportunities for subordinates’ self-development were made available and actioned, and this created a mutual learning environment where all could learn from each other. The outcome of the above authentic leadership behaviours enhances subordinates’ performance an individual and a group level (Wang et al. 2014). Therefore, this study proposes that it is plausible that authentic leadership will positively influence in-role performance.

Hypothesis 4: Authentic leadership positively and significantly influences subordinates’ in-role performance.
2.4.5 Linking Ethical Leadership to Ethical Climate

At a holistic level, research revealed that organisational leadership has an important influence on an organisation’s ethical climate (Grojean et al. 2004; Mulki, Jaramillo & Locander 2009; Schminke, Ambrose & Neubaum 2005). Shin's (2012) findings lend support to the claim that top-level management, and in particular CEOs who practised ethical leadership, shape an organisation’s ethical climate. According to Shin (2012) ethical leadership has been identified as one of the antecedents of ethical climate. Bearing in mind, an ethical climate within organisations indicates and highlights what is considered to be ethically suitable conduct by its members (Cullen, Victor & Bronson 1993; Trevino, Butterfield & McCabe 1998). However, in the study conducted by Shin (2012) participants used a self-rating measure for ethical leadership, which leads to the assumption that the results are influenced by self-rating bias.

Ethical leaders are regarded as role models providing ethical guidance with regard to what is the morally right thing to do and holding subordinates accountable for ethical conduct within an organisation (Brown & Mitchell 2010). Such role modelling behaviour is a critical social influencing mechanism in which leaders have an impact on subordinates’ development (Bandura 1977). Caza, Barker and Cameron (2004) emphasised that virtuous behaviour modelled by leadership has an augmenting and inspirational effect on organisational members, who will be inclined to imitate it. Such behaviour is reflected in empathic concerns of organisational members about actions and how these affect other members of the organisation (Arnaud 2010). Hence, a leader who is a morally right role model is a leader who utilises influencing processes and behaviours to have a positive change impact on subordinates that typically occurs voluntarily. These relationships between a leader and subordinates, based on fairness and consideration, stimulate productive and healthy interactions and ethical behaviours (Walumbwa & Schaubroeck 2009), which increases and sustains subordinates’ motivation levels which, in turn, contributes to a continuous improvement of organisational culture, productivity and outcomes (Piccolo et al. 2010). Additionally, through ethical leadership a psychologically safe environment is created in which subordinates are encouraged to actively report and contribute to workplace issues, problems and processes (Kalshoven, Den Hartog & De Hoogh 2011).

Neubert et al. (2009) demonstrated that ethical leadership has a positive effect on the perception of ethical climate within an organisation. Subordinates demonstrated a heightened awareness of ethical issues, which enhanced their desire to maintain higher ethical standards. Furthermore, Neubert et al. (2009) found that the influence of ethical leadership on ethical climate also influences individual’s job satisfaction and organisational commitment. Additionally, the impact of ethical leadership on ethical climate was greater when the leader was seen as providing accurate information while communicating in a
respectful way. These findings indicate that there is strong support that ethical leadership contributes to establish an ethical climate within an organisation. Although, the study conducted by Neubert et al. (2009) includes notable strengths such as a large sample and a time lag, the researchers indicate that the sample was demographically limited.

Similarly, Mayer, Kuenzi and Greenbaum (2010) found that when leaders demonstrate ethical leadership, their influence is magnified and generates an environment that values doing the right thing. In other words ethical leaders set the tone in an organisation by implementing practices, procedures and policies. Further, Mayer, Kuenzi and Greenbaum (2010) found that an ethical climate reduces the likelihood that employees will engage in misconduct. Hence, the results indicate a positive significant relationship between perceived ethical leadership and ethical climate. Mayer, Kuenzi and Greenbaum (2010) demonstrated that being a moral person and a moral manager, the two factors that represent ethical leadership, have significant and positive effects on subordinates’ perceptions of an ethical climate and thus creates a more ethical workplace.

A more recent study conducted by Lu and Lin (2013) revealed that ethical leadership had a significant impact on ethical climate and subsequently on ethical behaviour of subordinates. In particular, their study found that subordinates demonstrate enhanced ethical behaviour because ethical leaders provide ethical guidance, lead by example and manage ethical conduct in the workplace. Further, ethical leaders cultivate an ethical climate, which, in turn, has a positive impact on subordinates’ ethical behaviour. These findings are in line with previous research indicating that business leaders on various levels use different methods to communicate ethical guidelines to their followers, which have an effect on followers’ behaviour (Mayer et al. 2009), which in turn has an important influence on an organisation’s ethical climate (Grojean et al. 2004; Lu & Lin 2013; Mulki, Jaramillo & Locander 2009; Schminke, Ambrose & Neubaum 2005; Walumbwa, Hartnell & Oke 2010). It is through a leader’s actions and initiatives that an organisation’s ethical climate is created and sustained (Wimbush, Shepard & Markham 1997). However, this study was conducted in a specific cultural background in an Asian organisation where power distance might have a significant impact on the outcomes of leader influence on subordinates’ perceptions of ethical climate and subsequently on subordinates’ behaviours. Hence, it can be argued that findings may differ in an organisation that operates in a western cultural background, such as Australia.

Notwithstanding the breadth of research on ethical climate, there is only limited research on the relationship between ethical leadership an ethical climate (Shin 2012). Following a call for further research and on the basis of the above discourse, it is plausible that ethical leadership will influence the perception of ethical climate among subordinates’ of
an organisation. Hence, this thesis hypothesises that perceived ethical leadership will influence perceptions of ethical climate among all organisational members.

**Hypothesis 5:** Ethical leadership positively and significantly predicts perceptions of ethical climate among subordinates.

### 2.4.6 Linking Ethical Leadership to Organisational Citizenship Behaviour

Ethical leaders understand that the relative strength or weakness of ethical climate has a direct link to subordinates’ organisational citizenship behaviour (Shin 2012). They further understand that strong citizenship behaviour contributes to improved task effectiveness. The concept of organisational citizenship behaviour represents a higher functioning level of morality in the individuals across the organisation that results in improved social workplace relationships as well as a psychologically safe work environment (Organ 1997).

Research revealed that ethical leadership impacts various aspects of subordinates’ organisational citizenship behaviour, which include employee characteristics (Avey, Palanski & Walumbwa 2011; Kacmar et al. 2011), task characteristics (Piccolo et al. 2010), organisational characteristics (Shin 2012; Toor & Ofori 2009), and leadership characteristics (Mayer et al. 2009; Ruiz, Ruiz & Martínez 2011). According to Kacmar et al. (2011) ethical leadership predicts subordinates’ organisational citizenship behaviours based on social exchange theory (Blau 1964) as subordinates are inspired to act in ways desired by the leader, which is a way of showing gratitude for a leader’s fair treatment. To clarify, when collective norms are clearly voiced through leadership, employees are more likely to engage in OCB based on the principle of reciprocity in turn for fair treatment (Blau 1964). In other words, organisational leadership varies in its approach; hence it provokes diverse normative motivational stimuli in followers, which have an effect on engagement in OCB. Similarly, Mayer et al. (2009) found support that ethical leadership influences subordinates to engage in organisational citizenship behaviours because ethical leaders are regarded as trustworthy role models for ethical conduct and subordinates know that engaging in behaviours that are in line with their ethical leader’s behaviours will be rewarded.

In a different study, Piccolo et al. (2010) found that ethical leadership influences subordinates’ organisational citizenship behaviour by making them understand on the task significance of their role for organisational outcomes. This, in turn, encourages subordinates to fulfil their role beyond their job requirements and engage in organisational citizenship behaviours. This influencing effect of ethical leadership on subordinates’ engagement in organisational citizenship behaviours is trickled down from top to bottom (Mayer et al. 2009).
Chapter 2 Literature Review

Notwithstanding conclusive theoretical evidence that ethical leadership relates to organisational citizenship behaviours (Kacmar et al. 2011), there is limited empirical research on the relationships of ethical leadership and its influence on individual-level organisational citizenship behaviours (OCBIs). Therefore, this thesis hypothesises that ethical leadership will have a positive influence on individual-level of organisational citizenship behaviours (OCBIs).

**Hypothesis 6:** Ethical Leadership positively and significantly influences individual-level organisational citizenship behaviours (OCBIs).

### 2.4.7 Linking Ethical Leadership to Affective Organisational Commitment

Provided that the majority of people seek ethical guidance externally (Kohlberg 1969; Trevino 1986), behaviours of organisational leaders are of particular interest for influencing subordinates’ affective commitment. Ethical leaders understand the importance of subordinates identifying with and involving themselves personally in their roles within the organisation thus creating organisational commitment (Neubert et al. 2009). Based on the social learning theory (Bandura 1977), it is a combination of a leader demonstrating and managing ethically appropriate conduct, which, in turn, will impact on subordinates to identify with the leader and his/her values (Grojean et al. 2004). In other words, if individuals are willing to personally accept and incorporate the organisation’s values, beliefs and goals, then this helps to achieve organisational membership.

According to Kalshoven, Den Hartog and De Hoogh (2011) the implementation of ethical leadership created a psychologically safe environment, which creates trust relationships within the organisation, especially between the leader and followers. In this environment, followers are encouraged to actively report and contribute to workplace issues, problems and processes. Because of this they feel secure and enjoy a mutual trust relationship with the leader, which then enhances subordinates’ commitment to an organisation (Avey, Palanski & Walumbwa 2011; Cremer & Knippenberg 2003; De Cremer, Brebels & Sedikides 2008).

Although research findings indicate that there is a positive relationship between ethical leadership and subordinates’ organisational commitment, further research is needed to demonstrate that ethical leadership is positively related to subordinates’ affective commitment. In line with previous findings on the relationship of ethical leadership and organisational commitment (Neubert et al. 2009), this thesis hypothesises that ethical leadership will enhance affective organisational commitment among subordinates.
**Hypothesis 7:** Ethical leadership positively and significantly influences affective organisational commitment of subordinates in an organisation.

### 2.4.8 Linking Ethical Leadership to Performance

Subordinates have a certain obligation as well as responsibility to fulfil certain tasks and hence demonstrate a certain degree of in-role performance to fulfil these job tasks. It is therefore essential that subordinates’ understand the importance of their in-role performance and how that impacts overall organisational processes and hence effectiveness. Ethical leaders understand the importance of supporting and believing in the subordinates’ capabilities to perform their role to the best of their ability and hence improve subordinates’ performance (Brown & Mitchell 2010). In particular, ethical leadership is concerned with followers’ best interest to develop their full potential and perform well (Brown, Trevino & Harrison 2005). Based on social exchange processes (Blau 1964), subordinates feel valued and motivated to accomplish given tasks in order to reciprocate an ethical leader’s consideration.

According to De Hoogh and Den Hartog (2008) ethical leaders establish a psychological safe environment where trust relationships between a leader and their subordinates are fostered. Previous research findings revealed that trust in the leader influences subordinates’ performance (Dirks & Ferrin 2001, 2002; Mayer & Gavin 2005). Having an established trust relationship subordinates feel safe to discuss workplace issues or provide suggestions for organisational improvement. Such a trust relationship is created through an ethical leader’s fair, honest and supportive course of action towards their subordinates (Caldwell & Dixon 2009). Through social learning processes (Bandura 1977), leadership influences follower performance, as leaders are perceived as role models by followers from whom adequate conduct and skills can be learned (Weaver, Trevino & Agle 2005). Therefore, this study proposes that it is plausible that ethical leadership positively influences subordinates’ in-role performance.

**Hypothesis 8:** Ethical leadership positively and significantly influences subordinates’ in-role performance.
2.4.9 Moderating effect of Ethical Leadership on the relationship of authentic leadership and organisational outcomes

Moderation effects are characterised as an interaction that impacts on the direction and/or strength of the causal relationship between an independent variable and dependent variable (Baron & Kenny 1986). To clarify, a moderator variable can either weaken or amplify the causal relationship between an independent variable and dependent variable or have a reverse effect. In other words, moderation effects help to clarify under which circumstances a criterion variable has an impact on an outcome variable.

This thesis follows a call for future research to integrate further leadership constructs such as ethical leadership to the theory of authentic leadership (Walumbwa et al. 2008). Therefore it aims to investigate if the construct of ethical leadership strengthens the effectiveness of authentic leadership and its influence on various organisational outcomes. Specifically, this thesis examined the interaction of ethical leadership as a moderator variable in the relationships between authentic leadership and ethical climate; authentic leadership and organisational citizenship behaviours; authentic leadership and affective organisational commitment; and authentic leadership and in-role performance.

Previously, it has been discussed that authentic leadership has the potential to create an ethical climate within an organisation mainly because of the characteristics of authentic leadership demonstrating transparent communication and acting according to core beliefs, which, in turn, fosters subordinates’ capacity and intent to behave in an ethical manner (Cianci et al. 2014; Hannah, Avolio & Walumbwa 2011). Subsequently, based on social learning processes, a climate is established in which subordinates share common values and ideals of an authentic leader. However, it is questionable if an authentic leader’s internalised moral perspective is based on good moral intentions (Algera & Lips-Wiersma 2012). Specifically, Sendjaya et al. (2014) demonstrated that when authentic leaders are high in Machiavellianism they do not engage in moral actions. Considering this, it can be argued that in order to establish an environment that is based on good moral intentions it is necessary to ensure that there is an ethical dimension to authentic leadership behaviours. Therefore, it is necessary to investigate under which conditions authentic leadership is related to perceived ethical climate.

It was discussed and demonstrated that ethical leadership has positive impacts on an ethical climate and is regarded as an antecedent of ethical climate (Brown & Mitchell 2010; Brown & Trevino 2006; Lu & Lin 2013; Shin 2012). Furthermore, ethical leaders promote an environment that emphasises trust relationships and ethical conduct by treating their subordinates with respect, giving rewards for ethical conduct and allowing for subordinates’ voice (Brown, Trevino & Harrison 2005; De Hoogh & Den Hartog 2008; Trevino, Brown & Hartman 2003). In other words, an ethical leader stimulates a heightened
awareness of ethical issues among subordinates, which, in turn, motivates subordinates to maintain an ethical climate.

Considering the above, it is argued that in order to ensure an ethical dimension to authentic leadership, ethical leadership will moderate the relationship between authentic leadership and perceived ethical climate positively. That is, the higher perceived ethical leadership is the higher the perception of ethical climate is. Therefore this thesis hypothesises that ethical leadership will moderate the relationship between perceived authentic leadership and subordinates’ perception of ethical climate.

**Hypothesis 9a:** Ethical leadership moderates significantly the relationship between perceived authentic leadership behaviour and subordinates’ perception of ethical climate, such that when ethical leadership is high, subordinates will have higher perception of ethical climate.

It has been discussed that authentic leadership has a positive impact on subordinates’ organisational citizenship behaviours. Through transparent communication and critical evaluation of information before making a decision, which includes consideration of inputs made by subordinates, an authentic leader forms conditions that foster citizenship behaviours among subordinates (Avolio & Luthans 2006). This sharing of information in a transparent and open manner and inclusion in the decision-making process stimulates subordinates to identify with their leader, which also makes them understand how subordinates can contribute towards organisational goals. These heightened levels of engagement provide subordinates with a feeling of trust towards their leader and evokes organisational citizenship behaviours (Ilies, Morgeson & Nahrgang 2005; Organ, Podsakoff & MacKenzie 2006). While authentic leadership emphasises more on self-awareness and transparent communication, ethical leaders focus on leading by example based on moral principles and holding subordinates accountable for ethical conduct (Brown, Trevino & Harrison 2005; Walumbwa et al. 2008).

Ethical leaders demonstrate a moral character in their actions and treat their subordinates with fairness, which, in turn, depicts them as credible role models for ethical guidance. Based on principles of social exchange theory, subordinates develop an obligation to reciprocate fair treatment and mutual respect towards their leader (Brown & Trevino 2006). This develops an understanding among subordinates on the importance of pro-social behaviour towards individuals and hence stimulates them to engage in organisational citizenship behaviours. This study therefore argues that it is plausible that authentic leadership behaviour when moderated by ethical leadership behaviour will have an enhancing effect on subordinates’ organisational citizenship behaviours. Hence, ethical
leadership will moderate the relationship between perceived authentic leadership and subordinates’ organisational citizenship behaviour towards individuals.

**Hypothesis 9b:** Ethical leadership moderates significantly the relationship between perceived authentic leadership behaviour and subordinates’ organisational citizenship behaviour, such that when ethical leadership is high, subordinates will demonstrate higher organisational citizenship behaviours towards individuals.

Further, it has been discussed that authentic leadership has a positive impact on subordinates’ affective organisational commitment. Authentic leaders establish a mutual trust relationship with their subordinates through consistency in their behaviour and transparency in communication. Such a mutual trust relationship contributes an emotional attachment towards a leader, where subordinates develop an understanding for an authentic leader’s views and values (Walumbwa et al. 2008). Furthermore, authentic leaders demonstrate consideration for their subordinates and include them in decision-making processes, which impacts on subordinates, who feel valued and this impacts on their willingness to engage with the organisation (Peus et al. 2012).

Similarly, it was discussed and demonstrated that ethical leadership has a positive influence on subordinates’ organisational commitment. Ethical leaders establish a psychological safe environment for their subordinates, where ethical values are communicated and maintained (Kalshoven, Den Hartog & De Hoogh 2011). Such a psychological safe environment establishes trust relationships between leaders and their subordinates because subordinates feel free to voice their concerns and hence feel as part of the decision-making process. Furthermore, ethical leaders establish a work environment that is characterised by shared values and ethical work norms, which, in turn, has a positive impact on subordinates’ commitment towards their leader as well as their organisation (Brown, Trevino & Harrison 2005; Cullen, Parboteeah & Victor 2003; Trevino, Butterfield & McCabe 1998).

Bearing in mind that authenticity of a leader does not necessarily lead to positive moral actions (Algera & Lips-Wiersma 2012; Sendjaya et al. 2014), it is argued that ethical leadership behaviour is a necessary factor to complement authentic leadership behaviour. Therefore, this thesis argues that it is plausible that ethical leadership will enhance the delivery of authentic leadership behaviour. This in turn will have a positive effect on subordinates’ affective organisational commitment.

**Hypothesis 9c:** Ethical leadership moderates significantly the relationship between authentic leadership behaviour and subordinates’ affective organisational commitment, such
that when ethical leadership is high, subordinates will demonstrate higher affective organisational commitment.

Lastly, it has been discussed that authentic leadership has a positive impact on subordinates’ in-role performance. Authentic leaders demonstrate consideration to their followers through open and transparent communication exhibiting behavioural integrity and engaging subordinates emotionally, physically and cognitively during work, which results in heightened performance (Leroy, Palanski & Simons 2012; Wang et al. 2014). Furthermore, authentic leadership positively influences subordinates’ psychological capital, which resembles efficacy beliefs, hope, resilience and optimism, through which a trust relationship is established between an authentic leader and their subordinates (Clapp-Smith, Vogelgesang & Avey 2009; Luthans et al. 2007). According to Clapp-Smith, Vogelgesang and Avey (2009) the influence of authentic leadership on subordinates’ performance was mediated by trust in the leader. This supports previous findings that subordinates’ trust in the leader leads to better task effectiveness at work (Dirks & Ferrin 2002; Mayer & Gavin 2005). In other words, trust develops from an authentic leader’s good moral intention that are displayed by acting consistently upon their core values based on good moral intention. This implies the importance of well-developed moral capabilities.

Similarly, from the previous discussion it is evident that ethical leadership has a positive influence on subordinates’ performance. Ethical leaders exemplify good moral intent and ensure that moral principles are upheld in the workplace (Brown & Trevino 2014; Stouten, van Dijke & De Cremer 2012). De Hoogh and Den Hartog (2008) demonstrated that ethical leaders influence subordinates’ performance by providing meaning to given tasks and clarifying the purpose and morality of job requirements. In other words, ethical leaders clarify how attainment of expected tasks contributes to socially responsible goals. More importantly, ethical leaders emphasise the importance of task significance, which provides subordinates with a feeling of being part of the decision-making process and hence influences their motivational level to accomplish job requirements (Piccolo et al. 2010).

Considering the above, ethical leadership actively communicates ethical principles and ensures that these are being understood and followed, which potentially influences subordinates performance. Therefore, this thesis argues that it is plausible that ethical leadership will enhance the delivery of authentic leadership behaviour. This, in turn, will have a positive effect on subordinates’ in-role performance.

Hypothesis 9d: Ethical leadership moderates significantly the relationship between authentic leadership behaviour and subordinates’ in-role performance, such that when ethical leadership is high, subordinates will demonstrate higher in-role performance.
2.4.10 Mediating effect of Ethical Climate on the relationship of authentic leadership and organisational outcomes

Mediation effects occur when a causal relationship between the independent variable affecting the dependent variable is transmitted through an intervening variable (Fairchild & MacKinnon 2009; Hayes & Preacher 2014). A mediation model provides an explanation for the relationship between two variables, the independent and dependent variable, in which a mediating variable is hypothesised to be intermediate in that relationship (Baron & Kenny 1986; Cohen et al. 2003; Hayes 2009, 2013). The utility of a mediation model is that it describes a rather functional understanding of the relationship between variables (Preacher & Hayes 2004). In other words, mediation effects help to clarify why an influencing relationship between a predictor variable and an outcome variable exists.

Therefore, the aim is to investigate under which circumstances authentic leadership is more or less effective in its influence on various organisational outcomes. Specifically, this thesis examined the interaction of ethical climate as a mediator variable in the relationship between authentic leadership and organisational citizenship behaviour; authentic leadership and affective organisational commitment; and authentic leadership and in-role performance. In fact, previous research found that organisational climates are considered as important mediators in the relationship between predictor variables such as leadership and organisational outcomes (Cullen, Parboteeah & Victor 2003; Mayer, Kuenzi & Greenbaum 2010; Schwepker Jr. 2001).

There is consensus among various researchers that organisational leadership significantly influences organisational citizenship behaviours among subordinates (Bass 2008; Kaiser, Hogan & Craig 2008; Northouse 2009; Yukl 2012). Specifically, research on authentic leadership revealed that a leader’s transparent communication, actions being aligned with core values and beliefs and consideration of others in their decision-making processes have a positive and significant impact on subordinates’ willingness to engage in organisational citizenship behaviours (Avolio & Luthans 2006; Gardner et al. 2005; Walumbwa et al. 2008). Authentic leadership enables diverse normative motivational stimuli in followers, which have an effect on engagement in organisational citizenship behaviours. In other words, when collective norms and expectations are clearly communicated in an open and transparent manner, employees are more likely to engage in organisational citizenship behaviours based on principles of reciprocity in turn for fair treatment.

The reason why employees engage in organisational citizenship behaviours can be explained through social exchange processes. Social exchange theory stipulates that interpersonal relationships are based on either economic exchange or social exchange processes, which provide benefits for each party involved (Blau 1964). One such social exchange process is organisational citizenship behaviour, which includes pro-social
behaviours, helping behaviours or extra-role behaviours towards other individuals or towards
the organisation (Organ, Podsakoff & MacKenzie 2006; Williams & Anderson 1991). Such
behaviours are positively and significantly influenced by an organisation’s work climate,
which provides positive perspectives of economic as well as social exchange relationships
(Farooqui 2012; Podsakoff et al. 2000; Shin 2012). Thus, an environment that provides
ethical and fair treatment stimulates employees’ willingness to reciprocate such behaviour
(Leung 2008; Mayer et al. 2009). Specifically, Shin (2012) found that the establishment of a
strong ethical climate at the workplace through leadership has positive influence on
employees’ attitudes and behaviours. In particular, the stronger the perception of an ethical
climate the more subordinates engage in organisational citizenship behaviours.

From the previous discussion it is evident that an ethical climate contributes to the
overall work attitudes and behaviours of organisation members (Simha & Cullen 2012). As
such, ethical climates impact the perceptions of appropriate practices and policies among
organisational members (Wimbush & Shepard 1994). Thus, employees who work in an
ethical climate are inclined to engage in ethical behaviours, which include helping and extra-
role behaviours. Moreover, ethical climates potentially improve employees’ attitudes and
behaviours, which has an impact on organisational performance (Elçi & Alpkan 2009). To
clarify, ethical climates in organisations shape the setting in which members of an
organisation operate, which, in turn, has an effect on their overall workplace attitudes and
behaviours (Cullen, Parboteeah & Victor 2003; Simha & Cullen 2012; Trevino, Butterfield &
McCabe 1998). Such a climate provides organisational members with belief that
organisational policies and practices demonstrate concern for wellbeing of members.

Organisational leaders set the agenda for an organisation’s direction; hence they
impair the moral tone within policies, procedures and principles of an organisation.
Furthermore, organisational leaders should take into consideration that an ethical climate
contributes to positive organisational outcomes such as organisational citizenship
behaviours. Considering this, it is plausible that an ethical climate mediates the relationship
between authentic leadership and subordinates’ organisational citizenship behaviours.

**Hypothesis 10a:** Ethical climate significantly mediates the relationship between perceived
authentic leadership behaviour and subordinates’ organisational citizenship behaviour.

As previously illustrated and discussed, authentic leadership impacts on
subordinates’ affective organisational commitment by leading in accordance to core beliefs
and communicating these beliefs in a transparent manner, which creates a mutual trust
relationship. Furthermore, this trust relationship fosters a supportive work climate that
stimulates commitment among subordinates towards the leader as well as the organisation.
In other words, subordinates accept transparently communicated beliefs and values from their leader, develop a willingness to engage more with their job requirements, and cultivate a desire to remain a member of the organisation.

An ethical climate contributes to employees’ organisational commitment by enforcing ethical norms (Schwepker Jr. 2001), which in turn impacts on employees’ work experience that ultimately affects their commitment (Trevino, Butterfield & McCabe 1998). Implementing ethical norms cultivates the development of a work environment that exemplifies an ethical context representing certain values and procedures that concern moral behaviours. The perception of an ethical climate in an organisation being ethical influences the behaviour of organisational members in such a way that they develop an attachment towards the organisation (Cullen, Parboteeah & Victor 2003).

According to Cullen, Parboteeah and Victor (2003) a climate that is considered as ethical demonstrates concerns for appropriate conduct, policies and procedures and influences organisational commitment. Organisational members are inclined to a commit to their organisation when they perceive the environment is characterised by ethical conduct, honesty, and fair treatment. Similarly, authentic leadership cultivates an environment that promotes honesty, fair treatment, and actions being based on core beliefs. Therefore, this thesis argues that it is plausible that the influence of authentic leadership will extend to influence subordinates organisational commitment through an ethical climate.

**Hypothesis 10b:** Ethical climate significantly mediates the relationship between perceived authentic leadership behaviour and subordinates’ affective organisational commitment.

Lastly, it was illustrated and discussed that authentic leadership has a positive impact on subordinates’ performance through positive influence on their subordinates’ psychological capital (Clapp-Smith, Vogelgesang & Avey 2009; Gardner et al. 2011). Subordinates develop improved levels of efficacy beliefs, hope, optimism, and resilience, which influence subordinates’ beliefs to achieve expected tasks and perform in their roles. These accomplishment of these tasks can be described as in-role performance, which encapsulates behaviours of responsibility and duties with regard to a given task and are rewarded and evaluated (Judge & Kammeyer-Mueller 2012; Manika et al. 2013; Williams & Anderson 1991).

It was previously discussed that an ethical climate has various benefits with regard to positive employee attitudes and behaviours. To recap, an ethical climate provides employees with clear guidelines of desired and applicable conduct in the workplace (Cullen, Victor & Stephens 1989; Mulki, Jaramillo & Locander 2008; Simha & Cullen 2012). Based on
social exchange processes, an environment that is characterised by fair treatment of employees stimulates reciprocal behaviours of employees to the organisation by exhibiting organisational citizenship behaviours, organisational commitment, or reduced turnover intentions. However, there is limited research demonstrating direct influences of ethical climate on employees’ in-role performance. Considering the above it can be argued that organisational members who perceive an organisational climate as representative of ethical conduct and norms are more likely to exhibit enhanced levels of performance. Therefore, this thesis argues that it is plausible that ethical climate will mediate the relationship between authentic leadership and in-role performance of subordinates.

**Hypothesis 10c: Ethical climate significantly mediates the relationship between perceived authentic leadership behaviour and subordinates’ in-role performance.**

### 2.5 Control Variables

Demographic characteristics of employees, for example age, gender, tenure, or education level, has been linked to various organisational outcomes on the individual, group or organisational level (Lau & Murnighan 1998; Pfeffer 1985). Some research has revealed that demographic characteristics have an impact on organisational outcomes such as organisational citizenship behaviours (Podsakoff & MacKenzie 1997), organisational commitment (Meyer & Allen 1997), or performance (van Dijk, van Engen & van Knippenberg 2012). However, research on influences of demographic characteristics onto organisational effectiveness to date has been limited (Muchiri & Ayoko 2013).

Research findings remain inconclusive with regard to the effects of demographic characteristics on organisational effectiveness (Joshi, Liao & Roh 2010). According to Joshi, Liao and Roh (2010) some findings stated that incongruence of demographics characteristics within a workgroup is negatively related to organisational outcomes such as organisational commitment or job satisfaction, while other findings revealed the opposite that demographics incongruence had no impact on organisational outcomes. It is possible that such inconclusive findings are related to casualness in the treatment of contextual variables, in the relationship between demographic characteristics and organisational outcomes (Jackson, Joshi & Erhardt 2003; Kunze, Boehm & Bruch 2011).

Muchiri and Ayoko (2013) investigated the influence of demographic diversity and its impact on organisational outcomes. Their study revealed that demographics have a direct and significant influence on organisational outcomes. Specifically, demographics such as gender, organisational tenure, and management level are predictive of organisational citizenship behaviours, affective commitment, productivity and collective efficacy beliefs.
Furthermore, their study revealed that organisational leadership, specifically transformational leadership, was a moderator in the relationship between demographics characteristics and organisational outcomes.

There is a general acknowledgement however, that demographic diversity does influence organisational outcomes. Various leadership studies have included demographic variables to control for leadership effectiveness and its influences on organisational outcomes (Bass 2008; Dinh et al. 2014; Lussier & Achua 2013; Yukl 2012). Therefore, following various studies on organisational leadership, this thesis includes demographic variables such as an individual’s age, gender, educational level and organisational tenure as control variables, which have been found to be a predictor for attitudinal outcomes.

2.6 Conceptual Framework

The purpose of this thesis is to investigate the impact of authentic leadership and ethical leadership on the ethical climate. Further, this thesis investigates the impact of authentic leadership and ethical leadership on subordinates’ organisational citizenship behaviour, organisational commitment and performance. Additionally, this thesis assesses the moderation effect of ethical leadership on the relationship between authentic leadership organisational outcomes. Lastly, this thesis assesses the mediating effect of ethical climate on authentic leadership and organisational outcomes. The proposed influencing relationships are illustrated in the conceptual framework (Fig. 2.2).

Authentic leadership and ethical leadership have been classified as main influencing variables. Both directly influence organisational outcomes and affect performance outcomes. Based on the literature review, this study proposes that ethical leadership complements authentic leadership and its influences on organisational outcomes. Likewise, ethical climate is theorised to influence subordinates’ attitudes and performance. To give an example, ethical climate is hypothesised to influence subordinates’ organisational citizenship behaviour.
2.7 Summary

This chapter focused on identifying relationships between organisational leadership and organisational performance outcomes. Specifically, the focus was on the relationships between authentic leadership and ethical leadership and their impacts on ethical climate, individual-level organisational citizenship behaviour, affective organisational commitment, and in-role performance. Based on the literature a theoretical framework was drawn to illustrate the existing influencing relationships. A refined conceptual research framework was developed illustrating hypotheses of this research, including direct and indirect relationships between predictor variables and outcome variables. Limitations in the literature were identified and a conceptual framework was proposed. This conceptual framework represents the basis for 15 important hypotheses that are investigated in this thesis.
CHAPTER 3 – RESEARCH METHODS

3.1 Introduction

This chapter identifies and discusses the relevance of the chosen research paradigm and its respective methodology to demonstrate its appropriateness for this empirical thesis. Therefore, an overview of the research design and the methods of data collection, including design and operationalisation of the survey instrument are discussed. Accordingly, this chapter is structured in the following manner; it provides a discussion and justification of the research paradigm this thesis is situated in, an overview of the research methods utilised in this thesis including operationalisation of the survey instrument, description of the mode of data collection, description of the population and sampling method, discussion of the pre-test and pilot study, discussion of ethical considerations to be taken into account prior to conducting this study. Finally the chapter closes with a discussion of the mode of data analysis of the data generated from this thesis, plus a summary.

3.2 Research Paradigm

A paradigm describes an individual’s worldview and the way an individual perceives how reality is constructed (Lincoln, Lynham & Guba 2011). The researcher is required to utilise the appropriate research paradigm to address how reality is conceptualised (ontological aspect), how this conceptualisation of reality is understood (epistemological aspect) and how information on this conceptualisation of reality can be obtained (methodological aspect) (Tashakkori & Teddlie 1998; van der Mescht 2002; Zikmund et al. 2013). Therefore, the researcher decides on which paradigm is most appropriate to address the overall phenomenon of the research topic within the context and proposed research question (Easterby-Smith, Thorpe & Lowe 2002). In other words, the goal that research aims to achieve with the research topic and the research question influences with which paradigm the research topic is aligned.

In general, a research design can be based on two major categories of paradigms; the positivist paradigm or the interpretivist paradigm (Creswell 2009; Locke, LF, Silverman & Spirduso 2010; Zikmund et al. 2013). To clarify, a positivist paradigm represents a set of beliefs that the world consists of a singular independent truth, which is described by cause and effect (Bryman 1988; Henn, Weinstein & Foard 2009; Phillips & Burbules 2000). In a positivist research design, the researcher utilises tools such as survey instruments to minimize interventions and hence remain distant so that objective for the study is enhanced (Buchanan & Bryman 2007; Creswell 2009). The examined relationships within the
conceptual framework are explained by the use of quantitative measurement scales to test the developed hypotheses (Lincoln, Lynham & Guba 2011). Results are explained in statistical numbers (Henn, Weinstein & Foard 2009), and causalities between selected variables are described on the basis of these statistical results (Zikmund et al. 2013). The interpretivist paradigm assumes that there is no objective reality (Klenke 2008), rather reality is created through perception of each individual, their understanding of the world and their social interactions (Bassey 1990; Creswell 2009; Denzin & Lincoln 2011; Henn, Weinstein & Foard 2009; Morgan & Smircich 1980; Orlikowski & Baroudi 2002).

Research in the domain of leadership has been approached from a positivist as well as interpretivist perspective (Antonakis et al. 2004). In particular, Parry, K et al. (2014) report that research on leadership was predominantly influenced by positivist methods in consequence of close links to the discipline of psychology. In contrast, interpretivist methods in leadership research have been limited (Klenke 2008). In fact, both paradigms have application for leadership research in their own right. To briefly clarify, a positivist approach being based on statistical analysis proves to be ideal for testing hypotheses to develop complex causal frameworks, while an interpretivist approach provides an appropriate tool to investigate and interpret the complexity of a phenomenon with its great depths and nuances (Antonakis et al. 2004; Creswell 2009; Denzin & Lincoln 2011; Neuman 2011; Phillips & Burbules 2000; Zikmund et al. 2013). In other words, while research based in the interpretivist paradigm is well suited for theory generating, research based in the positivist paradigm is well suited for theory testing.

This thesis is situated in the positivist paradigm and therefore proceeds on the assumption that reality is based on a singular independent truth, which describes regularities and cause and effect (Henn, Weinstein & Foard 2009; Phillips & Burbules 2000). That is, the nature of the world is rational and can be explained by observation because reality is encoded into agreed symbolic systems. The aim of the research is to look for regularities and cause and effect to describe the correlation of two or more variables in order to generalise findings and to predict what outcomes might be expected in the future. Therefore, this thesis follows a descriptive research design to empirically test hypotheses and gather quantifiable results (Creswell 2009; Easterby-Smith, Thorpe & Lowe 2002).

3.3 Overview of Research Method and Design

Methods within research clarify appropriate techniques, which enable a researcher to reveal empirical data (Buchanan & Bryman 2007), and are by necessity linked to a particular research paradigm (Lincoln, Lynham & Guba 2011). In other words, research methods emerge as a suitable instrument to investigate and address the research problem of the
discipline under study. The aim is to acquire reliable and acceptable knowledge through the right use of rigorous, logical, and unprejudiced methods (van der Mescht 2002). Therefore, the researcher needs to develop a sound argumentation, apply appropriate methods suited to the proposed research question in line with the particular paradigm, analyse and evaluate data accordingly and disseminate findings in a critical manner to contribute towards scientific knowledge. The steps taken to conduct this positivist thesis are illustrated in Figure 3.1.

Figure 3.1: Research Design

Source: Adapted from Creswell (2009)
In order to address the requirements for a rigorous research design to acquire reliable findings and to draw comparisons to previous research findings, this thesis followed previous research designs conducted in the field of authentic leadership. The aim was to investigate causality and be able to make future predictions with regard to leadership behaviours on organisational outcomes. Therefore, a quantitative research design to investigate correlation effects between predictor variables and outcome variables was believed to be most suitable for this thesis. Hence, this thesis, which is situated in the quantitative paradigm, examined influencing relationships between independent variables (IVs), dependent variables (DV), and moderating and mediating variables (Creswell 2009). Variables that were identified and deemed to be suitable for this study were illustrated with respective theorised influencing relationships in the conceptual model in the previous chapter (see Figure 2.2). As such, this thesis requires minimal intervention by the researcher and it is conducted in a non-contrived setting, where the natural workflow is maintained.

The previously constructed hypotheses describe the correlation effects of perceived authentic leadership, perceived ethical leadership, perceived ethical climate, individual-level organisational citizenship behaviours, subordinates’ affective organisational commitment, and subordinates’ in-role performance. The aim is to examine the influence of each leadership concept, authentic leadership and ethical leadership, on organisational outcomes. Therefore, authentic leadership and ethical leadership have both been identified as the main independent variables. To clarify, independent variables are characterised as a influencing factor that causes an effect on a dependent variable and hence considered as a predictor for change in an outcome of a dependent variable (Babbie 2015; Easterby-Smith, Thorpe & Lowe 2002). Furthermore, perceived ethical climate, individual organisational citizenship behaviours, subordinates’ affective commitment and subordinates’ in-role performance were identified as dependent variables. The dependent variable is thus the factor that will was measured and was expected to be affected during a study (Creswell 2009).

In addition to the investigation of direct influencing relationships between independent variables and dependent variables, moderating and mediating effects were assessed. Moderating and mediating effects account for more complex causal relationships between independent and dependent variables (Baron & Kenny 1986; Hayes 2013; Neuman 2011). A moderator variable has an influence on the strength and/or direction of the relationship between an independent variable and a dependent variable. For the purpose of this thesis, ethical leadership was identified as a moderating variable to measure to what extent authentic leadership had an effect on the previously mentioned dependent variables. The argument is that ethical leadership can possibly complement authentic leadership and hence act like an amplifying force. Lastly, a mediator variable explains the reason why effects between independent and dependent variables occur. For the purpose of this thesis,
perceived ethical climate was identified as a mediator variable to explain why authentic leadership may influence the identified dependent variables of this study. The argument is that a perceived ethical climate transmits the effectiveness of authentic leadership onto organisational outcomes.

This thesis is categorised as a cross-sectional study (Sekaran & Bougie 2010; Zikmund et al. 2013). The justification of employing a cross-sectional survey was to gather data at a single point in time across a wide population, which was difficult to access (Sekaran & Bougie 2010). A cross-sectional study still provides conclusions about causal relationships and thus can be applied to explanatory research design (Neuman 2011). Besides, cross-sectional research designs have been widely used in various previous studies on leadership and its effects on subordinates’ workplace attitudes and behaviours. Therefore, data was gathered at a single point in time across a wide population.

A further concern for rigorous findings in research is the occurrence of common method variance and the way researchers control for it (Donaldson, SI & Grant-Vallone 2002; Podsakoff et al. 2003; Podsakoff, MacKenzie & Podsakoff 2012). Common method variance denotes a measurement error that is either generated randomly or systematically resulting from bias in the measurement method (Cooper & Schindler 2008; Podsakoff et al. 2003). Thus, common method variance has an impact on accurately measuring the relationship between the independent variable and the depended variable, which in turn significantly affects the research findings. Therefore, in order to address the matter of common method variance, to generate reliable and acceptable data and to contribute to the body of knowledge from this thesis, the following sections will discuss the rigorous, logical and unprejudiced methods utilised for this thesis.

3.4 Research Instrument Development

The questionnaire for this thesis was developed based on the literature review and the developed conceptual framework. In order to ensure validity and reliability for hypothesis testing in development of the questionnaire, this thesis adapted widely published measurement scales with appropriate reliability Cronbach’s alpha scores. The aim was to apply the most appropriate measurement scales for the purpose of hypotheses testing. All measurement scales are widely published and established scales in the domain of organisational research to investigate leadership behaviours and workplace attitudes and behaviours. Furthermore, as previously discussed in chapter two, all constructs indicate influencing relationships that have also been reported by previous research. Therefore, utilising these measurement scales is regarded as appropriate for the purpose of this thesis.
All measurement scales utilised a closed response format to obtain numerical data, which, in turn, enables respondents to give instant responses (Zikmund et al. 2013). Ratings for each of the measurement items were based on a Likert scale, which gives respondents the choice to select a particular value for a given option. Different selection options for respondent answers were used in the demographic section, where possible responses included dichotomous options for gender, ranked responses for age and organisational role, and responses that are not categorised in predetermined responses, in this case organisational tenure, that leave an open ended option for the respondent.

For this thesis six measurement scales were utilised. All measurement scales were compiled into one large questionnaire to measure each of the variables of this study. Demographic items included gender, age, level of education, role in the organisation, and tenure. Authentic Leadership was measured by utilising the Authentic Leadership Questionnaire (Walumbwa et al. 2008), Ethical Leadership was measured by utilising the Ethical Leadership Scale (Brown, Trevino & Harrison 2005), Ethical Climate was measured by utilising the Ethical Climate Scale (Victor & Cullen 1988), Organisational Citizenship Behaviour was measured by utilising the Organisational Citizenship Behaviour Scale for individuals (Lee & Allen 2002), Affective Organisational Commitment was measured by utilising the Affective Organisational Commitment Scale (Meyer, Allen & Smith 1993), and In-role Performance was measured by utilising the In-role performance Scale (Williams & Anderson 1991).

The survey instrument was structured into multiple sections as illustrated in Table 3.1, and was addressed at any employee within an organisation considering that each of the respondents will have a superior. The aim was firstly, to have respondents rating their direct superiors on leadership behaviours and secondly, to have respondent self-rate their own workplace attitudes and behaviours. In order to assess leadership behaviour, this thesis follows various previous research conducted on leadership behaviour and hence leadership behaviour is rated from the subordinates’ point of view. The survey instrument was structured into three sections: section one with items relating to demographics, section two with items relating to leaders’ behaviour, section three with items relating to the workplace, specifically workplace attitudes and behaviours (Appendix E).
Table 3.1: Structure of the survey instrument

<table>
<thead>
<tr>
<th>SECTION</th>
<th>Subject</th>
<th>Factor</th>
<th>Item Numbers</th>
<th>Reverse Coding Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>Demographic</td>
<td>Gender</td>
<td>P1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Age</td>
<td>P2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Level of Education</td>
<td>P3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Role in Organisation</td>
<td>P4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tenure</td>
<td>P5</td>
<td></td>
</tr>
<tr>
<td>Two</td>
<td>Rating the</td>
<td>Ethical Leadership</td>
<td>EL1, EL2, EL3, EL4,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>supervisor</td>
<td></td>
<td>EL5, EL6, EL7, EL8,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EL9, EL10</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Authentic Leadership</td>
<td>AL1, AL2, AL3, AL4,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AL5, AL6, AL7, AL8,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AL9, AL10, AL11,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AL12, AL13, AL14, AL15, AL16</td>
<td></td>
</tr>
<tr>
<td>Three</td>
<td>Workplace</td>
<td>Affective Organisational</td>
<td>OC1, OC2, OC3, OC4,</td>
<td>OC3, OC4, OC5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Commitment</td>
<td>OC5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Organisational Citizenship</td>
<td>OCB1, OCB2, OCB3, OCB4, OCB5, OCB6, OCB7, OCB8</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Behaviour Individual (OCBI)</td>
<td>OCB1, OCB2, OCB3, OCB4, OCB5, OCB6, OCB7, OCB8</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ethical Climate</td>
<td>EC1, EC2, EC3, EC4,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EC5, EC6, EC7, EC8, EC9, EC10, EC11, EC12, EC13, EC14, EC15, EC16</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>In-role Performance</td>
<td>P1, P2, P3, P4, P5,</td>
<td>P6, P7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>P6, P7</td>
<td></td>
</tr>
</tbody>
</table>

The survey in this thesis also had licensing requirements for one particular measurement scale. The Authentic Leadership Questionnaire is the only instrument that required approval from the licensor. Hence, the ALQ licence for use in this thesis was obtained from the authors of this measurement scale through Mind Garden, Inc. An overview on licence requirements is presented in Table 3.2.
Table 3.2: Licensing Requirements of measurement scales

<table>
<thead>
<tr>
<th>Survey Instrument</th>
<th>Author(s)</th>
<th>Licensing Required</th>
<th>Researcher Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authentic Leadership Questionnaire (ALQ)</td>
<td>Bruce J. Avolio, William L. Gardner and Fred O. Walumbwa</td>
<td>YES</td>
<td>The ALQ is the only measurement scale that required a license for use (see Appendix F)</td>
</tr>
<tr>
<td>Ethical Leadership Scale (ELS)</td>
<td>Michael E. Brown, Linda K. Trevino and David A. Harrison</td>
<td>NO</td>
<td>Full measurement scale is available in academic literature (see Brown, Trevino &amp; Harrison 2005)</td>
</tr>
<tr>
<td>Ethical Climate Questionnaire</td>
<td>Bart Victor and John B. Cullen</td>
<td>NO</td>
<td>Full measurement scale is available in academic literature (see Victor &amp; Cullen 1988)</td>
</tr>
<tr>
<td>Organisational Citizenship Behaviour Individual (OCBI)</td>
<td>Kibeom Lee and Natalie J. Allen</td>
<td>NO</td>
<td>Full measurement scale is available in academic literature (see Lee &amp; Allen 2002)</td>
</tr>
<tr>
<td>Affective Organisational Commitment</td>
<td>John P. Meyer, Natalie J Allen and Catherine A. Smith</td>
<td>NO</td>
<td>Full measurement scale is available in academic literature (see Meyer, Allen &amp; Smith 1993)</td>
</tr>
<tr>
<td>In-role Performance</td>
<td>Larry J. Williams and Stella E. Anderson</td>
<td>NO</td>
<td>Full measurement scale is available in academic literature (see Williams &amp; Anderson 1991)</td>
</tr>
</tbody>
</table>

3.4.1 Demographic Information

The demographic items were placed at the beginning of the survey instrument following suggestions by Passmore et al. (2002), who indicate that this creates a comfortable state for respondents before being asked questions specifically related to the research topic. For this study the following demographic information was gathered; gender, age, educational level, position held in the organisation and organisational tenure. Research in the domain of leadership has accepted demographic variables such as age, gender, organisational tenure, and educational level correlate with organisational outcomes such as subordinates’ attitudes and behaviours (Bass 2008; Meyer & Allen 1997; Podsakoff & MacKenzie 1997; Yukl 2012). Therefore, this study followed previous research on authentic leadership (Gardner et al. 2011; Hmieleski, Cole & Baron 2011; Peus et al. 2012; Sendjaya et al. 2014; Walumbwa et al. 2008; Wang et al. 2014) controlling for demographic variables of age, gender, educational level, organisational tenure, and position in order to ensure and enhance the internal validity of this study. Additionally, research has demonstrated that
demographic information such as age, gender, organisational tenure and education level have correlation with ethical climate (Cullen, Parboteeah & Victor 2003), organisational citizenship behaviours and affective organisational commitment (Lee & Allen 2002).

3.4.2 Authentic Leadership

Authentic leadership was operationalised in accordance with work by Avolio, Gardner, Walumbwa and colleagues (Avolio & Gardner 2005; Avolio et al. 2004; Walumbwa et al. 2008). The scale that was utilised to measure authentic leadership was the 16-item Authentic Leadership Questionnaire (ALQ), which was developed and validated by Walumbwa et al. (2008). This scale measures all four dimensions of authentic leadership:

- self-awareness (4 items)
- relational transparency (5 items)
- balanced processing (3 items)
- internalised moral perspective (4 items)

Walumbwa et al. (2008) developed the ALQ and investigated its construct validity using three independent studies. In study one, Walumbwa et al. (2008) developed and validated the ALQ instrument through investigating if the ALQ measured all four dimensions of authentic leadership: that is self-awareness, relational transparency, balanced processing, and internalized moral perspective. They followed a theory-based process to develop the measurement scale, which resulted in a final scale containing sixteen (16) items. Further, Walumbwa et al. (2008) applied confirmatory factor analysis to test for validity and reliability using two independent samples from diverse cultural backgrounds, the US and China. The confirmatory factor analysis for the US sample resulted in factor loadings varying from .66 to .93. The Cronbach’s alpha for each measure was $\alpha=.92$ for self-awareness, $\alpha=.87$ for relational transparency, $\alpha=.81$ for balanced processing, and $\alpha=.76$ for internalized moral perspective. All four measures indicated an average correlation of $\alpha=.67$. The confirmatory factor analysis for the Chinese sample resulted in factor loadings varying from $\alpha=.62$ to $.78$. The Conbach’s alpha for each measure was $\alpha=.79$ for self-awareness, $\alpha=.72$ for relational transparency, $\alpha=.76$ for balanced processing, and $\alpha=.73$ for internalised moral perspective. In sum, the result of their first study indicated that there is high convergence between the four dimensions, self-awareness, relational transparency, balanced processing and internalised moral perspective and that the ALQ does capture all four of these dimensions.

In study number two, Walumbwa et al. (2008) found discriminant validity with regard to ethical leadership and transformational leadership. The confirmatory factor analysis revealed that authentic leadership is significantly related to but also significantly
distinguishable from ethical leadership and transformational leadership. In addition to that, study number two revealed predictive validity by confirming that authentic leadership accounts for subordinates’ behaviour and attitudes reflected in organisational citizenship behaviour, organisational commitment and satisfaction with supervisors.

In study number three, Walumbwa et al. (2008) confirmed the validity of the measurement model with a confirmatory factor analysis of $\alpha = .97$. In addition to that, results of study number three revealed consistency with theoretical predictions of authentic leadership being positively related to subordinates’ job satisfaction and rated job performance, while controlling for organisational climate.

Since then the Authentic Leadership Questionnaire has been utilised in various studies. Studies were conducted on authentic leadership behaviours and its impact on various subordinates’ attitudes and behaviours (Cianci et al. 2014; Gardner et al. 2011; Leroy et al. 2012; Peus et al. 2012; Rego et al. 2013; Wang, H et al. 2014). The ALQ demonstrated in these previous studies a stable factor structure employing confirmatory factor analysis with a Cronbach’s alpha reliability coefficient ranging from $\alpha = .88$ to $\alpha = .96$.

This thesis utilised the ALQ as an other-rated instrument to measure perceived authentic leadership behaviours from a subordinate’s perspective. In this thesis participants were asked to rate the frequency of exhibited leadership behaviour of their immediate supervisor. The items were rated with a 5-point Likert-scale ranging from: (0) Not at all; (1) once in a while; (2) sometimes; (3) fairly often; and (4) frequently, if not always. Sample items are: for self-awareness ‘seeks feedback to improve interaction with others’; for relational transparency ‘admits mistakes when they are made’; for balanced processing ‘solicits views that challenge his or her deeply held positions’; for internalized moral perspective ‘makes difficult decisions based on high standards of ethical conduct’.

### 3.4.3 Ethical Leadership

Ethical leadership was operationalised in accordance with work by Brown and colleagues (Brown, Trevino & Harrison 2005). The scale that was utilised to measure Ethical Leadership behaviour was the 10-item Ethical Leadership Scale (ELS), which was developed and empirically validated by Brown, Trevino and Harrison (2005). This measurement scale has been widely utilised to investigate various factors of ethical dimensions within leadership behaviours such as exhibiting normatively appropriate behaviour through role modelling, communicating ethical norms, penalizing ethical misconduct, and showing fair treatment (Brown & Mitchell 2010).

Brown, Trevino and Harrison (2005) developed the ELS conducting a total of seven consecutive studies where they examined the trait validity and internal coherence of the
measurement scale, which they did in study one to study four; and they examined the nomological validity of ethical leadership and its incremental prediction, which they did in study five to study seven. The Cronbach’s alpha for the developed 10 item ELS demonstrated consistency with $\alpha = .90$

More recent studies utilising the ELS have shown a high reliability coefficient with Cronbach’s alpha equal or greater than $\alpha = .89$ (Avey, Wernsing & Palanski 2012; Mayer et al. 2009; Piccolo et al. 2010; Schaubroeck et al. 2012; Walumbwa & Schaubroeck 2009). In a study by Neubert et al. (2009) on ethical leadership and its impact on subordinates’ job satisfaction and affective commitment the authors found Cronbach’s alpha for the ethical leadership scale of $\alpha = .95$. In another study by Mayer, Kuenzi and Greenbaum (2010) on ethical leadership, ethical climate and employee misconduct the authors demonstrated Cronbach’s alpha for the ethical leadership scale of $\alpha = .97$. A further study by Kacmar et al. (2011) on the impact of ethical leadership on organisational citizenship behaviours demonstrated Cronbach’s alpha for the ethical leadership scale of $\alpha = .94$.

The ELS was utilised in this thesis as an other-rated instrument to measure perceived ethical leadership behaviours from a subordinate’s perspective. In this thesis participants were asked to agree to the extent to which their immediate supervisor demonstrates respective behaviours. The items were rated on a 5-point Likert scale ranging from: (1) Strongly disagree; (2) Disagree; (3) Neutral; (4) Agree; (5) Strongly agree. Sample items are: ‘Listens to what employees have to say’; ‘Has the best interest of employees in mind’; or ‘Can be trusted’.

3.4.4 Ethical Climate

Ethical climate was operationalised in accordance to work by Victor and Cullen (1987). The Ethical Climate Questionnaire (ECQ) is a widely used measurement scale, consisting of 26 items, to investigate the ethical context that employees operate in (Martin & Cullen 2006; Simha & Cullen 2012). There are five empirically derived ethical climate dimensions that are measured through the ECQ, namely instrumental climate, caring climate, independence climate, rules climate, and law and code climate (Cullen, Victor & Bronson 1993; Victor & Cullen 1987, 1988). Thus, various studies, which employed this revealed that respondents describe different ethical sub-climates within an organisation they operate in. Studies that have employed this measurement scale reported Cronbach’s alpha reliability coefficient ranging from $\alpha = .70$ to $\alpha = .85$ (Cullen, Parboteeah & Victor 2003; Elçi & Alpkan 2009; Peterson 2002a; Simha & Cullen 2012; Wang, Y-D & Hsieh 2012).
Accordingly, in this thesis the ECQ measures all five types of ethical climates:

- instrumental climate (2 items)
- caring climate (3 items)
- independence climate (3 items)
- rules climate (4 items)
- law and code (4 items)

In this thesis, the measurement scale that was utilised to measure Ethical Climate was a 16-item modified version of the original empirically validated 26-item Ethical Climate Questionnaire (ECQ) (Victor & Cullen 1987). In a more recent study, Schminke, Ambrose and Neubaum (2005) modified and validated the 16 item scale based on testing the original five-factor model of the ECQ as specified by Victor and Cullen (1987). They identified 16 items out of the original 26-items from the EQS had consistent factor loading with Cronbach’s alpha of \( \alpha = .96 \). This finding on factor loadings was compared with previous reviews and findings on factor loadings by Cullen, Victor and Bronson (1993) ranging from \( \alpha = .56 \) to .85 and Peterson (2002b) with \( \alpha = .82 \). From this comparison the 16-item emerged to have consistent factor loadings with all five factors with Cronbach’s alpha from \( \alpha = .69 \) to .83. Various other studies utilised either the original version of the 26item ECQ or a modified version, including significantly shorter versions with only seven items or longer versions with 36 items (for a review see Simha & Cullen 2012).

The aim in this thesis was to investigate how respondents perceive their ethical climate at work. Therefore, respondents were required to indicate how they perceive the climate within their organisation. On a six-point Likert-scale respondents were asked to which degree statements about their organisation are true with the scale ranging from: (1) Completely false; (2) Mostly false; (3) Somewhat false; (4) Somewhat true; (5) Mostly true; (6) Completely true. Sample items are: ‘In this company, people are guided by their own personal ethics’ or ‘Each person in this company decides for themselves what is right and wrong’.

### 3.4.5 Organisational Citizenship Behaviour

Organisational Citizenship Behaviour was operationalised in accordance with work by Organ, Podsakoff and colleagues, and Lee and Allen (Lee & Allen 2002; Organ 1997; Podsakoff et al. 2009; Podsakoff & MacKenzie 1997; Podsakoff, MacKenzie & Fetter 1993). Podsakoff, MacKenzie and Fetter (1993) developed a 24-item measurement scale to measure organisational citizenship behaviours. Their study consisted of a large sample of several divisions of large companies in the US and Canada that demonstrated support for
the dimensionality of citizenship behaviours. The five dimensions of organisational citizenship behaviours are labelled altruism, conscientiousness, sportsmanship, courtesy and civic virtue. Confirmatory factor analysis revealed the following factor loadings for each of the subscales; for the conscientiousness subscale loadings ranged from $\alpha = .47$ to $.70$; for the sportsmanship subscale loadings ranged from $\alpha = .54$ to $.83$; for the civic virtue subscale loadings ranged from $\alpha = .32$ to $.90$; for the courtesy subscale loadings ranged from $\alpha = .64$ to $.69$; and for the altruism subscale loadings ranged from $\alpha = .60$ to $.75$.

This thesis utilised the modified measurement scale for Organisational Citizenship Behaviours Individual (OCBI) by Lee and Allen (2002). The reason for this is that the focus is on examining OCB in the relationship among individual members of the organisation and not examining behaviours that benefit the organisation, called OCBO. A meta-analysis conducted by Ilies et al. (2009) demonstrated that OCBI and OCBO are significantly distinct and hence can be examined independently. According to Lee and Allen (2002) the eight items of the OCBI scale were selected from previously established and validated OCB scales. The selected eight items for the OCBI scale clearly tap into behaviours that are addressed to the individual as beneficiary, unlike previous OCBI scales that were taping into behaviours addressing both individual and organisational as beneficiaries (Lee & Allen 2002). The reliability score for the OCBI scale was $\alpha = .83$ and for the Organisational Citizenship Behaviour Organisation (OCBO) scale was $\alpha = .88$. A previous study conducted by Williams and Anderson (1991) demonstrated Conbach’s alpha of $\alpha = .88$ for OCBI and $\alpha = .75$ for OCBO. A more recent study conducted by Shin (2012) on ethical leadership, ethical climate and organisational citizenship behaviours demonstrated Cronbach’s alpha for the OCBI scale ranging from $\alpha = .74$ to .81 for each item.

In this thesis, respondents were asked to self-rate the frequency of their behaviours on a seven-point Likert-scale ranging from: (1) Never; (2) Rarely; (3) Occasionally; (4) Sometimes; (5) Frequently; (6) Usually; (7) Always. Sample items are ‘Willingly give your time to help others who have work-related problems’ or ‘Go out of the way to make newer employees feel welcome in the work group’.

### 3.4.6 Affective Organisational Commitment

Affective Organisational Commitment was operationalised in accordance to work by Allen and Meyer and colleagues (Allen & Meyer 1990; Meyer & Allen 1991; Meyer, Allen & Smith 1993; Meyer & Herscovitch 2001). The original Organisational Commitment Scale (OCS) comprised 18-items representing three dimensions: affective, continuance, and normative commitment (Allen & Meyer 1990). Allen and Meyer (1990) demonstrated that the three dimensions of commitment are conceptually and empirically separable.
This thesis focuses on affective commitment, hence utilises the six-item affective commitment scale developed and validated by Meyer, Allen and Smith (1993). Meyer, Allen and Smith (1993) conducted their study with two samples of nursing students in Canada (N=587) to investigate whether the three dimensions of commitment are undeniably distinguishable and could be measure with their respective subscales. Their confirmatory factor analysis of the covariance matrices in their study obtained maximum likelihood solutions using LISREL 7 (Jöreskog & Sörbom 1989). Their study proved that all three dimensions are correlated, but also distinguishable from one another. Each six-item subscale demonstrated the following standardised parameter estimates in the affective commitment subscale ranging from .410 to .749; in the continuance commitment subscale ranging from .454 to .700; and in the normative commitment subscale ranging from .580 to .718.

Meyer, Allen and Smith (1993) demonstrated the following reliability coefficient ($\alpha$) for affective commitment at the beginning of their study $\alpha=.87$, and at the end of their study .85. Previously, Meyer and Allen (1991) demonstrated alpha coefficients for affective commitment ranging from $\alpha=.74$ to .89. A more recent study by Leroy, Palanski and Simons (2012) utilizing the six item affective commitment scale demonstrated Cronbach’s alpha of $\alpha=.90$. Other studies utilising the affective commitment scale have demonstrated to have significant correlation with organisational outcomes (Meyer et al. 2002; Neubert et al. 2009).

In this thesis the OCS was utilised as a self-rater instrument to measure respondents’ feelings about their organisation. Respondents were asked to indicate on a seven-point Likert-scale how much they agreed or disagreed with the statements about their organisation ranging from: (1) Strongly disagree; (2) Moderately disagree; (3) Slightly disagree; (4) Neither agree nor disagree; (5) Slightly Agree; (6) Moderately agree; (7) Strongly Agree. Sample items are ‘I really feel as if this organisation’s problems are my own’ or ‘This organisations has a great deal of personal meaning for me’.

### 3.4.7 Subordinates In-role Performance

Subordinates’ In-role Performance was operationalised in accordance with work by Williams and Anderson (1991). This seven-item performance scale has been developed by Williams and Anderson (1991) extended the existing three-item performance scale developed by O’Reilly and Chatman (1986). This seven-item individual performance scale is part of a 21-item performance scale investigating In-role performance, Organisational Citizenship Behaviour Individual (OCBI) and Organisational Citizenship Behaviour Organisational (OCBO). The source of the additional items of performance are in
accordance to the definition on in-role behaviours being recognised as job requirements within organisations (Williams & Anderson 1991). Factor loadings range from $\alpha=.52$ to .88 for In-role performance factors, hence demonstrating reliability for the In-role performance scale. Williams and Anderson (1991) demonstrated that In-role performance is a different type of performance than OCBIs and OCBOs. Further, the factors used to demonstrate construct validity and reliability demonstrated that each of the items is tapping into only one of the three dimensions distinct from each other.

The In-role performance scale was used as a self-rater instrument to measure perceived performance from a subordinate’s point of view. Respondents were asked to rate the frequency of behaviour on a seven-point Likert scale ranging from Never (1), Rarely (2), Occasionally (3), Sometimes (4), Frequently (5), Usually (6), Always (7). Sample items are ‘Perform tasks that are expected of me’ or ‘Engage in activities that will directly affect my performance evaluation’.

3.5 Sampling

Sampling is considered as a way of controlling for reliability of information gathered by utilizing theories of probability (Deming 1966; Selvanathan et al. 2007). It is a methodical procedure to select fragments of a population in order to draw conclusions about the whole population involved in the study (Neuman 2011). Specifically, the aim is to select a sufficient number of the representative units for the whole population so that results can be generalised with regard to the whole target population (Sekaran & Bougie 2010). The advantages sampling offers are an efficient way of gathering data and a cost effective way to guarantee homogeneity for higher quality data information. Subsequently, the way in which a sample is chosen impacts on the accuracy of the results of the study and hence on the generalisability of results.

In this thesis, a non-probability sampling technique was applied using a purposive or judgmental sampling method (Neuman 2011; Sekaran & Bougie 2010; Weiers 2007). Non-probability sampling specifies a selection method in which the likelihood of units of a population being selected into the sample is unknown and follows a selection process that is to some degree subjective. It is also acknowledged that a shortcoming of a non-probability sampling technique is the weakness of providing representativeness (Creswell 2009). Therefore, a purposive sampling method refers was applied to select respondents for the study based on certain predetermined criteria, which accurately reflect the population that are related to the variables of interest in a research project (Deming 1966; Zikmund et al. 2013). Hence, the selection of the sample was based on the target population known as the best places to work for in Australia. To clarify, the variables of interest in this study were the
focus on a company's leadership and climate. To specify, the best places to work for in Australia were characterised by their leadership, organisational climate and overall workplace satisfaction of their employees. Therefore, a non-probability purposive sampling method was regarded as most suitable to ensure a selection of a sample that matches those selection criteria, which are also represented in the variables of this study.

3.5.1 Population

In general, a population defines a target group that represents an appropriate selection criterion for the phenomenon under study (Zikmund et al. 2013). In practice however, it is difficult to include all members of a population into one study. Therefore, to make a study feasible and still provide reliability and validity, a population is further divided into a representative sampling frame of the whole population. Hence, the sampling frame is a representation all units of the population from which a population sample is composed (Sekaran & Bougie 2010).

Research in thesis was conducted within Australia. The population sample of this study is defined as companies from the private sector within Australia known as the best places to work for. The ranking for these companies is based on an annually conducted survey by the well-established Australian business magazine, Business Review Weekly (BRW) (Business Review Weekly 2014). BRW reports on economy, business strategies, investments and entrepreneurship in Australia and compiles regularly various rankings on corporations with regard to certain criteria. For the purpose of this thesis, the target population was ranked according to a company’s leadership, culture, and valuation of employees resulting in a list representing the best twenty-five (25) places to work for in Australia.

The majority of these companies included on this list represent small and medium size enterprises (SMEs). According to the Roy Morgan’s State of the Nation Report 2012 for Australia, small businesses (19 employees or less) form almost 95.6% of all businesses in Australia. Medium size businesses (20 to 199 employees) represent only 4% while large companies (200 employees or more) represent only 0.4%. Further the report reveals that the majority of SMEs operate in the Constructions Industry followed by Professional, Rental and Real Estate and Agriculture. However, the focus of this thesis is not on SMEs, but on companies in general from the private sector representing a workplace that is considered as likeable to work for. In particular with regard to the private sector where company decisions are mainly made on the basis of creating profits, the selection of this particular population of best places to work for is expected to reveal insights on leadership practices that impact on employees’ workplace attitudes and performance in a positive manner.
Chapter 3 Research Methods

The overall population was further divided into the sampling frame. A sampling frame represents the targeted units of a population from which a sample is taken (Creswell 2009). In this study the aim of the sampling frame was to have individuals from various levels within an organisation, who have a direct superior they report to. To clarify, all respondents in this sample frame were considered as subordinates even though some individuals were holding a managerial / leader role. This selection criterion has followed the design of previous studies on leadership and organisational outcomes in order to be able to investigate multiple sources and hence minimize common method bias.

Initial contact to targeted companies was attempted via email (Appendix B) and telephone calls. The contacts of respective decision-makers, which includes for example Human Resource Managers or equivalent, was sourced either via the webpages of the organisations or respective organisational directories. The aim was to schedule meetings with respective decision makers of the identified organisations to discuss the study in general and the modalities of administering the study. Out of twenty-five (25) listed companies on the BRW List of twenty-five (25) most desirable places to work for in Australia, only two (2) companies responded to the request and agreed to be part in this study. Because of the poor response rate after initial contact was made and the research project discussed with respective decision-makers of the targeted organisations, a second round of follow up calls was conducted to enhance the sample size. Three more companies agreed to engage in the research project under the conditions that the link to the online survey would be distributed via their human resource management department to their employees. Each of the companies provided a panel of their choice of employees to participate in this research. The overall sample size reached 212 respondents. The industry sectors that are represented in the samples are IT Services, Finance, and Retail.

3.5.2 Sample Size

In order to ensure reliable results from the selected sample an appropriate sample size is required. A sample size determines the number of units required to obtain reliable findings within a study (Neuman 2011). Also, sample size is a key indicator for sufficient statistical robustness of results in order to obtain generalisability and reduce potential statistical errors. A census represents a sample size that has a perfect accuracy level, however it is fairly difficult to achieve such a high accuracy level due to various contingencies within a data collection process (Sekaran & Bougie 2010; Weiers 2007). A satisfactory sample size therefore, can be accurately represented as a small percentage of the overall population size (Hair et al. 2013).
There are several ways to determine the required sample size for a study. According to Roscoe (1975) as a rule of thumb a sample size of between 30 and 500 cases is considered as appropriate for the majority of studies. However, Green (1991) indicates that with regard to statistical power of a study, the study’s effect size, alpha level, sample size and number of predictors needs to be considered (Neuman 2011). To clarify, statistical power can affect the robustness and generalisability of the research results. Therefore, an acceptable representative sample size for the study is required. Considering that this thesis applies a non-probability purposive sampling method a rule of thumb is acceptable to determine the required sample size.

The determination of the minimum required sample size for this thesis follows the formula in accordance to Green (1991) and as recommended by Tabachnick and Fidell (2007) to examine correlations and regression. The recommended sample size N should equal 50 cases plus eight times the number of independent variables (IV):

\[ N = 50 + 8*IV \]

It is acknowledged that this approach has limitations. First, this formula reaches its limits when samples are fewer than 100 cases as the width of errors in calculating correlations generates an undesirable low power irrespective from the ratio. Second, this formula does not account for effect size. Third, utilising this formula does not account for the significance level of the study.

In this thesis, the sample size of respondents to be sought was estimated at 76. That is based on authentic leadership and ethical leadership being regarded as the main independent variables. However, it has to be noted that this sample size would be considered as small. The final sample size collected incorporated 127 completed survey responses, which is regarded as sufficient for the purpose of this thesis. In order to achieve this final sample size, the author was reaching out to prospective respondents via three successive follow up email reminders seeking support from prospective respondents to take part in the research.

3.6 Ethical consideration

Prior to data collection ethics approval was obtained from RMIT Human Research Ethics Committee (#18736) following the guidelines as outlined by RMIT University in the Ethics Guideline Procedures. Therefore, a detailed description of the study including research design and survey instrument was sent for approval to the RMIT Human Research Ethics Committee (see Appendix A). It is the researcher’s responsibility to ensure that no harm will be caused to respondents participating in the study. Furthermore, the researcher is
required to ensure that information obtained from the respondents is kept strictly confidential and will be stored securely. Moreover, the researcher must communicate and explain the research aim and purpose to the respondents in a clear manner without misrepresenting the nature of the intended research.

Following the guidelines of the RMIT Human Research Ethics Committee guidelines, confidentiality of results has to be maintained during and after the study. Additionally, no identifiable information must be disclosed in order to ensure anonymity and protection of privacy of participating companies and respective individuals in this study. Specific attention was directed to the anonymity of personal information of participating companies and respective individuals. To ensure all above-mentioned requirements are met the following actions were undertaken by the researcher.

Before any data collection could be conducted with any of the participating organisations, the researcher ensured that authorisation to conduct data collection within the participating organisation was granted by the respective decision makers in charge. Three out of five participating organisations requested a confidentiality deed to be signed by the researcher, the remaining two participating organisations informally agreed upon participating in the research via email correspondence. The purpose of the confidentiality deeds was to ensure that all information gathered from or exchanged with the organisation was to be kept confidential. Once authorisation was granted the data collection process was initiated.

Each respondent, allowed by respective decision-makers of each participating organisation, was contacted via an invitation email from the researcher (Appendix C). This email contained information, which introduced and outlined all necessary information to ensure full transparency about the purpose and aim of the research project. Of major importance to this research in this thesis was to maintain confidentiality of respondents. The maintenance of confidentiality is critical to solicit truthful and sincere responses.

The invitation email included a link to the Participant Information Sheet and Consent Form (PICF) (Appendix D). This PCIF contained all essential information about the research and the rights of the participant stating the voluntary nature of the survey, where participants have the right to withdraw at any time if they wish to do so without providing any reasons for their withdrawal. Additionally, the PCIF outlined that all responses would be kept confidential, and no identifiable information of individuals or the organisation would be disclosed.

The author utilised the survey software Qualtrics, which is a service provider for online surveys. Qualtrics is recommended by the RMIT Human Research Ethics Committee and complies with the required national standards with regard to confidentiality and data security. To clarify, Qualtrics data security policies are compliant with industry standards for
using secure IP sockets, with the latest encryption technology. Additionally RMIT University has their own secure routers and firewall to safeguard stored data from unauthorised access. Having these data security policies in place should accommodate respondents to feel confident that any data collected is under the securest of safekeeping and confidentiality.

The invitation email further contained an anonymous link to the online survey. The first page of the online survey consisted of the PCIF. Hence, before respondents could take the survey, they had to read the PCIF and consent was given by clicking the next button to start the actual survey. This invitation email was sent out through the Qualtrics email software, which enabled the researcher to send out this email to a predetermined panel of respondents without disclosing any identification of panel members to each other.

All responses obtained from the online survey were recorded and stored on the Qualtrics file server during the data collection process. Later storage of all responses from the online survey were transferred onto a password secured private drive of the researcher at a secure RMIT University hosting computer. Only information relevant to the research was collected, all data was confidential and only known to the researcher, data was stored in a coded format and this respective data is stored in a different password secured location other than the file containing the data, and any data will not be further processed in a manner incompatible with the research purpose.

All respondents were given the opportunity to contact the researcher at any time during or after the data collection process if any concerns did arise with regard to participation. Contact details of the researcher were included in the invitation email and the PCIF. Additionally, contact persons in each participating organisation had contact information for the researcher. No issues did arise before, during or after the data collection process and hence respondents did not contact the researcher with any concerns.

3.7 Mode of Data Collection

The methods to collect and analyse the data for this thesis followed an explanatory method employing one survey instrument (Creswell 2009; Easterby-Smith, Thorpe & Lowe 2002; Neuman 2011; Zikmund et al. 2013). To clarify, explanatory research aims at identifying cause-and-effect relationships of independent, dependent and intervening variables. With regard to this thesis, the aim is to analyse the effects of perceived authentic leadership behaviour and ethical leadership behaviour from a subordinates’ point of view and its impacts on subordinates' workplace attitudes and performance. Therefore, the research method of this thesis can be categorised as explanatory in nature to test the developed conceptual model with the respective hypotheses.
In this thesis, data collection was conducted through Qualtrics, a web-based licensed self-administered online survey software provider. The online survey utilised in this thesis was created by the author. In general, surveys are considered as an effective and efficient method for gathering data in a relative short amount of time from large sample sizes and hence have been used widely in quantitative research designs (Collis & Hussey 2003; Cooper & Schindler 2008; Neuman 2011; Zikmund et al. 2013). Besides, surveys are regarded as a sufficient tool to acquire insights into respondents' attitudes, beliefs, orientations and perceptions (Sarantakos 2005).

The self-administered survey is a widely used method to collect data as it has low demands time-wise, financially and with regard to administration of the survey (Neuman 2011; Zikmund et al. 2013). Further, a self-administered survey offers respondents flexibility in terms of completing and returning the survey at their convenience in a given time frame. Therefore, the utilization of a survey in this thesis is most appropriate because this thesis is based in a positivist paradigm to examine causal relationships between independent, dependent and intervening variables in the form of gathering numerical data from a relative large number of respondents.

Initial contact to targeted companies was attempted via email and telephone calls. The contacts of respective decision-makers, which includes for example Human Resource Managers or equivalent, was sourced either via the webpages of the organisations or respective organisational directories. The aim was to schedule meetings with respective decision makers of the identified organisations to discuss the study in general and the modalities of administering the study. Because of a poor response rate after initial contact was made and the research project discussed with respective decision-makers of the targeted organisations, a second round of follow up calls was conducted to enhance the sample size. Out of twenty-five (25) listed companies on the BRW List of twenty-five (25) most desirable places to work for in Australia, only two (2) companies responded to the request and agreed to be part in this study. Three more companies agreed to engage in the research project under the conditions that the link to the online survey would be distributed via their human resource management department to their employees. Each of the companies provided a panel of their choice of employees to participate in this research. The industry sectors that are represented in the samples are IT Services, Finance, and Retail.

After each organisation agreed to participate and the researcher assured that confidentiality would be maintained, that is no information provided by the organisation will be used in any other way but purely for research purposes, a current email list of employees was given to the researcher. The researcher used the email addresses provided to him to distribute the online survey to each prospective respondent from each participating organisation. The period of initiating the data collection until the end of data collection was
from November 2014 until May 2015. During this period of online survey administration no problems occurred and no prospective respondents had to contact the researcher. After five months, during which the initial and two subsequent follow-up invitations for participation were sent out to all respondents, the overall sample size reached 212 respondents.

3.8 Validity and Reliability

The aim of any scientific research, whether quantitative or qualitative in nature, should be to represent truthful finding with maximum limitation of errors. To reiterate, this thesis was situated in the positivist paradigm and hence reality was considered as objective and represented as a singular independent truth. The aim in this thesis was to look for regularities and cause and effect relationships between variables in order to generalise findings and to be able predict future outcomes. Therefore, to demonstrate and maintain academic rigour it was critical to investigate for reliability and validity of the research process (Roberts 2006).

Both, reliability and validity represent approaches to determine and communicate the thoroughness of the research process and the accuracy of research results (Stone-Romero 2002; Zikmund et al. 2013). Reliability is characterised as consistency and stability of measurement over time and various conditions and hence indicates the degree of bias-free measurement. Validity is characterised as the extent to which a measurement instrument accurately measures the construct under study. In other words, reliability and validity are methods to ensure that the research process is free from bias or error, and hence to enhance data integrity.

In order to address reliability concerns, this thesis utilised, as previously discussed, well-established and widely published measurement scales. All scales utilised in this thesis have reported stability of measure in previous research within various contexts. Furthermore, for this thesis the internal consistency of measurement scales had to be addressed. The aim was to examine whether there was uniformity in how respondents answer each item of each respective construct. Therefore, the statistical procedure of estimating Cronbach’s alpha coefficient was applied to check for internal consistency of measurement scale items.

Validity is generally distinguished between internal and external validity (Babbie 2015; Neuman 2011; Roberts 2006; Zikmund et al. 2013). To clarify, internal validity refers to the research process and how accurate findings reflect causal relationships between variables; external validity refers to the extent to which research findings can be generalised to different setting or people. Hence, potential threats to validity were addressed in this thesis. In order to address concerns with content validity, a pre-test and a pilot study were
conducted prior to the data collection. The aim was to investigate and uncover any shortcomings with logical and practical aspects of the developed survey instrument. Additionally, concerns with construct validity were addressed by executing correlation analysis and factor analysis for the utilised measurement scales. In order to address concerns with external validity generalisation of results is limited to the target population of Australia’s most desirable places to work as defined by the Business Review Weekly List. The value of this thesis and its research design is to obtain a deeper knowledge on the relationships whether influencing relationships exist and whether moderating or mediating variables had any anticipated effect on the relationships between the independent variables and dependent variables.

A further concern for accuracy of measure and elimination of respondents’ bias is to minimise common method variance. Therefore, to minimise common method variance, this thesis follows techniques suggested by Podsakoff, MacKenzie and Podsakoff (2012). The first step to eliminate common method variance is to prevent the occurrence of vague item characteristics to cause bias through ambiguous phrasing of the items. Instructions were written in an understandable every day non-academic language. The aim was to minimize difficulties for respondents to comprehend the required task and respond as accurately as possible. Therefore, the instructions for each battery of questions used concise but clear language that would be easily understood by all respondents. In addition to that, a Pre-Test was conducted before the main survey was distributed in order to ensure that instructions are clearly and concisely provided and if necessary be revised. The Pre-Test is further discussed in section 3.9 in this chapter.

The second step to enhance respondent motivation to provide accurate responses included a detailed participant information sheet and consent form, which was distributed in combination with the survey. This participant information sheet and consent form stated the purpose of the study and more importantly ensured respondents’ anonymity and strict confidentiality of their given responses to the survey items. This is because this thesis investigates ethics-related matters, which some respondents might have regarded as a potentially sensitive matter due to personal concerns at the work place should information about responses be made available to superiors.

A further step to ensure a seamless flow of the survey instrument and engagement of respondents the arrangement of survey items plays a critical role (Podsakoff, MacKenzie & Podsakoff 2012). Each of the measurement items forms a reference frame for subsequent survey items and hence can cause an item priming effect (Salancik & Pfeffer 1977). Therefore, the author provided a proximal separation of predictor and criterion variables by dividing the survey instrument into separate sections accordingly.
A further potential bias that is likely to occur is social desirability bias where respondents might provide answers in order to appear more socially admirable (Podsakoff, MacKenzie & Podsakoff 2012). This thesis investigated leadership behaviours rated by subordinates and hence subordinates were concerned that information might leak to their respective supervisors. In order to minimise evaluation apprehension and the social desirability effect, the author clearly indicated in the instructions of the survey instrument that answers are not based on right or wrong but items should be answered as truthfully as possible. Furthermore, respondents were assured that confidentiality and anonymity is of highest importance and will be maintained before, during and after data collection.

3.9 Pre – Test

A Pre – Test is conducted to strengthen the content validity of the developed survey instruments (Neuman 2011). This, in turn, can assist to reveal any deficiencies with logic and structure of the developed survey instrument (Zikmund et al. 2013). Therefore, the aim of the pre – test was to revise the overall structure of the survey instruments in terms of logical and practical aspects in order to assess for and minimize possible errors (Cooper & Schindler 2008). Specifically, respondents taking the pre – test can advise on issues with regard to clarity of instructions or possible confusion of questions. Further, conducting a pre – test provides information on the likely engagement through the structure of the survey but also to find out when fatigue starts to develop from a respondent’s point of view (O'Leary 2010). Also, a pre – test offers information on estimated length and actual time spent by the respondents to complete the survey.

For the purpose of the pre – test a convenience sampling method was used where a small group of PhD students within the School of Management at RMIT University was selected to complete the survey in paper and pencil format. During September 2014 and October 2014, a small group of twelve PhD students were asked to take the survey and review the whole survey instrument. This group of PhD students was considered as appropriate because these PhD students were in their second and third year into their PhD research in the field of Management and they were familiar with the field of study and have knowledge on research design due to their own PhD research. This survey used in the pre-test included the Participant Information Sheet and Consent Form and all relevant measurement scales.

The survey instrument was distributed to the respondents indicating that this version of the survey is still a trial version and under revision and constructive feedback is greatly appreciated. After the respondents in this convenience sample completed the pre –test survey, they were questioned individually on their experience and recommendations.
Specifically, they were asked to provide feedback on issues with regard to clarity of instructions, structure of items and time spent on the survey.

The outcome of the pre – test revealed some practical and structural issues. The overall comments entailed amending task descriptions and instructions. Further, it was suggested by all pre – test respondents to change the sequence of the sections in the survey instruments in order to avoid response fatigue. Therefore, in order to improve on internal validity, amendments were made accordingly. With regard to the time spent on completing the survey the average time spent was 25 minutes.

3.10 Pilot - Study

Following the pre – test a pilot study was conducted with a small sample of representatives of the targeted population. The aim of the pilot study was to determine whether the survey instrument was suitable for prospective respondents from the target sample. Specifically, the researcher was interested in the feedback on logical sequence and coherence for prospective respondents. In addition to that, the pilot study was used to evaluate if the instructions were sufficient and easily understandable.

The survey instrument was distributed to a convenience sample of nine industry experts to test the practical suitability. Equally, the survey instrument was part of the discussion held with the respective Head of Human Resources at the participating organisations. The pilot study revealed similar issues to the pre – test. Even though task descriptions and instructions were amended, respondents in the pilot study suggested that task descriptions should be clearly stated and instructions should be kept to the minimum. To clarify, the main feedback provided was that the survey is an additional task to the day-to-day tasks that need to be done by employees and hence keeping the respondents engaged with clear short instructions is crucial.

The initial survey instrument was developed as a hard copy version. In the meetings and conversation with the Human Resource Managers from the participating organisations a request was put forward to have an online version of the survey instrument. The reason given by all Human Resource Managers independently was that an online survey would be more convenient to administer for the company and its employees. An additional reason for advocating online surveys was that because some of the organisations had operations and departments spread across Australia and internationally. Thus, to gain access to a large number of participants all Managers from the participating organisations supported the idea that an online version of the survey would be more suitable. Resulting from this conversation an online version of the initial hard copy survey was replicated and made available online.
Chapter 3 Research Methods

With regard to this thesis, the main communication channels with all participating organisations are email and other online channels. Thus, the accessibility to members of the organisation is the greatest through online channels. In general, there is an increase in the utilisation of internet based tools to conduct scientific research (Van Selm & Jankowski 2006). Especially in areas where populations are technologically savvy and utilise various online communication channels, there are advantages such as cost saving, ease of delivery or speed of response, in utilising an online survey (Sills & Song 2002). However, the researcher did indicate that the response rate might be lower, than with hard copy versions of the survey instrument (Fan & Yan 2010). In order to respond to this issue, the study and the researcher were introduced by the Human Research Managers via an initial email stating the purpose of the online survey and the collaboration with the researcher, which contributed to the acceptance rate to participate in the study.

The finalised version of the survey comprised three sections with sixty-eight (68) items in total and is made up of five demographic items and sixty-three Likert-scale items. The time that was estimated to complete the survey instrument was twenty (20) minutes.

3.11 Mode of Data Analysis

This thesis utilised a survey instrument consisting of three sections collecting quantitative data. The data analysis of quantitative data was undertaken in three main stages involving data screening, exploratory factor analysis (EFA) and linear regression and hierarchical multiple regression analysis using SPSS 23.0. Hence, data analysis included descriptive statistics and advanced statistical analysis. Therefore, all raw data therefore was entered into the statistical software SPSS 23.0. In the following sections procedures of the data analysis process are discussed while in chapter 4 ‘Data Analysis' results are presented and discussed.

3.11.1 Data screening

The data screening process in this thesis followed the process recommended by Pallant (2011) and results are presented in detail in Chapter 4 ‘Data Analysis’. The purpose of data screening is to ensure that data entered for analysis is free of error and the distributions of variables are acceptable with regard to the study (Coakes 2013). Therefore, the data set was assessed visually for missing data and data entry error and in addition to that through the Little’s Chi-square test utilising the statistical software SPSS 23.0. The reason for this is that errors and major deviations in the distributions of variables can have an impact on the validity of results produced in the analysis of the data (Pallant 2011).
Mostly errors occur when values for any of the variables are not in the range of the given possible score. Therefore, the frequencies for each of the variables were assessed. Further, the distribution of values of the variables should not deviate dramatically. Also an important consideration for running a regression analysis was the assessment of the data set for multicollinearity. Multicollinearity occurs in the event of two independent variables being highly correlated with the correlation coefficient $r = 0.9$. A further consideration was to ensure that missing values are replaced or omitted. In the case of missing values cases were either excluded from the study or missing values were substituted with a mean value for that particular variable.

### 3.11.2 Preliminary analysis

Before data analysis can be conducted, it is required to assess the data set for missing or incomplete values (Hair et al. 2013). Incomplete or missing data impacts on significant levels of a statistical analysis and hence on the generalisability of results (Tabachnick & Fidell 2007). Therefore, besides a thorough manual data screening process for missing data, the data set was assessed with the Little’s Chi-square test within the SPSS software for missing data. This test provides information whether data is missing randomly or whether there is an observable pattern in missing data.

A further step in the preliminary data analysis is to obtain descriptive statistics on the demographics characteristics of the sample in the research. Respondents were requested to provide information on their demographic characteristics. These demographic characteristics included respondents’ age, gender, organisational tenure, education level, and role in the organisation. These characteristics were assessed with descriptive measures including frequency tables, mean comparisons, and standard deviation. Results were illustrated in tabulation format, histograms for normalcy of distribution, skewness and kurtosis, and scatterplot graphs to assess for absence of heteroscedacity.

Furthermore, descriptive statistics provided important information on the normality of the distribution (Neuman 2011). Normality of distribution can be explained by a data sets skewness, which provides information on the symmetry of the distribution; and a data sets kurtosis, which provides information on the relative peak of the data. Therefore, means, standard deviations, skewness and kurtosis were assessed and illustrated in a tabulation format. Additionally, a graphical analysis of histograms and normal probability plots was conducted.

A further step in preliminary data analysis is the investigation of outliers (Pallant 2011). Outliers indicate whether the data set illustrates individual scores that are significantly different to the overall data set. In this thesis outliers were assessed through computation of
standardised z-scores. Additionally, it is essential to investigate the data set for homoscedasticity, which is an indicator of a dependent variable displaying uniform levels of variance across a series of independent variables (Hair et al. 2013). This was assessed through visual analysis of graphical illustration of data in scatter plots.

Prior to running any statistical analysis it is required to run a reliability test for each of the employed measurement scales. Reliability tests are indicators for internal consistency of a measurement scale (Zikmund et al. 2013). The Cronbach’s coefficient alpha $\alpha$ is the most commonly used indicator to assess reliability of a multiple-item scale and signifies internal consistency of a measurement scale. Therefore, the Cronbach’s coefficient alpha $\alpha$ scores for all measurement scales comprising the survey instrument of this thesis were assessed.

Lastly, because the survey instrument used metric data to rate perceptions of respondents, the Pearson’s coefficient ($r$) was computed. The Pearson’s coefficient ($r$) is utilised to identify the strength and the direction in the relationship between two variables. Furthermore, the value of Pearson’s coefficient ($r$) determines whether a significant association exists but it is important to note that Pearson’s coefficient ($r$) does not provide any information on cause and effect between variables. The most common categorisation for values to determine the Pearson’s coefficient ($r$) follows Guilford (1936) interpretation of significant correlations (Ozer 1985; Van Aswegen & Engelbrecht 2009). Absolute values for the Pearson’s coefficient ($r$) are illustrated in Table 3.3.

Table 3.3: Absolute values for Pearson’s coefficient ($r$)

<table>
<thead>
<tr>
<th>Pearson’s coefficient ($r$)</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$&lt; 0.19$</td>
<td>Slight; almost no relationship</td>
</tr>
<tr>
<td>$0.20 - 0.39$</td>
<td>Low correlation; definite but small relationship</td>
</tr>
<tr>
<td>$0.40 - 0.69$</td>
<td>Moderate correlation; substantial relationship</td>
</tr>
<tr>
<td>$0.70 - 0.89$</td>
<td>High correlation; strong relationship</td>
</tr>
<tr>
<td>$0.90 – 1.00$</td>
<td>Very high correlation; very dependable relationship</td>
</tr>
<tr>
<td>$\geq 0.30$</td>
<td>Practically significant relationship</td>
</tr>
</tbody>
</table>

Source: Van Aswegen & Engelbrecht (2009, p. 5)

3.11.3 Exploratory Factor Analysis (EFA)

Exploratory Factor Analysis (EFA) was conducted to assess variance and covariance associated with the set of variables. Exploratory Factor Analysis (EFA) determines how many common factors influence a set of measurement items (Zikmund et al. 2013). In other words, EFA provides information to determine how the factor structure appears according to how participants respond. Accordingly, the purpose for conducting an EFA is primarily to reduce data that is to drop factors that load low and thus do not contribute to the set of measurement. However, the aim is to retain the original variance as much as possible.
In this thesis, all measurement scales were extensively utilised in previous research and well established in various contexts. Previous research demonstrated reliable factor loading in all of the adopted measurement scales. However, only limited research was conducted in the context of the private industry in Australia and therefore in order to ensure significant factor loadings in this thesis for the Australian context EFA was conducted.

EFA places great emphasis on eigenvalues as indicators of dimensionality and hence all factor loadings for every item on every factor are estimated. In order to decide on how many factors to retain, this thesis follows recommendations by Hair et al. (2013). Factors that load less than 0.3 are to be removed during the EFA. Further, factors with eigenvalues less than 1.0 should be dropped. Eigenvalues determine the variance in all of the values designated to each factor. Factors with low eigenvalue contribute only little to the clarification of variances in variables and hence can be regarded as redundant. Furthermore, variance of factors should account for at least 50% of the total variance. In addition to statistical analysis of eigenvalues, screen plots and references to prior research was considered as relevant for decisions to either retain or drop certain factors.

Results obtained from a factor analysis assist to examine construct reliability and variance extracted in order to calculate combined scores as well as to examine for factor validity (Hair et al. 2013). To clarify, construct reliability relates to the measure of stability and internal consistency of the measurement tool for the observed variable. The aforementioned Cronbach’s coefficient alpha $\alpha$ is the most commonly used indicator to assess reliability of a multiple-item scale. Cronbach’s alpha $\alpha$ scores ranging 0.80 to 0.95 indicate very good reliability, scores ranging from 0.70 to 0.80 indicate good reliability, and scores ranging from 0.60 to 0.70 indicate fair reliability and signifies internal consistency of a measurement scale (Nunnally 1978). Therefore, the Cronbach’s coefficient alpha $\alpha$ scores for all measurement scales comprising the survey instrument of this thesis were assessed. Average variance extracted gauges the extent of variance captured by an observed variable in relation to the variance in consequence of measurement errors (Fornell & Larcker 1981). Further clarification and discussion on factor analysis is provided in Chapter 4 of this thesis.

3.11.4 Hierarchical Multiple Regression Analysis

In this thesis the technique of hierarchical multiple regression analysis was applied. It is considered as the most appropriate approach to test for the main hypotheses because of a diverse number of variables that needed to be measured and analysed in a specific order. Hierarchical multiple regression is predominantly used as a strategy for data analyses, which is aimed at explaining or predicting a dependent variable through a set of independent variables (Petrocelli 2003). The regression coefficient implies the comparative significance of
each independent variable in the anticipated prediction of the dependent variable (Hair et al. 2013). Specifically, hierarchical multiple regression encompasses theoretical consideration in which order the independent variables are set into the analysis.

The main purpose of this thesis was to investigate how organisational outcomes such as an organisation’s ethical climate, employees’ workplace attitudes and performance are influenced by leadership behaviours. With hierarchical multiple regression analysis it will be assessed whether the sequential addition of variables regarding leadership behaviour, that is authentic leadership and ethical leadership will impact on the each of the dependent variables ethical climate, organisational citizenship behaviour, organisational commitment, and performance outcomes. Therefore, based on the proposed research model in Figure 2.2 in Chapter 2 the predictor variables will be entered in a specific order for the application of a hierarchical multiple regression analysis.

To illustrate the entered order of predictor variables for predicting performance outcomes from employees, the following order is applied:

1. Demographic characteristics
2. Authentic Leadership behaviours
3. Ethical Leadership behaviour

According to Cohen et al. (2003) this priori order of predictor variables establishes a suitable logic starting with constant individual characteristics like demographics and going to more specific and dynamic factors like role aspects, work climate, attitudes and behaviours.

In this thesis the main predictor variables are authentic leadership and ethical leadership.

### 3.11.5 Approach to Testing Mediation and Moderation effects

In addition to investigating the main relationships of the developed hypotheses, additional hierarchical multiple regression analysis will assess the moderation effect of ethical leadership and mediation effects of ethical climate. A moderating or mediating effect implies that the relationship between the independent variable and dependent variable varies as a result of a third variable known as moderator variable or mediator variable (Baron & Kenny 1986). To clarify, moderation effects impact on the strength and/or direction of the influencing relationship between an independent variable and a dependent variable. With regard to this thesis, it was argued that ethical leadership complements the effectiveness of authentic leadership on organisational outcomes. A mediation effect occurs when the influence of an independent variable is transmitted through an intervening variable (Hayes & Preacher 2014). With regard to this thesis it was argued that ethical climate transmits the effectiveness of authentic leadership onto organisational outcomes.
outcomes. Therefore, this thesis follows the strategy as suggested by Baron and Kenny (1986) and further developed by Hayes (2009, 2013) to test for moderation of ethical leadership and mediation effects of ethical climate.

The hypothesised moderation effect of ethical leadership on the relationship between authentic leadership and individual outcomes was according to the literature review in Chapter 2. In order to test a moderation effect the moderator variable was created by multiplying the variable for authentic leadership and ethical leadership, which computed the moderation variable resulting from the interaction effect of both variables. In a moderation model, effects are assessed with multiple regression analyses where all independent variables are entered together with the computed interaction variable. Moderated regression analysis provides the most appropriate method to analyse interaction effects between predictor and criterion variables (Fairchild & MacKinnon 2009).

The hypothesised mediation effect of ethical climate on the relationship between authentic leadership and individual outcomes was according to the literature review in chapter 2. This thesis applied the ordinary least square (OLS) regression process established by Baron and Kenny (1986) to test for mediation effects utilising a Process macro for SPSS developed by Hayes (2013). Baron and Kenny (1986) conceptualised the mediation process as the impact of a mediating variable in the relationship between an independent variable and a dependent variable by partially or completely accounting for that relationship. Further, as a prerequisite for a mediation process to occur, significant pair-wise relations between the direct relationships of independent and dependent variable must exist as well as significant relations between the sub-components of the indirect relationships of independent variable and mediator variable and mediator variable and dependent variable. In order to assess a partially or complete mediation effect the following four actions have been undertaken:

a) Assessing the significance for prediction of independent variable to dependent variable applying regression
b) Assessing the significance for prediction of independent variable to mediator variable applying regression
c) Assessing the significance for prediction of mediator variable to dependent variable controlling for the independent variable. The independent variable and the mediator variable are used as predictors while the dependent variable is used as outcome variable in a multiple regression
d) In case of a fully mediated relationship of the independent variable and dependent variable through a mediator variable, the effect of the independent variable is supposed to be zero, when controlling for the mediator variable. In case of a partially mediated relationship the effect is not eliminated but only reduced
In addition to the steps for testing mediation effect as indicated previously, the method of bootstrapping was utilised in SPSS to identify the significance of the indirect effect (Preacher, Rucker & Hayes 2007). Bootstrapping is frequently used and represents a non-parametric method providing support for investigating indirect effects between variables without violating the assumption of multivariate analyses (Hayes & Preacher 2014). To clarify, bootstrapping utilises re-sampling methods to derive estimates of standard errors and confidence intervals and creates a sample distribution as a surrogate of the population. This sample distribution is drawn from the original sample size \( n \).

3.12 Summary

This chapter has discussed the research design of this thesis and provided justification for respective data analysis that is regarded as most appropriate for the aim of this thesis. It was clarified that the most suitable paradigm for this thesis is the positivist paradigm because this thesis is aimed to investigate regularities and cause and effect relationships between variables. Therefore this thesis follows a quantitative research design to empirically test hypothesis and generalise findings in order to predict outcomes expected in the future.

Further, the mode of data collection was clarified justifying the use of a survey instrument. Additionally, the measurement scales comprising this survey instrument were discussed. An overview about the population and the sample was given. Lastly, the method employed for data analysis was discussed. The following Chapter 4 ‘Data Analysis’ presents the findings for this thesis.
CHAPTER 4 – DATA ANALYSIS

4.1 Introduction

This chapter presents the analysis of the data gathered for this thesis. First, this chapter begins with a discussion on preparation of the data file. Second, preliminary analyses are provided on descriptive statistics, and reliability testing of the scales. Finally, this chapter discusses the exploration of relationships among the variables used for this thesis from utilising a hierarchical multiple regression analysis.

4.2 Data Screening and data preparation

Before any data analysis can be conducted, it is critical to assess the adequacy of the data that was entered into any statistical software to ensure it is free of error (Pallant 2011). This process data screening is an essential step in preparing the data set for hierarchical multiple regression analysis (Hair et al. 2013). Incomplete or missing data is a frequent problem for data analysis, which results in inflated fit indices, convergent failures, and biased parameters (Tabachnick & Fidell 2007).

Further, the data set needs to be examined for normality distribution and skewness of the data to detect any influential outliers (Hair et al. 2013). Normality distribution, which includes a test for skewness and kurtosis, is essential for model estimation methods because of the assumption of normality. In fact, non-normal distributions can result in underestimated standard errors. The process of data screening was conducted by investigating for missing data, significant outliers, and distributional characteristics. Furthermore, prior to model testing, the data entered into the statistical software was examined for violations of the assumptions of the statistical inference process for multivariate analyses. Following Hair et al. (2013), the research variables were examined for normality of distribution, homoscedasticity and linearity using histograms, stem-and-leaf plots, boxplots, normality probability plots, and detrended normal plots. For this thesis the data analysis was conducted utilising the statistical software SPSS Version 23.

4.2.1 Missing Data

Incomplete or missing data affects results and hence the generalisability of findings from a conducted study (Tabachnick & Fidell 2007). Further, incomplete or missing data impacts on the overall sample size available for analysis, which, in turn, impacts on the significant levels of statistical analyses that rely on sample size. There are no determined values for an acceptable amount of incomplete or missing values, however an overall
amount of 10% in incomplete or missing data can be considered as low.

Two factors can be considered as causes for incomplete or missing data, internal factors to a respondent’s motives and external factors to a respondent’s motives (Hair et al. 2013). With regard to internal factors, a respondent might have reservations to provide answers to some of the questionnaire items because of concerns about the sensitive nature of the questions. With regard to external factors, data might have been entered incorrectly into the analysis software and therefore errors occur which are outside of the influence of respondents. In some instances where cases contain a high level of missing values, such cases need to be dropped from the data analysis (Hair et al. 2013; Schafer & Graham 2002). Therefore, a primary concern is to detect any patterns that indicate the reason behind missing data in the data set before removing cases with incomplete or missing values. In other words, identifying if the data is missing randomly or whether there are specific patterns identifiable, which indicate possible response bias. In addition, it is important to assess how frequent is the occurrence of missing data in order to determine randomness or actual patterns for missing data. With this in mind, the data screening process aims to look for poorly completed or not completed questionnaires in order to ensure a complete available data set for analysis.

Precautions to prevent non-responses were taken into account prior to conducting this study through a personalised email to each respondent outlining the purpose of this study and assuring a low risk impact on privacy matters. Additionally, a Participant Information Sheet and Consent Form was provided assuring confidentiality and anonymity for participation (see Appendix C). Further, it was ensured that each task within the survey contained clear instructions so that respondents clearly understood the requirements for process in this study.

Incomplete or missing data was assessed through the Little’s Chi-square test within the SPSS software to analyse whether values were missing completely at random (MCAR). MCAR occurs when missing values of a variable are caused by random factors that are unrelated to both the observed variable and the overall variables in the observation (Enders 2003). Hence, the Little’s Chi-square test aims to identify whether the observable pattern for missing values is randomly distributed by comparing the actual pattern of missing values with the expected pattern of missing values (Hair et al. 2013). A significance level of the Little’s Chi-square test that is greater than $p>.05$ indicates that values are missing completely at random.

A total of 127 responses were recorded. These responses were examined for accuracy and missing values before the data set was checked for multivariate statistical assumptions of normality, homogeneity of variance, multicollinearity and outliers. Preliminary data screening resulted in dropping 15 cases from the data set due to incomplete
questionnaire responses leaving 112 valid cases for the study. The Little’s Chi-square test for the remaining 112 cases revealed a significance level of $p=.57$ exceeding the significance level of $p>.05$, which indicated that all incomplete or missing values in this remaining sample were missing completely at random.

Following the recommendation by Schafer and Graham (2002), in order to address the concern of missing values, the method of ‘Expected-Maximization (EM)’ was employed to replace missing values in the data set utilising the EM algorithm in SPSS. The EM method is regarded as yielding the most accurate reliability estimates and hence a frequently applied method in the process of data analysis to account for missing values in the data set (Enders 2003). The benefit of EM is that this method overcomes bias errors generated through techniques such as mean substitution or regression substitution. This two-step process estimates the best possible value of the missing data and through estimation of means, standard deviations or correlations assumes and replaces the missing value. In line with this, missing values in the data from this study were included through imputation of the missing value using the ‘Expectation Maximization’ algorithm in SPSS. In this thesis, the amount of missing values was less than 2% across all 112 useable cases and the missing values were spread randomly. Hence, it was possible to perform the EM in order to replace the missing values in this study.

### 4.2.2 Sample demographics

A quantitative research design was used in which data were gathered through an online questionnaire, which was distributed among organisational members from companies in the private sector. These companies were identified by the Business Review Weekly (Business Review Weekly 2014) as ‘Top 25 workplaces to work for’ characterised as being committed to delivering an innovative and ethical work environment in Australia. These companies were regarded as medium to large size companies with employee numbers ranging from 113 employees to 1570 employees.

Initially, 25 organisations were approached with an invitation to participate in this research project. Of these 25 organisations, five (20%) organisations agreed to participate in the research representing an overall sample size of 224 respondents. These 224 valid respondents characterised employees from all levels of the participating organisations. These respondents were contacted and invited to participate via email correspondence. From these 224 respondents, overall 127 responses were recorded and 112 useable cases were identified, providing a 50% response rate. A discussion on the sample characteristics is presented in the following sections below. Information is provided on respondents’ gender, age, educational level, organisational role and organisational tenure.
The total number of valid responses in this study was 112. Of these 112 responses, 70 (or 62.5%) were male and 42 (or 37.5%) were female respondents. Descriptive statistics for respondents’ gender is presented in Table 4.1.

**Table 4.1: Gender of Respondents (n=112)**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>70</td>
<td>62.5</td>
<td>62.5</td>
<td>62.5</td>
</tr>
<tr>
<td>Female</td>
<td>42</td>
<td>37.5</td>
<td>37.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>112</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The majority of respondents were in the 40 to 49 year-old age brackets, which comprised 37 (or 33.1%) of the overall respondents. The second prominent age group was 30 to 39 year old, which represented 27 (or 24.1%) of the overall group. The third age group was 50 to 54 year old, which represented 16 (or 14.3%) of the overall respondents. The fourth age group was 55 years and older, which represented 16 (or 12.3%) of the overall respondents. Only 10 (or 8.9%) of respondents represented the age group of 25 to 29 year old. The least number of respondents of 6 (or 5.4%) were in the age group of 18 to 24 year old. Descriptive statistics for respondents’ age group are presented in Table 4.2.

**Table 4.2: Age group of Respondents (n=112)**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 to 24</td>
<td>6</td>
<td>5.4</td>
<td>5.4</td>
<td>5.4</td>
</tr>
<tr>
<td>25 to 29</td>
<td>10</td>
<td>8.9</td>
<td>8.9</td>
<td>14.3</td>
</tr>
<tr>
<td>30 to 34</td>
<td>13</td>
<td>11.6</td>
<td>11.6</td>
<td>25.9</td>
</tr>
<tr>
<td>35 to 39</td>
<td>14</td>
<td>12.5</td>
<td>12.5</td>
<td>38.4</td>
</tr>
<tr>
<td>40 to 44</td>
<td>18</td>
<td>16.1</td>
<td>16.1</td>
<td>54.5</td>
</tr>
<tr>
<td>45 to 49</td>
<td>19</td>
<td>17.0</td>
<td>17.0</td>
<td>71.4</td>
</tr>
<tr>
<td>50 to 54</td>
<td>16</td>
<td>14.3</td>
<td>14.3</td>
<td>85.7</td>
</tr>
<tr>
<td>55 to 59</td>
<td>9</td>
<td>8.0</td>
<td>8.0</td>
<td>93.8</td>
</tr>
<tr>
<td>60+</td>
<td>7</td>
<td>6.3</td>
<td>6.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>112</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Regarding the education level, the majority of respondents held a Bachelor’s degree representing 35 (or 31.3%) respondents of the overall sample. The second largest group with 29 (or 25.9%) of respondents held a High School / Diploma education, which is followed by 28 (or 25%) of respondents who held a Master’s Degree. Following this group, 17 (or 15.2%) of respondents had a Vocational Education and Training, while only three (or 2.7%) of respondents held a PhD or equivalent doctoral degree. Descriptive statistics for
respondents’ educational level in this thesis are presented in Table 4.3.

<table>
<thead>
<tr>
<th>Table 4.3: Education Level of Respondents (n=112)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>High School / Diploma</td>
</tr>
<tr>
<td>Vocational Education and Training (incl. TAFE)</td>
</tr>
<tr>
<td>Bachelor Degree</td>
</tr>
<tr>
<td>Masters Degree</td>
</tr>
<tr>
<td>PhD / D.B.A</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

The respondents were asked to provide information about their role within their organisation. Overall, the majority of respondents did hold a supervisory / managerial position representing 71 (or 63.4%) respondents, which were divided into Department Management or equivalent, Middle Management or equivalent and Senior Executive positions. Respondents described as individuals holding a position as department managers or equivalent represented 34 (or 30.4%) respondents of the overall sample. Respondents described as individuals holding a Department Management or equivalent position comprised 27 (or 24.1%) male respondents and 7 (or 6.3%) female respondents. Respondents in this thesis described as individuals holding a Middle Manager position or equivalent represented 23 (or 20.5%) respondents of the overall sample. The group of respondents with a Middle Management or equivalent position comprised 11 (or 9.8%) male respondents and 12 (or 10.7%) female respondents. Respondents described as individuals holding a Senior Executive position represented 14 (or 12.5%) respondents of the overall sample. The group of respondents with a senior executive position comprised 9 (or 8%) male respondents and 5 (or 4.5%) female respondents. Respondents in this thesis described as individuals who were not hold a supervisor / managerial position and represented 41 (or 36.6%) respondents of the overall sample. The group of respondents with non-managerial position comprised 23 (or 20.5 %) male respondents and 18 (or 16.1%) female respondents. Descriptive statistics for respondents’ role in the participating organisations are presented in Table 4.4.
Table 4.4: Role in the organisation (n=112)

<table>
<thead>
<tr>
<th>Role</th>
<th>Gender</th>
<th>Count</th>
<th>% of Total</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Executive</td>
<td>Male</td>
<td>9</td>
<td>8.0%</td>
<td></td>
<td></td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>5</td>
<td>4.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>14</td>
<td>12.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle Management or equivalent</td>
<td>Male</td>
<td>11</td>
<td>9.8%</td>
<td></td>
<td></td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>12</td>
<td>10.7%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>23</td>
<td>20.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department Management or equivalent</td>
<td>Male</td>
<td>27</td>
<td>24.1%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>7</td>
<td>6.3%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>34</td>
<td>30.4%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Manager</td>
<td>Male</td>
<td>23</td>
<td>20.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>18</td>
<td>16.1%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>41</td>
<td>36.6%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Male</td>
<td>70</td>
<td>62.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>42</td>
<td>37.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>112</td>
<td>100.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The average tenure of respondents in their respective organisation was 6.6 years. Most of the respondents were with their organisation between 2 to 10 years representing 60 (or 53.6%) respondents in this sample. Respondents who were with their organisation for less than 2 years represented 30 (or 26.8%) respondents in this sample. Respondents who were with their organisation for more than 10 years represented 22 (or 19.6%) respondents in this sample. Descriptive statistics for respondents’ tenure in this thesis are presented in Table 4.5.

Table 4.5: Organisational tenure of Respondents(n=112)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Frequency</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 2yr.</td>
<td>30</td>
<td>26.8</td>
<td>26.8</td>
</tr>
<tr>
<td>2 – 10yr.</td>
<td>60</td>
<td>53.6</td>
<td>80.4</td>
</tr>
<tr>
<td>&gt; 10yr.</td>
<td>22</td>
<td>19.6</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>112</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

In order to assess differences in sample distributions comparing gender, age, educational level and organisational role, the Pearson chi-square was applied. In table 4.6 summarised cross tabulation results are presented that indicate values of the Pearson chi-square. There were no significant differences reported for gender and age group (Chi-square = 8.08, p = .425; Cramer’s V = .26). Also, there were no significant differences to be reported for gender and education level (Chi-square = .76, p = .943; Cramer’s V = .08). However, there was a partial significant difference in the distribution between gender and organisational position to be reported (Chi-square = 6.99, p = .072; Cramer’s V = .25). This was reported and illustrated in table 4.5 showing that there were significantly more male
respondents in supervisor / managerial positions, in total 47 (or 41.9%) compared to female respondents, in total 24 (or 21.5%).

Table 4.6: Pearson chi-square values for cross tabulation

<table>
<thead>
<tr>
<th>Variables</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
<th>Cramer's V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender x Age group</td>
<td>8.08</td>
<td>8</td>
<td>( p = .425^{\text{NS}} )</td>
<td></td>
</tr>
<tr>
<td>Gender x Education Level</td>
<td>.76</td>
<td>4</td>
<td>( p = .943^{\text{NS}} )</td>
<td></td>
</tr>
<tr>
<td>Gender x Org. Position</td>
<td>6.99</td>
<td>3</td>
<td>( p = .072^{*} )</td>
<td>.25</td>
</tr>
<tr>
<td>Age group x Education Level</td>
<td>40.18</td>
<td>32</td>
<td>( p = .152^{\text{NS}} )</td>
<td></td>
</tr>
<tr>
<td>Age group x Org. Position</td>
<td>17.17</td>
<td>24</td>
<td>( p = .841^{\text{NS}} )</td>
<td></td>
</tr>
<tr>
<td>Educational Level x Org. Position</td>
<td>15.61</td>
<td>12</td>
<td>( p = .209^{\text{NS}} )</td>
<td></td>
</tr>
</tbody>
</table>

** NS = not significant at \( p < .05 \)
* \( p < .10 \)

Cramer's V only reported for significant results

There were no significant differences reported for age group and education level (Chi-square = 40.18, \( p = .152 \); Cramer's V = .59). Also, there were no significant differences reported for age group and organisational position (Chi-square = 17.17, \( p = .841 \); Cramer's V = .39). Lastly, there were no significant differences reported for educational level and organisational position (Chi-square = 15.61, \( p = .209 \); Cramer's V = .37).

4.2.3 Assessing Normality Distribution

Examining variables for normality distribution is an essential step in the process of data analysis as it refers to the shape of the data distribution for an individual metric variable and its correspondence to the normal distribution (Hair et al. 2013). The reason for this is that statistical inference is considered less robust if the distribution of values departs from normality. This occurs when values are clustered around the mean in a symmetrical pattern. Normal distribution of values occurs as univariate normality, which concerns the distribution of individual variables, and multivariate normality, which concerns the distribution of the combination of individual variables (Zikmund et al. 2013). Each of the variables was therefore tested for univariate normality distribution illustrated by histograms, normality probability plots, boxplots, and stem-leaf-plots in order to determine if the data set meets the assumptions of multivariate analyses to test the hypotheses.

The assessment of normality of distribution can be explained by two measures, kurtosis and skewness, which absolute values show the distribution of normality (Hair et al.
2013; Tabachnick & Fidell 2007). Kurtosis indicates a relative peak of the data within a distribution relative to a normal curve, which can be positive, too peaked, or negative, too flat distributed. Skewness provides information on the symmetry of the distribution indicating that the distribution of data is either positively skewed, the data is below the mean, or negatively skewed, the data is above the mean. Appropriate absolute values for skewness are considered to be no greater than 5 and appropriate absolute values for kurtosis are considered to be no greater than 2 (Pallant 2011).

Statistical values describing the means, standard deviations, skewness and kurtosis can be found in Table 4.7. Additionally values for the Shapiro-Wilk test examining the null-hypothesis regarding the normality distribution are provided for each of the variables. The Shapiro-Wilk test indicated that only the data for ethical climate is normally distributed, while all other variables are not normally distributed, which was expected. To clarify, distributions represented in this study are considered as common in organisational behaviour and applied psychology research (Babbie 2015).

In addition to statistical tests as aforementioned, Tabachnick and Fidell (2007) propose the additional use of graphical analysis of the data’s histograms to assess normality distributions. Histograms illustrate the frequency of data values and the shape of the histogram indicates the distribution of the scores of the variable. The graphical analysis of the normality distribution indicated that the distributions can be considered to be relatively normal. Additionally, the graphical analysis of the normal probability plots illustrates that the distribution of values is closely aligned with the cumulative distribution of a normal distribution. To further support this assumption of normality, the empirical measures of skewness and kurtosis values were assessed illustrating that none of the absolute values was greater than >1. Hence, the results from the initial raw data was retained and presented in this thesis.

| Table 4.7: Normality Statistics for each Variable (n=112) |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Variable    | M   | SD  | Skewness | Kurtosis | Statistic | df | Sig.  |
| Independent Variables | | | | | | | |
| Authentic Leadership | 2.806 | .838 | -.989 | .775 | .930 | 112 | .000 |
| Ethical Leadership | 3.97 | .827 | -.869 | .569 | .925 | 112 | .000 |
| Dependent Variables | | | | | | | |
| Ethical Climate | 4.157 | .672 | -.623 | .830 | .962 | 112 | .003 |
| Organisational Citizenship Behaviour | 5.694 | .982 | -.853 | .653 | .939 | 112 | .000 |
| Organisational Commitment | 4.998 | 1.567 | -.625 | -.522 | .933 | 112 | .000 |
| Performance | 6.034 | .649 | -4.70 | -.290 | .961 | 112 | .003 |
4.2.4 Assessing for Outliers

Linearity is an implicit assumption of multivariate analyses based on correlation measures of association (Hair et al. 2013). To clarify, correlations exemplify linear association between the independent and dependent variable. The most frequent test to assess for linearity is to examine scatterplots of the variables and identify any outliers. Outliers are characterised as scores that are significantly different to the overall data set (Cohen et al. 2003; Hair et al. 2013; Zikmund et al. 2013). It is therefore critical to examine the data set for outliers as these can potentially cause a bias in the mean score and inflate the standard deviation. Two types of outliers can be differentiated, univariate and multivariate outliers (Tabachnick & Fidell 2007; Weiers 2007). Univariate outliers denote extreme scores on a single variable, while multivariate outliers denote extreme scores on two or more variables.

Outliers can be detected by investigating the frequencies of standardised z-scores of cases (Hair et al. 2013; Tabachnick & Fidell 2007). According to Tabachnick and Fidell (2007) as a rule of thumb, absolute z-scores values (|z|) of greater than 2.50 are considered as outliers in small sample (n<80), while in large samples cases having an absolute z-score value (|z|) greater than 3.29 at p < 0.01 are considered as outliers. To identify outliers in this thesis, standardised z-scores were computed indicating 2 variables with absolute z-score values greater than 3.29 accounting for less than 1% of all cases in the data set, which is considered as an acceptable level. The examined z-scores in the data file showed that 2 case showed z-scores greater than 3.29, which is an indication of significant outliers. The constructs on which outliers were found were ethical leadership and organisational citizenship behaviour as illustrated in Table 4.8. Keeping in mind that this thesis investigated individual perceptions with regard to organisational experiences, outliers are likely to occur as some individuals may have extreme views compared to others. Therefore, these univariate outliers were retained in this thesis. Retaining outliers is in line with Hair et al. (2013), who suggested that outliers should be retained unless these outliers are significantly not representative for any observation.

<table>
<thead>
<tr>
<th>Construct</th>
<th>z-score</th>
<th>Case Number</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethical Leadership</td>
<td>-3.59</td>
<td>78</td>
<td>1</td>
</tr>
<tr>
<td>Organisational Citizenship Behaviour</td>
<td>-3.50</td>
<td>83</td>
<td>1</td>
</tr>
</tbody>
</table>

Additionally the data set was assessed for homoscedasticity. Homoscedasticity refers to the assumption that a dependent variable displays uniform levels of variance
across a series of independent variables (Hair et al. 2013). To clarify, the variance of the dependent variable should be relatively similar to each value of an independent variable otherwise the variance is considered unequal or heteroscedastic. Homoscedasticity was assessed by visually examining a series of scatterplots if values of cases appear to be random. Both, assessing for homoscedasticity and linearity through statistical and graphical analysis revealed little violation of the assumptions. To summarise, overall statistical and graphical analysis the data shows to be normally distributed and demonstrates no violation of the assumptions of multivariate analyses.

### 4.2.4 Assessing for Homoscedasticity

The statistical analysis process of multiple regression analysis presumes that data, which is related to the dependent variables, possesses linearity and homoscedasticity (Hair et al. 2013). In turn, when homoscedasticity is absent then data possesses heteroscedasticity. In order to assess the data set for the presence of heteroscedasticity, visual assessment of scatter plots can be performed of regressed standardised predicted values to the regressed standardised residuals. In case of homoscedasticity, values of the observation in the scatter plot are spread randomly, while scatter plots displaying heteroscedasticity, values of the observation are clustered in one particular area. The scatter plots in this thesis illustrated that values were randomly spread and there was homogenous variance across standardised predictive values. Hence, it was concluded that the regression analysis to test the hypotheses would reveal valuable information.

### 4.3 Reliability of scales

Prior to running the statistical procedure of multiple regression analysis and analysis of correlation matrices to test the hypothesised model, it is necessary to conduct a reliability and validity test of the employed measurement scales. Reliability represents an indicator for internal consistency of a measurement scale demonstrating that the scale items converge to measuring one construct (Cooper & Schindler 2008; Sekaran & Bougie 2010). The most commonly applied indicator for assessing the reliability of a multiple-item scale is the Cronbach’s coefficient alpha $\alpha$ (Zikmund et al. 2013). This indicator signifies internal consistency and ranges from a value of 0, which indicates no consistency, to a value of 1, which indicates complete consistency. Following recommendations by Nunnally (1978) values for Cronbach’s alpha $\alpha$ ranging from 0.80 to 0.95 are considered as representing very good reliability, Cronbach’s alpha $\alpha$ ranging from 0.70 to 0.80 are considered as representing good reliability, Cronbach’s alpha $\alpha$ ranging from 0.60 to 0.70 are considered as representing fair reliability.
In this thesis the following measurement scales have been adopted, the Authentic Leadership Questionnaire (ALQ) (Walumbwa et al. 2008), the Ethical Leadership Scale (ELS) (Brown, Trevino & Harrison 2005), the Ethical Climate Questionnaire (ECQ) (Victor & Cullen 1988), the Organisational Citizenship Behaviour Individual Scale (Lee & Allen 2002), the Affective Organizational Commitment Scale (Meyer, Allen & Smith 1993), and the In-role Performance Scale (Williams & Anderson 1991). All scales are well-established reliable and valid measurement instruments that have been utilised in previous research.

Before Cronbach’s coefficient $\alpha$ was calculated for each scale, reverse coded items were recoded. Two measurement scales had reverse coded items, which are the Affective Organisational Commitment Scale and In-role Performance Scale (see table 3.1). Reverse coded items of both scales were recoded in order to ensure that all items indicate the same value, i.e., high agreement is represented by high scores. Furthermore, having reverse coded items provides information whether respondents fail to identify reversed items and hence could lead to response bias.

In this thesis all scales demonstrated a Cronbach’s coefficient $\alpha$ above 0.70 except the scale for In-role Performance, which demonstrated a values of $\alpha=.67$ and was considered as acceptable reliability. Further investigation of total item statistics of the In-role Performance scale indicated that the Cronbach’s coefficient $\alpha$ would increase to a value of $\alpha=.74$ if item five was deleted from the original seven item scale. However, the original seven item In-role Performance scale was not modified for this thesis. The reason for this is that the In-role Performance scale is an established and widely published measurement instrument and hence if this scale was modified, the researcher would not be able to compare results form this thesis with previous results from other researchers who have utilised this scale.

Table 4.9 illustrates each of the scales and their respective Cronbach’s alpha values. The Authentic Leadership Questionnaire demonstrated a Cronbach’s alpha of $\alpha=.96$. The Ethical Leadership Scale demonstrated a Cronbach’s alpha of $\alpha=.95$. The Ethical Climate Scale demonstrated a Cronbach’s alpha of $\alpha=.82$. The Organisational Citizenship Behaviour Individual Scale demonstrated a Cronbach’s alpha of $\alpha=.89$. The Affective Commitment Scale demonstrated a Cronbach’s alpha of $\alpha=.90$. The In-role Performance Scale demonstrated a Cronbach’s alpha of $\alpha=.67$. 
Table 4.9: Cronbach’s coefficient alpha values of measurement scales

<table>
<thead>
<tr>
<th>Measurement Scale</th>
<th>Cronbach’s alpha (α)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authentic Leadership Questionnaire</td>
<td>α=.96</td>
</tr>
<tr>
<td>Ethical Leadership Scale</td>
<td>α=.95</td>
</tr>
<tr>
<td>Ethical Climate Scale</td>
<td>α=.82</td>
</tr>
<tr>
<td>Organisational Citizenship Behaviour Individual Scale</td>
<td>α=.89</td>
</tr>
<tr>
<td>Affective Organisational Commitment</td>
<td>α=.90</td>
</tr>
<tr>
<td>In-role Performance</td>
<td>α=.67</td>
</tr>
</tbody>
</table>

4.4 Construct validity

Ensuring construct validity is an essential step in the data analysis process. Construct validity characterises how accurately a measurement scale represents the construct it is designated to measure (Stone-Romero 2002). Hence, construct validity determines the accuracy of the measurement scale. and is evaluated by its convergent validity and discriminant validity (Neuman 2011; Zikmund et al. 2013).

Convergent validity describes the degree to which multiple items of a measurement scales for a particular construct demonstrate convergence among items and are highly correlated (Weiers 2007). It is assessed through the value of the standardised factor loadings of each item of a measurement scale. The higher the factor loading of an item the greater the evidence that this specific item represents the underlying construct to be measured. According to Hair et al. (2013), factor loadings should be greater than >0.5. Therefore, convergent validity was assessed through running an exploratory factor analysis in the statistical software SPSS 23.

Discriminant validity describes the degree of correlation between variables; and hence assesses association and relationship between variables of a measurement scale (Weiers 2007). In order to ensure discriminant validity measurement scales should demonstrate low correlations (Hair et al. 2013; Podsakoff, Philip M. & Organ 1986). A very high value for the correlation coefficient (i.e. >0.85) between different variables indicates that variables are likely to measure the same construct and therefore should be combined into a single measurement variable (Tabachnik & Fidell 2007). Therefore, discriminant validity was assessed through running a correlation analysis of each measurement scale utilised in this thesis.
4.4.1 Exploratory Factor Analysis

Factor Analysis is aimed at examining anticipated causal relationships of items comprising a measurement scale for a defined construct (Cooper & Schindler 2008; Zikmund et al. 2013). It is used as a statistical tool to assess construct validity if the factor structure of a set of measurement items measures the actual observation (Zikmund et al. 2013). Results obtained from a factor analysis assist to examine construct reliability and variance extracted in order to calculate combined scores as well as to examine for factor validity (Hair et al. 2013). In other words, factor analysis deems to identify the existence of meaningful patterns among items comprising a construct and the extraction of the main factors for measurement.

Exploratory Factor Analysis (EFA) was conducted to assess variance and covariance associated with the set of variables and the factor validity in this data set for the utilised measurement scales. In accordance with Hair et al. (2013), the criterion to retain items was set to extraction of 1 factor representing the overall underlying factors of the variable. Furthermore, communalities of the items were assessed to extend the explained variance. That is, if an item has a low communality coefficient of less than .30 indicates that the item is not explained by its underlying factor. As suggested by Hair et al. (2013), the cut off point for statistical significance of factor loadings was set to greater than .3 whereas loadings below this value have been omitted. All scales measurement scales indicated that correlations had a coefficient of $r \geq .30$. Following Tabachnick and Fidell (2007) a factor analysis is considered appropriate if the intercorrelation between items has a value for correlation coefficient greater than .3.

Further, two statistical measures support the assessment of factorability of the data, the Bartlett’s test of sphericity (Bartlett 1954) and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Kaiser 1970). For the factor analysis to be considered appropriate the following values are recommended, the Bartlett’s test should be significant at $p < .05$ and the KMO index should range between 0 to 1, with .6 considered to be the minimum value for appropriate factor analysis (Tabachnick & Fidell 2007). The KMO values for each measurement scale were greater than .7 and thus exceeded the recommended minimum value for factor analysis. The Bartlett’s test for sphericity indicated statistical significance, which supports the factorability of the correlation matrix.

Further, in order to be able to interpret factors in a factor analysis, a rotation of factors is necessary. Factor rotation illustrates the pattern of loadings and how variables are clumped together in a way that is easier to interpret (Hair et al. 2013). In other words, the aim with factor rotation is to retain a simple structure of variables that have high factor loadings for one factor, hence illustrate the pattern of factor loadings in a simpler way for interpretation. Two common methods are available to identify factors, the orthogonal
(uncorrelated) rotation and the oblique (correlated) rotation method (Tabachnick & Fidell 2007). Both often provide similar solutions, especially when the correlation between constructs is well established. Also, the choice of which rotation method should be used depends on the needs of the research problem.

Principal Axis Factor analysis (PAF) with direct oblimin rotation based on eigenvalues greater than 1 was employed in SPSS version 23 to examine the underlying structure of each of the aforementioned measurement scales on reliability and validity mentioned above with regard to the data set of this thesis. With PAF the aim is to understand the covariation among variables where the correlation matrix is modified in such way that the correlation of each item is replaced with a communality (Tabachnick & Fidell 2007). Direct oblimin rotation of factors provides information on correlated factors (Morgan, GA et al. 2012; Pallant 2011; Tabachnick & Fidell 2007). If correlations among factors are not provided by the data the result remains orthogonal. According to Tabachnick and Fidell (2007) factor correlations with a value of around >.32 indicate an overlap in variance among factors, which justify for oblique rotation. Table 4.10 shows the summary of the factor analysis. It further illustrates all measurement scales excluding omitted factors.
### Table 4.10: Factor loadings

<table>
<thead>
<tr>
<th>Scale Items Authentic Leadership</th>
<th>Factor Loading Factor 1</th>
<th>Communalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>(AL1) Seeks feedback to improve interactions with others.</td>
<td>.732</td>
<td>.535</td>
</tr>
<tr>
<td>(AL2) Accurately describes how others view his or her capabilities.</td>
<td>.707</td>
<td>.500</td>
</tr>
<tr>
<td>(AL3) Says exactly what he or she means.</td>
<td>.733</td>
<td>.538</td>
</tr>
<tr>
<td>(AL4) Admits mistakes when they are made.</td>
<td>.837</td>
<td>.701</td>
</tr>
<tr>
<td>(AL5) Demonstrates beliefs that are consistent with actions.</td>
<td>.842</td>
<td>.708</td>
</tr>
<tr>
<td>(AL6) Makes decisions based on his or her core beliefs.</td>
<td>.666</td>
<td>.443</td>
</tr>
<tr>
<td>(AL7) Solicits views that challenge his or her deeply held positions.</td>
<td>.847</td>
<td>.718</td>
</tr>
<tr>
<td>(AL8) Listens carefully to different points of view before coming to conclusions</td>
<td>.855</td>
<td>.730</td>
</tr>
<tr>
<td>(AL9) Encourages everyone to speak their mind.</td>
<td>.817</td>
<td>.668</td>
</tr>
<tr>
<td>(AL10) Tell you the hard truth.</td>
<td>.558</td>
<td>.311</td>
</tr>
<tr>
<td>(AL11) Displays emotions exactly in line with feelings.</td>
<td>.735</td>
<td>.541</td>
</tr>
<tr>
<td>(AL12) Asks you to take positions that support your core values.</td>
<td>.764</td>
<td>.583</td>
</tr>
<tr>
<td>(AL13) Analyses relevant data before coming to a decision.</td>
<td>.773</td>
<td>.598</td>
</tr>
<tr>
<td>(AL14) Makes difficult decisions based on high standards of ethical conduct.</td>
<td>.817</td>
<td>.668</td>
</tr>
<tr>
<td>(AL15) Knows when it is time to reevaluate his or her position on important issues.</td>
<td>.879</td>
<td>.773</td>
</tr>
<tr>
<td>(AL16) Shows he or she understands how specific actions impact others.</td>
<td>.848</td>
<td>.718</td>
</tr>
</tbody>
</table>

**KMO and Bartlett’s Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.

<table>
<thead>
<tr>
<th>Bartlett's Test of Sphericity</th>
<th>Approx. Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>KMO</td>
<td>.941</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bartlett's Test</td>
<td>1551.116</td>
<td>120</td>
<td>.000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scale Items Ethical Leadership</th>
<th>Factor Loading Factor 1</th>
<th>Communalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>(EL1) Listens to what employees have to say.</td>
<td>.758</td>
<td>.547</td>
</tr>
<tr>
<td>(EL2) Disciplines employees who violate ethical standards.</td>
<td>.650</td>
<td>.422</td>
</tr>
<tr>
<td>(EL3) Conducts his/her personal life in an ethical manner.</td>
<td>.781</td>
<td>.609</td>
</tr>
<tr>
<td>(EL4) Has the best interest of employees in mind.</td>
<td>.881</td>
<td>.776</td>
</tr>
<tr>
<td>(EL5) Makes fair and balanced decisions.</td>
<td>.830</td>
<td>.688</td>
</tr>
<tr>
<td>(EL6) Can be trusted.</td>
<td>.891</td>
<td>.795</td>
</tr>
<tr>
<td>(EL7) Discusses business ethics or values with employees.</td>
<td>.719</td>
<td>.518</td>
</tr>
<tr>
<td>(EL8) Sets an example of how to do things the right way in terms of ethics.</td>
<td>.883</td>
<td>.779</td>
</tr>
<tr>
<td>(EL9) Defines success not just by results but also the way that they are obtained</td>
<td>.854</td>
<td>.730</td>
</tr>
<tr>
<td>(EL10) When making decisions, asks &quot;what is the right thing to do?&quot;</td>
<td>.851</td>
<td>.724</td>
</tr>
</tbody>
</table>

**KMO and Bartlett’s Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.

<table>
<thead>
<tr>
<th>Bartlett's Test of Sphericity</th>
<th>Approx. Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>KMO</td>
<td>.908</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bartlett's Test</td>
<td>1013.047</td>
<td>45</td>
<td>.000</td>
</tr>
</tbody>
</table>
### Scale Items Ethical Climate

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor Loading Factor 1</th>
<th>Factor Loading Factor 2</th>
<th>Factor Loading Factor 3</th>
<th>Communalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>(EC1)</td>
<td>.676</td>
<td></td>
<td>.319</td>
<td></td>
</tr>
<tr>
<td>(EC2)</td>
<td>.469</td>
<td></td>
<td>.256</td>
<td></td>
</tr>
<tr>
<td>(EC3)</td>
<td>.781</td>
<td></td>
<td>.673</td>
<td></td>
</tr>
<tr>
<td>(EC4)</td>
<td>.790</td>
<td></td>
<td>.589</td>
<td></td>
</tr>
<tr>
<td>(EC7)</td>
<td>.728</td>
<td></td>
<td>.540</td>
<td></td>
</tr>
<tr>
<td>(EC8)</td>
<td>.650</td>
<td></td>
<td>.419</td>
<td></td>
</tr>
<tr>
<td>(EC11)</td>
<td>.616</td>
<td></td>
<td>.457</td>
<td></td>
</tr>
<tr>
<td>(EC12)</td>
<td>.712</td>
<td></td>
<td>.386</td>
<td></td>
</tr>
<tr>
<td>(EC13)</td>
<td>.787</td>
<td></td>
<td>.711</td>
<td></td>
</tr>
<tr>
<td>(EC14)</td>
<td>.857</td>
<td></td>
<td>.755</td>
<td></td>
</tr>
<tr>
<td>(EC15)</td>
<td>.636</td>
<td></td>
<td>.350</td>
<td></td>
</tr>
<tr>
<td>(EC9)</td>
<td></td>
<td>.718</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(EC5)</td>
<td></td>
<td>.615</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(EC16)</td>
<td></td>
<td>.545</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(EC6)</td>
<td></td>
<td></td>
<td>.670</td>
<td></td>
</tr>
<tr>
<td>(EC10)</td>
<td></td>
<td></td>
<td>.556</td>
<td></td>
</tr>
</tbody>
</table>

### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy: .845
Bartlett's Test of Sphericity:
- Approx. Chi-Square: 1047.516
- df: 120
- Sig.: .000
### Scale Items Organisational Citizenship Behaviour Individual

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor Loading Factor 1</th>
<th>Communalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>(OCBI1) Help others who have been absent</td>
<td>.759</td>
<td>.577</td>
</tr>
<tr>
<td>(OCBI2) Willingly give your time to help others who have work-related problems</td>
<td>.856</td>
<td>.733</td>
</tr>
<tr>
<td>(OCBI3) Adjust your work schedule to accommodate other employees' request for time off</td>
<td>.730</td>
<td>.534</td>
</tr>
<tr>
<td>(OCBI4) Go out of the way to make newer employees feel welcome in the work group</td>
<td>.584</td>
<td>.341</td>
</tr>
<tr>
<td>(OCBI5) Show genuine concern and courtesy toward co-workers, even under the most trying business or personal situation</td>
<td>.540</td>
<td>.291</td>
</tr>
<tr>
<td>(OCBI6) Give up time to help others who have work or non-work problems</td>
<td>.856</td>
<td>.733</td>
</tr>
<tr>
<td>(OCBI7) Assist others with their duties</td>
<td>.753</td>
<td>.566</td>
</tr>
<tr>
<td>(OCBI8) Share personal property with others to help their work</td>
<td>.701</td>
<td>.491</td>
</tr>
</tbody>
</table>

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy. Bartlett's Test of Sphericity

<table>
<thead>
<tr>
<th>Measure</th>
<th>Approx. Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>KMO Measure</td>
<td>.873</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bartlett's Test</td>
<td>504.072</td>
<td>28</td>
<td>.000</td>
</tr>
</tbody>
</table>

### Scale Items Affective Organisational Commitment

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor Loading Factor 1</th>
<th>Communalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>(OC1) I would be very happy to spend the rest of my career with this organization</td>
<td>.664</td>
<td>.441</td>
</tr>
<tr>
<td>(OC2) I really feel as if this organization's problems are my own</td>
<td>.643</td>
<td>.414</td>
</tr>
<tr>
<td>(OC3) I do not feel a strong sense of &quot;belonging&quot; to my organization</td>
<td>.918</td>
<td>.843</td>
</tr>
<tr>
<td>(OC4) I do not feel &quot;emotionally attached&quot; to this organization</td>
<td>.855</td>
<td>.731</td>
</tr>
<tr>
<td>(OC5) I do not feel like &quot;part of the family&quot; at my organization</td>
<td>.795</td>
<td>.632</td>
</tr>
<tr>
<td>(OC6) This organization has a great deal of personal meaning for me</td>
<td>.828</td>
<td>.685</td>
</tr>
</tbody>
</table>

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy. Bartlett's Test of Sphericity

<table>
<thead>
<tr>
<th>Measure</th>
<th>Approx. Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>KMO Measure</td>
<td>.838</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bartlett's Test</td>
<td>449.535</td>
<td>15</td>
<td>.000</td>
</tr>
</tbody>
</table>

### Scale Items Performance

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor Loading Factor 1</th>
<th>Factor Loading Factor 2</th>
<th>Communalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>(P1) Adequately complete assigned duties</td>
<td>.828</td>
<td>.687</td>
<td></td>
</tr>
<tr>
<td>(P2) Fulfill responsibilities specified in job description</td>
<td>.887</td>
<td>.786</td>
<td></td>
</tr>
<tr>
<td>(P3) Perform tasks that are expected of them</td>
<td>.899</td>
<td>.810</td>
<td></td>
</tr>
<tr>
<td>(P4) Meet formal performance requirements of the job</td>
<td>.816</td>
<td>.679</td>
<td></td>
</tr>
<tr>
<td>(P6) Neglects aspects of the job they are obligated to perform</td>
<td>.884</td>
<td>.789</td>
<td></td>
</tr>
<tr>
<td>(P7) Fail to perform essential duties</td>
<td>.723</td>
<td>.529</td>
<td></td>
</tr>
</tbody>
</table>

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy. Bartlett's Test of Sphericity

<table>
<thead>
<tr>
<th>Measure</th>
<th>Approx. Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>KMO Measure</td>
<td>.775</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bartlett's Test</td>
<td>394.106</td>
<td>21</td>
<td>.000</td>
</tr>
</tbody>
</table>

The measurement scale for **authentic leadership** indicated values of KMO measure of sampling adequacy and Bartlett's test were regarded as suitable for factor analysis. The statistical value for KMO measure of sampling adequacy was .941, which was beyond the
recommended value of .70, hence the sample was adequate for factor analysis. The value for the Chi-square of Bartlett’s test was 1551.116 with degrees of freedom (df) df = 120 and a significance value of $p<.001$. The principal axis factor analysis revealed one extracted factor with eigenvalues $>1.00$ accounting for 60.8% of the variance. For authentic leadership all items were retained and remained as the original measurement scale.

The measurement scale for **ethical leadership** indicated values of KMO measure of sampling adequacy and Bartlett’s test were regarded as suitable for factor analysis. The statistical value for KMO measure of sampling adequacy was .908, which was beyond the recommended value of .70. The value for the Chi-square of Bartlett’s test was 1013.047 with degrees of freedom (df) df = 45 and a significance value of $p<.001$. The principal axis factor analysis revealed one extracted factor with eigenvalues $>1.00$ accounting for 66.1% of the variance. As per table 4.4 all values were above .70, hence for ethical leadership all items were retained and remained as the original measurement scale.

The measurement scale for **ethical climate** indicated values of KMO measure of sampling adequacy and Bartlett’s test were regarded as suitable for factor analysis. The statistical value for KMO measure of sampling adequacy was .845, which was beyond the recommended value of .70. The value for the Chi-square of Bartlett’s test was 1047.516 with degrees of freedom (df) df = 120 and a significance value of $p<.001$. The principal axis factor analysis revealed three extracted factors with eigenvalues $>1.00$ accounting for 38.8% of the variance on factor 1, 12% of variance on factor 2, and 7.8% of variance on factor 3.

The measurement scale for **organisational citizenship behaviour** indicated values of KMO measure of sampling adequacy and Bartlett’s test were regarded as suitable for factor analysis. The statistical value for KMO measure of sampling adequacy was .873, which was beyond the recommended value of .70. The value for the Chi-square of Bartlett’s test was 504.072 with degrees of freedom (df) df = 28 and a significance value of $p<.001$. The principal axis factor analysis revealed one extracted factor with eigenvalues $>1.00$ accounting for 53.3% of the variance. Therefore for organisational citizenship behaviour all items were retained and remained as the original measurement scale.

The measurement scale for **affective organisational commitment** indicated values of KMO measure of sampling adequacy and Bartlett’s test were regarded as suitable for factor analysis. The statistical value for KMO measure of sampling adequacy was .838, which was beyond the recommended value of .70. The value for the Chi-square of Bartlett’s test was 449.535 with degrees of freedom (df) df = 15 and a significance value of $p<.001$. The principal axis factor analysis revealed one extracted factor accounting for 62.4% of the variance. Hence, for affective organisational commitment all items were retained and remained as the original measurement scale.
The measurement scale for performance indicated values of KMO measure of sampling adequacy and Bartlett’s test were regarded as suitable for factor analysis. The statistical value for KMO measure of sampling adequacy was .775, which was beyond the recommended value of .70. The value for the Chi-square of Bartlett’s test was 394.106 with degrees of freedom (df) df = 21 and a significance value of \( p < .001 \). The principal axis factor analysis revealed one extracted factor accounting for 43.2% of the variance. One item (P5) was omitted for its insufficient value. Further, the principal axis factor analysis revealed a second factor accounting for 19.3% of the variance.

4.4.2 Correlation

The characteristics of a relationship between variables in terms of strength and direction can be assessed with the correlation coefficient (Zikmund et al. 2013). The Pearson correlation coefficient (r) was applied to determine the strength and direction of the relationship between independent and dependent variables. Correlation gives an indication that a relationship between variables exists, however it does not provide information on the causality (Pallant 2011). It can range from a value of -1 to +1 indicating whether the correlation is positive or negative (Cooper & Schindler 2008). To clarify, a positive correlation indicates that if one variable increases, the other increases too, and in a negative correlation if one variable increases, the other variable decreases. The strength of the relationship between two variables is represented by the absolute value. The closer the absolute value of the relationship is to 1, the more correlated the variables are and the closer the absolute value of the relationship is to 0 indicates that there is no relationship between the variables.

The correlation between the constructs of authentic leadership, ethical leadership, ethical climate, organisational citizenship behaviours individual, affective organisational commitment, and in-role performance were assessed. In Table 4.11 the means, standard deviations and correlations of each of the construct in this thesis are presented.
Table 4.11: Means, standard deviations, and correlations

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. AL</td>
<td>2.80</td>
<td>0.83</td>
<td>(.96)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. EL</td>
<td>3.97</td>
<td>0.82</td>
<td>.89**</td>
<td>(.95)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. EC</td>
<td>4.15</td>
<td>0.67</td>
<td>.48**</td>
<td>.52**</td>
<td>(.82)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. OCBI</td>
<td>5.69</td>
<td>0.98</td>
<td>.35**</td>
<td>.33**</td>
<td>.24**</td>
<td>(.89)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. OC</td>
<td>4.99</td>
<td>1.56</td>
<td>.66**</td>
<td>.64**</td>
<td>.36**</td>
<td>.34*</td>
<td>(.90)</td>
<td></td>
</tr>
<tr>
<td>6. PERF</td>
<td>6.03</td>
<td>0.64</td>
<td>.28**</td>
<td>.31**</td>
<td>.28**</td>
<td>.26**</td>
<td>.25**</td>
<td>(.67)</td>
</tr>
</tbody>
</table>

Note: AL (1): authentic leadership; EL (2): ethical leadership; EC (3): ethical climate; OCBI (4): organisational citizenship behaviour individual; OC (5): affective organisational commitment; PERF (6): performance

\(n=112\); reliability coefficients for the scales are in parentheses along the diagonal

\(*p<.05; \text{**}p<.01\)

As illustrated in Table 4.11 authentic leadership was positively and significantly correlated to ethical leadership \((r = .89, p<.01)\), ethical climate \((r = .48, p<.01)\), organisational citizenship behaviour individual \((r = .35, p<.01)\), affective organisational commitment \((r = .66, p<0.1)\), and in-role performance \((r = .28, p<.01)\). Similarly, ethical leadership was positively and significantly correlated to ethical climate \((r = .52, p<0.1)\), organisational citizenship behaviour individual \((r = .33, p<0.01)\), affective organisational commitment \((r = .64, p<.01)\), and in-role performance \((r = .31, p<.01)\). Furthermore, ethical climate was positively and significantly correlated to organisational citizenship behaviour individual \((r = .24, p<.01)\), affective organisational commitment \((r = .36, p<.01)\), and in-role performance \((r = .28, p<.01)\). Additionally, organisational citizenship behaviour individual was positively and significantly correlated to affective organisational commitment \((r = .34, p<.01)\), and performance \((r = .26, p<.01)\). Finally, affective organisational commitment was positively and significantly correlated with in-role performance \((r = .25, p<.01)\). The coefficients between variables were all less than 0.85 and therefore considered to be reasonable in magnitude and below their reliability values. This provides support for discriminant validity among constructs. The only exception was a high correlation coefficient between the construct of authentic leadership and ethical leadership \((r = .89, p<.01)\), which indicates poor discriminant validity of constructs.

It is also evident that there was indication for multicollinearity between two variables. According to Tabachnick and Fidell (2007), a high correlation \((r > 0.7)\) between independent variables is an indication for violation of the assumption of multicollinearity and it is suggested to aggregate these two predictor variables into one predictor variable to reduce the likelihood of multicollinearity. As illustrated in Table 4.11 the construct of authentic leadership and ethical leadership are highly correlated \((r = .89, p<.01)\). However, even though these two constructs are highly correlated both are conceptually different, which was discussed and demonstrated previously in Chapter 2 of this thesis and hence, they were not aggregated into one construct.
Collinearity was assessed by examining the tolerance and variance inflation factor (VIF). The value for tolerance explains the level of variability of an independent variable that is not explained by other independent variables and is calculated by the formula: \( 1 - R^2 \) (Pallant 2011). In the case that this value is less than .10 then this is an indication that multicollinearity is likely to occur. The value for VIF is an index that provides information on how much the variance of the estimated regression coefficient increases due to collinearity and is calculated with the formula 1 divided by tolerance. In the case that this value is above 10 then this is an indication that multicollinearity is likely to occur. The data in this thesis indicated tolerance values are above .10 and VIF values are well below 10, hence acceptable and the assumption of collinearity is not violated.

### 4.5 Hypothesis Testing

For the purpose of this thesis, linear regression analysis and hierarchical multiple regression analysis are regarded as most suitable procedures to investigate the relationships between a dependent variable and a series of independent variables. Therefore, linear regression analysis and hierarchical multiple regression analysis was performed in order to test the proposed model in Chapter 2 illustrated by the Figure 2.2 using SPSS 23. Hence, the hypotheses testing part was divided into two sections, which present the results of each of the analyses conducted for the outcome variables of this thesis.

Section one focuses on the direct relationship between each of the predictor variables authentic leadership and ethical leadership and the direct impacts on each of the dependent variables. Therefore, to investigate these direct relationships linear regression analysis was employed (Hair et al. 2013; Pallant 2011). First, regression analysis for the relationship between authentic leadership and each of the dependent variables, i.e., ethical climate, organisational citizenship behaviour, affective organisational commitment and in-role performance of subordinates was conducted. Then, regression analysis for the relationship between ethical leadership and each of the dependent variables, i.e., ethical climate, organisational citizenship behaviour, affective organisational commitment and in-role performance of subordinates was conducted.

Section two focuses on the mediation effect of ethical climate and the moderation effect of ethical leadership on the prediction of organisational outcomes. Specifically, mediation effect of ethical climate is examined on the relationship between authentic leadership, which is considered as the main independent variable, and each of the dependent variables, organisational citizenship behaviours, affective organisational commitment and in-role performance. Moderation effect of ethical leadership was assessed
on the relationship between authentic leadership as the main independent variable and each dependent variable, ethical climate, organisational citizenship behaviours, affective organisational commitment and in-role performance.

This thesis followed the process recommended by Baron and Kenny (1986) to test for mediation effects and applies a Process macro for SPSS developed by Hayes (2013). The procedure for the mediation process and results from the analysis are further explicated and discussed in section 4.5.2 of this thesis. Further, this thesis applies hierarchical multiple regression analysis to investigate for moderation effects of ethical leadership. It has been proposed that hierarchical multiple regression analyses prove to be advantageous when assessing theoretical assumptions on how great the contribution of several predictor variables on a criterion variable is (Petrocelli 2003; Tabachnick & Fidell 2007). This thesis follow the steps recommended by Tabachnick and Fidell (2007) for hierarchical multiple regression analyses of the data. This process allowed assessing the effects of independent variables to dependent variables of interest in the context of other independent variables that were kept statistically constant.

The order of entry of predictor variables in the hierarchical multiple regression analysis is a critical step, which needs to be specific and theory-based (Petrocelli 2003). The purpose is to investigate theoretical assumptions and to determine the level of influence for variance in the dependent variable with regard to the specific order of variables entered in the analysis. The variables were entered into the hierarchical regression analyses based on both theoretical and conceptual grounds with the aim of finding how much variance of a dependent variable can be explicated by a set of independent variables (Cohen et al. 2003).

The order of entry of the variables is illustrated in Table 4.6. Demographic variables were entered at the beginning of each step based on logical consideration and because their influence needed to be controlled for. Authentic leadership and ethical leadership were entered at step two and step three according to the theoretical assumptions as proposed in Figure 2.2 of the conceptual model. Accordingly, five different hierarchical regression analyses were conducted to assess the prediction of each criterion variable. That is, predicting ethical climate, organisational citizenship behaviour individual, affective organisational commitment, and in-role performance outcomes where the dependent variables were preceding those variables in the model.

In accordance to the proposed conceptual framework in Chapter 2 Figure 2.2, table 4.12 illustrates the order of entry for the five hierarchical regression models. The order is listed from the dependent variable in-role performance, affective organisational commitment, organisational citizenship behaviour, and ethical climate.
Table 4.12: Pattern of hierarchical regression model tests of the research framework presented in Figure 2.2 of Chapter 2

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable Set</th>
<th>Demographic Variables</th>
<th>Authentic Leadership</th>
<th>Ethical Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Demographics</td>
<td>-</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2</td>
<td>Authentic Leadership</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>3</td>
<td>Ethical Leadership</td>
<td>-</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Ethical Climate</td>
<td>DV</td>
<td>DV</td>
<td>DV</td>
</tr>
<tr>
<td>5</td>
<td>Organisational Citizenship Behaviour</td>
<td>DV</td>
<td>DV</td>
<td>DV</td>
</tr>
<tr>
<td>6</td>
<td>Affective Organisational Commitment</td>
<td>DV</td>
<td>DV</td>
<td>DV</td>
</tr>
<tr>
<td>7</td>
<td>In role Performance</td>
<td>DV</td>
<td>DV</td>
<td>DV</td>
</tr>
</tbody>
</table>

* DV = dependent variable for a specific analysis
a P indicates an IV set used in the analysis

The importance of the independent variables are estimated on the basis of the value of $\Delta R^2$ (Petrocelli 2003). Further, common effects of independent variables can be examined with the commonality analysis to find unique variance of the dependent variable described by an independent variable as well as the degree to which the independent variable has common effects to other independent variables (Cohen et al. 2003). In other words, the equation for hierarchical regression analysis is deliberately set in a particular order. This order is that each independent variable set provides an increase in the dependent variable’s variance accounted for by the independent variable entered at that particular point.

4.5.1 Section 1 - Testing for the main effects of authentic leadership and ethical leadership on organisational outcomes

Having examined the correlations amongst the variables, simple linear regression analyses were conducted to examine the significance of the direct relationships of each of the main independent variables, authentic leadership and ethical leadership, on to the dependent variables ethical climate, organisational citizenship behaviour, affective organisational commitment and in-role performance. Overall, simple linear regression analysis reported each of the predictor variables to have positive and significant relationships with each of the outcome variables as illustrated in Table 4.8. That is, authentic leadership was positively and significantly related to ethical climate, organisational citizenship behaviour, affective organisational commitment, and in-role performance. Similarly, ethical leadership was positively and significantly related to ethical climate, organisational citizenship behaviour, affective organisational commitment and in-role performance. All results of the linear regression analysis on the relationships between authentic leadership and ethical leadership on all dependent variables are illustrated in Table 4.13.
Table 4.13: Linear Regression Analysis Authentic Leadership and Ethical Leadership

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Ethical climate</th>
<th>Organisational citizenship behaviour</th>
<th>Affective organisational commitment</th>
<th>In-role performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>Constant</td>
<td>3.064</td>
<td>4.526</td>
<td>1.494</td>
<td>37.844</td>
</tr>
<tr>
<td><strong>Authentic leadership</strong></td>
<td>.390</td>
<td>.416</td>
<td>1.249</td>
<td>1.567</td>
</tr>
<tr>
<td><strong>t</strong></td>
<td>5.82***</td>
<td>3.984***</td>
<td>9.409***</td>
<td>3.165**</td>
</tr>
<tr>
<td><strong>R^2</strong></td>
<td>.236</td>
<td>.126</td>
<td>.446</td>
<td>.083</td>
</tr>
<tr>
<td>Adjusted R^2</td>
<td>.229</td>
<td>.118</td>
<td>.441</td>
<td>.075</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>33.939</td>
<td>15.876</td>
<td>88.521</td>
<td>10.014</td>
</tr>
<tr>
<td><strong>R</strong></td>
<td>.486</td>
<td>.355</td>
<td>.668</td>
<td>.289</td>
</tr>
</tbody>
</table>

| Constant              | 2.476 | 4.136 | .166 | 5.045 |
| **Ethical leadership** | .423 | .392 | 1.215 | .249 |
| **t**                 | 6.388*** | 3.667*** | 8.77*** | 3.507*** |
| **R^2**               | .271 | .109 | .411 | .101 |
| Adjusted R^2          | .264 | .101 | .406 | .092 |
| **F**                 | 40.805 | 13.445 | 76.907 | 12.298 |
| **R**                 | .520 | .330 | .641 | .317 |

*Note: n = 112; *Standardised coefficients are reported *p<.10; **p<.05; ***p<.01*

The following indices are relevant to be considered in a regression analysis. The value of R indicates the correlation coefficient, which should be close to the absolute value of 1 to indicate high correlation between variables. The value of R^2 describes the degree of variability of the model attributed to the variation of the independent variable, which should be greater than .25. The value of the significance level of F describes the model fit. The value of the unstandardised coefficient B describes how strongly the independent variable is associated with the dependent variable. To clarify, a higher value of B indicates a greater amount of change in the dependent variable for every unit of change in the independent variable. B can be either positive (+) indicating a positive change, or negative (-) indicating a negative change.

Simple linear regression analysis reported significant support for the direct relationship between authentic leadership and perceived ethical climate. The unstandardised coefficient B reported a positive value indicating that authentic leadership positively influenced the dependent variable *Ethical Climate*. The degree of variability R^2 indicated a value of R^2 = .236 indicated that the independent variable authentic leadership explained 23.6% of the observed variance in the dependent variable ethical climate. Hence, leaders who display authentic leadership behaviours have a positive and significant influence on subordinates’ perceptions of an ethical climate.
Simple linear regression analysis reported significant support for the direct relationship between authentic leadership and subordinates’ organisational citizenship behaviours towards individuals (OCBIs). The unstandardised coefficient B reported a positive value indicating that authentic leadership positively influenced the dependent variable Organisational Citizenship Behaviour Individual (OCBI). The degree of variability $R^2$ indicated a value of $R^2 = .126$ indicated that the independent variable authentic leadership explained 12.6% of the observed variance in the dependent variable organisational citizenship behaviour individual. Hence, leaders who display authentic leadership behaviours have a positive and significant influence on subordinates’ organisational citizenship behaviour.

Simple linear regression analysis reported significant support for the direct relationship between authentic leadership and subordinates’ affective organisational commitment. The unstandardised coefficient B reported a positive value indicating that authentic leadership positively influenced the dependent variable Affective Organisational Commitment. The degree of variability $R^2$ indicated a value of $R^2 = .446$ indicated that the independent variable authentic leadership explained 44.6% of the observed variance in the dependent variable affective organisational commitment. Hence, leaders who display authentic leadership behaviours have a positive and significant influence on subordinates’ affective organisational commitment.

Simple linear regression analysis reported significant support for the direct relationship between authentic leadership and subordinates’ in-role performance. Hypothesis 4. The unstandardised coefficient B reported a positive value indicating that authentic leadership positively influenced the dependent variable In-role Performance. The degree of variability $R^2$ indicated a value of $R^2 = .083$ indicated that the independent variable authentic leadership explained 8.3% of the observed variance in the dependent variable In-role Performance. Hence, leaders who display authentic leadership behaviours have a positive and significant influence on subordinates’ in-role performance.

Simple linear regression analysis reported significant support for the direct relationship between ethical leadership and perceived ethical climate. The unstandardised coefficient B reported a positive value indicating that ethical leadership positively influenced the dependent variable Ethical Climate. The degree of variability $R^2$ indicated a value of $R^2 = .271$ indicated that the independent variable ethical leadership explained 27.1% of the observed variance in the dependent variable Ethical Climate. Hence, leaders who display ethical leadership behaviours have a positive and significant influence on subordinates’ perceptions of an ethical climate.

Simple linear regression analysis reported significant support for the direct relationship between ethical leadership and subordinates’ organisational citizenship
behaviours towards individuals (OCBIs). The unstandardised coefficient $B$ reported a positive value indicating that ethical leadership positively influenced the dependent variable *Organisational Citizenship Behaviour Individual (OCBI)*. The degree of variability $R^2$ indicated a value of $R^2 = .109$ indicated that the independent variable *ethical leadership* explained 10.9% of the observed variance in the dependent variable *organisational citizenship behaviour individual*. Hence, leaders who display ethical leadership behaviours have a positive and significant influence on subordinates’ organisational citizenship behaviour.

Simple linear regression analysis reported significant support for the direct relationship between ethical leadership and subordinates’ affective organisational commitment. The unstandardised coefficient $B$ reported a positive value indicating that ethical leadership positively influenced the dependent variable *Affective Organisational Commitment*. The degree of variability $R^2$ indicated a value of $R^2 = .411$ indicated that the independent variable *authentic leadership* explained 41.1% of the observed variance in the dependent variable *affective organisational commitment*. Hence, leaders who display ethical leadership behaviours have a positive and significant influence on subordinates’ affective organisational commitment.

Simple linear regression analysis reported significant support for the direct relationship between ethical leadership and subordinates’ in-role performance. The unstandardised coefficient $B$ reported a positive value indicating that ethical leadership positively influenced the dependent variable *In-role Performance*. The degree of variability $R^2$ indicated a value of $R^2 = .101$ indicated that the independent variable *ethical leadership* explained 10.1% of the observed variance in the dependent variable *In-role Performance*. Hence, leaders who display ethical leadership behaviours have a positive and significant influence on subordinates’ in-role performance.

**Hypothesis 1:** Authentic leadership positively and significantly predicts perceptions of ethical climate among subordinates.

Demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables in order to eliminate potential effects of variables external to the conceptual model. Preliminary analyses were conducted to ensure there are no violations of the assumption of multivariate analyses. Table 4.14 illustrates the values for the standardised coefficient ($\beta$), the overall value for $R^2$, $R^2$ Change, and Sig. F Change. Overall, the hierarchical multiple regression model reported significant ($R^2 = .400$; adjusted $R^2 = .366$; $F$ Change $= 27.293, p = .000$). With all variables entered, 40% of variance of perceived ethical climate were explained. The detailed breakdown of each step is further explained below.
In Step 1 demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables to the forecast of ethical climate ($R^2 = .244$; adjusted $R^2 = .209$; $F$ Change (5, 106) = 6.849, $p = .000$). The demographic variables contributed significantly to the prediction of ethical climate. Specifically, analysis of control variables indicated that gender and educational level are considered as significant predictors for a perceived ethical climate ($p<.01$). Further, demographic variables accounted for 24.4% of the variance in perceived ethical climate.

In Step 2 authentic leadership was entered sequentially as main independent variable after the demographic variables to the forecast of perceived ethical climate ($R^2 = .400$; adjusted $R^2 = .366$; $F$ Change (1, 105) = 27.293, $p = .000$). Authentic leadership contributed positively and significantly to the prediction of perceived ethical climate. Further, authentic leadership behaviour explained 40% of the variance in perceived ethical climate in subordinates, which is above the previously entered demographic variables. It follows that authentic leadership behaviour has a positive and significant influence on perceived ethical climate. In other words, leaders who demonstrated authentic leadership behaviour were related to a more ethical climate as perceived by subordinates.

### Table 4.14: Hierarchical Multiple Regression Analysis Summary predicting Ethical Climate from Demographic Variables and Authentic Leadership

<table>
<thead>
<tr>
<th>Model 1</th>
<th><strong>Outcome: Ethical Climate</strong></th>
<th><strong>Step 1</strong></th>
<th><strong>Step 2</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>$\beta^*$</td>
<td>$t$</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-.249</td>
<td>-.180**</td>
<td>-2.091</td>
</tr>
<tr>
<td>Age</td>
<td>-.023</td>
<td>-.074</td>
<td>-0.809</td>
</tr>
<tr>
<td>Education</td>
<td>-.197</td>
<td>-.350***</td>
<td>-3.994</td>
</tr>
<tr>
<td>Role</td>
<td>.083</td>
<td>1.36</td>
<td>1.552</td>
</tr>
<tr>
<td>Tenure</td>
<td>-.012</td>
<td>-.093</td>
<td>-0.905</td>
</tr>
<tr>
<td><strong>Main Effect</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authentic Leadership</td>
<td>.338</td>
<td>.421***</td>
<td>5.224</td>
</tr>
</tbody>
</table>

**Note:** $n = 112$; *Standardised coefficients are reported* *$p<.10$; **$p<.05$; ***$p<.01$.

**Hypothesis 2:** Authentic leadership positively and significantly influences individual-level organisational citizenship behaviours (OCBIs).

Demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables in order to eliminate potential effects of variables external to the conceptual model. Preliminary analyses were conducted to ensure there are no violations of the assumption of multivariate analyses. Table 4.15 illustrates the values for the standardised coefficient ($\beta$), the overall
value for $R^2$, $R^2$ Change, and Sig. F Change. Overall, the hierarchical multiple regression model reported significant ($R^2 = .188$; adjusted $R^2 = .142$; $F$ Change ($1, 105) = 14.199$, $p = .000$). With all variables entered, 18.8% of variance of subordinates’ organisational citizenship behaviour were explained. The detailed breakdown of each step is further explained below.

In Step 1 demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables to the forecast of organisational citizenship behaviour ($R^2 = .079$; adjusted $R^2 = .035$; $F$ Change ($5, 106) = 1.810$, $p = .117$). The demographic variables did not contribute significantly to the prediction of subordinates’ organisational citizenship behaviour. The demographic variable age however, indicated partial significance to the prediction of subordinates’ organisational citizenship behaviour accounting 7.9% of the variance in organisational citizenship behaviour ($p<.10$).

In Step 2 authentic leadership was entered sequentially as main independent variable after the demographic variables to the forecast of organisational citizenship behaviour ($R^2 = .188$; adjusted $R^2 = .142$; $F$ Change ($1, 105) = 14.199$, $p = .000$). Authentic leadership contributed positively and significantly to the prediction of subordinates’ organisational citizenship behaviour. Further, authentic leadership behaviour explained 18.8% of the variance in subordinates’ organisational citizenship behaviour, which is above the previously entered demographic variables. It follows that authentic leadership behaviour has a positive and significant influence on subordinates’ organisational citizenship behaviour. In other words, leaders who demonstrated authentic leadership behaviour were related to higher organisational citizenship behaviour among subordinates.

| Table 4.15: Hierarchical Multiple Regression Analysis Summary predicting Organisational Citizenship Behaviour from Demographic Variables and Authentic Leadership |
|---------------------------------|-----------------|-----------------|
| **Model 2**                      | **Outcome: Organisational Citizenship Behaviour** |                  |
|                                 | **Step 1**       | **Step 2**       |
| **B**                           | **β**            | **t**            | **B**                           | **β**            | **t**            |
| **Control Variables**           |                  |                  | **Main Effect**                 |                  |                  |
| Gender                          | .264             | .131            | 1.376                           | .225             | .111            | 1.242 |
| Age                             | -.079            | -.175*          | -1.723                          | -.050            | -.110           | -1.131 |
| Education                       | .064             | .078            | .806                            | .137             | .167*           | 1.773 |
| Role                            | -.018            | -.020           | -.207                           | .010             | .011            | .117 |
| Tenure                          | -.007            | -.056           | -.548                           | -.001            | -.004           | -.047 |
| **Main Effect**                 |                  |                  | **Authentic Leadership**        |                  |                  |
| **R^2**                         | .079             | .353***         | 3.768                           |
| **R^2 Change**                  | .079             | .188            |
| **Sig. F Change**               | 117              | .000***         |

Note: $n = 112$; *Standardised coefficients are reported $p<.10$; **$p<.05$; ***$p<.01$
**Hypothesis 3:** Authentic leadership positively and significantly influences affective organisational commitment of subordinates in an organisation.

Demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables in order to eliminate potential effects of variables external to the conceptual model. Preliminary analyses were conducted to ensure there are no violations of the assumption of multivariate analyses. Table 4.16 illustrates the values for the standardised coefficient (β), the overall value for $R^2$, $R^2$ Change, and Sig. F Change. Overall, the hierarchical multiple regression model reported significant ($R^2 = .501$; adjusted $R^2 = .473$; F Change (1, 105) = 90.229, $p = .000$). With all variables entered, 50.1% of variance of subordinates’ affective organisational commitment were explained. The detailed breakdown of each step is further explained below.

In Step 1 demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables to the forecast of affective organisational commitment ($R^2 = .073$; adjusted $R^2 = .029$; F Change (5, 106) = 1.659, $p = .151$). The demographic variables did not contributed significantly to the prediction of subordinates’ affective organisational commitment. Further analysis of demographic variable revealed however that educational level and organisational position indicated significance to the prediction of subordinates' affective organisational commitment accounting 7.3% of the variance in affective organisational commitment ($p<.05$).

In Step 2 authentic leadership was entered sequentially as main independent variable after the demographic variables to the forecast of affective organisational commitment ($R^2 = .501$; adjusted $R^2 = .473$ F Change (1, 105) = 90.229, $p = .000$). Authentic leadership contributed positively and significantly to the prediction of subordinates’ affective organisational commitment. Further, authentic leadership behaviour explained 50.1% of the variance in subordinates’ affective organisational commitment, which is above the previously entered demographic variables. It follows that authentic leadership behaviour has a positive and significant influence on subordinates’ affective organisational commitment. In other words, leaders who demonstrated authentic leadership behaviour were related to higher affective organisational commitment among subordinates.
Table 4.16: Hierarchical Multiple Regression Analysis Summary predicting Affective Organisational Commitment from Demographic Variables and Authentic Leadership

<table>
<thead>
<tr>
<th>Model 3</th>
<th>Control Variables</th>
<th>Main Effect</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gender</td>
<td>Authentic Leadership</td>
<td>B</td>
<td>β*</td>
<td>t</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td></td>
<td>.115</td>
<td>.036</td>
<td>.375</td>
<td>-.008</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td></td>
<td>-.263</td>
<td>-.200**</td>
<td>-.2067</td>
<td>-.032</td>
</tr>
<tr>
<td></td>
<td>Role</td>
<td></td>
<td>-.323</td>
<td>-.226**</td>
<td>-.2338</td>
<td>-.237</td>
</tr>
<tr>
<td></td>
<td>Tenure</td>
<td></td>
<td>.002</td>
<td>.010</td>
<td>.101</td>
<td>.023</td>
</tr>
<tr>
<td></td>
<td>R²</td>
<td></td>
<td>.073</td>
<td></td>
<td></td>
<td>.073</td>
</tr>
<tr>
<td></td>
<td>R² Change</td>
<td></td>
<td>.073</td>
<td></td>
<td></td>
<td>.073</td>
</tr>
<tr>
<td></td>
<td>Sig. F Change</td>
<td></td>
<td>.151</td>
<td></td>
<td></td>
<td>.000**</td>
</tr>
</tbody>
</table>

Note: n = 112; *Standardised coefficients are reported *p<.10; **p<.05; ***p<.01

Hypothesis 4: Authentic leadership positively and significantly influences subordinates’ in-role performance.

Demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables in order to eliminate potential effects of variables external to the conceptual model. Preliminary analyses were conducted to ensure there are no violations of the assumption of multivariate analyses. Table 4.17 illustrates the values for the standardised coefficient (β), the overall value for R², R² Change, and Sig. F Change. Overall, the hierarchical multiple regression model reported significant (R² = .089; adjusted R² = .037; F Change (1, 105) = 9.800, p = .002). With all variables entered, 8.9% of variance of subordinates’ in-role performance were explained. The detailed breakdown of each step is further explained below.

In Step 1 demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables to the forecast of in-role performance (R² = .004; adjusted R² = -.043; F Change (5, 106) = .078, p = .995). The demographic variables did not contribute significantly to the prediction of subordinates’ in-role performance. Further analysis of demographic variable revealed that demographic variables accounted for 0.4% of the variance in in-role performance.

In Step 2 authentic leadership was entered sequentially as main independent variable after the demographic variables to the forecast of in-role performance (R² = .089; adjusted R² = .037 F Change (1, 105) = 9.800, p = .002). Authentic leadership contributed positively and significantly to the prediction of subordinates’ in-role performance. Further, authentic leadership behaviour explained 8.9% of the variance in subordinates’ in-role performance, which is above the previously entered demographic variables. It follows that
authentic leadership behaviour has a positive and significant influence on subordinates’ in-role performance. In other words, leaders who demonstrated authentic leadership behaviour were related to higher in-role performance among subordinates.

**Table 4.17: Hierarchical Multiple Regression Analysis Summary predicting In-role Performance from Demographic Variables and Authentic Leadership**

<table>
<thead>
<tr>
<th>Model 4</th>
<th>Outcome: In-role Performance</th>
<th>Step 1</th>
<th>Step 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>β*</td>
<td>t</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.055</td>
<td>.041</td>
<td>.415</td>
</tr>
<tr>
<td>Age</td>
<td>.000</td>
<td>.001</td>
<td>.005</td>
</tr>
<tr>
<td>Education</td>
<td>-.014</td>
<td>-.026</td>
<td>-.263</td>
</tr>
<tr>
<td>Role</td>
<td>-.010</td>
<td>-.017</td>
<td>-.165</td>
</tr>
<tr>
<td>Tenure</td>
<td>-.003</td>
<td>-.034</td>
<td>-.322</td>
</tr>
<tr>
<td><strong>Main Effect</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authentic Leadership</td>
<td></td>
<td></td>
<td>.241</td>
</tr>
</tbody>
</table>

*R²* = .244; *R²* Change = .004; Sig. F Change = .995

*Note: n = 112; *Standardised coefficients are reported *p<.10; **p<.05; ***p<.01

**Hypothesis 5:** Ethical leadership positively and significantly predicts perceptions of ethical climate among subordinates.

Demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables in order to eliminate potential effects of variables external to the conceptual model. Preliminary analyses were conducted to ensure there are no violations of the assumption of multivariate analyses. Table 4.18 illustrates the values for the standardised coefficient (β), the overall value for *R²*, *R²* Change, and Sig. F Change. Overall, the hierarchical multiple regression model reported significant (*R²* = .416; adjusted *R²* = .382; F Change (1, 105) = 30.817, *p* = .000). With all variables entered, 41.6% of variance of perceived ethical climate were explained. The detailed breakdown of each step is further explained below.

In Step 1 demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables to the forecast of ethical climate (*R²* = .244; adjusted *R²* = .209; F Change (5, 106) = 6.849, *p* = .000). The demographic variables contributed significantly to the prediction of ethical climate. Specifically, analysis of control variables indicated that gender and educational level are considered as significant predictors for a perceived ethical climate (*p*<.01). Further, demographic variables accounted for 24.4% of the variance in perceived ethical climate.

In Step 2 ethical leadership was entered sequentially as main independent variable after the demographic variables to the forecast of perceived ethical climate (*R²* = .416;
adjusted $R^2 = .382; F \text{ Change} (1, 105) = 30.817, p = .000). Ethical leadership contributed positively and significantly to the prediction of perceived ethical climate. Further, ethical leadership behaviour explained 41.6% of the variance in perceived ethical climate in subordinates, which is above the previously entered demographic variables. It follows that ethical leadership behaviour has a positive and significant influence on perceived ethical climate. In other words, leaders who demonstrated ethical leadership behaviour were related to a more ethical climate as perceived by subordinates.

### Table 4.18: Hierarchical Multiple Regression Analysis Summary predicting Ethical Climate from Demographic Variables and Ethical Leadership

<table>
<thead>
<tr>
<th>Model 5</th>
<th>Outcome: Ethical Climate</th>
<th>Step 1</th>
<th></th>
<th>Step 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$B$</td>
<td>$\beta^*$</td>
<td>$t$</td>
<td>$B$</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-.249</td>
<td>-.180**</td>
<td>-2.091</td>
<td>-.240</td>
<td>-.174**</td>
</tr>
<tr>
<td>Age</td>
<td>-.023</td>
<td>-.074</td>
<td>-.809</td>
<td>-.004</td>
<td>-.011</td>
</tr>
<tr>
<td>Education</td>
<td>-.197</td>
<td>-.350***</td>
<td>-3.994</td>
<td>-.126</td>
<td>-.223***</td>
</tr>
<tr>
<td>Role</td>
<td>.083</td>
<td>.136</td>
<td>1.552</td>
<td>.119</td>
<td>.195**</td>
</tr>
<tr>
<td>Tenure</td>
<td>-.012</td>
<td>-.093</td>
<td>-.905</td>
<td>-.018</td>
<td>-.206**</td>
</tr>
<tr>
<td><strong>Main Effect</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethical Leadership</td>
<td></td>
<td></td>
<td></td>
<td>.363</td>
<td>.446***</td>
</tr>
<tr>
<td>$R^2$</td>
<td></td>
<td></td>
<td></td>
<td>.244</td>
<td></td>
</tr>
<tr>
<td>$R^2$ Change</td>
<td></td>
<td></td>
<td></td>
<td>.244</td>
<td></td>
</tr>
<tr>
<td>Sig. F Change</td>
<td></td>
<td></td>
<td></td>
<td>.000***</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** $n = 112$; *Standardised coefficients are reported *$p<.10$; **$p<.05$; ***$p<.01$

**Hypothesis 6: Ethical Leadership positively and significantly influences individual-level organisational citizenship behaviours (OCBIs).**

Demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables in order to eliminate potential effects of variables external to the conceptual model. Preliminary analyses were conducted to ensure there are no violations of the assumption of multivariate analyses. Table 4.19 illustrates the values for the standardised coefficient ($\beta$), the overall value for $R^2$, $R^2$ Change, and Sig. F Change. Overall, the hierarchical multiple regression model reported significant ($R^2 = .183; \text{ adjusted } R^2 = .136; F \text{ Change} (1, 105) = 13.384, p = .000$). With all variables entered, 18.3% of variance of organisational citizenship behaviour were explained. The detailed breakdown of each step is further explained below.

In Step 1 demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables to the forecast of organisational citizenship behaviour ($R^2 = .079; \text{ adjusted } R^2 = .035; F \text{ Change} (5, 106) = 1.810, p = .117$). The demographic variables did not contribute significantly to the prediction of subordinates' organisational citizenship behaviour. The demographic variable
age however, indicated partial significance to the prediction of subordinates’ organisational citizenship behaviour accounting 7.9% of the variance in organisational citizenship behaviour ($p<.10$).

In Step 2 ethical leadership was entered sequentially as main independent variable after the demographic variables to the forecast of organisational citizenship behaviour ($R^2 = .183$; adjusted $R^2 = .136$; $F$ Change (1, 105) = 13.384, $p = .000$). Ethical leadership contributed positively and significantly to the prediction of subordinates’ organisational citizenship behaviour. Further, ethical leadership behaviour explained 18.3% of the variance in subordinates’ organisational citizenship behaviour, which is above the previously entered demographic variables. It follows that ethical leadership behaviour has a positive and significant influence on subordinates’ organisational citizenship behaviour. In other words, leaders who demonstrated ethical leadership behaviour were related to higher organisational citizenship behaviour among subordinates.

**Table 4.19:** Hierarchical Multiple Regression Analysis Summary predicting Organisational Citizenship Behaviour from Demographic Variables and Ethical Leadership

| Model 6 | Outcome: Organisational Citizenship Behaviour | | |
|---------|-----------------------------------------------|---|---|---|
|         | **Step 1** | **Step 2** |
|         | $B$ | $β^*$ | $t$ | $B$ | $β^*$ | $t$ |
| **Control Variables** | | | | | | |
| Gender | .264 | .131 | 1.376 | .274 | .135 | 1.507 |
| Age | -.079 | -.175* | -1.723 | -.057 | -.126 | -1.298 |
| Education | .064 | .078 | .806 | .145 | .176* | 1.848 |
| Role | -.018 | -.020 | -.207 | .023 | .026 | .284 |
| Tenure | -.007 | -.056 | -.548 | .002 | .018 | .184 |
| **Main Effect** | | | | | | |
| Ethical Leadership | | | | | | .413 | .348*** | 3.658 |
| $R^2$ | | | | | | .079 | .183 |
| $R^2$ Change | | | | | | .079 | .104 |
| Sig. F Change | | | | | | .117 | .000*** |

*Note: $n = 112$; *Standardised coefficients are reported *$p<.10$; **$p<.05$; ***$p<.01$*

**Hypothesis 7:** Ethical leadership positively and significantly influences affective organisational commitment of subordinates in an organisation.

Demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables in order to eliminate potential effects of variables external to the conceptual model. Preliminary analyses were conducted to ensure there are no violations of the assumption of multivariate analyses. Table 4.20 illustrates the values for the standardised coefficient ($β$), the overall value for $R^2$, $R^2$ Change, and Sig. F Change. Overall, the hierarchical multiple regression model reported significant ($R^2 = .460$; adjusted $R^2 = .429$; $F$ Change (1, 105) = 75.296, $p = .000$). With all variables entered, 46% of variance of affective organisational commitment
were explained. The detailed breakdown of each step is further explained below.

In Step 1 demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables to the forecast of affective organisational commitment ($R^2 = .073$; adjusted $R^2 = .029$; $F$ Change (5, 106) = 1.659, $p = .151$). The demographic variables did not contribute significantly to the prediction of subordinates’ affective organisational commitment. Further analysis of demographic variable revealed however that educational level and organisational position indicated significance to the prediction of subordinates’ affective organisational commitment accounting 7.3% of the variance in affective organisational commitment ($p<.05$).

In Step 2 ethical leadership was entered sequentially as main independent variable after the demographic variables to the forecast of affective organisational commitment ($R^2 = .460$; adjusted $R^2 = .429$; $F$ Change (1, 105) = 75296, $p = .000$). Ethical leadership contributed positively and significantly to the prediction of subordinates’ affective organisational commitment. Further, ethical leadership behaviour explained 46% of the variance in subordinates’ affective organisational commitment, which is above the previously entered demographic variables. It follows that ethical leadership behaviour has a positive and significant influence on subordinates’ affective organisational commitment. In other words, leaders who demonstrated ethical leadership behaviour were related to higher affective organisational commitment among subordinates.

Table 4.20: Hierarchical Multiple Regression Analysis Summary predicting Affective Organisational Commitment from Demographic Variables and Ethical Leadership

<table>
<thead>
<tr>
<th>Model 7</th>
<th>Outcome: Affective Organisational Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Step 1</td>
</tr>
<tr>
<td>Control Variables</td>
<td>B</td>
</tr>
<tr>
<td>Gender</td>
<td>.115</td>
</tr>
<tr>
<td>Age</td>
<td>-.026</td>
</tr>
<tr>
<td>Education</td>
<td>-.263</td>
</tr>
<tr>
<td>Role</td>
<td>-.323</td>
</tr>
<tr>
<td>Tenure</td>
<td>.002</td>
</tr>
<tr>
<td>Main Effect</td>
<td>Ethical Leadership</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.073</td>
</tr>
<tr>
<td>$R^2$ Change</td>
<td>.073</td>
</tr>
<tr>
<td>Sig. $F$ Change</td>
<td>.151</td>
</tr>
</tbody>
</table>

Note: $n = 112$; *Standardised coefficients are reported *$p<.10$; **$p<.05$; ***$p<.01$

**Hypothesis 8:** Ethical leadership positively and significantly influences subordinates’ in-role performance.

Demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables in order
to eliminate potential effects of variables external to the conceptual model. Preliminary analyses were conducted to ensure there are no violations of the assumption of multivariate analyses. Table 4.21 illustrates the values for the standardised coefficient (\( \beta \)), the overall value for \( R^2 \), \( R^2 \) Change, and Sig. F Change. Overall, the hierarchical multiple regression model reported significant \( (R^2 = .110; \text{adjusted } R^2 = .059; F \text{ Change } (1, 105) = 12.486, p = .001) \). With all variables entered, 11% of variance of subordinates’ in-role performance were explained. The detailed breakdown of each step is further explained below.

In Step 1 demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables to the forecast of in-role performance \( (R^2 = .004; \text{adjusted } R^2 = -.043; F \text{ Change } (5, 106) = .078, p = .995) \). The demographic variables did not contribute significantly to the prediction of subordinates’ in-role performance. Further analysis of demographic variable revealed that demographic variables accounted for 0.4% of the variance in in-role performance.

In Step 2 ethical leadership was entered sequentially as main independent variable after the demographic variables to the forecast of in-role performance \( (R^2 = .110; \text{adjusted } R^2 = .059; F \text{ Change } (1, 105) = 12.486, p = .001) \). Ethical leadership contributed positively and significantly to the prediction of subordinates’ in-role performance. Further, ethical leadership behaviour explained 11% of the variance in subordinates’ in-role performance, which is above the previously entered demographic variables. It follows that ethical leadership behaviour has a positive and significant influence on subordinates’ in-role performance. In other words, leaders who demonstrated ethical leadership behaviour were related to higher in-role performance among subordinates.

<table>
<thead>
<tr>
<th>Table 4.21: Hierarchical Multiple Regression Analysis Summary predicting In-role Performance from Demographic Variables and Ethical Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 8</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>Role</td>
</tr>
<tr>
<td>Tenure</td>
</tr>
<tr>
<td><strong>Main Effect</strong></td>
</tr>
<tr>
<td>Ethical Leadership</td>
</tr>
</tbody>
</table>

| \( R^2 \) | .004 | .110 |
| \( R^2 \) Change | .004 | .106 |
| Sig. F Change | .995 | .001*** |

Note: \( n = 112 \); *Standardised coefficients are reported *\( p < .10 \); **\( p < .05 \); ***\( p < .01 \)

Form the analysis conducted, It is evident that each leadership construct, authentic leadership and ethical leadership, positively influences the perception of ethical climate in
the workplace among subordinates. To clarify, subordinates perceive the climate of the workplace as more ethical if their leadership demonstrate either authentic leadership or ethical leadership. Further, it is evident that each leadership construct, authentic leadership and ethical leadership, positively influence subordinates' individual organisational citizenship behaviours. To clarify, subordinates are willing to demonstrate more organisational citizenship behaviours if their leaders demonstrate either authentic leadership or ethical leadership. Moreover, it is evident that each leadership construct, authentic leadership and ethical leadership, positively influences subordinates’ affective organisational commitment. To clarify, subordinates demonstrate affective commitment to their organisation if their leaders demonstrate either authentic leadership or ethical leadership. Lastly, it is evident that each leadership construct, authentic leadership and ethical leadership, positively influence subordinates' in-role performance. To clarify, subordinates demonstrate better in-role performance if their leaders demonstrate either authentic leadership or ethical leadership.

4.5.2 Section 2 - Testing for mediation and moderation effects on the relationship between authentic leadership and organisational outcomes

4.5.2.1 Testing for mediation effect of ethical climate for authentic leadership

Mediation effects occur when a causal relationship between the independent variable affecting the dependent variable is transmitted through an intervening variable (Hayes & Preacher 2014). This effect can occur either partially or fully. In a mediation model the independent variable has a direct effect on the dependent variable and additionally it is assumed to have an impact on the mediating variable, which then transmits to the dependent variable (Baron & Kenny 1986; Cohen et al. 2003; Hayes 2009, 2013). Hence, a mediation model provides an explanation for the relationship between two variables, the independent and dependent variable, in which a mediating variable is hypothesised to be intermediate in that relationship (Fairchild & MacKinnon 2009). This mediation effect also concludes that the total effect between the independent variable and the dependent variable that was originally present. The utility of a mediation model is that it describes a rather functional understanding of the relationship between variables (Preacher & Hayes 2004). Therefore, an essential factor in a mediation model is the significance of a statistical and practical indirect effect.

This thesis applied the ordinary least square (OLS) regression process established by Baron and Kenny (1986) to test for mediation effects utilising a Process macro for SPSS
developed by Hayes (2013). Baron and Kenny (1986) conceptualised the mediation process as the impact of a mediating variable in the relationship between an independent variable and a dependent variable by partially or completely accounting for that relationship. Further, as a prerequisite for a mediation process to occur, significant pair-wise relations between the direct relationships of independent and dependent variable must exist as well as significant relations between the sub-components of the indirect relationships of independent variable and mediator variable and mediator variable and dependent variable. Based on the theoretical underpinnings previously discussed in chapter two it was suggested that ethical climate will demonstrate mediation effect between the Independent Variable authentic leadership and the main Dependent Variables organisational citizenship behaviour, affective organisational commitment and in-role performance. In order to assess a partially or complete mediation effect the following four actions have been undertaken:

a) Assessing the significance for prediction of independent variable to dependent variable applying regression

b) Assessing the significance for prediction of independent variable to mediator variable applying regression

c) Assessing the significance for prediction of mediator variable to dependent variable controlling for the independent variable. The independent variable and the mediator variable are used as predictors while the dependent variable is used as outcome variable in a multiple regression

d) In case of a fully mediated relationship of the independent variable and dependent variable through a mediator variable, the effect of the independent variable is supposed to be zero, when controlling for the mediator variable. In case of a partially mediated relationship the effect is not eliminated but only reduced

Baron and Kenny (1986) imply that for determining the strength of a mediation relationship, an assessment of the degree of the β-weights is required for the independent variable predicting the dependent variable within the regression model prior and post controlling for the effects of the mediator variable. This procedure was done with a hierarchical regression analysis illustrating that a variable's β-weight was significantly reduced and remained significant within the mediation model. Complete mediation was considered when a prior significant β-weight of an independent variable in the direct relationship with a dependent variable was reduced to insignificant within a mediation model where effects of the mediator variable are controlled.

In addition to the steps for testing mediation effect as indicated previously, the method of bootstrapping was utilised in SPSS to identify the significance of the indirect effect (Preacher, Rucker & Hayes 2007). Bootstrapping is frequently used and represents a non-
parametric method providing support for investigating indirect effects between variables without violating the assumption of multivariate analyses (Hayes & Preacher 2014). To clarify, bootstrapping utilises re-sampling methods to derive estimates of standard errors and confidence intervals and creates a sample distribution as a surrogate of the population. This sample distribution is drawn from the original sample size n. The SPSS macro was run with 5000 bootstrapped re-samples using authentic leadership as the independent variable; ethical climate as the mediator and demographic variables (gender, age, education level, role, tenure) as covariates.

In the previously conducted hierarchical multiple regression analyses, it was indicative that authentic leadership was a significant predictor of organisational citizenship behaviour (see table 4.15), affective organisational commitment (see table 4.16) and in-role performance (see table 4.17). Further, the previously conducted hierarchical multiple regression analysis was indicative authentic leadership predicting perceived ethical climate (Table 4.14). Also, based on the previous literature review and previous research on mediation effects of ethical climate, it was argued that ethical climate is indicative of predicting positively and significantly organisational citizenship behaviour, affective organisational commitment and in-role performance. These assumptions were further tested empirically in a hierarchical multiple regression analysis. Results for ethical climate predicting organisational citizenship behaviour are illustrated in Table 4.22; results for ethical climate predicting affective organisational commitment are illustrated in Table 4.23; results for ethical climate predicting in-role performance are illustrated in Table 4.24. Therefore, the mediation effect of ethical climate on the relationship between authentic leadership and organisational citizenship behaviour was assessed. Results for the mediation effect of ethical climate to authentic leadership and organisational citizenship behaviour are presented in Table 4.25; Results for the mediation effect of ethical climate to authentic leadership and affective organisational commitment are presented in Table 4.26; Results for the mediation effect of ethical climate to authentic leadership and in-role performance are presented in Table 4.27.
Demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables in order to eliminate potential effects of variables external to the conceptual model. Preliminary analyses were conducted to ensure there are no violations of the assumption of multivariate analyses. Table 4.22 illustrates the values for the standardised coefficient ($\beta$), the overall value for $R^2$, $R^2$ Change, and Sig. F Change. Overall, the hierarchical multiple regression model reported significant ($R^2 = .168$; adjusted $R^2 = .120$; $F$ Change (1, 105) = 11.236, $p = .001$). With all variables entered, 16.8% of variance of subordinates’ organisational citizenship behaviour were explained. The detailed breakdown of each step is further explained below.

In Step 1 demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables to the forecast of organisational citizenship behaviour ($R^2 = .079$; adjusted $R^2 = .035$; $F$ Change (5, 106) = 1.810, $p = .117$). The demographic variables did not contribute significantly to the prediction of subordinates’ organisational citizenship behaviour. The demographic variable age however, indicated partial significance to the prediction of subordinates’ organisational citizenship behaviour accounting 7.9% of the variance in organisational citizenship behaviour ($p < .10$).

In Step 2 ethical climate was entered sequentially as main independent variable after the demographic variables to the forecast of organisational citizenship behaviour ($R^2 = .168$; adjusted $R^2 = .120$; $F$ Change (1, 105) = 11.236, $p = .001$). Ethical climate contributed positively and significantly to the prediction of subordinates’ organisational citizenship behaviour. Further, ethical climate explained 16.8% of the variance in subordinates’ organisational citizenship behaviour, which is above the previously entered demographic variables. It follows that ethical climate has a positive and significant influence on
subordinates’ organisational citizenship behaviour. In other words, an environment that is based on ethical principles was related to higher organisational citizenship behaviour among subordinates. It follows that ethical climate has a positive and significant influence on subordinates’ organisational citizenship behaviour.

### Table 4.23: Hierarchical Multiple Regression Analysis Summary predicting Affective Organisational Commitment from Demographic Variables and Ethical Climate

<table>
<thead>
<tr>
<th>Model 10</th>
<th>Outcome: Affective Organisational Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Step 1</td>
</tr>
<tr>
<td></td>
<td>B</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.115</td>
</tr>
<tr>
<td>Age</td>
<td>-.026</td>
</tr>
<tr>
<td>Education</td>
<td>-.263</td>
</tr>
<tr>
<td>Role</td>
<td>-.323</td>
</tr>
<tr>
<td>Tenure</td>
<td>.002</td>
</tr>
<tr>
<td><strong>Main Effect</strong></td>
<td></td>
</tr>
<tr>
<td>Ethical Climate</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>.073</td>
</tr>
<tr>
<td>R² Change</td>
<td>.073</td>
</tr>
<tr>
<td>Sig. F Change</td>
<td>.151</td>
</tr>
</tbody>
</table>

Note: n = 112; *Standardised coefficients are reported *p<.10; **p<.05; ***p<.01

Demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables in order to eliminate potential effects of variables external to the conceptual model. Preliminary analyses were conducted to ensure there are no violations of the assumption of multivariate analyses. Table 4.23 illustrates the values for the standardised coefficient (β), the overall value for R², R² Change, and Sig. F Change. Overall, the hierarchical multiple regression model reported significant (R² = .227; adjusted R² = .182; F Change (1, 105) = 20.925, p = .000). With all variables entered, 22.7% of variance of subordinates’ affective organisational commitment were explained. The detailed breakdown of each step is further explained below.

In Step 1 demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables to the forecast of affective organisational commitment (R² = .073; adjusted R² = .029; F Change (5, 106) = 1.659, p = .151). The demographic variables did not contribute significantly to the prediction of subordinates’ affective organisational commitment. Further analysis of demographic variable revealed however that educational level and organisational position indicated significance to the prediction of subordinates’ affective organisational commitment accounting 7.3% of the variance in affective organisational commitment (p<.05).

In Step 2 ethical climate was entered sequentially as main independent variable after the demographic variables to the forecast of affective organisational commitment (R² = .227;
adjusted $R^2 = .182$ F Change $(1, 105) = 20.925, p = .000$). Ethical climate contributed positively and significantly to the prediction of subordinates’ affective organisational commitment. Further, ethical climate explained 22.7% of the variance in subordinates’ affective organisational commitment, which is above the previously entered demographic variables. It follows that ethical climate has a positive and significant influence on subordinates’ affective organisational commitment. In other words, an environment that is based on ethical principles was related to higher affective organisational commitment among subordinates. It follows that ethical climate has a positive and significant influence on subordinates’ affective organisational commitment.

Table 4.24: Hierarchical Multiple Regression Analysis Summary predicting In-role Performance from Demographic Variables and Ethical Climate

<table>
<thead>
<tr>
<th>Model 11</th>
<th>Outcome: In-role performance</th>
<th>Step 1</th>
<th>Step 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>$\beta^*$</td>
<td>t</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.055</td>
<td>.041</td>
<td>4.15</td>
</tr>
<tr>
<td>Age</td>
<td>.000</td>
<td>.001</td>
<td>0.05</td>
</tr>
<tr>
<td>Education</td>
<td>-.014</td>
<td>-.026</td>
<td>-2.63</td>
</tr>
<tr>
<td>Role</td>
<td>-.010</td>
<td>-.017</td>
<td>-1.65</td>
</tr>
<tr>
<td>Tenure</td>
<td>-.003</td>
<td>-.034</td>
<td>-3.22</td>
</tr>
<tr>
<td><strong>Main Effect</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethical Climate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>.004</td>
<td></td>
<td>.107</td>
</tr>
<tr>
<td>$R^2$ Change</td>
<td>.004</td>
<td></td>
<td>.103</td>
</tr>
<tr>
<td>Sig. F Change</td>
<td>.995</td>
<td></td>
<td>.001***</td>
</tr>
</tbody>
</table>

*Note: n = 112; *Standardised coefficients are reported *p<.10; **p<.05; ***p<.01

Demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables in order to eliminate potential effects of variables external to the conceptual model. Preliminary analyses were conducted to ensure there are no violations of the assumption of multivariate analyses. Table 4.24 illustrates the values for the standardised coefficient ($\beta$), the overall value for $R^2$, $R^2$ Change, and Sig. F Change. Overall, the hierarchical multiple regression model reported significant ($R^2 = .107$; adjusted $R^2 = .055$; F Change $(1, 105) = 12.087, p = .001$). With all variables entered, 10.7% of variance of subordinates’ in-role performance were explained. The detailed breakdown of each step is further explained below.

In Step 1 demographic variables (gender, age, education level, organisational role, and organisational position) were entered into the regression model as control variables to the forecast of in-role performance ($R^2 = .004$; adjusted $R^2 = -.043$; F Change $(5, 106) = .078, p = .995$). The demographic variables did not contribute significantly to the prediction of subordinates’ in-role performance. Further analysis of demographic variable revealed that demographic variables accounted for 0.4% of the variance in in-role performance.
In Step 2 ethical climate was entered sequentially as main independent variable after the demographic variables to the forecast of in-role performance ($R^2 = .107$; adjusted $R^2 = .055$ $F$ Change $(1, 105) = 12.087, p = .001$). Ethical climate contributed positively and significantly to the prediction of subordinates’ in-role performance. Further, ethical climate explained 10.7% of the variance in subordinates’ in-role performance, which is above the previously entered demographic variables. It follows that ethical climate has a positive and significant influence on subordinates’ in-role performance. In other words, an environment that is based on ethical principles was related to higher in-role performance among subordinates.

**Hypothesis 10a:** Ethical climate significantly mediates the relationship between perceived authentic leadership behaviour and subordinates’ organisational citizenship behaviour.

It was hypothesised that ethical climate mediates the relationship between authentic leadership and organisational citizenship behaviour (Figure 4.1). As recommended by Mackinnon, Lockwood and Williams (2004), assessment of the magnitude and statistical significance for the mediating effect of ethical climate was conducted with 5000 bootstrapped re-samples by using authentic leadership as independent variable, ethical climate as the mediator variable, controlling for gender, age, education, role and tenure. The model of the indirect relationship between authentic leadership, ethical climate and organisational citizenship behaviour after controlling for gender, age, education, role and tenure reported significant.

**Figure 4.1:** Ethical climate mediating the relationship between authentic leadership and organisational citizenship behaviour

![Diagram](image)

Results of this mediation model are reported in Table 4.25. Results reveal that authentic leadership positively and significantly related to ethical climate ($B = .338 t = 5.224$, $p = .000$), which indicated that Path a of the mediation model was significant. Further, ethical
climate positively and marginally significantly related to organisational citizenship behaviour \((B = .313, t = 1.913, p = .059)\), which indicated that Path b of the mediation model was significant. In the next step, authentic leadership and ethical climate positively and significantly related to organisational citizenship behaviour \((B = .308, t = 2.530, p = .013)\), which indicated that Path c’ of the mediation model was significant. In the last step, authentic leadership positively and significantly related to organisational citizenship behaviour \((B = .308, t = 2.530, p = .013)\), which indicated that Path c of the mediation model was significant. Subsequently the Normal Theory test for the indirect effect was assessed indicating that values of the 95% confidence intervals range from .008 to .237 (95% CI [.008, .237]). The indirect effect reported significant with an effect size of .106 \((Z = 1.768, p = .077)\). Hence, the results indicated that followers who perceive their leaders as authentic reported high perception of ethical climate, which, in turn, was related to a marginal increase in demonstrating higher organisational citizenship behaviour. Hence, the hypothesis is supported.

Table 4.25: Mediating effects of Ethical Climate to Authentic Leadership and Organisational Citizenship Behaviour after controlling for Demographic Variables

<table>
<thead>
<tr>
<th>Model 12</th>
<th>Outcome: Organisational Citizenship Behaviour</th>
<th>(B)</th>
<th>(SE)</th>
<th>(t)</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct and total (B) effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Path a (AL (\rightarrow) EC)</td>
<td></td>
<td>.338</td>
<td>.065</td>
<td>5.224</td>
<td>.000</td>
</tr>
<tr>
<td>Path b (EC (\rightarrow) OCB)</td>
<td></td>
<td>.313</td>
<td>.164</td>
<td>1.913</td>
<td>.059</td>
</tr>
<tr>
<td>Path c’ (AL and EC (\rightarrow) OCB)</td>
<td></td>
<td>.308</td>
<td>.122</td>
<td>2.630</td>
<td>.013</td>
</tr>
<tr>
<td>Path c (AL (\rightarrow) OCB)</td>
<td></td>
<td>.414</td>
<td>.110</td>
<td>3.768</td>
<td>.000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Effect</th>
<th>(B)</th>
<th>(SE)</th>
<th>LL 95% CI</th>
<th>UL 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect</td>
<td>.106</td>
<td>.057</td>
<td>.008</td>
<td>.237</td>
</tr>
</tbody>
</table>

Note: \(n = 112\); *Standardised coefficients are reported \(*p<.10\); **\(p<.05\); ***\(p<.01\)
Unstandardised regression coefficients are reported. Bootstrap sample size = 5,000.
LL = lower limit; CI = confidence interval; UL = upper limit. Demographic variables were included as control variables.

The magnitude of the mediating effect by ethical climate was computed in accordance with the formula by Alwin and Hauser (1975), which proposed that percentage of the indirect effect equals the indirect effect divided by the total effect and multiplied by one-hundred. The effect size in this case was 25.6%. To clarify, when authentic leadership is supported through an ethical climate, there is an increase in organisational citizenship behaviour of subordinates and ethical climate transmits 25.6% of this effect.
**Hypothesis 10b:** Ethical climate significantly mediates the relationship between perceived authentic leadership behaviour and subordinates’ affective organisational commitment.

It was hypothesised that ethical climate mediates the relationship between authentic leadership and affective organisational commitment (Figure 4.2). As recommended by Mackinnon, Lockwood and Williams (2004), assessment of the magnitude and statistical significance for the mediating effect of ethical climate was conducted with 5000 bootstrapped re-samples by using authentic leadership as independent variable, ethical climate as the mediator variable, controlling for gender, age, education, role and tenure. The model of the indirect relationship between authentic leadership, ethical climate and affective organisational commitment after controlling for gender, age, education, role and tenure reported non-significant.

**Figure 4.2:** Ethical climate mediating the relationship between authentic leadership and affective organisational commitment

Results of this mediation model are reported in Table 4.25. Results reveal that authentic leadership positively and significantly related to ethical climate \( (B = .338, t = 5.224, p = .000) \), which indicated that Path a of the mediation model was significant. Further, ethical climate did not significantly relate to affective organisational commitment \( (B = .322, t = 1.561, p = .122) \), which indicated that Path b of the mediation model was non-significant. In the next step, authentic leadership and ethical climate positively and significantly related to affective organisational commitment \( (B = 1.196, t = 7.811, p = .000) \), which indicated that Path c’ of the mediation model was significant. In the last step, authentic leadership positively and significantly related to affective organisational commitment \( (B = 1.373, t = 9.317, p = .000) \), which indicated that Path c of the mediation model was significant. Subsequently the Normal Theory test for the indirect effect was assessed indicating that values of the 95% confidence intervals range from -.021 to .267 (95% CI [-.021, .267]). The indirect effect reported non-significant with an effect size of .109 \( (Z = 1.471, p = .141) \).
Chapter 4 Data Analysis

Hence, the results indicated that perceived ethical climate did not enhance the effectiveness of authentic leadership behaviour to impact on subordinates’ affective organisational commitment. Hence, the hypothesis was not supported.

Table 4.26: Mediating effects of Ethical Climate to Authentic Leadership and Affective Organisational Commitment after controlling for Demographic Variables

<table>
<thead>
<tr>
<th>Model 13</th>
<th>Outcome: Affective Organisational Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
</tr>
<tr>
<td>Direct and total B effects</td>
<td></td>
</tr>
<tr>
<td>Path a (AL → EC)</td>
<td>.338</td>
</tr>
<tr>
<td>Path b (EC → AOC)</td>
<td>.322</td>
</tr>
<tr>
<td>Path c’ (AL and EC → AOC)</td>
<td>1.196</td>
</tr>
<tr>
<td>Path c (AL → AOC)</td>
<td>1.305</td>
</tr>
<tr>
<td>Bootstrap results for indirect effect of Ethical Climate</td>
<td></td>
</tr>
<tr>
<td>Effect</td>
<td>B</td>
</tr>
<tr>
<td>Ethical Climate</td>
<td>.109</td>
</tr>
</tbody>
</table>

Note: n = 112; *Standardised coefficients are reported *p<.10; **p<.05; ***p<.01
Unstandardised regression coefficients are reported. Bootstrap sample size = 5,000.
LL = lower limit; CI = confidence interval; UL = upper limit. Demographic variables were included as control variables.

**Hypothesis 10c:** Ethical climate significantly mediates the relationship between perceived authentic leadership behaviour and subordinates’ in-role performance.

It was hypothesised that ethical climate mediates the relationship between authentic leadership and in-role performance (Figure 4.3). As recommended by Mackinnon, Lockwood and Williams (2004), assessment of the magnitude and statistical significance for the mediating effect of ethical climate was conducted with 5000 bootstrapped re-samples by using authentic leadership as independent variable, ethical climate as the mediator variable, controlling for gender, age, education, role and tenure. The model of the indirect relationship between authentic leadership, ethical climate and in-role performance after controlling for gender, age, education role and tenure reported non-significant.

**Figure 4.3:** Ethical climate mediating the relationship between authentic leadership and in-role performance
As reported in Table 4.27 authentic leadership positively and significantly related to ethical climate \( (B = .338, t = 5.224, p = .000) \), which indicated that Path a of the mediation model was significant. Further, ethical climate did significantly relate to in-role performance \( (B = .263, t = 2.315, p = .023) \), which indicated that Path b of the mediation model was significant. In the next step, authentic leadership and ethical climate did add partial significance related to in-role performance \( (B = .152, t = 1.795, p = .076) \), which indicated that Path c′ of the mediation model was partially significant. In the last step, authentic leadership positively and significantly related to in-role performance \( (B = .241, t = 3.131, p = .002) \), which indicated that Path c of the mediation model was significant. Subsequently the Normal Theory test for the indirect effect was assessed indicating that values of the 95% confidence intervals range from .012 to .211 (95% CI [.012, .211]). The indirect effect reported significant with an effect size of .089 \( (Z = 2.085, p = .037) \). Hence, the results indicated that perceived ethical climate did enhance the effectiveness of authentic leadership behaviour to impact on subordinates’ in-role performance. Hence, the hypothesis was supported.

The effect size was calculated in accordance with the formula by Alwin and Hauser (1975). The calculated effect size for this mediation model was 36.9%. To clarify, when authentic leadership is supported through an ethical climate, there is an increase in in-role performance of subordinates and ethical climate transmits 36.9% of this effect.

**Table 4.27:** Mediating effects of Ethical Climate to Authentic Leadership and In-role Performance after controlling for Demographic Variables

<table>
<thead>
<tr>
<th>Model 14</th>
<th>Outcome: Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( B )</td>
</tr>
<tr>
<td>Direct and total ( B ) effects</td>
<td></td>
</tr>
<tr>
<td>Path a (AL ( \rightarrow ) EC)</td>
<td>.338</td>
</tr>
<tr>
<td>Path b (EC ( \rightarrow ) P)</td>
<td>.263</td>
</tr>
<tr>
<td>Path c′ (AL and EC ( \rightarrow ) P)</td>
<td>.152</td>
</tr>
<tr>
<td>Path c (AL ( \rightarrow ) P)</td>
<td>.241</td>
</tr>
</tbody>
</table>

Bootstrap results for indirect effect of Ethical Climate

<table>
<thead>
<tr>
<th>Effect</th>
<th>( B )</th>
<th>SE</th>
<th>LL 95% CI</th>
<th>UL 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect</td>
<td>.089</td>
<td>.049</td>
<td>.012</td>
<td>.211</td>
</tr>
</tbody>
</table>

Note: \( n = 112 \); *Standardised coefficients are reported \( *p<.10; **p<.05; ***p<.01 \)
Unstandardised regression coefficients are reported. Bootstrap sample size = 5,000.
LL = lower limit; CI = confidence interval; UL = upper limit. Demographic variables were included as control variables.
4.5.2.2 Testing for Moderation Effects of Ethical Leadership

A moderation effect occurs when the relationship between a dependent variable and an independent variable is contingent on the levels of a third moderating variable (Baron & Kenny 1986; Miles & Shevlin 2001). This interaction of the moderator variable influences the strength and direction of the independent variable. In other words, the moderation effect provides information if the influence of the independent variable onto the dependent variable will be stronger, weaker, positive or negative (Cohen et al. 2003; Miles & Shevlin 2001).

Hierarchical multiple regression analysis provides the most appropriate method to analyse interaction effects of a moderator variable between predictor and criterion variables (Fairchild & MacKinnon 2009). In a moderation model, effects are assessed with multiple regression analyses where all independent variables are entered together with the computed interaction variable. Therefore, to conduct a moderation analysis, the moderator variable was created by multiplying the variable for authentic leadership and ethical leadership, which computed the moderation variable resulting from the interaction effect of both variables (Hayes 2013). Additionally prior to analysis, all variables in a moderation model should therefore be transformed into standardised scores to improve the explanation of regression coefficients and minimise multicollinearity. The sample size $n=112$ did satisfy the minimum requirements for moderated regression analyses as recommended by (Tabachnick & Fidell 2007).

The hypothesised moderation effect of ethical leadership on the relationship between authentic leadership and individual outcomes was according to the literature review in chapter 2. Therefore, the moderating effect of ethical leadership on the relationship of authentic leadership and ethical climate was assessed and results are presented in Table 4.28. Additionally, the moderating effect of ethical leadership on the relationship of authentic leadership and organisational citizenship behaviour was assessed and results are presented in Table 4.29. Further, the moderating effect of ethical leadership on the relationship of authentic leadership and affective organisational commitment was assessed and results are presented in Table 4.30. Lastly, the moderating effect of ethical leadership on the relationship of authentic leadership and in-role performance was assessed and results are presented in Table 4.31.
**Hypothesis 9a:** Ethical leadership moderates significantly the relationship between perceived authentic leadership behaviour and subordinates’ perception of ethical climate, such that when ethical leadership is high, subordinates will have higher perception of ethical climate.

Hierarchical multiple regression analysis was conducted to examine moderating effects of ethical leadership on authentic leadership when predicting ethical climate (Table 4.28). The moderating effect of ethical leadership was tested by examining the change in $R^2$ value of the interaction between authentic leadership and ethical leadership, when added into the final step of the regression process. In case of a significant increase in $R^2$, Change signifying the amount of variance explained in the dependent variable ethical climate, ethical leadership is then identified as a moderator of the relationship between authentic leadership and ethical climate.

<table>
<thead>
<tr>
<th>Model 15</th>
<th>Outcome: Ethical Climate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>β</strong>*</td>
<td>Step 1</td>
</tr>
<tr>
<td>Control Variables</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-.180**</td>
</tr>
<tr>
<td>Age</td>
<td>-.074</td>
</tr>
<tr>
<td>Education</td>
<td>-.350***</td>
</tr>
<tr>
<td>Role</td>
<td>.136</td>
</tr>
<tr>
<td>Tenure</td>
<td>-.300***</td>
</tr>
<tr>
<td>Main Effect</td>
<td></td>
</tr>
<tr>
<td>Authentic Leadership</td>
<td></td>
</tr>
<tr>
<td>Ethical Leadership</td>
<td></td>
</tr>
<tr>
<td>Interaction Effect</td>
<td></td>
</tr>
<tr>
<td>Authentic Leadership * Ethical Leadership</td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>.244</td>
</tr>
<tr>
<td>$R^2$ Change</td>
<td>.244</td>
</tr>
<tr>
<td>Sig. F Change</td>
<td>.000***</td>
</tr>
</tbody>
</table>

*Note: $n = 112$; *Standardised coefficients are reported *p<.10; **p<.05; ***p<.01*

In Step 1 demographic variables (gender, age, education level, role, tenure) were entered as control variables to the forecast of ethical climate. In line with the previous examination, demographics contributed partially to the prediction of ethical climate. Specifically, the demographic variables gender, educational level and tenure are considered as predictors for a perceived ethical climate.

In Step 2 authentic leadership was entered to the forecast of ethical climate. The overall regression model reported significant ($R^2$ change = .156, F Change (1, 105) = 27.293, $p=.000$). Authentic leadership reported as positive and significant contributor to
ethical climate when entered at this step of the regression model.

In Step 3 ethical leadership was entered to the forecast of ethical climate. The overall regression model reported partially significant ($R^2$ change = .019, $F$ Change (1, 104) = 3.484, $p$=.065). Ethical leadership reported as positive and significant contributor to ethical climate when entered at this step of the regression model.

In Step 4, the interaction term between authentic leadership and ethical leadership was entered into the regression model with ethical climate as the dependent variable. In Table 4.28 as per Step 4 $R^2$ Change indicated that the presence of the interaction between authentic leadership and ethical leadership did not contribute significantly to the prediction of ethical climate ($R^2$ change = .003, $F$ Change (1, 103) = .487, $p$=.487). The interaction of the moderation effect is illustrated in Figure 4.4. Results reveal that subordinates did not perceive a more ethical climate when leaders were perceived as authentic and ethical in their leadership behaviour.

**Figure 4.4:** Plotting the interaction of ethical leadership moderating the relationship between authentic leadership and ethical climate

**Hypothesis 9b:** Ethical leadership moderates significantly the relationship between perceived authentic leadership behaviour and subordinates’ organisational citizenship behaviour, such that when ethical leadership is high, subordinates will demonstrate higher organisational citizenship behaviours.

Hierarchical multiple regression analysis was employed to examine moderating effects of ethical leadership on authentic leadership when predicting organisational citizenship behaviour (Table 4.29). The moderating effect of ethical leadership was tested by
examining the change in $R^2$ value of the interaction between authentic leadership and ethical leadership, when added into the final step of the regression process. In case of a significant increase in $R^2$ Change signalising the amount of variance explained in the dependent variable organisational citizenship behaviour, ethical leadership is then identified as a moderator of the relationship between authentic leadership and organisational citizenship behaviour.

**Table 4.29:** Moderating effects of Ethical Leadership to Authentic Leadership and Organisational Citizenship Behaviour after controlling for Demographic Variables

<table>
<thead>
<tr>
<th>Model 16</th>
<th>Outcome: Organisational Citizenship Behaviour</th>
<th>β*</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>.131</td>
<td>.111</td>
<td>.120</td>
<td>.111</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-1.175*</td>
<td>-.110</td>
<td>-.113</td>
<td>-.097</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>.078</td>
<td>.167</td>
<td>.176*</td>
<td>.111</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role</td>
<td>-.020</td>
<td>.011</td>
<td>.019</td>
<td>.009</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tenure</td>
<td>-.056</td>
<td>-.004</td>
<td>.008</td>
<td>-.039</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Main Effect</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authentic Leadership</td>
<td></td>
<td></td>
<td>.353***</td>
<td>.224</td>
<td>.373*</td>
<td></td>
</tr>
<tr>
<td>Ethical Leadership</td>
<td></td>
<td></td>
<td>.148</td>
<td>.200</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Interaction Effect</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authentic Leadership * Ethical Leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.378***</td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td></td>
<td></td>
<td>.079</td>
<td>.188</td>
<td>.193</td>
<td>.229</td>
</tr>
<tr>
<td>$R^2$ Change</td>
<td></td>
<td></td>
<td>.079</td>
<td>.110</td>
<td>.004</td>
<td>.092</td>
</tr>
<tr>
<td>Sig. F Change</td>
<td></td>
<td></td>
<td>.117</td>
<td>.000***</td>
<td>.466</td>
<td>.000***</td>
</tr>
</tbody>
</table>

Note: $n = 112$; *Standardised coefficients are reported *$p<.10; **p<.05; ***p<.01

In Step 1 demographic variables (gender, age, education level, role, tenure) were entered as control variables to the forecast of organisational citizenship behaviour. In line with the previous examination, demographic variables partially contributed to the prediction of organisational citizenship behaviour of subordinates. Specifically, the demographic variables age is considered as predictor for organisational citizenship behaviours of subordinates.

In Step 2 authentic leadership was entered to the forecast of organisational citizenship behaviour of subordinates. The overall regression model reported significant ($R^2$ change = .110, $F$ Change (1, 105) = 14.199, $p=.000$). Authentic leadership reported as a positive and significant contributor to organisational citizenship behaviours of subordinates when entered at this step of the regression model.

In Step 3 ethical leadership was entered to the forecast of organisational citizenship behaviour of subordinates. The overall regression model reported non-significant ($R^2$ change...
Ethical leadership is not considered a contributor to organisational citizenship behaviour of subordinates when entered at this step of the regression model.

In Step 4, the interaction term between authentic leadership and ethical leadership were entered into the regression model with organisational citizenship behaviour as the dependent variable. In Table 4.29 as per Step 4 $R^2$ Change indicated that the presence of the interaction between authentic leadership and ethical leadership contributed significantly to the prediction of organisational citizenship behaviour ($R^2$ change = .092, $F$ Change (1, 103) = 13.183, $p$=.000). Further, the moderator accounted for 28.4% of variance in organisational citizenship behaviour, which is above the previously entered variables. The interaction of the moderation effect is illustrated in Figure 4.5. Results reveal that subordinates demonstrated higher levels of organisational citizenship behaviour when leaders were perceived as authentic and ethical in their leadership behaviour.

**Figure 4.5:** Plotting the interaction of ethical leadership moderating the relationship between authentic leadership and organisational citizenship behaviour

**Hypothesis 9c:** Ethical leadership moderates significantly the relationship between authentic leadership behaviour and subordinates’ affective organisational commitment, such that when ethical leadership is high, subordinates will demonstrate higher affective organisational commitment.

Hierarchical multiple regression analysis was employed to examine moderating effects of ethical leadership on authentic leadership when predicting affective organisational commitment (Table 4.30). The moderating effect of ethical leadership was tested by examining the change in $R^2$ value of the interaction between authentic leadership and ethical
leadership, when added into the final step of the regression process. In case of a significant increase in $R^2$ Change signalising the amount of variance explained in the dependent variable affective organisational commitment, ethical leadership is then identified as a moderator of the relationship between authentic leadership and affective organisational commitment.

### Table 4.30: Moderating effects of Ethical Leadership to Authentic Leadership and Affective Organisational Commitment after controlling for Demographic Variables

<table>
<thead>
<tr>
<th>Model 17</th>
<th>Outcome: Affective Organisational Commitment</th>
<th>$\beta^*$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Step 1</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>.036</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>-.036</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td>-.200**</td>
</tr>
<tr>
<td>Role</td>
<td></td>
<td>-.226**</td>
</tr>
<tr>
<td>Tenure</td>
<td></td>
<td>.010</td>
</tr>
<tr>
<td><strong>Main Effect</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authentic Leadership</td>
<td></td>
<td>.698***</td>
</tr>
<tr>
<td>Ethical Leadership</td>
<td></td>
<td>.217</td>
</tr>
<tr>
<td><strong>Interaction Effect</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authentic Leadership * Ethical Leadership</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$R^2$, $R^2$ Change

| $R^2$ Change | .073 | .501 | .510 | .527 |
| Sig. F Change| .151 | .000*** | .172 | .061* |

**Note:** $n = 112$; *Standardised coefficients are reported *$p<.10$; **$p<.05$; ***$p<.01$

In Step 1 demographic variables (gender, age, education level, role, tenure) were entered as control variables to the forecast of affective organisational commitment. In line with the previous examination, demographic variables partially contributed to the prediction of affective organisational commitment of subordinates. Specifically, the demographic variables education level and role in the organisation are considered as predictors for affective organisational commitment of subordinates.

In Step 2 authentic leadership was entered to the forecast of affective organisational commitment of subordinates. The overall regression model reported significant ($R^2$ change = .501, F Change (1, 105) = 90.229, $p=.000$). Authentic leadership reported as a positive and significant contributor to affective organisational commitment of subordinates when entered at this step of the regression model.

In Step 3 ethical leadership was entered to the forecast of affective organisational commitment of subordinates. The overall regression model reported non-significant ($R^2$ change = .009, F Change (1, 104) = 1.891, $p=.172$). Ethical leadership is not considered as
contributor to affective organisational commitment of subordinates when entered at this step of the regression model.

In Step 4 the interaction term between authentic leadership and ethical leadership was entered into the regression model with affective organisational commitment as the dependent variable. In Table 4.30 as per step 4 $R^2$ Change indicated that the presence of the interaction between authentic leadership and ethical leadership was partially significant to the prediction of affective organisational commitment of subordinates ($R^2$ change = .016, $F$ Change (1, 103) = 3.589, $p$=.061). The interaction of the moderation effect is illustrated in Figure 4.6. Results reveal that subordinates did demonstrate heightened levels of affective organisational commitment when leaders were perceived as authentic and ethical in their leadership behaviour.

Figure 4.6: Plotting the interaction of ethical leadership moderating the relationship between authentic leadership and affective organisational commitment

**Hypothesis 9d:** Ethical leadership moderates significantly the relationship between authentic leadership behaviour and subordinates’ in-role performance, such that when ethical leadership is high, subordinates will demonstrate higher in-role performance.

Hierarchical multiple regression analysis was employed to examine moderating effects of ethical leadership on authentic leadership when predicting performance (Table 4.31). The moderating effect of ethical leadership was tested by examining the change in $R^2$ value of the interaction between authentic leadership and ethical leadership, when added into the final step of the regression process. In case of a significant increase in $R^2$ Change signalling the amount of variance explained in the dependent variable performance, ethical
leadership is then identified as a moderator of the relationship between authentic leadership and performance.

**Table 4.31:** Moderating effects of Ethical Leadership to Authentic Leadership and In-role Performance after controlling for Demographic Variables

<table>
<thead>
<tr>
<th>Model 18</th>
<th>Outcome: In-role Performance</th>
<th>(\beta^*)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Step 1</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>.041</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>.001</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td>-.026</td>
</tr>
<tr>
<td>Role</td>
<td></td>
<td>-.017</td>
</tr>
<tr>
<td>Tenure</td>
<td></td>
<td>-.034</td>
</tr>
<tr>
<td><strong>Main Effect</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authentic Leadership</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethical Leadership</td>
<td></td>
<td>.332</td>
</tr>
<tr>
<td><strong>Interaction Effect</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authentic Leadership * Ethical Leadership</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(R^2\) Change = .004, \(p=.193\); \(R^2\) Change (1, 105) = 9.800, \(p=.002\). Ethical leadership reported as positive and significant contributor to in-role performance of subordinates when entered at this step of the regression model.

In Step 3 ethical leadership was entered to the forecast of in-role performance of subordinates. The overall regression model reported non-significant \(R^2\) change = .021, \(F\) Change (1, 104) = 2.444, \(p=.121\). Ethical leadership is not considered as a contributor to in-role performance of subordinates when entered at this step of the regression model.

In Step 4, the interaction term between authentic leadership and ethical leadership was entered into the regression model with in-role performance as the dependent variable. In Table 4.31 as per step 4 \(R^2\) Change indicated that the presence of the interaction
between authentic leadership and ethical leadership contributed significantly to the prediction of in-role performance ($R^2$ change = .041, $F$ Change (1, 103) = 4.989, $p$=.028). Further, the moderator accounted for 15.1% of variance in performance, which is above the previously entered variables. The interaction of the moderation effect is illustrated in Figure 4.7. Results reveal that subordinates demonstrated higher levels of in-role performance when leaders were perceived as authentic and ethical in their leadership behaviour.

**Figure 4.7:** Plotting the interaction of ethical leadership moderating the relationship between authentic leadership and in-role performance

![Graph showing the interaction of ethical leadership moderating the relationship between authentic leadership and in-role performance](image)

### 4.6 Summary

This chapter presented the process and results of data analysis with hierarchical multiple regression analyses conducted in this thesis. The aim was to examine the impacts of authentic leadership and ethical leadership on ethical climate, organisational citizenship behaviour, affective organisational commitment, and in-role performance outcomes. Further, mediating effects of ethical climate on the relationship between authentic leadership and the various dependent variables, organisational citizenship behaviour, affective organisational commitment, and in-role performance was conducted. Finally, moderating effects of ethical leadership on the relationship between authentic leadership and the various dependent variables, ethical climate, organisational citizenship behaviour, affective organisational commitment and in-role performance was conducted. Results were illustrated in tables, which included the steps taken to test each of the models. Preliminary interpretation of results was provided explaining results from each analysis.
CHAPTER 5 – DISCUSSION AND IMPLICATIONS

5.1 Introduction

This Chapter reviews the major research hypotheses and discusses the results related to the overall research questions. These findings and results are discussed in the light of previous research to demonstrate the contribution to knowledge in the domain of authentic leadership and ethical leadership theories. Theoretical implications for further research and practical implications for applicability in the workplace are derived from the findings and results are outlined and discussed. In addition, this chapter reports and discusses the limitations of the study and proposes suggestions for future studies.

This thesis examined leadership behaviours and the various dimensions of leadership that can potentially influence ethical climate in the workplace and subsequently influence employees’ workplace attitudes and performance. To clarify further, this thesis assessed factors such as authenticity and ethical conduct within leadership behaviours. Therefore, the thesis focused on targeting the constructs of authentic leadership and ethical leadership and how both can interact positively and can consequently enhance both leadership and organisational effectiveness. Hence, the overarching research questions posed in this thesis concerned the influence of both authentic leadership and ethical leadership on organisational outcomes, namely ethical climate, individual organisational citizenship behaviour, affective organisational commitment, and in-role performance. These particular constructs were chosen because they address issues of ethical awareness within organisations, pro-social behaviour at the workplace and identification with organisational values.

Furthermore, the aim was to demonstrate that ethical climate contributes to improved subordinates’ attitudes and performance. Therefore, this thesis assessed to what extent the effectiveness of authentic leadership is contingent upon a perceived ethical climate within an organisation. Specifically, this thesis investigated the mediating effect of perceived ethical climate on the relationship between authentic leadership behaviour and subordinates’ organisational citizenship behaviours, affective commitment and in-role performance.

In addition, this thesis argued that ethical leadership complemented the effectiveness of authentic leadership and investigated further. In other words, this thesis assessed whether ethical leadership enhanced the effectiveness of authentic leadership towards subordinates’ attitudes and behaviours. Therefore, this thesis examined the moderating effect of ethical leadership on the relationship between authentic leadership behaviour and
perceived ethical climate, organisational citizenship behaviours, affective organisational commitment, and in-role performance.

Overall, three main research questions were addressed in this thesis. First, in what way, if any, does authentic leadership behaviour foster an ethical climate and influence subordinates’ attitudes and behaviours. Second, in what way, if any, is an ethical climate contingent upon the effectiveness of authentic leadership behaviour with regard to subordinates’ attitudes and behaviour. Third, in what way, if any, does ethical leadership complement the effectiveness of authentic leadership behaviour with regard to subordinate’ attitudes and behaviour. These broad research question and their subsequent hypotheses were examined through a conceptual framework illustrated in Figure 2.2. This conceptual framework illustrated various direct influencing relationships between leadership constructs and respective organisational outcomes. Also, this conceptual framework illustrated indirect relationships through numerous potential mediating and moderating factors.

The present thesis contributes to the body of knowledge on authentic leadership theory in the way that it provides further empirical findings on the relationship between authentic leadership and ethical climate. This addresses the call for future research by Gardner et al. (2011) to further investigate the relationship between authentic leadership and ethical climate. Furthermore, this thesis contributes to the body of knowledge on authentic leadership theory in the way that it provides further empirical findings on the integration of other leadership constructs, in this case ethical leadership, to authentic leadership theory. This addresses a call for further research posed by (Walumbwa et al. 2008) to integrate other related leadership constructs to the theory of authentic leadership and how that integration influences various organisational outcomes.

In order to investigate causal relationships in this study hierarchical multiple regression analysis was employed. Results of this empirical study found support for most of the hypotheses developed from the research model illustrated in Figure 2.2. It was demonstrated through linear and hierarchical multiple regression analysis that authentic leadership has a significant role in the prediction of organisational outcomes. Specifically, the findings of this thesis revealed significant and positive effects of authentic leadership to organisational outcomes. As predicted in the conceptualisation of this leadership construct, authentic leadership proved to be a significant predictor for perceived ethical climate, individual organisational citizenship behaviours, affective organisational commitment, and in-role performance. Furthermore, findings in this thesis revealed that authentic leadership is enhanced through mediating mechanisms of ethical climate. Lastly, findings in this thesis revealed that ethical leadership complements the effectiveness of authentic leadership through moderating mechanisms. From these findings theoretical and practical implications can be drawn, which are discussed in the following section.
5.2 Major Conclusions

5.1.2 Scale dimensionalities

For the purpose of this thesis a descriptive research design was applied to empirically investigate regularities and cause and effect relationships between predictor and outcome variables. Therefore, a questionnaire was compiled, which adapted well established and widely published measurement scales for each variable in this study. The purpose for this was to employ the most suitable measurement scales to test the stated hypothesis. In total six measurement scales were adapted, Authentic Leadership Questionnaire (Walumbwa et al. 2008), Ethical Leadership Scale (Brown, Trevino & Harrison 2005), modified Ethical Climate Questionnaire (Schminke, Ambrose & Neubaum 2005; Victor & Cullen 1988), Organisational Citizenship Behaviour Scale for individuals (OCBIs) (Lee & Allen 2002), Affective Organisational Commitment Scale (Meyer, Allen & Smith 1993), and In-role Performance Scale (Williams & Anderson 1991). Reliability analysis of all scales yielded satisfactory results with Cronbach’s α scores ranging from α=.67 and α=.96, which are comparable to existing literature and hence demonstrated validity and reliability in the context of the for-profit industry sector in Australia.

In order to assess dimensionality of scales an exploratory factor analysis was conducted. Results of the exploratory factor analysis of each scale revealed acceptable results demonstrating that the measurement scales were represented by one factor. The exceptions were the scale for ethical climate, which was represented by three factors; and the scale for in-role performance, which was represented by two factors. With regard to the ethical climate scale, loadings on factor one represented the dimensions ‘caring’, ‘law and code’ and ‘rules’ for ethical climate; loadings on factor two represented the dimension ‘independence’; and loading on factor three represented the dimension ‘instrumental’. However, it was not further distinguished between those three dimensions. The two factors of the in-role performance scale represented positive attitudes to in-role performance and negative attitudes towards in-role performance.

Both scales retained all factors, as the aim of this thesis was not to investigate specific dimensions of each construct but to gain a holistic understanding of influencing relationships. This was because the main focus was on extending limited research on the mediating effects of ethical climate on the relationship between authentic leadership and organisational outcomes. Therefore, scales were not further modified or manipulated.
5.2.2 Demographic Characteristics

The sample of this thesis represented organisations from the private sector within Australia known as the best places to work for in Australia. These medium and large size organisations were characterised as having good leadership processes in place and being committed to deliver an innovative and ethical work environment. The industry sectors that was represented in this sample were retail, information technology, and health care industry.

The gender composition in this study represented 62.5% male respondents and 37.5% female respondents. The majority of respondents in this thesis were between the ages of 30 to 49 year old with an average organisational tenure of six years. The prominent education level of respondents was a Bachelor Degree with 31.3%. Respondents in this thesis mainly held some managerial position within their organisations representing 63.4%, while 36.6% did not hold a managerial position. However, each of the respondents rated an immediate supervisor, hence even respondents with managerial positions rated their immediate superiors within in their organisational hierarchical structure.

Prior to assessing the main effects of authentic leadership onto organisational outcome variables, several demographic variables were investigated for their impact on the outcome variables in this study. The hierarchical multiple regression analysis revealed that certain demographic variables had some significant influence on outcome variables. Findings in this thesis demonstrated that respondents’ gender and educational level predicted a decrease in the perception of an ethical climate. Further, the demographic variable age indicated partial negative significance to the prediction of subordinates’ organisational citizenship behaviours. Lastly, educational level and organisational position reported negative significance to the prediction of subordinates’ affective commitment.

From the results of the conducted hierarchical multiple regression analysis in this study, it is evident that certain demographic characteristics play a part in influencing certain attitudes and behaviours in the workplace. However, the main aim of this study was to investigate the effect of leadership behaviours on subordinates’ attitudes. Thus, in line with previous research on leadership behaviours, this study controlled for certain demographic characteristics but did not specifically investigate for their influence on outcome variables. Furthermore, the Person Chi-square test was conducted to investigate differences between groups as illustrated by the demographic characteristics but no significant differences between groups were found.
5.2.3 Authentic leadership behaviour and its influence on perceived ethical climate

With respect to the first main focus of this thesis, which is in what way, if any, does authentic leadership foster an ethical climate, it was hypothesised in $H1$ that authentic leadership had a positive and significant impact on subordinates’ perceptions of ethical climate in the workplace. In addressing this call by Gardner et al. (2011) for further research on the relationship between authentic leadership and ethical climate, this thesis highlights the importance of the influencing factors of authentic leadership on an ethical climate in an organisation from the private sector in Australia. In line with previous research proposing that authentic leadership has the potential to generate an ethical climate (Gardner et al. 2005), findings in this thesis have demonstrated that authentic leadership impacts on subordinates’ perceptions of an ethical climate positively and significantly.

Results from the hierarchical multiple regression analysis indicated that when individuals in leadership positions demonstrated authentic leadership behaviour, subordinates demonstrated a higher perception of ethical climate within the workplace. The reason for authentic leadership being a predictor for ethical climate can be explained through characteristics of ethical climate that arises from transparency, integrity, trust and high moral standards (Simha & Cullen 2012; Victor & Cullen 1988). Authentic leaders create conditions for relational transparency in which both leaders and their subordinates feel comfortable to discuss and act upon their values and beliefs (Ilies, Morgeson & Nahrgang 2005). In turn, this fosters a climate that endorses moral courage among subordinates to openly exhibit ethical conduct (Hannah, Avolio & Walumbwa 2011). Hence, an ethical climate comprises shared perceptions of what is considered as ethical right conduct and clear guidelines on how ethical issues should be addressed (Cullen, Victor & Stephens 1989; Trevino & Youngblood 1990; Victor & Cullen 1987).

A further reason why leaders, who are seen as authentic, are considered to have the ability to establish an overall ethical climate in an organisation is that such leaders have well developed moral capacities, which align with their personal moral perspective (Hannah, Lester & Vogelgesang 2005). Hence, authentic leaders transmit behaviours that conform to their moral beliefs through role modelling (Avolio & Gardner 2005), and by that highlight appropriate values and beliefs that they regard as desirable in the workplace (Gardner et al. 2005). Through the social learning process (Bandura 1977), authentic leaders activate moral agency and efficacy beliefs in their subordinates, which, in turn, stimulates development of moral courage (Hannah, Avolio & Walumbwa 2011; Lester et al. 2010) and encourages engagement in ethical behaviours (Avolio et al. 2004; Gardner et al. 2005).

The delivery of authentic leadership has a permeating effect on subordinates improving their moral courage and reinforcing their intent to act morally and hence unethical behaviour becomes subdued (Cianci et al. 2014). It is important to recognise that through
role modelling behaviours (Bandura 2001), authentic leaders have the capacity to foster an ethical climate within the workplace while creating a sense for the collective among subordinates (Arnaud 2010). In other words, leaders who are true to themselves and act in accordance with their true core beliefs do impact on subordinates’ perception of ethical climate.

Results in this thesis with regard to the relationship between authentic leadership and perceived ethical climate can be further explained by findings from previous research on a leader’s influence on subordinates’ self-regulatory processes. According to Avolio and Gardner (2005) authentic leaders stimulate self-regulatory processes within subordinates, which helps subordinates to create clarification on shared values within their group. Hence, a leader’s behaviour has a critical influence on a climate regarding ethics within an organisation (Dickson et al. 2001). This makes sense in terms of enhancing ethical behaviour through role modelling, transparency and integrity as demonstrated in authentic leadership and thereby improving the overall ethical climate in the workplace.

5.2.4 Authentic leadership behaviour and its influence on subordinates’ organisational citizenship behaviours

Hypothesis H2 stated that authentic leadership positively and significantly influenced organisational citizenship behaviours towards individuals (OCBI). This thesis found support for the argument that authentic leadership has a significant and positive direct impact on individual level organisational citizenship behaviours among subordinates. The aim was to demonstrate that authentic leadership behaviours encourage subordinates to demonstrate behaviours beyond their respective job requirements. It has to be pointed out however, that this thesis focused on investigating the impact of authentic leadership on organisational citizenship behaviours directed towards individuals (OCBIs). Walumbwa et al. (2008) demonstrated that authentic leadership was positively and significantly related to subordinates’ organisational citizenship behaviours. More importantly their study, which was conducted with a sample in the United States, found that the four underlying dimensions of authentic leadership accounted for variance in organisational citizenship behaviours of subordinates. Results in this thesis expand these previous findings by demonstrating positive and significant findings in a sample from Australia.
Results from the hierarchical multiple regression analysis indicated that when individuals in leadership positions demonstrated authentic leadership behaviour, subordinates demonstrated higher levels of organisational citizenship behaviours addressed towards individuals. The influence of authentic leadership on subordinates’ organisational citizenship behaviour can be explained through the conceptualisation of the authentic leadership theory. Specifically, conceptual work on authentic leadership explains the positive impact on subordinates’ organisational citizenship behaviours through an authentic leaders connectedness with their inner moral beliefs, transparent communication, and decision-making that takes subordinates’ views into account that creates conditions for subordinate’s to exhibit extra-role behaviours (Avolio & Luthans 2006). This is also in line with previous studies that demonstrated that authentic leadership has a positive effect on employees’ attitudes, which, in turn, causes willingness to perform extra-role behaviours (Avolio & Gardner 2005; Avolio et al. 2004; Luthans & Avolio 2003; Peus et al. 2012; Walumbwa et al. 2008). In particular, authentic leaders are concerned to stimulate well-being among subordinates through transparent communication and role modelling behaviour (Ilies, Morgeson & Nahrgang 2005).

A further explanation for the positive influence of authentic leadership behaviour on subordinates’ organisational citizenship behaviour is that authentic leaders stimulate subordinates’ identification with the leader as well as the organisation through relational transparency (Ilies, Morgeson & Nahrgang 2005; Walumbwa et al. 2008). Information is shared openly, which makes subordinates understand the value of demonstrating helping behaviours towards co-workers, which also contributes to the overall organisational success (Tyler & Blader 2013). This personal identification subsequently provides subordinates with a feeling of trust towards the leader and a feeling of empowerment to contribute to organisational goals through their heightened levels of engagement beyond job expectations. This also conforms to previous research by Mayer and Gavin (2005), who demonstrated that trust and honesty between leaders and subordinates stimulates higher levels of organisational citizenship behaviours. In other words, a relationship based on openness, trust and honesty between a leader and subordinates improves subordinates’ willingness to exhibit higher levels of organisational citizenship behaviours (Organ, Podsakoff & MacKenzie 2006; Wong & Cummings 2009).

This thesis focused specifically on organisational citizenship behaviours towards individuals (OCBIs). From a social exchange theory perspective (Blau 1964) organisational citizenship behaviours are reciprocated based on the above mentioned highly valued trust relationships between a leader and their subordinates. Furthermore, it is the positive experience of a trust worthy environment that promotes greater propensity towards behaviours beyond job expectations. In line with previous research conducted, this thesis...
has demonstrated that authentic leadership is positively and significantly related to organisational citizenship behaviours towards individuals. Therefore, this study provides empirical support to the growing body of literature on authentic leadership theory and its influence on organisational citizenship behaviours towards individuals (OCBIs).

5.2.5 Authentic leadership behaviour and its influence on affective organisational commitment

Hypothesis H3 stated that authentic leadership positively and significantly influences affective organisational commitment of subordinates in an organisation. This thesis found support for the argument that authentic leadership has a significant and positive direct impact on affective organisational commitment among subordinates. The aim was to demonstrate that authentic leadership behaviours influence subordinates to commit emotionally to their organisation. As discussed in chapter 2 of this thesis, affective commitment is described as an individual gaining an emotional attachment (Allen & Meyer 1990; Porter et al. 1974). Therefore, the findings in this thesis extend previous research on authentic leadership by demonstrating significant and positive direct impacts of authentic leadership on subordinates’ affective organisational commitment. Committed employees can be regarded as a valuable asset for an organisation that is reflected in various positive outcomes such as productivity, reduced turnover intentions, increased profitability or customer satisfaction (Harter, Schmidt & Hayes 2002).

This is a significant finding because employees, who emotionally connect with their organisation and hence have affective organisational commitment, stay with an organisation voluntarily and not because they need to. This also differentiates it from continuance commitment, where an individual weighs the cost of leaving an organisation, and from normative commitment, where an individual feels a moral obligation to stay with an organisation (Meyer & Allen 1991). Hence, subordinates will respond to authentic leadership with greater attitudinal and behavioural commitment to the organisation, which potentially leads to higher levels of performance (Walumbwa et al. 2008). Research conducted by Leroy, Palanski and Simons (2012) explains this phenomenon of affective organisational commitment based on behavioural integrity. Their research found that authentic leaders who demonstrate behavioural integrity have a positive impact on subordinates’ affective commitment and in-role performance. To clarify, behavioural integrity stipulates that an individual’s words are consistently aligned with actions, which, in turn, leads to desirable outcomes in the workplace (Kannan-Narasimhan & Lawrence 2012). This is in line with core characteristics of authentic leadership behaviour being based on self-awareness,
communicating in a transparent manner, demonstrating balanced decision making, and having an internalised moral perspective.

Results from the hierarchical multiple regression analysis indicated that when individuals in leadership positions demonstrated authentic leadership behaviour, subordinates demonstrated higher levels of affective organisational commitment. Organisational commitment is generated through a social bond in the interaction between a leader and a subordinate (Mowday, Porter & Steers 1982). Specifically affective commitment evolves from mechanisms such as positive social exchange and personal identification of a subordinate with a leader (Avolio & Gardner 2005). In support, Walumbwa et al. (2008) demonstrated in previous research that subordinates cultivate an emotional attachment to leaders who exhibit behaviours that are congruent with all four dimensions of authentic leadership, which, in turn, results in organisational commitment. This can be explained by consistent use of authentic behaviour by a leader, which, in turn, evokes employees to perceive their leader as honest and trustworthy with their moral and ethical decision-making.

Findings for this significant and positive relationship between authentic leadership behaviour and affective organisational commitment of subordinates can further be explained by authentic leaders’ characteristic transparent communication. Through transparent communication and aligning behaviours with core beliefs, subordinates become attentive to their leader’s true character and motivations, which fosters trust relationships (Avolio & Luthans 2006). Such an interaction in an open and non-defensive manner creates a condition for subordinates to personally identify with a leader, which translates into affective attachment. This positively impacts on subordinates’ perception of the leader and thus their commitment to the organisation (Leroy, Palanski & Simons 2012; Peus et al. 2012). Likewise, Ilies, Morgeson and Nahrgang (2005) have shown that subordinates can gain an emotional attachment with authentic leaders because authentic leaders make subordinates understand how they can contribute towards overall organisational goals, which, in turn, has an impact on the subordinates' work-satisfaction and affective organisational commitment.

5.2.6 Authentic leadership behaviour and its influence on in-role performance

Hypothesis H4 stated that authentic leadership positively and significantly influences subordinates’ in-role performance. Findings revealed that authentic leadership has a positive and significant influence on subordinates’ in-role performance. The focus here was to assess if authentic leadership behaviours increase the willingness of subordinates to fulfil designated tasks that are required from their respective workplace role. This is an important aspect as in-role performance determines the quality of accomplished tasks as well as refers to how responsible an individual fulfil a given task (Katz & Kahn 1978). Thus, this thesis
demonstrated that leaders who function in an authentic manner have a positive impact on subordinates’ in-role performance.

Results from the hierarchical multiple regression analysis indicated that when individuals in leadership positions demonstrated authentic leadership behaviour, subordinates demonstrated higher levels of in-role performance. This can be explained based on the conceptualisation of authentic leadership theory that authentic leaders demonstrate relational transparency, lead by example and demonstrate openness and acceptance in communication as well as consideration of their subordinates; this, in turn, has a positive impact on subordinates assimilating these characteristics into their own functioning, which then leads to heightened performance (Avolio & Gardner 2005; Avolio et al. 2004; Gardner et al. 2005). In support, Wang et al. (2014) found that authentic leaders represent actions that are a clear and emphatic expression of their commitment to organisational tasks, which then gives direction to followers about how to remain engaged emotionally, physically and cognitively during work performance. This can be further explained by previous findings that authentic leaders have behavioural integrity, which, in turn, resulted in driving effective performance (Leroy, Palanski & Simons 2012).

Findings in this thesis can be further explained given that authentic leadership has a positive impact on subordinates’ psychological capital, which comprises efficacy beliefs, hope, optimism, and resilience (Clapp-Smith, Vogelgesang & Avey 2009; Luthans et al. 2007; Walumbwa et al. 2008). Clapp-Smith, Vogelgesang and Avey (2009) demonstrated that authentic leaders develop a mutual trust relationship with their subordinates and through that developed trust relationship subordinates’ psychological capital was enhanced. In support, Wang et al. (2014) found that subordinates’ psychological capital moderated the relationship between authentic leadership and in-role performance. In particular, the factor efficacy beliefs in the concept of psychological capital, which describes an individual’s beliefs about his/her ability to successfully accomplish a given task, is considered as an important performance determinant. Efficacy beliefs arise as an outcome from an authentic leader’s relational transparency and leading by example because when a leader delivers authentic openness in communication and aligns actions with their core belief, this leads to subordinates harnessing those characteristics and in turn leads to heightened performance (Gardner et al. 2005).

5.2.7 Ethical leadership behaviour and its influence on perceived ethical climate

With respect to the second main focus of this thesis, which is in what way, if any, does ethical leadership complement the effectiveness of authentic leadership with regard to subordinates’ attitudes and behaviours, first the direct influences of ethical leadership onto
subordinates’ attitudes and behaviours needed to be investigated. This addresses the call
for future research by Walumbwa et al. (2008) to integrate other leadership theories in the
research on authentic leadership theory. Thus, it was hypothesised that ethical leadership
has a positive and significant impact on subordinates’ perceptions of ethical climate in the
workplace.

Hypothesis H5 stated that ethical leadership positively and significantly predicts
perceptions of ethical climate among subordinates. Results from the hierarchical multiple
regression analysis indicated that when individuals in leadership positions demonstrated
ethical leadership behaviour, subordinates demonstrated a higher perception of ethical
climate within the workplace. To recap, an ethical climate is characterised as employees’
shared perceptions of practices, policies and procedures in an organisation according to an
ethical perspective (Cullen, Victor & Stephens 1989; Martin & Cullen 2006; Reichers &
Schneider 1990; Simha & Cullen 2012). This is an important finding, which indicates that
leaders who base their leadership behaviours on good moral intent will foster an ethical
climate in the workplace.

At a more holistic level, research findings in previous studies revealed that leadership
has an important influence on an organisation’s ethical climate (Grojean et al. 2004; Mulki,
Jaramillo & Locander 2009; Schminke, Ambrose & Neubaum 2005), because leaders are
considered to set the tone in an organisation by implementing practices, procedures and
policies (Mayer, Kuenzi & Greenbaum 2010). Specifically, ethical leadership advocates
being a moral manager and actively managing ethical conduct within an organisation
(Brown, Trevino & Harrison 2005). To clarify, leaders who display ethical leadership
behaviour, that is being a moral person and moral manager, encourage their subordinates to
engage in ethical right conduct. Based on social learning theory (Bandura 1977),
subordinates are influenced by role modelling behaviours of leaders, which, in turn, impacts
on subordinates’ attitudes and behaviours. Further, based on the social exchange theory
(Blau 1964), subordinates are then inclined to reciprocate behaviours that are in line with
their leaders. This, in turn, is potentially cultivating both leaders’ and subordinates’ capability
to maintain and nurture ethical conduct within an organisation.

The thesis findings can further be explained through social learning processes. In
general, subordinates perceive an ethical leader as a worthy role model because the
leader’s decisions are based on what is morally right (Brown & Mitchell 2010). Hence, a
leader who is a morally right role model is a leader who utilises influencing processes and
behaviours to have a positive change impact on subordinates that typically occurs
voluntarily. Previous research by Schminke, Ambrose and Neubaum (2005) demonstrated
that leaders that who have high moral values and promote ethical decision-making endorse
their subordinates’ ethical stance and by that foster an ethical climate. To clarify further,
Chapter 5 Discussion and Implications

ethical leaders powerfully influence their subordinates’ perception of organisational ethical climate whilst enhancing subordinates’ awareness of moral standards and by that being more attuned to ethical issues, which, in turn, enhances subordinates’ desire to maintain higher ethical standards, and hence to less likely engage in ethical misconduct.

A further reason for the positive impact of ethical leadership behaviour on perceived ethical climate can be explained through higher levels of trust, which are developed between subordinates and leaders because interactions are characterised by fairness, honesty and a supportive workplace culture and environment (Caldwell et al. 2007). These relationships, based on fairness and consideration, stimulate productive and healthy interactions and ethical behaviours (Walumbwa & Schaubroeck 2009), which increases and sustains subordinates’ motivation levels which in turn contributes to a continuous improvement of organisational culture, productivity and outcomes (Piccolo et al. 2010). Additionally, through ethical leadership a psychologically safe environment is created in which subordinates are encouraged to actively report and contribute to workplace issues, problems and processes (Kalshoven, Den Hartog & De Hoogh 2011). In other words, when ethical leadership is delivered in the workplace, it creates a superior ethical climate, where ethical considerations are inbuilt into workplace processes and high moral standards are engendered.

5.2.8 Ethical leadership behaviour and its influence on subordinates’ organisational citizenship behaviours

Hypothesis H6 stated that ethical leadership positively and significantly influences organisational citizenship behaviours towards individuals. This thesis found support for the argument that ethical leadership has a significant and positive direct impact on individual level organisational citizenship behaviours among subordinates. The aim was to demonstrate that ethical leadership behaviours encourage subordinates to demonstrate behaviours beyond their respective job requirements. It has to be pointed out however, that this thesis focused on investigating the impact of ethical leadership on organisational citizenship behaviours directed towards individuals (OCBI dimension).

Results from the hierarchical multiple regression analysis indicated that when individuals in leadership positions demonstrated ethical leadership behaviour, subordinates demonstrated higher levels of organisational citizenship behaviours addressed towards individuals. Organisational citizenship behaviours represent a higher functioning level of moral capacity in individuals across the organisation that results in improved social workplace relationships and willingness to go beyond job requirements (Organ 1988; Organ, Podsakoff & MacKenzie 2006). From a normative perspective an individual’s moral capacity assists to grasp the logic of engaging in organisational citizenship behaviours (Graham
Chapter 5 Discussion and Implications

Ethical leadership behaviour emphasises ethically right conduct and holding subordinates accountable for ethical behaviour, which, in turn, characterises an important social influencing mechanism that has an augmenting and inspirational effect on subordinates to imitate the behaviours of an ethical leader and hence engage in organisational citizenship behaviours (Bandura 1977; Bergeron et al. 2011; Brown & Trevino 2014; Caza, Barker & Cameron 2004).

Similarly, findings in this thesis can be explained by the effect of ethical leadership being a worthy role model because their decisions are based on what is considered as morally right behaviour (Brown, Trevino & Harrison 2005). Leading by example and setting high moral standards fosters an environment based on trust in which subordinates feel secure to voice opinions about ethical matters and contribute to issues related to workplace processes (Avey, Wernsing & Palanski 2012; Kalshoven, Den Hartog & De Hoogh 2013). In turn, subordinates get to understand the meaning of ethical conduct and the importance of extra-role behaviours including helping others with their workload, taking personal interest in others, obeying informal rules to maintain an order and other extra role behaviours, which in turn supports and increases organisational effectiveness (Bergeron et al. 2011; Farooqui 2012; Katz 1964).

Another point of view that explicates the positive impact of ethical leadership on organisational citizenship behaviour can be justified by social exchange theory considering that ethical leaders inspire subordinates to engage in organisational citizenship behaviours based on the principle of reciprocity. Social exchange theory (Blau 1964) insinuates that relationships are purely transactional in nature, where actions will reoccur based on how much reward an individual will receive. Hence, ethical leaders voice collective norms through their leadership and influence subordinates through various reward mechanisms to engage in behaviours that are regarded not only as ethical but also go beyond job expectations (Kacmar et al. 2011; Mayer et al. 2009). Thus, subordinates are willing to engage in organisational citizenship behaviours towards individuals with an expectation of valued interpersonal future outcomes.

5.2.8 Ethical leadership behaviour and its influence on affective organisational commitment

Hypothesis H7 stated that ethical leadership positively and significantly influences affective organisational commitment of subordinates in an organisation. This thesis found support for the hypothesis that ethical leadership has a significant and positive direct impact on affective organisational commitment among subordinates. The aim was to demonstrate that ethical leadership behaviours stimulate subordinates to commit emotionally to their
organisation. In an organisational setting, affective commitment describes individuals’ emotional attachment and hence desires to identify with their organisation. This is an important outcome variable because committed employees have a positive impact on the overall performance of an organisation and hence bring leverage to their organisation’s performance (Conway & Briner 2012; Riketta 2002). Leadership with its social interaction between leaders and their subordinates is one particular important factor that has an impact on employees’ organisational commitment (Mowday, Porter & Steers 1982).

Results from the hierarchical multiple regression analysis indicated that when individuals in leadership positions demonstrated ethical leadership behaviour, subordinates demonstrated higher levels of affective organisational commitment. This finding can be explained in that the implementation of ethical leadership creates a psychologically safe environment, which establishes trust relationships within the organisation, especially between the leader and followers (Kalshoven, Den Hartog & De Hoogh 2011; Zhu, May & Avolio 2004). Such established trust relationship with a leader enhances subordinates willingness to comply with formal organisational rules and laws, which, in turn, also creates an environment that encourages morally right conduct. In such an environment, followers are encouraged to actively report and contribute to workplace issues, problems and processes. Because of this they feel secure and enjoy a mutual trust relationship with the leader, this in turn enhances subordinates’ commitment to an organisation.

Further explanation of the finding in this thesis draws on the conceptualisation of ethical leadership, which posits that individuals who exhibit ethical leadership communicate and implement values and ethical standards within their organisations through leading by example (Brown & Trevino 2006). Based on the principles of social learning theory, this, in turn, has an influencing effect on organisational members who then incorporate values and beliefs of their leader. Subordinates also learn that incorporating values and beliefs of a leader also helps creating a work environment that is characterised by shared values and beliefs. In such an environment where organisational members identify themselves with values, beliefs and purpose of their leader, their organisational commitment is developed. This social interaction between an ethical leader and subordinates provides the opportunity to subordinates to learn about norms and expectations required by an organisation. This, in turn, provides subordinates with a feeling of responsibility to contribute to organisational goals, which results in higher affective organisational commitment (Dale & Fox 2008).
5.2.9 Ethical leadership behaviour and its influence on in-role performance

Hypothesis H8 stated that ethical leadership positively and significantly subordinates’ in-role performance. Findings revealed that ethical leadership has a positive and significant influence on subordinates’ in-role performance. The focus here was to assess if ethical leadership behaviours increase the willingness of subordinates to fulfil designated tasks that are required from their respective workplace role. As such, in-role performance is an important indicator that provides information on how well employees contribute to organisational success.

Results from the hierarchical multiple regression analysis indicated that when individuals in leadership positions demonstrated ethical leadership behaviour, subordinates demonstrated higher levels of in-role performance. These findings are in line with previous studies on ethical leadership and subordinates’ in-role performance (Piccolo et al. 2010). Findings can be explained by the belief that it is in the best interest of ethical leaders to support and believe in their subordinates’ capabilities to perform their role to their best ability, hence being concerned that subordinates develop to their full potential and perform well (Brown, Trevino & Harrison 2005; Mayer et al. 2012). In other words, ethical leaders believe in the power of learning new knowledge and skills and in the role of professional development to improve in-role performance of their subordinates.

A further reason for a positive impact of ethical leadership behaviour on subordinates’ in-role performance can be explained by an ethical leader’s intentions to provide meaning to various work requirements. Ethical leaders highlight the importance of moral standards in their decision-making, but explain to their subordinates how they contribute to attainment of important organisational goals by accomplishing given tasks (De Hoogh & Den Hartog 2008). More importantly, ethical leaders rationalise how the performance of expected tasks contributes to the attainment of socially responsible goals, which, in turn, clarifies the purpose and morality of job tasks. In other words, ethical leaders stress the importance of ethical standards and give consideration to how tasks relate to overarching ethical goals.

Lastly, the positive impact of ethical leadership on subordinates’ in-role performance can be explained by the characteristic that an ethical leader, by clarifying to subordinates the significance and values of job tasks, provides subordinates with an understanding of the importance that is ascribed to a certain task. This is supported by findings from research conducted by Piccolo et al. (2010) who demonstrated that ethical leadership behaviour enhance task significance and by that had positive influence on subordinates’ in-role performance. Subordinates feel part of the decision-making process, which, in turn, has an influence on their motivational levels and translates into greater effort to perform a given task. The findings in this thesis therefore extend previous research on ethical leadership by
demonstrating significant and positive direct impacts of ethical leadership on subordinates’ in-role performance.

**5.2.10 Mediating effect of ethical climate on the relationship of authentic leadership and organisational outcomes**

With respect to the second main focus of this thesis, which is in what way, if any, does an ethical climate enhance the effectiveness of authentic leadership towards subordinate’ behaviours, findings in this thesis contribute to the extension of research on authentic leadership theory and ethical climate. The argument that perceived ethical climate has a mediating effect on the relationship between authentic leadership and subordinates’ behaviours stems from the understanding that a climate that cultivates an ethical setting potentially transmits the influence of authentic leaders on their subordinates’ behaviours. This is in accordance with previous research that ethical climates in organisations shape the setting in which members of an organisation operate, which, in turn, has an effect on their overall work attitudes and employee outcomes (Cullen, Parboteeah & Victor 2003; Kuenzi & Schminke 2009; Trevino, Butterfield & McCabe 1998). Therefore, this thesis investigated the mediating effect of an ethical climate to uncover if ethical climate would support the effectiveness of authentic leadership. This thesis consequently extends knowledge on the effectiveness of authentic leadership and supports the importance of including ethical climate as a contextual factor to the effectiveness of authentic leadership theory (Gardner et al. 2011).

Findings demonstrated partial support for ethical climate being a mediator in the relationship between authentic leadership and employee behaviour. Specifically, findings revealed that ethical climate enhances the effectiveness of authentic leadership with regard to subordinates’ organisational citizenship behaviours. Surprisingly the analysis did not yield support for other outcomes in the mediation relationship between authentic leadership, ethical climate and affective organisational commitment and in-role performance.

Hypothesis H10a stated that ethical climate significantly mediates the relationship between perceived authentic leadership behaviour and subordinates’ organisational citizenship behaviour. After controlling for relevant demographic influences, results proved positively and significantly that perceived ethical climate transmits the influence of authentic leadership to subordinates’ organisational citizenship behaviour. Authentic leadership helps to create an ethical climate, which, in turn, has a positive and significant impact on subordinates’ organisational citizenship behaviours.

Findings in this thesis revealed that through the mediating mechanism of ethical climate the influencing relationship between authentic leadership and subordinates’
organisational citizenship behaviours is stronger. Consequently, authentic leadership and ethical climate increase the inclination of subordinates to engage in more organisational citizenship behaviours. The results identified that a perceived ethical climate contributed to a 25.6% increase in the effectiveness of authentic leadership with regard to subordinates’ organisational citizenship behaviours.

This finding is indicative that leaders who exercise authentic leadership behaviours could have influenced their subordinates’ willingness to engage in organisational citizenship behaviours by indirectly shaping the work climate of their subordinates. This finding supports previous research demonstrating that an ethical climate fosters a cooperative environment that functions for leaders and subordinates equally to achieve organisational goals (Martin & Cullen 2006; Simha & Cullen 2012). Further, in accordance with findings by Mayer, Kuenzi and Greenbaum (2010) that an ethical climate reduces the likelihood of employees engage in misconduct, this thesis demonstrates that authentic leaders positively influence their subordinates’ perception of an ethical climate, which, in turn, benefits the organisation as subordinates have an increased engagement in organisational citizenship behaviours.

A further theoretical rationalisation for the meditational evidence can be related to findings by Ilies, Morgeson and Nahrgang (2005) who demonstrated that authentic leadership stimulates subordinates’ motivation to exhibit positive behaviours and increases their well-being and self-esteem. This is also in line with previous research that demonstrated that authentic leadership creates an environment where subordinates have opportunities for self-actualisation, higher levels of work-satisfaction, enhanced commitment, increased trust relationships with the leader, all of which also impact on subordinates’ organisational citizenship behaviours. (Cianci et al. 2014; Clapp-Smith, Vogelgesang & Avey 2009; Walumbwa et al. 2008). Keeping in mind that authentic leadership rests on the notion of a leader having the cognitive abilities that allows them to empathise with others (Bucciarelli, Khemlani & Johnson-Lairs 2008) and act true to themselves based on good moral intent (Avolio & Gardner 2005; Avolio et al. 2004; Diddams & Chang 2012). In other words, authentic leadership is set in positive aims and comprises actions that are based on core values, which foster an ethical climate and contribute to subordinates’ engagement in organisational citizenship behaviours. Therefore, this thesis provides further support to the growing body of literature on authentic leadership theory demonstrating that authentic leadership influences organisational citizenship behaviours towards individuals (OCBIs), which is indirectly influenced through an ethical climate.

Hypothesis H10b stated that ethical climate significantly mediates the relationship between perceived authentic leadership behaviour and subordinates’ affective organisational commitment. After controlling for relevant demographic influences, results proved to be non-significant that perceived ethical climate transmits the influence of authentic leadership to
subordinates’ affective organisational commitment. Hence, ethical climate does not explain the influence of authentic leadership to subordinates’ affective organisational commitment.

Even though authentic leadership proved significant in the prediction of perceived affective organisational commitment, there was no significant relationship in the mediation model. Hence, authentic leadership directly enhances subordinates’ affective organisational commitment, but an ethical climate does not transmit authentic leadership behaviour on subordinates’ affective organisational commitment. This is contrary to the expected outcome, since each of the predictors, authentic leadership and ethical climate, proved to have direct influence on subordinates’ affective commitment when assessed separately.

Findings indicate that subordinates develop an affective organisational commitment mainly because of an authentic leader not because the authentic leader operates in an ethical climate. This finding is somewhat surprising considering that organisational leaders are considered as key factors who contribute to establishing an organisational climate (Mayer et al. 2007; Schein 2010; Shin 2012; Yukl 2012). Bearing in mind, an ethical climate represents a particular environment that impacts on employees’ engagement with an organisation through implementation of various processes, policies and procedures that are based on ethical principles (Cullen, Parboteeah & Victor 2003; Schwepker Jr. 2001; Simha & Cullen 2012). However, previous research revealed that various dimensions of ethical climate have different impacts on employees’ organisational commitment (Cullen, Parboteeah & Victor 2003). According to Cullen, Parboteeah and Victor (2003) organisations that promote an egoistic climate, which is congruent to the independence and instrumental dimension, have a negative impact on employees’ organisational commitment; organisations that promote a benevolent climate, which is congruent to the caring dimension, have a positive impact on employees’ organisational commitment; and organisations that promote a principled climate, which is congruent with the dimensions of law and code and rule dimension, has a positive impact on employees’ organisational commitment but only among professionals. Specifically, benevolent climates cultivate a sense of support from an organisation towards employees. Based on social exchange processes, employees will be inclined to reciprocate such experience, which manifests in normative commitment (Cullen, Parboteeah & Victor 2003). In other words, individuals demonstrate normative commitment because they feel it is morally the right thing to do to reciprocate commitment to an organisation, when organisational values indicate concern for employees. However, if a leader fosters a climate that is characterised as egoistic or principled, it is unlikely that subordinates develop commitment or only develop limited degree of commitment. Therefore, the moral intent of a leader needs to be taken into consideration in order to ensure a leader is not after fulfilment of egoistic views. That is, to ensure whether an authentic leader is out for his own interest being egoistic or does an authentic leader consider the collective.
Authentic leadership develop organisational commitment among subordinates by consistently communicating in a transparent manner, act in line with their core beliefs and take their subordinates’ opinion into consideration in the decision-making process (Walumbwa et al. 2008). Subordinates become attentive about their leader’s values and what their leader stands for, which develops a trust relationship between both parties (Avolio & Luthans 2006). Such an interaction forms a state where subordinates can personally identify with their leader and hence form an emotional attachment (Leroy, Palanski & Simons 2012; Peus et al. 2012). Authentic leaders become role models for behaviours that are aligned with inner beliefs, which according to social learning processes translate to subordinates. However, these core beliefs are not necessarily considered as morally acceptable (Algera & Lips-Wiersma 2012). Thus, the congruence between an authentic leader and ethical climate appears to be of significance to develop organisational commitment among subordinates, which potentially explains why the mediating effect of ethical climate on the relationship of authentic leadership and affective organisational commitment is non-significant.

Hypothesis H10c stated that ethical climate significantly mediates the relationship between perceived authentic leadership behaviour and subordinates’ in-role performance. After controlling for relevant demographic influences, results proved to be significant that perceived ethical climate transmits the influence of authentic leadership to subordinates’ in-role performance. Authentic leadership helps to create an ethical climate, which, in turn, has a positive and significant impact on subordinates’ in-role performance.

Findings in this thesis revealed that through the mediating mechanism of ethical climate the influencing relationship between authentic leadership and subordinates’ in-role performance is stronger. Consequently, authentic leadership and ethical climate increase the inclination of subordinates to perform their given tasks. Results identified that a perceived ethical climate contributed to a 36.9% increase in the effectiveness of authentic leadership with regard to subordinates’ in-role performance.

This finding demonstrates that leaders who exhibit authentic leadership behaviours and foster an ethical climate influenced their subordinates’ in-role performance. The mediating effect of ethical climate on the relationship of authentic leadership and subordinates’ in-role performance can be explained by the link between authentic leadership and ethical climate and the link between ethical climate and in-role performance. In-role performance implicates behaviours that are described by formal tasks and responsibilities in a job description and hence are expected, evaluated and rewarded in an organisation (Williams & Anderson 1991). An ethical climate includes various rules, policies, and reward systems, which indicate expected tasks and responsibilities of employees, and by that has an influence on employees’ behaviours (Lu & Lin 2013; Schwepker Jr. 2001; Victor & Cullen
Employees see the benefit of an environment that is based on shared values where each individual understands the significance to fulfil task requirements and hence demonstrates a higher engagement in performing expected tasks.

Authentic leaders promote a work environment, which provides their subordinates with a feeling of basic need satisfaction, which, in turn, influences subordinates’ intrinsic motivation to perform tasks at a higher level (Leroy et al. 2012). This basic need satisfaction gives subordinates a feeling of autonomy related to fulfilment of their job task where subordinates develop an understanding for the importance of their work (Gardner et al. 2005; Ilies, Morgeson & Nahrgang 2005; Leroy et al. 2012). To clarify, when subordinates work autonomously and by that have an understanding of the value of their job tasks, they are likely to demonstrate higher levels of in-role performance. In support, authentic leaders not only demonstrate alignment of their words and actions but more importantly they are open to relational input from their subordinates, which demonstrates a degree of behavioural integrity and drives performance among subordinates (Leroy, Palanski & Simons 2012). Thus, authentic leaders demonstrate a concern for their subordinates through behavioural integrity but also create a work environment where basic needs of subordinates are met. Therefore, this thesis lends further support to the growing body of literature on authentic leadership theory demonstrating that authentic leadership influences subordinates’ in-role performance, which is indirectly influenced through an ethical climate.

5.2.11 Moderating effect of ethical leadership on the relationship of authentic leadership and organisational outcomes

The third and final main focus of this thesis, which is in what way, if any, does ethical leadership complement the effectiveness of authentic leadership with regard to organisational outcomes; findings in this thesis support the complementary addition of ethical leadership. This main focus addresses the call for future research by Walumbwa et al. (2008) to integrate other related leadership constructs to the construct of authentic leadership. Further, testing for moderation effects is important when considering recommendations by Walumbwa et al. (2008) to include other related leadership constructs to the theory of authentic leadership. In addition, testing for moderation effects of ethical leadership also extends research on authentic leadership theory by highlighting the potential importance of adopting an integrative perspective of various leadership theories into one study (Walumbwa et al. 2008). It also answers the call for investigating the true nature of authentic leadership being ethical (Algera & Lips-Wiersma 2012).

The argument that ethical leadership has a moderating effect on the relationship between authentic leadership and subordinates’ behaviours stems from the understanding
that ethical leaders are considered as worthy role models for ethical guidance. Such role modelling behaviours create an environment where ethical standards are promoted and maintained. This, in turn, has an influence on subordinates to reciprocate benevolent behaviours in the work place. This is supported by previous research demonstrating the ethical leadership has a moderating effect on managerial practices and subordinates behaviours (Babalola, Stouten & Euwema 2015; Philipp & Lopez 2013). Therefore, this thesis investigated the moderating effect of ethical leadership to uncover if ethical leadership complements the effectiveness of authentic leadership. Specifically, this thesis investigated the moderating effects of ethical leadership on the relationship between authentic leadership and organisational outcomes. The findings revealed that ethical leadership moderates the relationship between authentic leadership and subordinates’ organisational citizenship behaviours, as well as the relationship between authentic leadership and subordinates’ in-role performance. Surprisingly the analysis did not yield support for other outcomes in the moderation relationship authentic leadership and affective organisational commitment, and between authentic leadership and ethical climate.

Hypothesis **H9a** stated that ethical leadership moderates significantly the relationship between perceived authentic leadership behaviour and subordinates’ perception of ethical climate, such that when ethical leadership is high, subordinates will have higher perception of ethical climate. Findings in this thesis revealed that through the moderating mechanism of ethical leadership the influencing relationship between authentic leadership and subordinates’ perceived ethical climate is not stronger. In other words, perceived ethical climate was not stronger when authentic leadership displayed higher levels of ethical leadership behaviour.

This finding is somewhat surprising considering that each leadership theory supports the argument that an ethical climate can be established through demonstrating either of those leadership behaviours, authentic leadership behaviour or ethical leadership behaviour. Various studies argued for authentic leadership being predictive for an ethical climate because authentic leaders lead by example and align their actions with their personal moral perspective (Hannah, Lester & Vogelgesang 2005). Based on social learning processes (Bandura 1977), such transparent communication fosters an environment where subordinates learn from the leader about values that are considered as desirable in the workplace (Avolio et al. 2004; Gardner et al. 2005; Walumbwa et al. 2008). Previous empirical findings on the influence of ethical leadership on ethical climate demonstrated that ethical leadership significantly influences perceived ethical climate among subordinates and is considered as an antecedent of ethical climate (Brown & Mitchell 2010; Lu & Lin 2013; Shin 2012). Considering that ethical climate is represented by implemented policies and procedures to uphold a supportive work environment that is based on ethical principles
(Arnaud 2010; Kuenzi & Schminke 2009; Victor & Cullen 1988), it was expected that ethical leadership would increase the perception of ethical climate among subordinates. However, this hypothesis was not supported.

A possible explanation for these results might stem from the conceptualisation of ethical leadership being a moral person and a moral manager (Brown, Trevino & Harrison 2005). While the ethical leader as moral person is considered to demonstrate integrity and concern for others, the ethical leader as a moral manager focuses on the transactional efforts to maintain ethical standards through reward and punishment (Mayer et al. 2009). Such transactional processes are based on dyadic exchange between a leader and their subordinate, where a subordinate complies with his/her job requirements in order to gain rewards or avoid punishment (Bass 1990). While a leader might act in an authentic manner, this does not automatically imply that he/she acts as a moral person in an ethically desirable way but might do the minimum as a moral manager to maintain ethical standards in the organisation. Hence, subordinates' perception of an ethical climate might not be enhanced as they do not perceive demonstrate ethical behaviour of a leader as being an authentic moral person.

Hypothesis H9b stated that ethical leadership moderates significantly the relationship between perceived authentic leadership behaviour and subordinates' organisational citizenship behaviour, such that when ethical leadership is high, subordinates will demonstrate higher organisational citizenship behaviours towards individuals. Findings in this thesis revealed that through the moderating mechanism of ethical leadership the influencing relationship between authentic leadership and subordinates' organisational citizenship behaviours towards individuals is stronger. In other words, subordinates demonstrated higher levels of organisational citizenship behaviours towards individuals when their authentic leaders demonstrated higher levels of ethical leadership behaviours.

This moderating effect of ethical leadership can be explained in that ethical leadership is conceptualised as a leader who is a moral manager and a moral person (Brown, Trevino & Harrison 2005), and hence is seen as an ethical role model who stimulates pro-social behaviour in subordinates (Den Hartog & Belschak 2012; Hunter 2012). Ethical leadership contributes to building trust relationships between leader and subordinates, which stems from interactions being based on fairness, honesty and a supportive workplace culture and environment (Caldwell et al. 2007). This, in turn, stimulates productive and nourishing interactions and ethical behaviour (Walumbwa & Schaubroeck 2009), which increases and sustains subordinates' willingness to contribute to a continuous improvement of organisational culture, productivity and outcomes (Piccolo et al. 2010). Based on social exchange processes subordinates see the benefit of fair treatment by their leader and develop an appreciation for helping behaviours towards others.
Chapter 5 Discussion and Implications

Authentic leaders share information in a transparent manner and through balanced processing of information authentic leaders demonstrate consideration for their subordinates' contribution for organisational goals (Gardner et al. 2011). Based on social learning processes, subordinates develop an understanding for the value of considering others and the value of helping behaviours towards their colleagues and how that contributes to achieving overall organisational success (Tyler & Blader 2013). Thus, subordinates are stimulated to exhibit heightened levels of engagement in helping behaviours towards others and go beyond job expectations. In fact, such behaviours can only be fostered if leaders are perceived as authentic and also perceived as acting in an ethical manner, which, in turn, positively and significantly impacts on and enhances subordinates’ organisational citizenship behaviours. This thesis therefore extends knowledge on the effectiveness of authentic leadership and supports the importance of complementing authentic leadership theory with related leadership constructs such as ethical leadership.

Hypothesis $H9c$ stated that ethical leadership moderates significantly the relationship between perceived authentic leadership behaviour and subordinates' affective organisational commitment, such that when ethical leadership is high, subordinates will demonstrate higher affective organisational commitment. Findings in this thesis revealed that through the moderating mechanism of ethical leadership the influencing relationship between authentic leadership and subordinates’ affective organisational commitment is not stronger but weakened. Further, findings demonstrated that leaders who are perceived as authentic and are perceived as acting in an ethical manner do have a negative, but partially significant impact on subordinates that can lower their affective organisational commitment. In other words, findings revealed that subordinates demonstrated lower levels of affective organisational commitment when authentic leadership was complemented with high levels of ethical leadership behaviour.

This is somewhat surprising considering that both, authentic leadership and ethical leadership creates a psychological safe environment that fosters trust relationships between leaders and subordinates in which subordinates are encouraged to and feel secure and to report on workplace issues, problems or processes (Kalshoven, Den Hartog & De Hoogh 2011; Peus et al. 2012). Authentic leaders create an environment based on mutual trust where subordinates feel encouraged to voice their own values on beliefs and contribute to decision-making processes (Clapp-Smith, Vogelgesang & Avey 2009). Thus, subordinates develop an understanding for their leaders’ values, which, in turn, impacts on their affective commitment. The effect of such a psychological safe environment fostered through ethical leadership is that subordinates demonstrate a heightened level of commitment to an organisation (Avey, Wernsing & Palanski 2012; Cremer & Knippenberg 2003; De Cremer,
Brebels & Sedikides 2008). In such a psychological safe environment subordinates feel secure and encouraged to voice issues in the workplace, which fosters a feeling of attachment to the organisation. However, findings in this thesis report that if authentic leaders displayed heightened levels of ethical leadership behaviours the affective commitment levels of subordinates were weaker.

The reason for this finding could be explained through social exchange processes. Ethical leadership is conceptualised as two dimensional being a moral person and moral manager (Brown & Mitchell 2010; Brown & Trevino 2006). Specifically, the ethical leader as moral manager ensures that moral standards are maintained by implementing policies and procedures for ethical conduct. In order to maintain appropriate ethical conduct among subordinates, ethical leaders utilise various reward systems to ensure that ethical principles and standards are maintained in the work place. Hence, there is the possibility that their subordinates develop rather a normative or continuance commitment where they feel an obligation to reciprocate good behaviour or the costs for misconduct are too high. Therefore, it seems to be unlikely that subordinates would develop an affective commitment towards their organisation.

Hypothesis $H9d$ stated that ethical leadership moderates significantly the relationship between perceived authentic leadership behaviour and subordinates’ in-role performance, such that when ethical leadership is high, subordinates will demonstrate higher in-role performance. Findings in this thesis revealed that through the moderating mechanism of ethical leadership the influencing relationship between authentic leadership and subordinates’ in-role performance is stronger. Subordinates demonstrated higher levels of performance when authentic leadership was complemented with high levels of ethical leadership behaviour. In other words, findings demonstrated that leaders who are perceived as authentic and are perceived as acting in an ethical manner do positively and significantly impact on and enhance subordinates’ in-role performance.

Previous studies found that authentic leadership leads to positive performance outcomes among subordinates (Avolio & Gardner 2005; Leroy, Palanski & Simons 2012; Peus et al. 2012; Wang et al. 2014). Authentic leaders stimulate their subordinates’ psychological capital, where subordinates develop higher levels of efficacy beliefs, hope, resilience, and optimism through development of a trust relationship that stems from transparent communication and leading by example (Clapp-Smith, Vogelgesang & Avey 2009). Particularly, subordinates develop confidence in their abilities to successfully perform a given task, which is reflected in their enhanced efficacy beliefs (Wang et al. 2014). The trust relationship between a leader and their subordinates develops not only form transparent communication but more so from a leaders consistent alignment of deeds and words, which are based on a leaders core values (Gardner et al. 2011; Luthans et al. 2007;
Chapter 5 Discussion and Implications

Wang et al. 2014). However, being in line with one’s core beliefs does not necessarily mean that authenticity is directed towards good moral intent (Algera & Lips-Wiersma 2012; Sendjaya et al. 2014), which indicates the importance of having well-developed moral capabilities as an authentic leader.

Previous studies support that ethical leadership has a positive impact on subordinates’ performance (Brown, Trevino & Harrison 2005; Weaver, Trevino & Agle 2005). Ethical leaders communicate to their subordinates how performance of expected tasks is conducive to socially responsible objectives that in turn benefit the overall organisation (De Hoogh & Den Hartog 2008). Additionally, ethical leaders demonstrate the importance of accomplishing a task and how that contributes to organisational effectiveness, which, in turn, gives subordinates a feeling of ownership and taking part in the decision-making processes (Piccolo et al. 2010). This influences subordinates’ motivational levels and hence enhances their levels of in-role performance.

This finding contributes to the research on authentic leadership theory demonstrating that ethical leadership can be considered as an important complementary leadership construct to authentic leadership with regard to in-role performance of subordinates. In sum, the results illustrate that subordinates perform better when leadership is perceived as authentic and supported by higher levels of ethical leadership behaviour. Therefore, this finding is significant as it demonstrates that higher levels of ethical leadership behaviour moderate authentic leadership behaviours, which lead to an increase in in-role performance of subordinates.

In summary, findings provide support for the classic authentic leadership theory, which postulates that authentic leadership has positive influences on organisational outcomes (Avolio & Gardner 2005; Gardner et al. 2011; Luthans & Avolio 2003). Findings in this thesis contribute to the assumption that authentic leadership has an influence on subordinates’ perceptions of ethical climate (Gardner et al. 2011). Further, findings in this thesis support previous research on the relationship between authentic leadership and subordinates’ organisational citizenship behaviours (Yammarino et al. 2008), the relationship between authentic leadership and affective organisational commitment (Leroy, Palanski & Simons 2012), and the relationship between authentic leadership and subordinates’ performance (Leroy et al. 2012; Wang et al. 2014). Similarly, findings support the classic ethical leadership theory, which postulates that ethical leadership has positive influences on organisational outcomes (Brown & Mitchell 2010). Hence, this thesis supports findings of previous research on the relationship between ethical leadership and ethical climate (Lu & Lin 2013; Mayer, Kuenzi & Greenbaum 2010), the relationship between ethical leadership and subordinates’ organisational citizenship behaviours (Avey, Palanski & Walumbwa 2011; Kacmar et al. 2011; Kalshoven, Den Hartog & De Hoogh 2013), the relationship between
Chapter 5 Discussion and Implications

ethical leadership and affective organisational commitment (Neubert et al. 2009), and the relationship between ethical leadership and subordinates’ performance (Brown & Mitchell 2010).

More importantly, this thesis extended previous research by illustrating how ethical leadership complements and enhances authentic leadership behaviour and hence this thesis responds to previous calls for further research to integrate other leadership approaches to authentic leadership theory by Walumbwa et al. (2008). Additionally, a further contribution is empirically examining the mechanisms of ethical climate as a mediator in the relationship between authentic leadership and subordinates’ organisational citizenship behaviour, affective organisational commitment and in-role performance. This thesis adds to our knowledge of the effectiveness of authentic leadership and supports the importance of adopting climate-based perspective in authentic leadership research as requested for further research by Gardner et al. (2011). These findings also reveal certain managerial implications, which will be discussed further.

5.3 Implications for theory

This thesis responds to the call for further research by extending research on authentic leadership and ethical leadership from a contextual point of view looking at those aforementioned leadership constructs in organisations in the private sector within Australia. Previous researchers within the field of authentic leadership and ethical leadership that is mainly conducted in the US context (Avolio & Gardner 2005; Avolio, Walumbwa & Weber 2009; Brown & Mitchell 2010; Cianci et al. 2014; Gardner et al. 2011; Hmieleski, Cole & Baron 2011; Peus et al. 2012; Toor & Ofori 2009; Trevino, Brown & Hartman 2003; Yammarino et al. 2008) have called for further empirical support on the influencing mechanism of each leadership theory, by which leaders evoke effective organisational outcomes in other cultural settings. Therefore, in accordance with previous research conducted on each leadership construct, authentic leadership and ethical leadership, this thesis supports findings on positive direct influence of authentic leadership and ethical leadership on organisational outcomes.

In order to limit the risk of confounding results and conclusions, the findings in this thesis revealed the significance to control for the influence of demographic characteristics in the influencing relationship of predictor variables and criterion variables. As revealed in the data analysis, some demographic characteristics were related to some criterion variables. Thus, if the analysis process of the hierarchical multiple regression did not control for these demographic characteristics, predictions of the influencing relationships would have been erroneous.
Furthermore, this thesis addresses the call for further research by Gardner et al. (2011) on investigating mechanisms through which authentic leadership occurs. Specifically, this thesis investigated the importance of the mediating effect of ethical climate in the relationship between authentic leadership and subordinates' organisational citizenship behaviour, affective commitment and in-role performance. This supported previous propositions that authentic leadership has the potential to foster an ethical climate within an organisation, which influences subordinates' behaviours (Avolio et al. 2004; Gardner et al. 2011; Walumbwa et al. 2008). Therefore, this thesis extends authentic leadership theory by investigating the role of ethical climate as a mediator in the relationship of authentic leadership and subordinates' behaviours to explicate when authentic leadership occurs.

The present findings also highlight the importance of an ethical climate in an organisation, which influences important organisational outcomes. This thesis demonstrated that an ethical climate had a positive impact on subordinates’ enhanced engagement in organisational citizenship behaviours. Also, this thesis demonstrated that an ethical climate had a positive impact on subordinates’ heightened levels of affective organisational commitment. Finally, this thesis demonstrated that an ethical climate had a positive impact on subordinates’ higher levels of in-role performance. Thus, findings support extant literature on ethical climate demonstrating that ethical climate played a critical role in the enactment of positive behaviours of employees in the workplace to occur.

Finally, this thesis addresses the call for further research by Walumbwa et al. (2008) to incorporate other positive leadership construct in the investigation of authentic leadership and its influence on organisational outcomes. The aim was to investigate under which conditions subordinates react to the influence of authentic leadership. Specifically, this thesis investigated the importance of the moderating effect of ethical leadership in the relationship between authentic leadership and perceived ethical climate, subordinates’ organisational citizenship behaviour, affective commitment and in-role performance. This supported previous research on the moderation effect of ethical leadership on subordinates’ behaviours (Babalola, Stouten & Euwema 2015; Philipp & Lopez 2013). Thus, this thesis extends authentic leadership theory by investigating the role of ethical leadership as a moderator in the relationship of authentic leadership and organisational outcomes and subordinates’ behaviours.

5.4 Implications for managerial practice

From a managerial point of view, this thesis reveals findings that contribute to the understanding of how leadership practices can improve certain organisational outcomes by integrating two important and interrelated emerging leadership constructs, which are
authentic leadership and ethical leadership. In particular, this thesis demonstrated that authentic leadership is a key factor that fosters an ethical climate, enhances subordinates’ organisational citizenship behaviours, subordinates’ affective commitment and subordinates’ in-role performance. From a general point of view, business leaders striving for long-term organisational success are expected to ensure profitability has a profound impact on leaders effectiveness (Euwema, Wendt & van Emmerik 2007), yet business leaders need to take their work force into consideration and incorporate leadership practices and behaviours that will lead to positive behaviours among subordinates including organisational citizenship behaviours, affective organisational commitment and in-role performance. Furthermore, the ethical climate of an organisation is also particularly relevant in today’s turbulent workplace, as it has been repeatedly found that an ethical climate is related to desired attitudes, behaviours and performance of employees (Simha & Cullen 2012).

Organisations that seek to promote and/or aspire to cultivate authentic leadership behaviour among its executives should invest into or consider developing a curriculum for specific managerial development programs. These development programs need to target and build individual knowledge and skills more ethically appropriate for the required managerial capabilities that will suit contemporary authentic leaders. This will typically include highly developed self-awareness skills, how to reveal the authentic leadership-self, and how to develop a cogent ethical framework for the workplace and leadership practice. Such guidelines for authentic leadership development in organisations have been proposed by Avolio and Luthans (2006). However, as noted by Avolio, Walumbwa and Weber (2009), not all subordinates are receptive to authentic leadership and the subsequent dyadic-relationship to the same degree in terms of subordinates’ attitudes and behaviours. Hence, the findings of this thesis verify this observation by indicating that improvement in subordinates’ attitudes and behaviours might be gained with complementary ethical leadership behaviour. If higher standards of leadership are going to be delivered, then this thesis has shown the importance of developing appropriate professional development programs that will teach and embed values, knowledge and skills that will create the establishment and maintenance of an on-going workplace culture that supports authentic leadership with ethical decision-making.

However, Avolio and Luthans (2006) cautioned that leadership development programs tailored for authentic leadership training are a long term process and cannot be reduced to basic or ordinary training programs. Authenticity is a developmental process, which is formed through various trigger events both positive and negative and thus shapes an individual’s awareness about core values and beliefs (Harter 2002). Often leadership development programs are built on technical skill, such as effective communication with staff or implementation of policies and procedures, with limited recognition of challenges
associated with interpersonal relationships between leaders and subordinates. Considering that developing authenticity is a reflective journey based on certain trigger events, long-term development programs could utilise various forms of guided self-reflection to draw meanings from experiences to then improve interpersonal skills with the help of a facilitator. The aim is to get to the core of authentic behaviour to be able to walk the talk regardless of contextual factors. In support of implementing various managerial development programs, organisations have the option to promote authentic leadership behaviours by proactively applying various types of remuneration and recognition packages. To put it differently, organisations might want to promote programs in which leaders are compensated for developing an ethical work environment by leading via role modelling behaviours that advocate transparency and demonstrate behaviours that are in accordance with their core values and beliefs.

A further way of promoting authentic leadership behaviour within an organisation is to recruit individuals who demonstrate actions and behaviours based on their authentic self. Such individuals could be identified via various selection criteria and recruitment methods, such as specific assessment centres or interviews. Recruitment of such individuals would further contribute to the creation of a desired ethical climate, where individuals communicate what they stand for in a transparent manner. Organisations would benefit from such an environment as it creates a certain degree of willingness to engage in helping behaviours towards co-workers and improves performance with regard to assigned roles.

Finally, findings in this thesis indicate the importance of ethical leadership behaviours in order to achieve pro-social behaviours among subordinates. A majority of companies have policies and procedures with regard to ethics in place through a Code of Ethics or similar. However, it is not the awareness of such a document but more importantly the exhibition of certain behaviours of an individual that maintain an ethical standard in an organisation. Hence, to develop critical ethical thinking it is important to teach leaders about various directions of ethical decision-making and incorporate various case study scenarios into their development training where they are faced with various ethical dilemmas. It is the increased awareness of the potential occurrence of dilemmas that improves the repertoire decision making processes an individual could apply when faced with a real life situation. As demonstrated in this thesis, ethical leadership behaviours then have positive influences on organisational outcomes. The benefits for organisations that support ethical leadership behaviour would benefit from having an ethical climate, employees would demonstrate more cooperative and pro-social behaviours, demonstrate higher affective commitment towards the organisation and would demonstrate higher perform of their job task.

The discussion above provides several approaches how authentic leadership can be fostered or developed within an organisation. In order to be able to implement such practices
and leadership development programs, organisational decision makers need take into consideration that modern-day learning has progressed in recent years. Learning takes place in various forms such as social learning, informal learning, or utilising various types of media to deliver contents in an exciting format (Buckingham 2013). Therefore, successful leadership programs need to go beyond the scope of a typical formal classroom in order to capture and blend modern teaching approaches. Business leaders in today’s business environment utilise various types of devices and online platforms to deliver expectations of their roles. Hence, a successful way to implement the previously discussed managerial implications can be through interactive online portals where various options can be provided for problem-solving tools, leadership and management tips, or virtual video sessions with experts from the field of interest. These offers can be customised even further to include various types of simulations, coaching, or virtual collaboration. Such an approach would also allow for customised offers depending on the skills and expertise of each leader that takes part in such a leadership development program. In fact, such development programs could then be modified to the specific goals of the respective organisation.

5.5 Limitations and future research

This thesis, like any other study, has some limitations that need to be addressed. First, limitations need to be addressed with regard to the study sample and its impact on the generalisability of findings. Second, limitations need to be addressed with regard to the research methods applied. Third, limitations need to be addressed with regard to the conceptual clarity of the construct under investigation. These limitations are addressed sequentially in the following sections.

5.5.1 Sample

The sample for this thesis was chosen based on the selection criteria of a non-probability sampling technique with a purposive sampling method. The aim was to select respondents based on particular criteria. That is, organisations were selected based on their organisational leadership, organisational culture and overall workplace satisfaction as rated by their employees. The sample contained organisations from various industry backgrounds; hence organisations represented diverse sectors, which, in turn, can be considered a strength of the thesis. While the sample represented organisations from various industries, the results might still not be applicable in all sectors and hence in other organisations. The sample of the study forms a possible limitation since it was generated from a limited cluster of organisations (i.e. Australia’s most desirable places to work for), and thus this has a potential limitation to the generalisability of the findings.
A further potential limitation is common method bias concerning same source data. Results in this thesis were obtained from 112 individual respondents who were from various levels within organisations. These individuals represented non-supervisors and supervisors from various levels; the data gathered however was obtained from the same source (i.e. subordinates). This forms a further limitation since it was not possible to match supervisor-subordinates dyadic relationships among respondents. Future research would benefit from matching supervisor-subordinate dyads and hence have responses from two distinct sources, which, in turn, would help to overcome common method bias.

While the sample was drawn from the private industry sector of medium and large sized organisations in Australia to increase our knowledge of leadership processes in this less studied cultural context, this might bear a cultural bias with what is considered as authentic and ethical compared to previous studies conducted in the Northern American context. Both, authenticity and ethical behaviour of leaders is rooted in and reinforced by the culture of this context, which, in turn, is susceptible to the overall values of the societal and cultural context (Hofstede 1980). Whether the respondents in this thesis confer the same meaning of authenticity and ethical behaviour with their counterparts in other organisations in other countries may impact on the relationships found. Therefore, it is recommended to conduct further comparative studies in different organisations and societal cultures in order to cross-validate and help generalise the findings. However, the strength of this thesis is that it investigated authentic leadership behaviour in an Australian context and hence is one of few studies outside the Northern American context to conduct research on authentic leadership behaviours in organisations.

The selection criteria were clearly set by focusing on organisations that were known for their leadership and climate in the organisation. Therefore, future research should consider obtaining data from a wider population and hence go beyond the here applied selection criteria of a purposive sampling method. In other words, future research would benefit from including organisations that are not necessarily regarded as best places to work for in Australia. Furthermore, research could be expanded into not-for-profit organisations in the Australian context, given that only a limited amount of research on authentic leadership in the Australian context has been conducted. Therefore, while this thesis has addressed the limited research done on authentic leadership and ethical leadership in Australian for-profit organisations, it is critical to conduct further research in order to validate the generalisability of findings of this thesis.
Chapter 5 Discussion and Implications

5.5.2 Method

This thesis relies on a cross-sectional study design utilising online surveys, which is a potential limitation with regard to drawing definite conclusions on causal relationships. Further, conclusions in this thesis are drawn from self-report and perceptual-based measures rather than observations of behaviour, and hence this forms a possible limitation with regard to common method variance. However, self-report and perceptual-based measures of work behaviours have been successfully utilised in various previous studies on leadership. Therefore, future research would benefit from considering longitudinal research designs that allow for repetitive data collection at various points in time and hence provide stronger support for causalities in observed relationships. Additionally, to overcome self-rater bias, data could be collected from two different sources (i.e. leader and subordinates) as self-rater and other-rater source. According to Podsakoff et al. (2003) data collection at different points in time can potentially enhance the research design since this could reflect and yield more accurate ratings. Furthermore, comparing data from self-rater and other-rater source should be taken into consideration because it can capture possible variations on workplace attitudes as well as leadership behaviours.

Furthermore, this thesis gathered data from a single level of analysis, which is from individuals in a subordinate role. This is considered as a limitation because no definite causal conclusions can be drawn for direct impacts of leadership processes since no direct relationships between supervisors and subordinates can be identified. This is partially because of the nature of this research topic where subordinates are requested to rate their direct superiors in terms of leadership behaviours. Even though this thesis gathered data in Australian organisations, which is also indicative for an individualistic cultural background where providing direct feedback and criticism is encouraged (Hofstede 1980), it was still problematic to get other-rater data from linking supervisors and their direct subordinates. The reason for this was that subordinates were concerned for anonymity and confidentiality of their responses. Being aware of this issue of anonymity and confidentiality, this thesis had support from senior executive level decision-makers within participating organisations who encouraged every employee to provide candid responses without fear because it was for the benefit of the organisation. Future research would benefit from utilising dyadic relationships to gather data and hence use different units of analysis such a team level and organisational level data, which might yield different results. It also remains questionable to what extent authentic leadership has the capacity to indirectly influence attitudes and performance of subordinates who are several levels below. Therefore, a multi-level research design for future research is strongly recommended in order to investigate various levels of authentic leadership processes and its impacts on subordinates’ attitudes and behaviours.
Moreover, this thesis has followed previous research designs on leadership theories applying a quantitative research design with the focus on knowledge advancement and extension of theory by investigating causal relationships. Research conducted in the field of leadership has predominantly been influenced by quantitative methods in consequence of close links to the discipline of psychology (Parry 1998). Leadership however can be seen as a contextually rich area of study that includes human behaviour in a dynamic contextual setting such as the business environment. Therefore, to understand the complexity of human behaviour in a dynamic contextual setting, such as the business environment, future research could benefit from combining research designs into a mixed methodology where quantitative and qualitative methods are utilised. This can assist to reveal the deeper meaning of an individual’s values and motivations about his/her behaviours. The quantitative aspect of a study could then allow researchers to capture a static section of the studied phenomenon, whereas the qualitative aspect provides an appropriate tool for a researcher to investigate and interpret the complexity of leadership with its great levels of depths and nuance. Specifically, the discipline of leadership constitutes a dynamic social process (Conger 1998; Yukl 2008), which incorporate various variables that have an influence on these social processes (Parry 1998). Considering this, the addition of a qualitative research design component offers the possibility to expand a novel angle in the discipline of leadership, which has been thoroughly studied quantitatively. Instead of being taken at a particular point in time describing the causality of certain leadership behaviours, as it is done through quantitative research, the deeper meaning of the cause of certain behaviours shown by a leader can be explored.

Lastly, even though this thesis investigated conceptually distinguishable leadership styles, authentic leadership and ethical leadership, both construct demonstrated low discriminant validity in the statistical analysis. For the purpose of this thesis and following a call for further research on integrating other leadership styles to the construct of authentic leadership (Walumbwa et al. 2008); both constructs have been treated as separate variables. The reason to treat both constructs as separate variables was to assess if adding a true ethical component (i.e. ethical leadership) can enhance the effectiveness of authentic leadership. This also addresses the concerns that authentic leadership may not be based on good ethical or moral intentions (Algera & Wips-Liersma 2012). Nevertheless, this indicates a limitation of this study. Future research might want to consider investigating the effectiveness of authentic leadership on employees attitudes and performance by including other leadership styles such as transactional leadership, complexity theory of leadership, or path-goal leadership theory, which might provide further insights to what extent authentic leadership can influence desirable employees attitudes and behaviours.
5.5.3 Conceptual Clarity

The main focus of this thesis was to investigate and extend authentic leadership theory and its impacts on subordinates’ workplace attitudes and behaviours. Further, this thesis aimed to investigate the moral component of authentic leadership by applying ethical leadership as a moderating variable arguing that the ethical leadership construct complements authentic leadership theory adding an additional moral component to it. Even though this thesis used ethical leadership as a moderating variable, it does not hold substantive evidence that authentic leadership is lacking a moral component as it was argued and hence, making causal inferences is limited. Therefore it is suggested that future research explicitly investigate the morality component in authentic leadership focusing separately on each of the dimensions of authentic leadership theory.

It can be argued that leaders can act with significantly more authenticity and morality by having cognitive moral capacities developed. However, there are numerous complexities of human nature where individuals have differing levels of cognition, experiences and environments as well as having differing capacities to intentionally or unintentionally adapt to various contexts and roles (Hannah, Avolio & May 2011). It is the recognition and alignment of inner values with actions in order to develop a moral framework. Misconduct and mismanagement behaviours occur because such leaders have no regard to ethical considerations or no ethical framework in place (Padilla, Hogan & Kaiser 2007). They succumb to egoistic motivation that becomes self-serving; they use power for power’s sake, and they demonstrate no ethical compass in their leadership practice. Thus, future research should investigate various boundary conditions under which authentic leadership can occur and be considered as truly ethical.

To investigate if authentic leadership theory is based on truly good ethical intentions authentic theory could borrow from and integrate other psychological concepts such as developmental psychology. It has been discussed in chapter two of this thesis that authenticity is a developmental process and is formed across the lifespan of an individual. Similarly, morality is a developmental process that is shaped through our cognitive abilities to identify what is considered a good deed. Authentic leadership theory argues for its good moral intentions yet an inauthentic leader can still operate undetected and can mask or hide his/her ethical intentions and behaviours behind a false image of themselves. Therefore, future research would benefit from the integration of developmental theory such as conceptualised by Kohlberg (1984) on cognitive moral development into authentic leadership practices, which, in turn, has a wide scope to purposefully construct an inner moral perspective that forms an ethical foundation stone that guarantees personal integrity in the delivery of authentic leadership. When the concept of cognitive moral development is applied to authentic leadership theory, it appears to address the concerns raised within
recent research that authentic leadership can be amoral. It the proposed cognitive moral
development component is implemented with further research and potentially into authentic
leadership theory and practice, then this can lead to the removal of the amoral concern
within authentic leadership theory. The reason for this is that a leader’s thinking and decision
making is truly based on pure connections between one’s highly developed inner moral
compass.

5.6 Summary

This chapter discussed the major findings, theoretical and managerial implications and
limitations of this thesis. Major findings of this thesis indicated positive influence of authentic
leadership and ethical leadership on organisational outcomes. Specifically, the main
contributions of this thesis are that it was demonstrated that authentic leadership influences
positively the perception of an ethical climate among subordinates. Furthermore, an ethical
climate has a mediating effect on the relationship between authentic leadership and
subordinates’ organisational citizenship behaviour and in-role performance. In addition, this
thesis demonstrated that ethical leadership moderates the relationship between authentic
leadership and subordinates’ organisational citizenship behaviour and in-role performance. It
Managerial implications were discussed recommending leadership development programs
and selecting the right individuals for leadership roles. Limitations of this study indicate
various opportunities for future research to expand the theory on authentic leadership and
ethical leadership.
CHAPTER 6 – CONCLUSION

This thesis argued that factors such as authenticity and ethical behaviour are essential determinants for organisational leadership effectiveness to achieve positive organisational outcomes. The overarching research questions were a) in what way, if any, does authentic leadership foster an ethical climate, b) in what way, if any, does an ethical climate explain the effectiveness of authentic leadership with regard to subordinates’ attitudes and behaviours, and c) in what way, if any, does ethical leadership complement the effectiveness of authentic leadership with regard to fostering an ethical climate and subordinates’ attitudes and behaviours. Results revealed that authentic leadership and ethical leadership can be considered as effective leadership construct that have a positive influence on establishing an ethical climate in the workplace, and influencing employees’ workplace attitudes and performance.

The line of enquiry behind this thesis is that despite the substantial body of knowledge around the theory of organisational leadership and subsequently its effectiveness, achieving it in practice remains relatively rare and elusive. For example, modern organisations attempt to provide leadership and organisational effectiveness through a range of policy and procedural statements, role descriptions, key performance indicators and other documents like codes of conduct etc. These are intended to guide and even direct leadership thinking and behaviours as well as organisational practices and protocols. Having these documents in place however, does not ensure the delivery of leadership expectations, standards and effectiveness. In addition to this dilemma, many modern organisations are aware and understand that there is a need for leadership to be delivered that is also ethically based. Therefore, and in line with Walumbwa and Schaubroeck (2009), it is essential for organisational leadership to be effective that leaders implement values through words being aligned with decisive actions based on core beliefs, while remaining welcoming for open communication with subordinates to establish a mutual trust relationship.

As previously noted in the literature review, Walumbwa et al. (2008) reported that in the current corporate environment there remained persistent occurrences of small, medium and large scale corporate scandals as well as management malfeasance, including repeated and spectacular lapses in ethical judgment by leaders with significant corporate or political standing. Executive behaviour is still characterised by inconsistency between their words and deeds, and there is an unwillingness with organisational stakeholders to tolerate inconsistencies between executives’ espoused principles, values, and conduct (Kish-
Gephart, Harrison & Treviño 2010; Padilla, Hogan & Kaiser 2007; Rijsenbilt & Commandeur 2012). Consequently, contemporary society expects their leaders to deliver higher standards of leadership than has previously been accepted. The findings of this research indicate that leadership can be more effective through the deliberate demonstration of authentic leadership that includes ethical consideration within the leadership behaviours. When authentic leadership is embedded in everyday leadership practice, this thesis found that the climate is perceived as more ethical within the organisation, there was an enhanced willingness of staff to go the extra mile and increased cooperative behaviours among colleagues, higher levels of emotional attachment towards the organisation and staff performed their job tasks more effectively.

This thesis incorporated authentic leadership with an ethical framework to investigate leadership processes in the workplace of private organisations in Australia. Findings revealed that when authentic leadership is delivered in the workplace, it creates a superior supportive work climate. This work climate is characterised as a place where ethical considerations are inbuilt into workplace processes and decision-making, and this, in turn, engenders beliefs and practices that value transparency, integrity, trust and high moral standards. Further, the thesis found that when authentic leadership was delivered within such an ethical climate, it resulted in higher levels of cooperation, teamwork and extra role behaviours among employees, which contributes to the organisation becoming more effective. In other words, subordinates demonstrated higher levels of organisational citizenship behaviours in the workplace towards their colleagues. Additionally, employees demonstrated increased effort in accomplishing tasks that were required in their role, hence they demonstrated increased in-role performance.

Furthermore, findings demonstrated that when employees witnessed their direct supervisors modelling authentic behaviours and acting in an enhanced ethical manner, this resulted in higher levels of employee cooperation and it inspired extra role behaviours in employees. Leaders who helped their employees understand organisational goals and outcomes, their role within the organisation and the significance of their role and its tasks, resulted in subordinates engaging in and fulfilling their role beyond job requirements and engaging in extra role behaviours. This, in turn, contributed to greater organisational effectiveness as employees not only performed their role in full, but they went the ‘extra-mile’ beyond their compulsory role duties. Moreover, findings demonstrated that leadership behaviours that were exhibited in an authentic manner lead to increased employees’ commitment levels towards the organisation. Authentic leadership had a positive effect on employees because subordinates perceived their leader to be transparent, honest, and trustworthy with their behaviours and in their decision-making.
The significance of these findings is that it confirms the emergence of authentic leadership as an effective leadership construct. This is in accordance with theoretical foundations of authentic leadership theory, which supports such belief. This thesis confirms the influence of authentic leadership behaviours play not only the decisive role but are the determining factor whether an ethical climate is established, which consequently determines whether the organisation will benefit or not. Specifically, this thesis has revealed that the most crucial elements of leadership, namely trust, integrity, open and honest communication, as well as leaders being role models, setting the tone and standing for their beliefs while acting upon them, will foster an ethical climate, which almost guarantees that unethical behaviours and flawed leadership practices will not occur. More importantly, through an ethical climate the influence of authentic leadership increased subordinates’ willingness to engage in cooperative and pro-social behaviours towards others in their workplace. Thus, the significance of this finding for managerial practice is that leaders who act in alignment with their core values and communicate in a transparent manner establish a supportive work environment based on ethical principles, through which collaborative behaviours are induced and employees personally go the extra mile and help others in the workplace. Additionally, through such an environment the influence of leaders on employee behaviours improved resulting in higher levels of performing their assigned tasks.

This thesis focused on authentic leadership because, among other established theories and constructs on leadership, authentic leadership is emerging with the most potential to deliver leadership that is not only technically correct from a managerial perspective, but includes various contemporary characteristics that are considered essential and most relevant in today’s societal expectations. Some of the leadership characteristics that are necessary in addition to the technically correct managerial expertise include standing for what they believe in, having open and transparent communication that is meaningful and engaging, building trust relationships with employees and all other stakeholders, demonstrating integrity in all relationships and ensuring no misleading or deceptive thinking processes, decision-making or communications occur.

This thesis focused on the inclusion of ethical leadership behaviour with the concept and practices of authentic leadership in the private industry sector in Australia. The reason why this was incorporated is because it is possible that a leader can demonstrate authentic leadership and not necessarily act upon their true beliefs (Algera & Lips-Wiersma 2012). In other words, it is possible that a person can demonstrate authentic leadership while still remaining unethical. Therefore, this thesis argued it was important to include the element of true ethical leadership behaviour in the construct of authentic leadership.

Although both leadership constructs, authentic leadership and ethical leadership, and their impact on organisational behaviour outcomes were examined independently in a
multitude of studies, previous studies however have not fully considered the interactive effects of both leadership theories. The aim was to demonstrate that authentic leaders have significantly more impact on various organisational outcomes when their leadership behaviour is supported by ethical leadership behaviour. The theory and evidence presented in this thesis expands previous efforts to show significance of authentic leadership as conceptualised by Walumbwa et al. (2008) through examining its interaction with ethical leadership on various outcomes. This thesis thus contributes to the call for further research on integrating authentic leadership theory with other related leadership theories such as ethical leadership by testing potential moderating conditions of ethical leadership in the relationship between authentic leadership and various organisational outcomes (Walumbwa et al. 2008). This thesis is among the first to integrate this important interaction between authentic leadership and ethical leadership to explore the impact on subordinates’ perceptions of an ethical climate and subordinates’ organisational behaviour outcomes such as organisational citizenship behaviour, affective organisational commitment and in-role performance.

The integration of ethical leadership to complement authentic leadership theory addresses the concern of authentic leadership being truly ethical as argued by Algera and Lips-Wiersma (2012). Ethical behaviour appears to be an important element in the decision-making process, as leaders set the tone within an organisation and need to act as role models in an ethical way toward their subordinates and in accordance with what is morally right with regard to organisational goals. Besides, leaders need to think critically about the moral intent within the decision making process, as they play an essential part in establishing an ethical climate. Such ethical behaviour can be increased through development of moral capacity through educational processes, self-reflection and role modelling behaviours (Hannah & Avolio 2011; Hannah, Avolio & May 2011).

By integrating the two concepts of authentic leadership and ethical leadership, this thesis identified how an organisation can significantly benefit when these two concepts are implemented in practice. While business leaders are rightfully concerned with striving for both profitability and long-term organisational success, this thesis has found that achieving both of these goals is much more likely if business leaders demonstrate authentic leadership with ethical leadership behaviour towards their subordinates. That is, ethical leadership behaviours, which stand for excellent ethical standards, enhance authentic leadership behaviours to stimulate organisational citizenship behaviours and enhance in-role performance among subordinates. This has valuable insight for managerial purposes with regard to competencies and capabilities that are valued in current leaders and hence are desired for future leaders. That is, leaders should be authentic and therefore align their actions with their inner beliefs and values, have an open and honest communication with
their subordinates showing their true self, transparency with their decision making, and demonstrate a balanced approach to decision-making where leaders value and incorporate the input of their subordinates. Additionally, leaders should be ethical in their behaviour and therefore base their decisions on what is regarded as ethically acceptable as well as making sure that ethical standards are upheld within the workplace. Considering these characteristics, it is not unexpected that authentic leadership and ethical leadership can be considered as effective leadership constructs and therefore desirable in organisations that strive for long-term success.

However, the complexities of human nature mean that each individual has a unique set of characteristics that form their personality and therefore there are almost unlimited variations in the levels of cognition, intelligences, experiences and environments that a person will be functioning from (Erikson 1959; Kohlberg 1984; Rest 1986; Trautner 2003). With this in mind, this thesis argued that unless a potential leader is prepared to engage in a formative educational process whereby their inner moral perspective is developed and includes becoming a high functioning self-aware leader, then authentic leadership cannot be considered as inherently ethically good. This means that at present leadership dysfunction will continue whether a person has authentic leadership theory training or not. Gardner et al. (2005, p. 344) succinctly expressed the conundrum facing contemporary commercial society this way ‘With today’s pressures to promote style over substance, dress for success, embrace flavor-of-the month fads and fashions, and compromise one’s values to satisfy Wall Street’s unquenchable thirst for quarterly profits, the challenge of knowing, showing, and remaining true to one’s real self at work has never been greater’.

Additionally, this thesis addressed the call for further research by Gardner et al. (2011) to integrate the relationship between authentic leadership and ethical climate investigating the boundary effects of ethical climate on the relationship between authentic leadership and various organisational outcomes. Specifically, this thesis investigated the mediating effects of ethical climate on the relationship between authentic leadership and organisational behaviour outcomes. The aim was to demonstrate that by fostering an ethical climate authentic leadership will have an enhanced impact on organisational outcomes such as organisational citizenship behaviours, affective organisational commitment and in-role performance.

The construct of authentic leadership can, in part, contribute to changing and improving the current corporate leadership environment. As Bass and Steidlmieier (1999) have argued, without authenticity, leadership cannot free itself of corporate misbehaviour and scandals as leadership will never be truly effective. The reason why corporate leadership cannot free itself from misbehaviour and scandals, and will never be truly effective, as Seeman (1966) concluded, is that inauthenticity was a reflection on an
individual's distorted view of reality arising from their distorted view of their own belief system. Likewise, it is evident that organisational citizenship behaviour plays an integral role in organisational effectiveness. Organisational citizenship behaviour is generated and maintained through leadership practices, which, in turn, affect organisational performance. Finally, this thesis underscores the need for authentic leadership development programs to target authentic behaviour and ethical understanding and decision-making.

This thesis demonstrated that authentic behaviour based on ethical consideration forms an important element in the decision-making process. Leaders set the tone within an organisation and need to act as role models in an ethical way toward their subordinates and in accordance with what is considered as morally right with regard to organisational goals. Besides, leaders need to think critically about the moral intent within the decision-making process, as they play an essential part in establishing an ethical climate.

The question that today's business leaders are confronted with arising from this thesis is: have they already commenced being proactive by addressing the issue of behaviours being based on integrity, ethical consideration, and transparency and by that strengthening the ethical climate of their organisation? That is, business leaders and their organisations that have not been proactive in addressing these issues of leading authentically, ethically and by that strengthening their ethical climate are running a high-risk strategy. If an unethical leadership behaviour situation was to emerge, this scenario in contemporary society can now very easily become terminal for the leader and/or the organisation. Therefore, not being committed to decreasing unethical thinking and/or behaviours in the way leaders and organisations function is negligent leadership in a contemporary business environment. If higher standards of leadership are going to be delivered, then this thesis has shown the importance of developing appropriate professional development programs that will teach and embed the values, knowledge and skills that will create the establishment and maintenance of an on-going workplace culture that supports authentic leadership with ethical decision-making.
REFERENCES

Algera, PM & Lips-Wiersma, M 2012, 'Radical authentic leadership: Co-creating the conditions under which all members of the organization can be authentic', The Leadership Quarterly, vol. 23, no. 1, pp. 118-31.


Babbie, E 2015, The Practice of Social Research, 14th edn, Cengage Learning, Boston, MA.

Bandura, A 1977, Social learning theory, Prentice Hall.


References


Bass, BM 1990, 'From transactional to transformational leadership: Learning to share the vision', *Organizational Dynamics*, vol. 18, no. 3, pp. 19-31.


Brown, ME, Trevino, LK & Harrison, DA 2005, 'Ethical leadership: a social learning perspective for construct development and testing', *Organizational Behavior and Human Decision Processes*, vol. 97, no. 2, pp. 117-34.


References


Chun, JU, Yammarino, FJ, Dionne, SD, Sosik, JJ & Moon, HK 2009, 'Leadership across hierarchical levels: Multiple levels of management and multiple levels of analysis', *The Leadership Quarterly*, vol. 20, no. 5, pp. 689-707.


Conger, JA 1998, 'Qualitative research as the cornerstone methodology for understanding leadership', *The Leadership Quarterly*, vol. 9, no. 1, pp. 107-21.


DeChurch, LA, Hiller, NJ, Murase, T, Doty, D & Salas, E 2010, 'Leadership across levels: Levels of leaders and their levels of impact', The Leadership Quarterly, vol. 21, no. 6, pp. 1069-85.


References


References

Hood, JN 2003, 'The relationship of leadership style and CEO values to ethical practices in organizations', *Journal of Business Ethics*, vol. 43, no. 4, pp. 263-73.


Klenke, K 2008, Qualitative Research In The Study Of Leadership, Emerald Group Pub Limited, Bingley, UK.


Lussier, RN & Achua, CF 2013, *Leadership: theory, application, & skill development*, 5th edn, South Western Cengage Learning, Mason, OH.


Manika, D, Wells, VK, Gregory-Smith, D & Gentry, M 2013, 'The impact of individual attitudinal and organisational variables on workplace environmentally friendly behaviours', *Journal of Business Ethics*.


References


Mayer, DM, Kuenzi, M & Greenbaum, RL 2010, 'Examining the link between ethical leadership and employee misconduct: The mediating role of ethical climate', *Journal of Business Ethics*, vol. 95, no. 1, pp. 7-16.


References


Podsakoff, PM & Organ, DW 1986, 'Self-reports in organizational research: Problems and prospects', *Journal of Management*, vol. 12, no. 4, pp. 531-44.
References


Schein, EH 2010, Organizational culture and leadership, 4th edn, Jossey-Bass, Hoboken, NJ.


Trevino, LK & Brown, ME 2004, 'Managing to be ethical: Debunking five business ethics myths', *Academy of Management Executive*, vol. 18, no. 2, pp. 69-81.


van der Mescht, H 2002, 'Four levels of rigour in interpretive qualitative research', *Education as Change*, vol. 6, no. 1, pp. 43-51.

van Dijk, H, van Engen, ML & van Knippenberg, D 2012, 'Defying conventional wisdom: A meta-analytical examination of the differences between demographic and job-related...
References

References


APPENDICES

Appendix A

Notice of Approval

Date: 16 September 2014
Project number: 18736
Project title: Cognitive Moral Development and Leadership processes as predictors of organisational outcomes.
Risk classification: Low risk
Principal Investigator: Dr Michael Muchiri
Student Investigator: Mr Brad Nikolic
Project Approved: From: 16 September 2014 To: 16 September 2015

Terms of approval:

Special Condition:
This approval is conditional upon receipt of evidence that the company involved in the study has agreed to participate.

Responsibilities of the principal investigator
It is the responsibility of the principal investigator to ensure that all other investigators and staff on a project are aware of the terms of approval and to ensure that the project is conducted as approved by BCHEAN. Approval is only valid while the investigator holds a position at RMIT University.
1. Amendments
Approval must be sought from BCHEAN to amend any aspect of a project including approved documents. To apply for an amendment submit a request for amendment form to the BCHEAN secretary. This form is available on the Human Research Ethics Committee (HREC) website. Amendments must not be implemented without first gaining approval from BCHEAN.
2. Adverse events
You should notify BCHEAN immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.
3. Participant Information and Consent Form (PICF)
The PICF must be distributed to all research participants, where relevant, and the consent form is to be retained and stored by the investigator. The PICF must contain the RMIT University logo and a complaints clause including the above project number.
4. Annual reports
Continued approval of this project is dependent on the submission of an annual report.
5. Final report
A final report must be provided at the conclusion of the project. BCHEAN must be notified if the project is discontinued before the expected date of completion.
6. Monitoring
Projects may be subject to an audit or any other form of monitoring by BCHEAN at any time.
7. Retention and storage of data
The investigator is responsible for the storage and retention of original data pertaining to a project for a minimum period of five years.

Regards,

A/Professor Cathy Brigden
Acting Chairperson RMIT BCHEAN
Appendix B

Collaboration in a Research Project

Dear ….

I am writing to you to ask for your and your companies support in a research project conducted by RMIT University Melbourne on leadership effectiveness and its influence on employees' workplace attitudes and performance.

Relevance of this research
There is a high demand for leaders who can be trusted and who can be believed in, therefore it is necessary to build leaders who stand for their beliefs, know how to make a difference not at least develop and lead people for tomorrow.
This in turn has a positive impact on the overall performance as employees will demonstrate higher levels of commitment to the organization, are willing to go the extra mile, and employees are willing to demonstrate helping behaviours towards others within the organization.

The benefit for your company
The output of this research will provide you with a report that:
• delivers you insights on leadership practices and how these impact on individual as well as team effectiveness.
• provides you with information on leadership practices and behavioural management aspects that can help to enhance employees attitudes and performance at the workplace.

How is the research conducted?
Data is collected using online surveys. Participants are asked to complete a 25 minutes confidential questionnaire.

What is required?
The online survey will be administered by myself as the research.
Thus, the modalities on how the link to this online survey is best distributed among your organizational members needs to be discussed.
The aim is to recruit as many participants as possible. The reason for this is, a high number of participants provides robust results from the data analysis.

Confidentiality of results
As part of my responsibilities to you all data collection will comply with university best practice guidelines as approved by the RMIT Human Research Ethics Committee for this research project #18736.
All information provided by your employees is kept totally confidential. Participants responses will be fed directly back to me, the researcher.
Results from the survey will be presented in a way which completely protects the anonymity of your employees and confidential.

In order to discuss this research project and its modalities further, I am suggesting setting up a time to meet when convenient for you.

Look forward to talk further with you,
Kind regards,
Brad
Dear [COMPANY NAME] employees,

You are invited to participate in a company survey. With permission of your HR Team we are asking you to fill out the online-survey, which you will find by following the link provided below. This survey is part of a research project in collaboration with RMIT University. The aim of this research project is to investigate leadership effectiveness and its influence on organisational outcomes.

In order to successfully conduct this survey we require your voluntary support. It would be a valuable contribution if you could dedicate approximately 20 minutes of your time to fill out the attached survey.

It is of high importance to us that confidentiality and privacy is strictly maintained. Thus all answers will be kept strictly confidential to me as the person in charge for the survey. There will no identifiable information be recorded nor be revealed in the survey.

Please read the Participant Information Sheet carefully and be confident that you understand the information before deciding to participate. This information sheet outlines the purposes of the research project and requirements of your involvement.

**View Participant Information Sheet and Consent Form**
[Participant information sheet and consent form](#)

**Follow this link to the Survey:**
${l://SurveyLink?d=Take the Survey}

Or copy and paste the URL below into your internet browser:
${l://SurveyURL}

If you have further questions or concerns, please feel free to contact me, the investigator, via email: brad.nikolic@rmit.edu.au or phone: +61 3 9925 5122

We thank you in advance for your support and your participation in the survey.

Best regards,

Brad Nikolic

----
Brad Nikolic
B.A., MBus
RMIT University School of
Management Building 80 Level 9
445 Swanston Street
Melbourne VIC 3000

Phone: +61 3 9925 5122
e-mail: brad.nikolic@rmit.edu.au
web: www.rmit.edu.au
INFORMATION SHEET FOR PARTICIPANTS

A survey on Leadership Processes and Organisational Outcomes

Please read the information below before completing this survey

What is the research project about?
The aim of this survey is to obtain a better understanding of the role that leadership has in your organisation. With your participation in this survey you will assist us to better understand your opinion about leadership, and how you think people behave at your work place.

Who is conducting the study?
This study is being conducted by Brad Nikolic and Dr. Michael Muchiri from the School of Management, RMIT University Melbourne.

What does the research involve?
This research requires you to complete one survey. The survey will take approximately 20 minutes of your time to complete. Your answers will be kept strictly confidential and will be only accessed by the researchers. You are not required to reveal your identity at any stage within this survey. In completing the survey questions please read the given instructions carefully as there are a number of different response formats in the attached survey document. There are NO right or wrong answers for any question. Completing this survey is simply a matter of reading and selecting a response that comes closest to your situation.

Where do I return the survey after completion?
Once you have completed the online survey, by clicking the forward button on the last page the survey is automatically returned to me, the researcher. Please return the survey within 14 working days.

What are your rights as participant?
Your participation in this project is purely voluntary. You may withdraw from participating at any time if you desire to do so. All your answers will be kept strictly confidential. The results of the survey will be included in a doctoral thesis and publications. However, the identity of you or your work place will not be revealed nor made identifiable.

By completing and returning this survey, I consent to participate in this research project and agree that:
1. An Information Sheet has been provided to me that I have read and understood;
2. I am over 18 years old;
3. I understand that my participation or non-participation in the research project will not affect my employment;
4. I understand that I have the right to withdraw from the project at any time without penalty;
5. I understand the research findings will be included in a thesis and other publication(s) on the project, which may include conferences and articles written in journals and other methods of dissemination; however, my identity or the identity of my work place will not be revealed nor made identifiable.
6. I agree that I am providing informed consent to participate in this project.

Who do I contact for more information?
Should you have any questions or concerns, please contact:

Brad Nikolic
PhD Student,
School of Management
RMIT University Australia
Melbourne VIC 3000
AUSTRALIA
Phone: 03 9925 5122
Email: brad.nikolic@rmit.edu.au

Dr. Michael Muchiri
School of Management
RMIT University Australia
Melbourne VIC 3000
AUSTRALIA
Phone: 03 9925 1603
Email: michael.muchiri@rmit.edu.au

If you have any concerns about your participation in this project, which you do not wish to discuss with the researchers, then you can contact the Ethics Officer, Research Integrity, Governance and Systems, RMIT University, GPO Box 2476V VIC 3001. Tel: (03) 9925 2251 or email: human.ethics@rmit.edu.au
Appendix E

SURVEY ON LEADERSHIP PROCESSES AND ORGANIZATIONAL OUTCOMES

SECTION ONE: PERSONAL INFORMATION

P1 What is your gender?
☐ Male  ☐ Female

P2 What is your age?
...............  

P3 What is your Highest Level of Education
☐ High School / Diploma
☐ Vocational Education and Training (incl. TAFE)
☐ Bachelor Degree
☐ Masters Degree
☐ PhD / D.B.A

P4 Please indicate your role in this organisation
☐ CEO direct report (Level 1)
☐ direct report to CEO direct report (Level 2)
☐ next level down (Level 3)
☐ Non-supervisor
☐ Other (please specify):

P5 How long have you been working for this organization?
.....Years  .....Months

SECTION TWO: QUESTIONS ABOUT YOUR MANAGERS BEHAVIOUR

For each statement, please rate how frequently the statement fits your immediate manager by circling the scale to the right.
The manager I am rating: (please do not disclose the name of the manager being rated)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL1. Listens to what employees have to say.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EL2. Disciplines employees who violate ethical standards.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EL3. Conducts his/her personal life in an ethical manner.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EL4. Has the best interest of employees in mind.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EL5. Makes fair and balanced decisions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EL6. Can be trusted.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EL7. Discusses business ethics or values with employees.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EL8. Sets an example of how to do things the right way in terms of ethics.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EL9. Defines success not just by results but also the way that they are obtained.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EL10. When making decisions, asks “what is the right thing to do?”</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
For each statement, please rate how frequently the statement fits your immediate manager by circling the scale to the right.

The manager I am rating: *(please do not disclose the name of the supervisor being rated)*

| AL1. | Seeks feedback to improve interactions with others. | 0 | 1 | 2 | 3 | 4 |
| AL2. | Accurately describes how others view his or her capabilities. | 0 | 1 | 2 | 3 | 4 |
| AL3. | Says exactly what he or she means. | 0 | 1 | 2 | 3 | 4 |
| AL4. | Admits mistakes when they are made. | 0 | 1 | 2 | 3 | 4 |
| AL5. | Demonstrates beliefs that are consistent with actions. | 0 | 1 | 2 | 3 | 4 |
| AL6. | Makes decisions based on his or her core beliefs. | 0 | 1 | 2 | 3 | 4 |
| AL7. | Solicits views that challenge his or her deeply held positions. | 0 | 1 | 2 | 3 | 4 |
| AL8. | Listens carefully to different points of view before coming to conclusions. | 0 | 1 | 2 | 3 | 4 |
| AL9. | Encourages everyone to speak their mind. | 0 | 1 | 2 | 3 | 4 |
| AL10. | Tells you the hard truth. | 0 | 1 | 2 | 3 | 4 |
| AL11. | Displays emotions exactly in line with feelings. | 0 | 1 | 2 | 3 | 4 |
| AL12. | Asks you to take positions that support your core values. | 0 | 1 | 2 | 3 | 4 |
| AL13. | Analyses relevant data before coming to a decision. | 0 | 1 | 2 | 3 | 4 |
| AL14. | Makes difficult decisions based on high standards of ethical conduct. | 0 | 1 | 2 | 3 | 4 |
| AL15. | Knows when it is time to reevaluate his or her positions on important issues. | 0 | 1 | 2 | 3 | 4 |
| AL16. | Shows he or she understands how specific actions impact others. | 0 | 1 | 2 | 3 | 4 |

**SECTION THREE: QUESTIONS ABOUT YOUR WORK**

| OC1. | I would be very happy to spend the rest of my career with this organization. | Strongly Disagree | Moderately Disagree | Slightly Disagree | Neither agree nor disagree | Slightly Agree | Moderately Agree | Strongly Agree |
| OC2. | I really feel as if this organization’s problems are my own | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| OC3. | I do not feel a strong sense of “belonging” to my organization | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| OC4. | I do not feel “emotionally attached” to this organization | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| OC5. | I do not feel like “part of the family” at my organization | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| OC6. | This organisation has a great deal of personal meaning for me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
Listed below are a series of statements that represent your own feelings about characteristic behaviours in your work group/unit.

Please indicate how often you engage in the following behaviours by circling the most appropriate response.

<table>
<thead>
<tr>
<th>Behaviour</th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Sometimes</th>
<th>Frequently</th>
<th>Usually</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCB1. Help others who have been absent.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>OCB2. Willingly give your time to help others who have work-related problems.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>OCB3. Adjust your work schedule to accommodate other employees’ requests for time off.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>OCB4. Go out of the way to make newer employees feel welcome in the work group.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>OCB5. Show genuine concern and courtesy toward co-workers, even under the most trying business or personal situation.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>OCB6. Give up time to help others who have work or non-work problems.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>OCB7. Assist others with their duties.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>OCB8. Share personal property with others to help their work.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

Listed below are a series of statements that represent your own feelings about characteristic behaviours of members in your work unit.

Using the scale to the right, please circle the degree that you agree or disagree with the sentiments of each statement below.

How would you rate members of your work unit in terms of

<table>
<thead>
<tr>
<th>Behaviour</th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Sometimes</th>
<th>Frequently</th>
<th>Usually</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1. Adequately complete assigned duties</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>P2. Fulfil responsibilities specified in job description</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>P3. Perform tasks that are expected of them</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>P4. Meet formal performance requirements of the job</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>P5. Engage in activities that will directly affect their performance evaluation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>P6. Neglect aspects of the job they are obligated to perform</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>P7. Fail to perform essential duties</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>EC1.</td>
<td>What is best for everyone is the major consideration here.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EC2.</td>
<td>It is very important to follow the company’s rules and procedures here.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EC3.</td>
<td>In this company, the first consideration is whether a decision violates any law.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EC4.</td>
<td>Successful people in this company go by the book.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EC5.</td>
<td>Each person in this company decides for themselves what is right and wrong.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EC6.</td>
<td>In this company, people protect their own interests above all else.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EC7.</td>
<td>People are expected to comply with the law and professional standards over and above other considerations.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EC8.</td>
<td>Our major concern is always what is best for the other person.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EC9.</td>
<td>In this company, people are guided by their own personal ethics.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EC10.</td>
<td>In this company, people are mostly out for themselves.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EC11.</td>
<td>Everyone is expected to stick by company rules and procedures.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EC12.</td>
<td>The most important concern is the good of all people in the company as a whole</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EC13.</td>
<td>In this company, the law or ethical code of their profession is the major consideration.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EC14.</td>
<td>In this company, people are expected to strictly follow legal or professional standards.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EC15.</td>
<td>People in this company strictly obey the company policies.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>EC16.</td>
<td>In this company, people are expected to follow their own personal and moral beliefs.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
To whom it may concern,

This letter is to grant permission for Brad Nikolic to use the following copyright material for his/her research:

Instrument: *Authentic Leadership Questionnaire (ALQ)*

Authors: *Bruce J. Avolio, William L. Gardner, and Fred O. Walumbwa*

Copyright: *2007 by Bruce J. Avolio, William L. Gardner, and Fred O. Walumbwa*

Three sample items from this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation. The entire instrument may not be included or reproduced at any time in any published material.

Sincerely,

Mind Garden, Inc.
www.mindgarden.com