

**THE RELATIONSHIP BETWEEN ORGANISATIONAL CULTURE AND WORK
ENGAGEMENT**

by

PERVASHNEE NAIDOO

submitted in accordance with the requirements
for the degree of

MASTER OF COMMERCE

in the subject

INDUSTRIAL AND ORGANISATIONAL PSYCHOLOGY

at the

UNIVERSITY OF SOUTH AFRICA

SUPERVISOR: PROF N MARTINS

APRIL 2014

© University of South Africa 2014

FOR THE ATTENTION OF THE READER

SCOPE OF THE DISSERTATION

For this Master's dissertation of limited scope (50% of the total Master's degree) the Department of Industrial and Organisational Psychology recommends a boundary of approximately 60 to 80 pages. The department prescribes an article format that involves four chapters – an introductory and a literature chapter (Chapters 1 and 2), a research article (presented in Chapter 3), and a final chapter, containing the conclusion, limitations, and recommendations of the study (Chapter 4).

TECHNICAL AND REFERENCE STYLE

In this dissertation, I have chosen the publication guidelines of the South African Journal of Industrial Psychology to structure my dissertation and article. Therefore, the APA referencing style was followed in terms of the technical editing and referencing.

DECLARATION

I, Pervashnee Naidoo, student number 32263171, declare that this dissertation of limited scope, titled ***The Relationship between Organisational Culture and Work Engagement***, is my own work, and that all sources and quotes that I have used have been indicated and acknowledged by means of complete references.

I further declare that ethical clearance to conduct the research was obtained from the Department of Industrial and Organisational Psychology, University of South Africa, as well as from the participating organisation.

PERVASHNEE NAIDOO

28 April 2014

ACKNOWLEDGEMENTS

I would like to convey my sincere gratitude and appreciation to the following persons and institutions for their assistance in making this study possible:

- Professor N Martins, my supervisor, for his expertise, professional guidance, and advice;
- The University of South Africa (UNISA), for the opportunity to conduct this research;
- The South African information and communication technologies (ICT) sector company under study, for their support, as well as the respondents in this research, for their willingness to participate in the study;
- Mr Andries Masenge, for conducting the statistical analysis;
- Dr Chris Bothma, who assisted with the data collection and formatting of the document;
- My wonderful husband, Yagasen Naidoo, for believing in me and all the sacrifices you had to make during my studies;
- My incredible family and friends, for their inspiration, support, and encouragement;
- My fantastic study peer, Michelle Moss, for her friendship, guidance and constant motivation, my amazing colleague at work, for her assistance with the editing, as well the rest of my dear colleagues, for their contribution and support.
- This study is dedicated to the loving memory of my late brother, Koogen Naidoo — “sadly missed along life's way, quietly remembered every day...”

SUMMARY

THE RELATIONSHIP BETWEEN ORGANISATIONAL CULTURE AND WORK ENGAGEMENT

by

PERVASHNEE NAIDOO

SUPERVISOR : Prof N Martins
DEPARTMENT : Industrial and Organisational Psychology
DEGREE : MCom (Industrial and Organisational Psychology)

In this quantitative study, undertaken in a South African information and communications technology (ICT) company, dimensions of organisational culture (measured by the South African Culture Instrument) were correlated with the dimensions of work engagement (measured by the Utrecht Work Engagement Survey), to determine whether employees' perceptions of organisational culture are related to their levels of work engagement. Structural equation modelling confirmed the factorial model of both measuring instruments, with most fit indices indicating the data to be a good or acceptable fit to the hypothesised model. Correlational analyses revealed a statistically significant positive relationship between each of the dimensions of organisational culture and work engagement respectively. Regression analyses showed that leadership, management processes, and goals and objectives make the strongest statistically unique contribution in predicting the dimensions of work engagement. Since work engagement has been shown to relate to several positive work outcomes, it makes sense for organisations to increase levels of work engagement by improving their organisational culture.

Keywords: organisational culture, work engagement, antecedents

TABLE OF CONTENTS

DECLARATION	ii
ACKNOWLEDGEMENTS	iii
SUMMARY	iv
LIST OF FIGURES	x
LIST OF TABLES	xi
CHAPTER 1: SCIENTIFIC ORIENTATION TO THE STUDY	1
1.1. BACKGROUND AND MOTIVATION FOR THE STUDY	1
1.2. PROBLEM STATEMENT	2
1.2.1. General research question	3
1.2.2. Specific research question relating to the empirical study	4
1.3. AIMS OF THE RESEARCH	4
1.3.1. General aim	4
1.3.2. Specific aims of the literature review	4
1.3.3. Specific aims of the empirical study	5
1.4. PARADIGM PERSPECTIVE	5
1.4.1. The intellectual climate	5
1.4.1.1. <i>Humanistic perspectives</i>	<i>6</i>
1.4.1.2. <i>Positive psychology</i>	<i>6</i>
1.4.1.3. <i>The Person-Environment Fit Theory</i>	<i>6</i>
1.4.1.4. <i>Empiricism</i>	<i>7</i>
1.4.2. Meta-theoretical concepts	7
1.4.2.1. <i>Industrial and organisational psychology</i>	<i>7</i>
1.4.3. Conceptual descriptions	8
1.4.3.1. <i>Work engagement</i>	<i>8</i>
1.4.3.2. <i>Organisational culture</i>	<i>9</i>
1.4.4. Research hypothesis	9
1.5. RESEARCH DESIGN	9
1.5.1. Research approach	9
1.5.2. Research variables	10
1.5.3. Research strategy	10
1.5.4. Research method	11
1.5.4.1. <i>Phase one: Literature review</i>	<i>11</i>
1.5.4.2. <i>Phase two: Empirical study</i>	<i>11</i>
1.5.4.3. <i>Research setting</i>	<i>11</i>
1.5.4.4. <i>Population and sampling</i>	<i>12</i>
1.5.5. Research procedure	13
1.5.5.1. <i>Unit of analysis</i>	<i>13</i>
1.5.5.2. <i>Measuring instruments</i>	<i>13</i>
1.5.5.3. <i>Data collection methods</i>	<i>15</i>

1.5.6.	Data analysis	16
1.5.6.1.	<i>Descriptive statistics</i>	16
1.5.6.2.	<i>Factor analysis</i>	16
1.5.6.3.	<i>Inferential statistics</i>	17
1.5.6.4.	<i>Strategies employed to ensure quality data</i>	18
1.5.7.	Ethical execution of the study	18
1.5.7.1.	<i>Professional code of ethics</i>	18
1.5.7.2.	<i>Respect for the autonomy and dignity of people</i>	19
1.5.7.3.	<i>Informed consent</i>	19
1.5.7.4.	<i>Protection from harm, and right to privacy</i>	19
1.5.7.5.	<i>Internal review boards</i>	20
1.6.	CHAPTER DIVISION	20
1.7.	CHAPTER SUMMARY	20
CHAPTER 2:	LITERATURE REVIEW: THE RELATIONSHIP BETWEEN ORGANISATIONAL CULTURE AND WORK ENGAGEMENT	21
2.1.	INTRODUCTION	21
2.2.	BACKGROUND TO ORGANISATIONAL CULTURE	21
2.3.	HOW ORGANISATIONAL CULTURE IS DEFINED	23
2.4.	FUNCTIONS AND CHARACTERISTICS OF ORGANISATIONAL CULTURE	26
2.5.	PERSPECTIVES ON ORGANISATIONAL CULTURE	30
2.6.	APPROACHES TO CULTURE	31
2.7.	MODELS OF ORGANISATIONAL CULTURE	34
2.7.1.	Schein's model of organisational culture	34
2.7.2.	Hatch's model of organisational culture	35
2.7.3.	Hofstede's model of organisational culture	36
2.7.4.	Homberg and Pflesser's model of organisational culture	38
2.7.5.	Martin's model of culture	39
2.7.5.1.	<i>Organisational subsystems</i>	40
2.7.5.2.	<i>Survival functions</i>	41
2.7.5.3.	<i>Dimensions of culture</i>	42
2.8.	MEASURING AND DIAGNOSING ORGANISATION CULTURE	43
2.9.	DIFFERENCES BETWEEN ORGANISATIONAL CULTURE AND ORGANISATIONAL CLIMATE	44
2.10.	HOW WORK ENGAGEMENT IS CONCEPTUALISED	47
2.10.1.	Personal engagement	48
2.10.2.	Burnout/Engagement	49
2.10.3.	Employee engagement	50
2.10.4.	Work engagement	51
2.10.5.	Measurement of work engagement	52

2.10.6.	Antecedents of work engagement	53
2.10.1.	Outcomes of work engagement	57
2.11.	THE THEORETICALLY CONCEPTUALISED RELATIONSHIP BETWEEN ORGANISATIONAL CULTURE AND WORK ENGAGEMENT	58
2.12.	CHAPTER SUMMARY	66
CHAPTER 3:	RESEARCH ARTICLE: THE RELATIONSHIP BETWEEN ORGANISATIONAL CULTURE AND WORK ENGAGEMENT	67
3.1.	INTRODUCTION	69
3.1.1.	Key focus of the study	69
3.1.2.	Background to the study	70
3.1.3.	Trends from the literature research	71
3.1.3.1.	<i>Organisational culture</i>	71
3.1.3.2.	<i>Differences between organisational culture and organisational climate</i>	74
3.1.3.3.	<i>Work engagement</i>	75
3.1.3.4.	<i>The relationship between organisational culture and work engagement</i>	78
3.1.4.	Research objectives	83
3.1.5.	Potential value-add of the study	83
3.1.6.	What will follow	83
3.2.	RESEARCH DESIGN	84
3.2.1.	Research approach	84
3.2.2.	Research method	84
3.2.2.1.	<i>Participants and sampling</i>	84
3.2.2.2.	<i>Measuring instruments</i>	85
3.2.2.3.	Research procedure	87
3.2.2.4.	Statistical analysis	88
3.3.	RESULTS	88
3.3.1.	Factor and reliability analysis of the SACI	88
3.3.2.	Descriptive statistics	90
3.3.2.1.	<i>Descriptive and reliability statistics of the South African Culture Instrument (SACI)</i>	91
3.3.2.2.	<i>Descriptive and reliability statistics of the Utrecht Work- engagement Scale (UWES)</i>	92
3.3.3.	Structural equation modelling	93
3.3.4.	Inter-correlations between dimensions	95
3.3.5.	Inferential statistics: Multiple regression	97
3.3.5.1.	<i>Regression analysis for dependent variable: Vigour</i>	97
3.3.5.2.	<i>Regression analysis for dependent variable: Absorption</i>	98
3.3.5.3.	<i>Regression analysis for dependent variable: Dedication</i>	99

3.3.5.4.	Regression analysis for dependent variable: Work engagement	101
3.4.	DISCUSSION	102
3.4.1.	The relationship between the dimensions of organisational culture and work engagement	102
3.4.2.	Organisational culture is a statistically significant predictor of work engagement	103
3.5.	CONCLUSION	105
3.6.	LIMITATIONS	107
3.7.	RECOMMENDATIONS	107
3.8.	SUGGESTIONS FOR FUTURE RESEARCH	109
3.9.	CHAPTER SUMMARY	109
CHAPTER 4:	CONCLUSIONS, LIMITATIONS, AND RECOMMENDATIONS	110
4.1.	CONCLUSIONS	110
4.1.1.	Conclusion regarding the literature review	110
4.1.1.1.	<i>The first aim: Conceptualise organisational culture from the available literature</i>	110
4.1.1.2.	<i>The second aim: Conceptualise work engagement from the available literature</i>	112
4.1.1.3.	<i>The third aim: Conceptualise the theoretical relationship between the dimensions of organisational culture and work engagement respectively, based on the available literature</i>	113
4.1.2.	Conclusions regarding the empirical study	114
4.1.2.1.	<i>The first aim: Determine whether a statistically significant positive correlation exists between the dimensions of organisational culture and work engagement respectively, based on the available data</i>	114
4.1.2.2.	<i>The second aim: Determine if the dimensions of organisational culture are a statistically significant predictor of work engagement based on the available data</i>	116
4.1.3.	Conclusions regarding the central hypothesis	117
4.1.4.	Conclusions regarding the contribution of this study to the field of industrial and organisational psychology	117
4.2.	LIMITATIONS OF THE STUDY	118
4.2.1.	Limitations of the literature review	118
4.2.2.	Limitations of the empirical study	119
4.3.	RECOMMENDATIONS	120
4.4.	FUTURE RESEARCH	123
4.5.	INTEGRATION OF THE STUDY	124

4.6.	CHAPTER SUMMARY	124
	REFERENCES	125

LIST OF FIGURES

<i>Figure 2.1</i>	Levels of culture and their interaction	34
<i>Figure 2.2</i>	The cultural dynamics model	36
<i>Figure 2.3</i>	Manifestations of culture: From shallow to deep	37
<i>Figure 2.4</i>	Multiple-layer model of market-oriented organisational culture	39
<i>Figure 2.5</i>	Martin's organisational culture model	40
<i>Figure 2.6</i>	A model of antecedents and consequences of work engagement	56
<i>Figure 2.7</i>	Model of organisational culture and work engagement	63
<i>Figure 3.1</i>	Model of organisational culture and work engagement	82
<i>Figure 4.1</i>	Summary of core conclusions and recommended organisational culture interventions	121

LIST OF TABLES

Table 2.1	<i>Various dimensions of organisational culture</i>	33
Table 2.2	<i>Measures of work engagement</i>	53
Table 2.3	<i>Individual-level and organisational-level antecedents of work engagement</i>	55
Table 3.1	<i>Biographical and demographic profile of the respondents (n=455)</i>	85
Table 3.2	<i>The Kaiser-Meyer-Olkin measure of sampling adequacy (KMO-MSA) and Bartlett's test of sphericity of the South African Culture Instrument</i>	89
Table 3.3	<i>Descriptive statistics and reliabilities for the dimensions of the South African Culture Instrument</i>	91
Table 3.4	<i>Descriptive statistics and reliabilities for the dimensions of the Utrecht Work Engagement Scale</i>	93
Table 3.5:	<i>Goodness-of-fit statistics for the hypothesised model</i>	95
Table 3.6:	<i>Intercorrelations matrix (Pearson correlations) of different constructs</i>	96
Table 3.7:	<i>Multiple regression analysis: Model summary, ANOVA, and coefficients of dimensions of organisational culture predicting vigour</i>	98
Table 3.8	<i>Multiple regression analysis: Model summary, ANOVA, and coefficients of dimensions of organisational culture predicting absorption</i>	99
Table 3.9	<i>Multiple regression analysis: Model summary, ANOVA, and coefficients of dimensions of organisational culture predicting dedication</i>	100
Table 3.10	<i>Multiple regression analysis: Model summary, ANOVA, and coefficients of dimensions of organisational culture predicting work engagement</i>	102

CHAPTER 1

SCIENTIFIC ORIENTATION TO THE STUDY

This study will seek to investigate the relationship between each of the dimensions of organisational culture and work engagement respectively, in an effort to determine whether employees' perceptions of organisational culture are related to their level of work engagement. Chapter 1 includes the background and motivation for the study, as well as the problem statement. It presents the research problems and the research questions, which were formulated around the problem and aims of the research. In order to fittingly position the research and to delineate its scope, the paradigms and meta-theoretical perspectives of the study are also outlined. Furthermore, the research process, design, and methodology are defined. The chapter concludes with a layout of the chapters to follow.

1.1. BACKGROUND AND MOTIVATION FOR THE STUDY

Organisational culture, together with the values that it epitomises, is a significant element in the success of any organisation, and is acquiring support as a predictive and explanatory construct in organisational studies (Liu, Shuibo, & Meiyung, 2006). Organisational culture has been linked to job satisfaction and commitment (Silverthorne, 2004), and is perceived to be a central determinant of overall organisational efficacy (Haggard & Lapoint, 2005). The ubiquitous and permeating nature of an organisation's culture demands that organisations identify the fundamental dimensions of their organisational culture and its effect on employee related variables such as work engagement — a concept that has emerged as the most noticeable positive organisational characteristic in recent times, particularly among organisational consultants (Salanova & Schaufeli, 2008).

Work engagement has been shown to be powerfully linked to a range of business success outcomes, including commitment, satisfaction, productivity, innovation, and retention, and to general positive work outcomes (Halbesleben, 2010). Wildermuth and Pauken (2008) examined the organisational roots of engagement, and found three important environmental factors connected to engagement: (1) relationships, (2) work-life balance and, (3) values. Of particular significance to the present study is

the values factor that is connected to engagement and, specifically, the congruence between organisational and individual values. Values are considered to be standards of desirability — unwritten rules according to which others are expected to behave (Maslowski, 2006). Organisational values, along with beliefs, assumptions, expectations, attitudes, philosophies, and norms, form the basis of organisational culture, and are integral to the distinct identity of every organisation (Schein, 1990). Values relate to work engagement on a least two levels: safety and meaningfulness (Wildermuth & Pauken, 2008). Kahn (1990) found that safe jobs were predictable, clear, and open to employees' values and beliefs.

Meaningfulness, on the other hand, gives employees a return on their investment of their efforts and energy (Kahn, 1990). Chalofsky (2003) stated that meaningfulness is more likely to be experienced at work when there is congruence between the employee's and the organisation's values. Employees' engagement at work increases when the job situation offers them more psychological meaningfulness and safety, and when employees are more psychologically available (Saks, 2006). Thus, culture and work engagement are in jeopardy when employees' personal values are incongruent with those of the organisation. An organisation cannot hope to build an environment where employees offer their best if management practices, systems, and processes are not crafted on established facts about behaviour (Daniels, 2009, as cited in Ludwig & Frazier, 2012, p. 77). If organisations hope to retain their high flyers, they must focus on enhancing positive work experiences (Alarcon, Lyons, & Tartaglia, 2010). Therefore, creating a culture that is conducive to providing and promoting work engagement is critical for optimal organisational outcomes.

1.2. PROBLEM STATEMENT

Work engagement is measured at the individual level, with emphasis on competence, dedication, high levels of energy, and meaningfulness (Alarcon *et al.*, 2010). However, there are clearly organisational (i.e. culture, leadership, etc.) and relational (i.e. degree of role clarity and peer group affinity) factors that will influence an employee's level of engagement (Alarcon *et al.*, 2010). Even though a large number of studies have investigated the link between work engagement and different

variables, there is a dearth of scientific research investigating organisational culture and its impact on work engagement, despite that fact that there are several plausible organisation-level factors that impact on work engagement (Alarcon *et al.*, 2010).

The implied link between the dimensions of organisational culture and the dimensions of work engagement is evident, and the implication that both organisational culture and work engagement have a far-reaching impact makes this an important relationship to study and understand, and certainly worthy of scientific investigation. If an organisation does not have employees who are committed and engaged, the implementation and execution of strategy and change will be difficult, if not impossible (Saks, 2006). Understanding the conditions under which individuals actively engage, while others disengage, is highly relevant for both employees and employers (Wildermuth & Pauken, 2008).

Furthermore, scientific understanding of the potential relationship between these constructs can be highly beneficial, and contribute to the body of knowledge related to organisational culture, work engagement, and positive psychology in the work domain. The present study will also assist the organisation under study to use this information to implement a culture that drives work engagement. Therefore, the focus of this study will be to investigate the relationship between each of the dimensions of organisational culture and work engagement respectively, in an effort to determine whether employees' perceptions of organisational culture are related to their level of work engagement, and to add to the contemporary research literature on organisational culture and work engagement.

1.2.1. General research question

Is there a statistically significant relationship between organisational culture and work engagement?

Specific questions posed for the literature review:

- (1) How is organisational culture conceptualised in the literature?
- (2) How is work engagement conceptualised in the literature?

- (3) What is the theoretically conceptualised relationship between organisational culture and work engagement?

1.2.2. Specific research questions of this empirical study

In the present study, the specific research questions are as follows:

- (1) Are there statistically significant positive correlations between the dimensions of organisational culture and work engagement respectively?
- (2) Is organisational culture a statistically significant predictor of work engagement?
- (3) What recommendations may be formulated for organisational practices, interventions, and future research, based on the findings of this study?

1.3. AIMS OF THE RESEARCH

Linked to the research questions presented above, a general aim is provided below, followed by specific aims relating to the review of the literature and the present empirical study.

1.3.1. General aim

The general aim of this research was to investigate the magnitude, direction, and statistical significance of the relationship between each of the dimensions of organisational culture and work engagement respectively and, secondly, to determine whether employees' experience of organisational culture has predictive value in terms of work engagement levels.

1.3.2. Specific aims of the literature review

- (1) To conceptualise organisational culture from the available literature.
- (2) To conceptualise work engagement from the available literature.

- (3) To present the theoretical relationship between each of the dimensions of organisational culture and work engagement respectively, based on the available literature and empirical research results.

1.3.3. Specific aims of the empirical study

- (1) To determine whether there is a statistically significant positive correlation between each of the dimensions of organisational culture and work engagement respectively, based on the gathered data.
- (2) To determine if the dimensions of organisational culture are a statistically significant predictor of the dimensions of work engagement, based on the gathered data.
- (3) To formulate recommendations for organisational practices and possible future research, based on the findings of this study.

1.4. PARADIGM PERSPECTIVE

A paradigm consists of a proposition or sequence of assumptions, a collection of mutually accepted achievements (theories, exemplars, solutions, predictions, laws, and such) about human nature, and offers a model for conducting research (Mouton & Marais, 1996).

1.4.1. The intellectual climate

The literature review will be based on organisational culture and work engagement theories from the perspective of the humanistic and positive psychology paradigms. The present study will be presented from the positivist-hypothetico deductive perspective.

1.4.1.1. Humanistic perspectives

A meaningful way to conceptualise how culture influences the behaviour and well-being of employees can be found in the tenets of humanistic psychology. The main assumption underlying the humanistic approach is that all people are unique, intrinsically good, and wish to realise their potential. People have the innate ability to value or judge whether or not every new experience belongs to their current self-perceptions, and whether it helps them to achieve self-actualisation. People tend to seek positive events, and will avoid negative influences (Berg & Theron, 2005). A humanistic perspective also supports the notion of occupational potential, whereby engagement in meaningful occupations can result in a process of growth and development across the life span (Wicks, 2001, 2005).

1.4.1.2. Positive psychology

The present study is located in the positive psychology paradigm, which is perceived to be an alternative to the overriding emphasis on pathology and shortfalls. The goal of this paradigm is to realise a shift from a preoccupation with mending the most unpleasant things in life to also developing positive qualities (Seligman & Csikszentmihalyi, 2000). Hence, the core of this paradigm is on human strengths and optimal performance, as opposed to weaknesses and malfunctioning (Seligman & Csikszentmihalyi, 2000). Positive emotions are integral to psychological health, and have an important effect on work teams by enhancing intuition and creativity, which translates into profitability. Furthermore, positive emotions are associated with the kind of abilities needed a majority of the time on the job (Kauffman, 2006).

1.4.1.3. The Person-Environment Fit Theory

The person-environment perspective is based on the notion that employees adapt and adjust better to their work environment when the organisation's characteristics match their personal orientations (Vandenberghe, 1999). There are several dimensions along which fit can be attained, including a fit between an individual's skills and the organisation's work demands, between an individual's values and the

organisation's values, and between an individual's interests and the organisation's culture (Feldman & Ng, 2013).

Fit can also be examined at different levels, such as person-vocation fit, person-organisation fit, person-group fit, and person-job fit, and in each case, poor fit prompts individuals to look for other employment (Feldman & Ng, 2013). The compatibility between the individual and the work environment is a critical element of an employee's performance and well-being, and research has demonstrated the positive effects of improving fit in areas such as job performance, satisfaction, organisational commitment, intent to stay, and organisational citizenship behaviours (Kristoff-Brown, Zimmerman, & Johnson, 2005).

1.4.1.4. Empiricism

Empiricism refers to tested knowledge and conclusions founded on direct and indirect, but systematic, repeated, and irrefutable observation and experience (Berg & Theron, 2005). The positivist perspective, using the hypothetico-deductive model of scientific research, was used in the present study. This process starts with a theory about a phenomenon, stating the hypotheses, and, through empirical tests of the hypotheses, providing evidence in support of or against the theory (Langdrige, & Hagger-Johnson, 2013). The present study endeavoured to establish the truth through the application of a high-quality research design and valid quantitative results.

1.4.2. Meta-theoretical concepts

1.4.2.1. Industrial and organisational psychology

The present study was conducted within the social sciences domain, but specifically within the discipline of industrial and organisational (I-O) psychology. Landy and Conte (2013, p. 7) defined I-O psychology as the "application of psychological principles, theory, and research to the work setting." I-O psychology is divided into three areas of focus: personnel psychology, organisational psychology, and human engineering. The present research falls within the scope of organisational

psychology (Landy & Conte, 2013). Organisational psychology is concerned with both individuals and groups, as well as the structure and dynamics of the organisation (Berg & Theron, 2005). Both work and people are issues of concern, and the focus is the degree to which the features of individuals align with the features and demands of the work (Landy & Conte, 2013). The essential objective is to encourage worker adjustment, satisfaction, productivity, and organisational efficiency. Organisational change and transformation are significant areas of focus (Berg & Theron, 2005).

The research was carried out to resolve an organisational concern by implementing methods and concepts from the sub-disciplines of organisational development and psychometrics. Psychological research and assessment are important supportive elements in the application of organisational development. Using industrial psychological theory to find solutions to the complexities of human behaviour in the work context is central to the role of industrial psychology. The effective understanding, description, and prediction of human interaction in the work environment demand continuous basic and applied scientific research to explore the most appropriate fit between people and the work environment, and to validate theories of human behaviour (Berg & Theron, 2005).

1.4.3. Conceptual descriptions

Working definitions of the variables are detailed below:

1.4.3.1. Work engagement

The present study adopts the definition of work engagement as defined by Schaufeli, Salanova, González-Romá, and Bakker (2002), and as measured by the Utrecht Work Engagement Survey (UWES) (Schaufeli & Bakker, 2003), referring to work engagement as “a positive, fulfilling, work-related state of mind that is characterized by vigour, dedication, and absorption. Rather than a momentary and specific state, engagement refers to a more persistent and pervasive affective-cognitive state that is not focused on any particular object, event, individual, or behaviour” (Schaufeli *et al.*, 2002, p. 74).

1.4.3.2. *Organisational culture*

Culture can be conceptualised as “an integrated pattern of human behaviour which is unique to a particular organisation and which originated as a result of the organisations survival process and interaction with its environment. Culture directs the organisation to goal attainment. Newly appointed employees must be taught what is regarded as the correct way of behaving” (Martins, 1989, p. 15).

1.4.4. **Research hypothesis**

Following from the background and problem statement, the following research hypotheses were posed, and was be tested empirically in this research:

H1: There is a significant positive relationship between each of the dimensions of organisational culture and work engagement respectively.

H2: The dimensions of organisational culture are statistically significant predictors of the dimensions of work engagement.

1.5. **RESEARCH DESIGN**

Terre Blanche, Durrheim, and Painter (2006) defined a research design as a strategic outline or a plan of action that serves as the bridge between the research questions and the implementation of the research. The outline of the present research design includes the research approach, method, and strategy that was applied in an attempt to address the initial research question, and is presented below.

1.5.1. **Research approach**

Ontology refers to the study about the nature of being or reality (Terre Blanche *et al.*, 2006). The ontological dimension of the research therefore refers to the reality that is being investigated, and this reality becomes the research domain of the social sciences (Mouton & Marais, 1996). This study focuses on the measurement of human characteristics and behaviour in a telecommunications organisation. The

epistemological dimension is driven by the search for the truth or truthful knowledge through validity, demonstrability, reliability, or replicability of research results (Mouton & Marais, 1996).

A quantitative research design was considered most appropriate for the study, as it facilitates the aims of the study through measurements and statistical analysis, and allows for the conceptualisation of constructs in accordance with specific measuring tools (Terre Blanche *et al.*, 2006). A quantitative approach may be preferred, especially when exploring organisational culture, due to the ease with which large samples can be covered (Jung *et al.*, 2009). A quantitative approach is also expected to enhance accuracy, systematisation, repeatability, comparability, convenience, large scales, unobtrusiveness, and cost-effectiveness (Jung *et al.*, 2009).

This study is descriptive in nature, as it seeks to establish the relationship between organisational culture and work engagement. Descriptive studies seek to describe phenomena precisely by making use of narrative-type descriptions or classification, or by measuring relationships (Terre Blanche *et al.*, 2006).

1.5.2. Research variables

A variable is defined as something that can vary or take on different values (Langdrige & Hagger-Johnson, 2013). An independent variable is a factor that is manipulated or controlled by the researcher, while the dependent variable is not under the control of the researcher, and is a measure of the effect (if any) of the independent variable (Langdrige & Hagger-Johnson, 2013). In the present study, the independent variables are the organisational cultural dimensions derived from the South African Culture Instrument (SACI), and the dimensions of work engagement derived from the UWES are regarded as the dependent variables.

1.5.3. Research strategy

The use of a survey research technique offers the advantage of providing information on large groups of people with ease and convenience in a cost-effective

manner (Rogelberg & Stanton, 2007). Surveys also allow researchers to measure a broader range of behaviours and other phenomena. Field surveys offer rich data and, in an organisational context, can effectively and efficiently assess perceptions and attitude for purposes such as identifying organisational concerns, detecting longer-term trends, evaluating interventions, offering input for future decisions, offering a communication medium, conducting organisational research, aiding organisational transformation, and improving and providing symbolic communications (Rogelberg & Stanton, 2007).

1.5.4. Research method

1.5.4.1. Phase One: Literature review

The first phase of the research will comprise the literature review, which is explained in greater detail in Chapter 2. The literature review will explore the background to organisational culture and work engagement, and the way these concepts have been examined, defined, conceptualised, and measured. Through the synthesis of the literature, a theoretical relationship between organisational culture and work engagement will be investigated.

1.5.4.2. Phase Two: Empirical study

Chapter 3 provides an in-depth discussion of the empirical research in the form of a research article. This includes a discussion on the background and the problem statement of the study. A synopsis of the trends from the literature and the potential value-add of the study is also provided. The chapter furthermore outlines the research design, and presents the findings of the study. It concludes with a discussion on the practical implications of the study and the possible limitations, and makes recommendations for future research. Chapter 4 integrates the research study, and offers a more detailed discussion of the conclusions, limitations, and recommendations.

1.5.4.3. Research setting

The research was undertaken in a South African Information and Communication Technologies (ICT) company. One of the main reasons for the selection of this ICT company was due to the large heterogeneous and diverse permanent workforce ($N = 21\ 224$). The company also has numerous regional offices, situated countrywide. Most of the employees are highly skilled and technically trained, working in predominantly customer-facing roles. All employees have personal e-mail addresses and direct access to the company's intranet network, with a self-help portal through which many HR functions are managed and via which internal communications are disseminated, making the target population more accessible for research.

1.5.4.4. *Population and sampling*

Due to cost, time, and operational restrictions, only permanent employees from middle management levels and below were targeted ($N = 20771$), and comprised the population from which a sample of 3 000 participants were drawn. The total company headcount of permanent employees currently stands at $N = 21224$. According to the guide offered by Saunders, Lewis and Thornhill (2009) to gain a representative sample size, the minimum sample size required from a population size of +/-20,000, at a 95% confidence level, is between 370 and 383 (assuming that data are collected from all cases in the sample). Hence to obtain a minimum sample size of +/- 383 and given the possibilities of non-responses, a sample of 3000 participants was deemed likely to yield the required results.

Proportionate random stratified sampling was selected as most appropriate for the research. Proportionate random stratified sampling is a probability sampling technique whereby the researcher divides the total population into different subgroups or strata, and proceeds to then randomly select the final subjects proportionally from the different strata (Saunders *et al.*, 2009). Random sampling occurs when every member of the clearly defined population has an equal chance of being selected (Saunders *et al.*, 2009). In proportionate random stratified sampling, the sample size of each stratum is proportionate to the population size of the stratum when viewed against the entire population. This means that each stratum has the same sampling fraction (Marczyk, DeMatteo, & Festinger, 2005). The human

resource system of the company under study allowed the researcher to separate the target population into strata, based on age, race, and gender. This allowed the researcher to sample the rare extremes of the given population, which may lead to higher statistical precision, compared to random sampling (Marcyzk *et al.*, 2005).

1.5.5. Research Procedure

Given that the researcher is an employee and bursary holder of the ICT company in question, permission was obtained from senior management of the company to undertake the suggested study within the company, as well as to design and distribute an online web-based questionnaire on the organisation's intranet. The sample population received the survey electronically, together with a cover letter from the executive of the Talent Management Division, encouraging them to participate in the study. Employees decided whether they wished to complete the survey, as participation was completely voluntary and anonymous. Feedback will be presented to the organisation following the completion of the study.

1.5.5.1. Unit of analysis

The unit of analysis for this study was each of the individual permanent employees of the ICT company included in the sample.

1.5.5.2. Measuring instruments

The Utrecht Work Engagement Scale (UWES)

The UWES was developed by Schaufeli and Bakker (2003), and is aimed at measuring the participants' work engagement. The instrument consists of 17 items, and is scored on a 7-point frequency scale, ranging from "Never" (0) to "Daily" (6). The measure has three sub-scales, namely Vigour, Dedication, and Absorption (Schaufeli *et al.*, 2002).

Vigour is "characterised by high levels of energy and mental resilience while working, the willingness to invest effort in one's work and persistence even in the face of difficulties."

Dedication is “characterised by a sense of significance, enthusiasm, inspiration, pride and challenge.”

Absorption is “characterised by being fully concentrated and deeply engrossed in one’s work, whereby time passes quickly and one has difficulties with detaching oneself from work” (Schaufeli *et al.*, 2002, p. 74).

Although there is conflicting evidence regarding the dimensionality of the UWES, research in several countries, including South Africa, demonstrated and confirmed the factorial validity, construct equivalence, reliability, and stability of the UWES (Schaufeli *et al.*, 2002; Schaufeli & Bakker, 2003; Storm and Rothmann, 2003; Coetzee & Rothman, 2007; Coetzee & De Villiers, 2010), which justifies its use in this study.

The South African Culture Instrument (SACI)

The SACI was developed locally for the SA context, and measures the extent to which employees identify with the various elements of the organisation’s existing and ideal culture (Martins & Coetzee, 2007). The overall reliability (Cronbach alpha coefficient) of the SACI was measured at 0.933, and the internal consistency of the dimensions ranged from 0.655 to 0.932 (Martins, Martins, & Terblanche, 2004). The questionnaire comprises the following seven dimensions:

- Leadership;
- Management processes;
- Vision and mission;
- Diversity strategy;
- Means to achieve objectives;
- Employee needs and objectives; and
- External environment.

This is a South African tool, designed specifically for the South African work environment, and has been shown to be scientifically and objectively valid and reliable, justifying the use of the tool in this study.

1.5.5.3. *Data collection methods*

Survey questionnaires were sent electronically via the company's electronic communication system to the sample, requesting them to participate in the survey. The online survey was designed, developed, and distributed with the assistance of the company's web-based solutions division. The purpose of the online method of data collection was to ensure the highest possible response rate at the lowest possible cost. The survey link was tested on a pilot study of 50 employees in the target population, to obtain an indication of any problems that may arise during the roll-out to the entire sample.

Thereafter, an invitation to participate in the research project was sent out via e-mail under the name of the researcher. The ICT company's Business Code of Ethics dictates that data collected using surveys in the organisation may only be used for the intended purpose. Research ethics must be the central concern for all social science researchers in the planning, designing, execution, and reporting of research with human participants (Terre Blanche *et al.*, 2006). In the invitation e-mail, it was clearly stated that participation was voluntary, and that no information provided will be linked to the identity of a specific person (i.e. anonymity will not be compromised). All informed consent information and instructions to complete the survey-questionnaire was included in each e-mail. The consent statement clearly stipulated the procedure, risks, and the benefits associated with participation in the study. The participants were not coerced in any way, and the risks associated with participating in the study were minimal, as data will remain anonymous and confidential, and will not be traced back to any particular individual.

The invitation e-mail also included the Universal Resource Locator (URL) address of the online electronic survey, and once a participant accepted the invitation, he/she was able to open the online electronic survey by clicking on the URL, sign in, and commenced with completion of the biographical, demographic, and the two-

instrument scale information requested. The questionnaire was available only in English, the official business language of the ICT company.

As the questionnaires were completed online, they were collated electronically. The collected information was captured using a database management system commonly referred to as 'Structured Query Language' (SQL). The SQL database was used to monitor and ensure that all the electronically submitted questionnaires were received correctly. The data was then downloaded from the SQL database into an Excel spread sheet, and all incomplete records were removed. The salary reference numbers were replaced with respondent numbers, to prevent identification of the participants. This collected data was included in the final data set for statistical analysis and processing.

1.5.6. Data analysis

1.5.6.1. Descriptive statistics

The reliability of both instruments was tested again. The Cronbach alpha (a coefficient of reliability or internal consistency) provides an indication of how a set of items measures a single uni-dimensional latent construct, and a Cronbach alpha of 0.70 or higher is considered acceptable. A Cronbach alpha of less than 0.70 is an indication that the scale has a multidimensional structure (Pallant, 2007).

Descriptive statistics was used to provide simple summaries about the characteristics of the numerical data collected in the study, including measures of central tendency, dispersion, and correlation (Marczyk *et al.*, 2005). This was done by means of tabulation, graphic representation, and the use and calculation of statistical measures, e.g., average, median, standard deviation, skewness, and kurtosis (Pallant, 2007). Frequencies for all the instruments were calculated, and will be reported on in Chapter 3.

1.5.6.2. Factor analysis

Confirmatory factor analysis, using the SPSS software, was used to determine the underlying structures of the measurements, and to establish the construct validity of

the questionnaires used in the research study (Pallant, 2007). The Kaiser-Meyer-Olkin of Measure of Sampling Adequacy (KMO-MSA) and Bartlett's test of sphericity was used to establish the suitability of the item inter-correlation matrices of all the measuring scales for factor analysis (Pallant, 2007). The results will be presented in detail in Chapter 3.

To confirm the validity and the factor structure of the measuring instruments, structural equation modelling (SEM), using the Analysis of Moment Structures (AMOS) statistical software package (Arbuckle, 2010), was implemented. SEM is a widely used statistical modelling technique in the behavioural sciences (Hox & Bechger, 1998). In SEM, the emphasis is on the relationship between theoretical constructs, represented by latent factors, and extends confirmatory factor analysis by looking at direct, indirect, and total effects among latent variables (Schreiber, Stage, King, Nora, & Barlow, 2006). It is often seen as a combination of factor analysis and multiple regression (Schreiber *et al.*, 2006); however, for the purposes of the present study, the SEM was used only to confirm the factor structure of the measuring instruments, and to determine whether the hypothesised model provides a good fit to the data (Hox & Bechger, 1998). SEM analysis was conducted on the data gathered from the participants, using AMOS (Arbuckle, 2010), and the results will be presented in Chapter 3.

1.5.6.3. *Inferential statistics*

The primary purpose of inferential statistics is to draw conclusions and make predictions about the broader population, based on the numerical data collected for a specific sample. Inferential statistics assists in drawing conclusions beyond immediate samples and data (Marczyk *et al.*, 2005).

Correlation was used to describe the strength and direction of the relationship between each of the variables of organisational culture and work engagement respectively. The statistics used is Pearson product-moment correlation, which provides a numerical summary of the direction and strength of the linear relationship between two variables (Pallant, 2007).

Regression analysis allows for prediction of a single dependant continuous variable from a group of independent variables, and can be used to calculate the predictive power of a set of variables, and to assess the relative contribution of each individual variable (Pallant, 2007). Linear regression analysis was conducted to determine if the dimensions of organisational culture are able to predict the dimensions of work engagement.

1.5.6.4. Strategies employed to ensure quality data

Reliability involves the consistency of measurements; a method or measurement repeated in a range of situations or by the same person must yield more or less the same results (Saunders *et al.*, 2009). Validity is concerned with whether a measurement or test measures the construct it was designed to measure (Langdrige & Hagger-Johnson, 2013). Reliability and validity are the most critical elements for research and assessment effectiveness, and may be part of and reveal all or most sources of measurement error (Berg & Theron, 2005). To enhance validity, an effective research design was implemented in the present study, using instruments that are suitable and accurate, and comply with the minimum reliability and validity requirements. Furthermore, accurate data collection, management and analysis were conducted to ensure valid conclusions based on reliable statistics.

1.5.7. Ethical Execution of the Study

Ethics is concerned with that which is considered acceptable in human behaviour; what is good or bad and right or wrong in human conduct in the quest to achieve goals and objectives. Professional ethics is concerned with the moral issues that arise because of the specialist knowledge that professionals obtain, and how the use of this knowledge should be governed when providing a service to the public (Levin & Buckett, 2011).

1.5.7.1. Professional code of ethics

In South Africa, the practices of psychologists are controlled by law and various controlling bodies. The Health Professions Council of South Africa, through the

Professional Board for Psychology, stipulates clear ethical guidelines for the publication of research findings (Berg & Theron, 2005). This formed the foundation of the present research.

1.5.7.2. Respect for the autonomy and dignity of people

The basic ideals and assumptions that form the foundation of psychological practices and which formed the basis of this research, are based on the recognition of the worth and dignity of the individual, irrespective of race, creed, gender, status, or language. Respect for the dignity of persons and a focus on moral rights should be given the highest weight in dealing with ethical challenges, and not the convenience of the psychologist (Nicholson, 2011) or researcher.

1.5.7.3. Informed consent

Informed consent means that participants are fully aware of the nature of the research, and still choose to participate (Langdrige & Hagger-Johnson, 2013). It is concerned with the client's autonomy and freedom of choice in what actions will take place, and the client's right to be informed about any overt or covert processes (Berg & Theron, 2005). In the present study, participants were in no way be coerced or forced to take part in any action, and were provided with clear and accurate information about the study and its potential risks, and informed of their right to withdraw from the study at any time. Once informed consent was obtained, the results were treated with the strictest of confidence, and employees were not required to provide any biographical information that could be traced to them as individuals.

1.5.7.4. Protection from harm and right to privacy

Participants were not subjected to any physical or mental discomfort. The contents and recommendations of the research will be provided only to the participating organisation, and all information in this regard will be kept confidential.

In the invitation e-mail, it was clearly stated that participation was voluntary, and that no information provided will be linked to the identity of a specific person (i.e.

anonymity will not be compromised). Personal data was replaced with respondent numbers to prevent identification of the participants.

1.5.7.5. Internal review boards

UNISA's Ethics Committee scrutinised the research proposal for conducting the study, and permission was granted. Internal review boards ensure that procedures are not unduly harmful to participants, that the appropriate procedures will be followed to obtain informed consent, and that privacy and anonymity are guaranteed (Leedy & Ormrod, 2010).

1.6. Chapter Division

Chapter 1 provided the scientific orientation to the present research study. The rest of the study will be divided into the following chapters:

Chapter 2: Literature review;

Chapter 3: Research article; and

Chapter 4: Conclusions, limitations, and recommendations.

1.7. CHAPTER SUMMARY

This chapter began with an outline of the background to and motivation for the study. It discussed the research problems, research questions, the problem statements, and the aims of the research. The paradigms that will guide the research, along with the meta-theoretical concepts of the study, were also presented. The research design was outlined in detail, together with an explanation of how the results, discussion, conclusion, limitations, and recommendations will be presented. The chapter concluded with a proposed layout of the chapters of the dissertation.

CHAPTER 2

LITERATURE REVIEW: THE RELATIONSHIP BETWEEN ORGANISATIONAL CULTURE AND WORK ENGAGEMENT

2.1. INTRODUCTION

Chapter 1 alluded to the notion that organisational culture dimensions may be related to levels of work engagement. In Chapter 2, the primary purpose is to determine the relationship between organisational culture and work engagement. It is therefore imperative to gain an understanding of related literature and research by examining organisational culture and work engagement, and the nature of these concepts. The chapter therefore begins with a background to organisational culture and the way the concept of organisational culture has been defined historically. A number of characteristics, functions, dimensions, and models of organisational culture are also explored. The review of organisational culture concludes with a discussion and stance regarding the differences between organisational culture and organisational climate. The chapter then examines the background to the concept of engagement at work, as well as the various ways in which the concept has been defined in literature. This is followed by a discussion of current literature perspectives on the measurement, antecedents, and outcomes of work engagement. Finally, through the synthesis of the literature, a theoretical relationship between an organisation's culture and work engagement is investigated, and a hypothesised model of the relationship between these two constructs is proposed.

2.2. BACKGROUND TO ORGANISATIONAL CULTURE

Organisational culture is acquiring support as a predictive and explanatory construct in organisational studies. Organisational culture is a complex and deep element of organisations that can significantly impact on members of an organisation (Champoux, 2010). Studies on organisational culture have been conducted since the 1940s, but it was not until the early 1980s that interest in the concept became widespread and the corporate culture boom arose (Alverson, 2002).

Pettigrew (1979) introduced the term *organisational culture* in his seminal article titled *On Studying Organisational Cultures*. This was followed by a spate of interest in organisational culture and ideal management. Specifically, works by Deal and Kennedy (1982), Ouchi (1981), Peters and Waterman (1982), and Schein (1985) were primarily responsible for promoting the popularity of the concept of organisational culture. This wealth of anecdotal literature offered strong indications that the notion that organisational culture is an important concept in business (see for example, Deal & Kennedy, 1982, Denison, 1990, Ouchi, 1981, Peters & Waterman, 1982, Schein, 1985), and that it may be linked to organisational effectiveness (Ott, 1989) and fundamental processes such as leadership and governance (Schein, 1992).

Peters and Waterman (1982) stated that the dominance and coherence of a culture have proved to be essential qualities of excellent companies, mentioning values such as respect for the individual, commitment to the mission and goals of the organisation, and attention to the basics of the organisation's operations. Peters and Waterman also claimed that organisational culture, or parts of it, may be managed, controlled, and intentionally transformed.

Deal and Kennedy (1982) postulated that healthy organisational cultures are those that demonstrate strength, cohesiveness, and a sense of organisational commitment and identity within and among groups. Ott (1989) declared that organisational culture offers an emotional sense of involvement and commitment to organisational values and moral codes, and deeply impacts on employee performance and, ultimately, organisational effectiveness.

Common to all these views is that, in order to be successful, organisations need to focus on their culture. Not only is culture considered to be key to improving performance and productivity, it is also a mechanism to establish supportive relationships at work (Ouchi, 1981). Despite producing some valuable insights, these texts, however, appear to be prescriptive, solutions-based, largely a-theoretical, and non-academic (Bellot, 2011).

During the 1980s, the conceptual base for organisational culture was developed further, but much disagreement regarding a suitable definition and assessment of organisational culture persisted. Numerous accepted definitions of organisational culture are used in the literature, which represent the epistemological backgrounds of the researchers (Bellot, 2011). The next section offers reviews of the most dominant definitions of organisational culture.

2.3. HOW ORGANISATIONAL CULTURE IS DEFINED

Despite the fact that organisational culture is a concept that scholars, authors, and the public use regularly, it remains one of the most elusive concepts for which to obtain an agreed-upon definition. Part of this inconsistency is owing to the reality that culture investigators embody a diverse group from a range of fields, who use diverse epistemologies and techniques to examine and study organisational culture (Ostroff, Kinicki, & Muhammad, 2013). Schein (1990, p. 109) stated that “each culture researcher develops explicit or implicit paradigms that bias not only the definitions of key concepts but the whole approach to the study of the phenomenon.” Ott (1989) pointed out that organisational culture is a concept in debate that does not load into any single definition, and thus an integrative approach may be required.

Culture resides in the sphere of anthropology, which offers ways of thinking holistically about systems of meaning, values, and actions (Ashkanasy, Wilderom, & Peterson, 2000). Pettigrew (1979) integrated insights from sociology and anthropology, and perceived organisational culture as a multifaceted construct, and defined the term as a system of commonly and jointly accepted meanings that function for a specific group on a specific occasion.

Siehl and Martin (1983), from psychology, sociology, and business perspectives respectively, proposed that organisational culture is the normative glue and a set of values and social ideals or beliefs that organisation members share.

Schein (1985, 1990, 1992), from a social psychology perspective, described culture as a more deeply rooted level of basic assumptions and beliefs that are common to individuals of an organisation, that function unconsciously, and that describe, in an

implied manner, the organisation's perception of itself and its environment. An organisation's culture is a learned way of solving basic problems of external adaptation and internal integration, and has worked well enough to be considered valid, and is therefore taught to new members as the correct way to perceive, think, and feel in relation to problems. Organisational values, along with beliefs, assumptions, expectations, attitudes, philosophies, and norms, form the basis of organisational culture, and are integral to the distinct identity of every organisation (Schein, 1990).

Denison (1990) stated that culture refers to the deep structure of an organisation, which is embedded in the values, beliefs, and assumptions that are held by its members. These values, beliefs, and principles provide the foundation for an organisation's management system, as well as the set of management practices and behaviours that epitomise and support those basic behaviours (Denison, 1990).

Hofstede, Neuijen, Ohavy, and Sanders (1990) defined organisational culture as the collective indoctrination of the mind, which differentiates the members of one organisation from another. Culture reveals itself in symbols, heroes, customs (collectively referred to as 'practices') and values, from surface levels to deep levels. Cultures differ largely at the level of these practices. It was postulated that organisational cultures comprise mainly practices, and that these practices can differ greatly in a culture with a shared set of values. These common organisational practices are easier to influence than values, and are shaped by founders'/leaders' values, through the socialisation of new employees, and by choosing people that fit the organisation's culture.

Furthermore, Hofstede *et al.* (1990) stated that, in the absence of an agreed-upon definition of culture, most academics would agree that the construct is:

- holistic;
- related to anthropological concepts;
- soft;

- historically determined;
- socially constructed; and
- difficult to change

Kotter and Heskett (1992) defined culture as a fairly established set of beliefs, behaviours, and values, and proposed that culture consists of two levels that differ in terms of their visibility and resistance to change. The shared values that are inclined to endure over time exist at deeper levels. Behaviour patterns or the style of an organisation that new employees are encouraged to follow are present at a more visible level.

Alverson (2002) perceived culture to be a relatively unified system of meanings and symbols in terms of which social interaction occurs. Social structure is perceived to be the behavioural patterns that the social interaction itself creates. Organisational culture is the context in which these elements become clear and significant; it is below the surface, and can be both valuable and limiting (Alverson, 2002).

Bellot (2011) pointed out that, although there seems to be no consensus regarding the definition of organisational culture, through the continued work of scholars, some consistency of thought has arisen. These principles that Bellot (2011) described are the following:

- (1) Organisational culture exists.
- (2) It is socially constructed.
- (3) It is the creation of groups, not individuals, and is based on shared experience.
- (4) Cultures are intrinsically vague in that they include contradictions, paradoxes, ambiguities, and confusion.
- (5) Each organisation's culture is fairly distinctive, flexible, and subject to constant change.

Cultural values are mutual, abstract notions about what a social collective regards as good, right, and desirable. They are the wide goals that members are inspired to pursue, and their role is to rationalise the activities in search of these goals. Widely shared norms, practices, symbols, and rituals express underlying cultural values, and play a significant role in the way social institutions operate (Sagiv & Schwartz, 2007). The wide goals that business organisation members are expected and encouraged to pursue constitute the cultural values of that organisation, and the norms, practices, rituals, and symbols developed in an organisation reflect its cultural values.

The present study adopted the theoretical model developed by Martins (1989), who defined culture as:

... an integrated pattern of human behaviour which is unique to a particular organisation and which originated as a result of the organisations survival process and interaction with its environment. Culture directs the organisation to goal attainment. Newly appointed employee must be taught what is regarded as the correct way of behaving (Martins, 1989, p. 15).

The definition attempts to draw on the work of researchers such as Schein, and also highlights the significance of organisational culture for management (Martins & Von der Ohe, 2006). Organisational culture is a fundamental component of the general performance of an organisation (Martins, Martins, & Terblanche, 2006). However, although organisational culture may dwell in the collective minds of organisational members, it manifests in tangible ways, such as behaviours, throughout the organisation (Campbell, 2004).

2.4. FUNCTIONS AND CHARACTERISTICS OF ORGANISATIONAL CULTURE

Ott (1989) lists four functions that organisational culture serves. Firstly, it offers shared patterns of cognitive interpretations or perceptions, so that members are aware of how they are expected to think and behave. Secondly, it presents shared patterns of affect, so that organisational members recognise what they are expected to appreciate and value, and how they are expected to feel. Thirdly, it delineates and

upholds boundaries, allowing identification of members and non-members, and, lastly, it provides as an organisational control system, advocating and prohibiting specific behaviours.

Schein (1992) identified two functions of organisational culture. The first looks at issues related to survival in and adaptation to the organisation's external environment, which spells out the coping cycle that any system must be able to sustain in relation to its changing environment. The concerns of survival in an external environment include:

- (1) *Mission and strategy*: This comprises the shared understanding of primary tasks.
- (2) *Goals*: Consensus on goals as drawn from the mission.
- (3) *Means*: Creating agreement on the means to be used to achieve the goals, such as the organisation's structure, division of labour, reward system, and authority structure.
- (4) *Measurement*: Attaining agreement on the measures to be used in determining how well the group is doing in meeting its goals.
- (5) *Correction*: Achieving agreement on the most suitable remedial or repair actions to be implemented if goals are not being met.

The second function involves integration of its internal processes to ensure capacity to continue to exist and endure and adapt. These internal issues include:

- (1) *Creating a common language and conceptual categories*: Without effective communication and understanding between members, forming a group is, by definition, impossible.
- (2) *Defining group boundaries and criteria for inclusion and exclusion*: A group must have the capacity to establish the criteria for membership.
- (3) *Distributing power and status*: A group must achieve consensus concerning the hierarchy, as well as the criteria and rules governing how one obtains, maintains, and relinquishes power.

- (4) *Developing norms of intimacy, friendship, and love:* A group must reach consensus on the rules of the game regarding peer relationships, the relationship between the genders, and the way in which openness and intimacy are to be handled in the context of managing the organisation's tasks.
- (5) *Defining and allocating rewards and punishments:* Every group must know what constitutes heroic and sinful behaviours, and must attain agreement on what constitutes reward and punishment.
- (6) *Explaining the unexplainable – ideology and religion:* Every group confronts unexplainable events that must be given meaning so that members can act in response to them and circumvent the anxiety of dealing with the unexplainable and uncontrollable.

Trice and Beyer (1993) named six characteristics of organisational culture:

- (1) *Collective:* Culture cannot be created by individuals alone, but rather originates when individuals interact with one another and when specific ways of managing insecurities in life become collectively accepted and are put into practice.
- (2) *Emotionally charged:* Cultures serve to control anxiety; as a result, their substance and form are imbued with emotion and meaning. People's allegiances to ideologies and cultural forms originate more from their emotional needs than from rational thought and, thus, when cultural practices are questioned, people respond emotionally.
- (3) *Historically based:* They are linked to history and tradition that develop over the time that people spend together to interact and share with one another common uncertainties and some means of dealing with these.
- (4) *Inherently symbolic:* Symbolism plays an important role in cultural communication, as it is the expressive side of human actions that cultural analysis explores.

- (5) *Dynamic*: Cultures are continually transforming, and there is considerable change in how any culture manifests over time.
- (6) *Inherently fuzzy*: Culture incorporates contradictions, ambiguities, paradoxes, and confusion and, thus, the more complex and fragmented the situation a human group confronts, the more likely it is that it will reflect these elements in its culture with fuzziness.

Alverson (2002), using eight different metaphors, described culture as:

- (1) *An exchange regulator*, working as a control mechanism in which the informal contract and the long-term rewards are regulated and supported by a common value and reference system, as well as a corporate memory.
- (2) *A compass*, whereby culture offers a sense of direction and guidelines for priorities.
- (3) *Social glue*, whereby common ideas, symbols, and values form the basis of identification with the group and/or organisation, and serves to neutralise fragmentation.
- (4) *A sacred cow*, which refers to basic assumptions and values which is at the heart of the organisation to which members are powerfully dedicated.
- (5) *Affect regulator*, where culture offers guidelines and scripts for emotions and affections and how they should be expressed.
- (6) *Disorder*, which refers to the fact that ambiguity, and fragmentations are significant aspects of organisational culture.
- (7) *Blinders*, un/non-conscious elements of culture, with culture as taken-for-granted ideas resulting in possible flaws.
- (8) *World closure*, referring to cultural ideas and meaning used to craft a rigid world within which members change, are incapable of critically investigating, and rise above existing social constructions.

Luthans and Doh (2012) stated that, although organisational culture has been defined in several ways by several academics, authors, and scholars, a number of

significant characteristics are commonly associated with an organisation's culture. The authors went on to present just some of the characteristics associated with organisational culture:

- (1) *Observed behavioural regularities*, as illustrated by common language, terminology, and formal procedures;
- (2) *Norms* are measured by the amount of work to be done and the level of collaboration between management and employees of an organisation;
- (3) *Central values* that the organisation promotes and expects participants to share, including aspects such as high productivity, efficiency, and concern for quality;
- (4) An idea that is suggested in a multinational corporation's attitude regarding how employees and customers should be treated;
- (5) *Clear rules* are defined for employees' behaviour associated with productivity, intergroup co-operation, and customer relationships;
- (6) *Organisational climate*, as reflected in the way participants interrelate, conduct themselves with customers, and feel about the way they are treated by senior-level management.

2.5. PERSPECTIVES ON ORGANISATIONAL CULTURE

Martin (2004) discussed organisational culture from three perspectives: integration, differentiation, and fragmentation.

The *integration* perspective is based on the notion that one dominant culture exists within the organisation. The agreement on values and basic assumptions is the organisation's culture. Culture seen through this lens brings unity, predictability, and clarity to work experiences (Champoux, 2010). However, the presence of an overriding culture does not negate the existence of multiple components or dimensions. Most research to date has adopted the integrative viewpoint (Ostroff *et al.*, 2013).

The *differentiated* perspective views organisations as being made up of subcultures dispersed throughout the organisation. Subcultures characterise a focal unit's shared values, beliefs, norms, and assumptions, and can differ widely. Although the notion of subcultures is well accepted, very little research has scientifically investigated these or examined their relationship with an overriding culture (Ostroff *et al.*, 2013).

The *fragmentation* perspective emphasises the existence of ambiguity in organisations. Martin (2004) stated that the fragmentation perspective is valid because of the uncertainty related to knowing whether or not an overriding culture or a subculture exists. Martin's framework highlights the notion that organisational culture can be studied at multiple levels or using units of analysis, and from different vantage points (Ostroff *et al.*, 2013).

2.6. APPROACHES TO ORGANISATIONAL CULTURE

There appears to be three approaches to studying organisational culture: the typological approach (cultural types), the interrelated structure approach, and the trait approach (cultural dimensions) (Dauber, Fink & Yolles, 2012).

The *typology* approach emphasises predefined key features that classify an organisation into specific categories, not necessarily describing the associations between these categories (Dauber *et al.*, 2012). Quinn and Rohrbaugh (1983) developed a useful and measureable typology of culture, where four types of culture are distinguished: clan, adhocracy, market, and hierarchy. Other typologies or categorisations have been postulated, including Wallach's (1983) typology, which includes three types of organisational culture: bureaucratic, innovative, and supportive. Meyer, Tsui, and Hinings (1993) stated that typologies are somewhat flawed, and are challenging to use empirically, due to the regular absence of explicitly stated empirical referent and cut-off points. There is also the possibility to stereotype, mythologise, and judge different types of culture, which may cause us to neglect the fact that, from an anthropological view, the study of culture should be value-neutral (Jung *et al.*, 2009).

The *interrelated* approach of organisational culture focuses on relating the concept of organisational culture to other constructs or characteristics of organisations, with less focus on single variables. According to Dauber *et al.* (2012), this approach often provides the theoretical underpinning for scientific research design.

The *dimensional* approach emphasises the measurement of culture along scales that can be related to each other, largely among dependent variables of interest (Dauber *et al.*, 2012). Various examples of models that consist of dimensions are present in the literature. Bate (1984) depicted six dimensions of organisational culture, namely unemotional, depersonisation, subordination, conservatism, isolation, and antipathy. Marcoulides and Heck (1993) identified five dimensions: organisational structure, organisational values, task organisation, organisational climate, and employee attitudes. Denison and Mishra (1995) identified four dimensions: involvement, consistency, adaptability, and mission. Ashkanasay *et al.* (2000) listed ten dimensions: leadership, structure, innovation, job performance, planning, communication, environment, humanistic workplace, development of the individual, and socialisation on entry.

Table 2.1 one provides a comprehensive list of over 100 dimensions identified by van der Post, De Coning, and Smit (1997) in a review of the concept of organisational culture. As the purpose of the present study is to look at relationships between constructs, the dimensional approach appears to be most appropriate. Martin's (1989) framework was used as the basis for the present study, and includes seven dimensions, namely leadership, means to achieve objectives, management processes, employee needs and objectives, vision and mission, external environment, and diversity strategy. The benefits of a dimensional approach allow the researcher to focus on specific cultural variables of interest within the organisational context, such as innovation and values (Jung *et al.*, 2009).

Table 2.1

Various dimensions of organisational culture (Adapted from van der Post et al., 1997)

<ul style="list-style-type: none"> • Absence of bureaucracy • A bias for action • Action orientation • Autonomy and entrepreneurship • Attitude towards change • A shared sense of purpose • Clarity of direction • Control • Conflict tolerance • Communication patterns • Compensation • Closeness to customer • Conflict • Communication process • Control process • Confrontation • Conflict resolution • Commitment • Concern for people • Communication flow • Co-ordination • Conflict resolution • Compensation • Direction • Decision-making • Decentralised authority • Delegation • Decision-making practices • Decision-making process • Excitement, pride, and esprit de corps • Empowering people • Emphasis on people • Encouragement of individual initiative • Goal integration • Group functioning 	<ul style="list-style-type: none"> • Goal-setting process • Human resource development (organisational focus) • Human resource development (individual focus) • Influence and control • Integration • Individual initiative • Integration • Identity (degree) • Identity (feeling) • Interaction process • Job involvement • Job challenge • Job reward • Job clarity • Leadership process • Leader-subordinate interaction • Management support • Management style • Motivational process • Market and customer orientation • Organisational clarity • Organisational integration • Organisational vitality • Openness in communication and supervision • Organisation of work • Organisational reach • Performance orientation • Personal freedom • Productivity through people • Performance goals • People integrated with technology • Performance facilitation 	<ul style="list-style-type: none"> • Policies and procedures • Peer support • Peer team building • Peer goal emphasis • Peer work facilitation • Performance clarity • Performance emphasis • Risk tolerance • Reward system • Responsibility • Reward • Risk • Rituals to support values • Rewards and punishments • Social relationships • Strong value systems • Stick to the knitting • Simple organisational structure • Structure • Support • Standards • Supportive climate • Strategic organisation focus • Standards and values • Supervisory support • Supervisory team building • Supervisory goal emphasis • Supervisory work facilitation • Satisfaction • Task support • Task innovation • Top management contact • Teamwork across boundaries • Training • Teamwork • Warmth
---	--	---

2.7. MODELS OF ORGANISATIONAL CULTURE

There seems to be a wealth of organisational culture models in the literature. The following section provides a brief description of some of the most noticeable models found in the literature.

2.7.1. Schein's model of organisational culture

Schein's (1985) model is composed of three layers (see Figure 2.1), and distinguishes between observable and unobservable elements of culture. The most clearly visible levels are the artefacts and practices that form the physical space, technological output, written and spoken languages, and explicit behaviour (Schein, 1985). In order to understand what these artefacts mean, one must analyse the second level, which consists of values and norms.

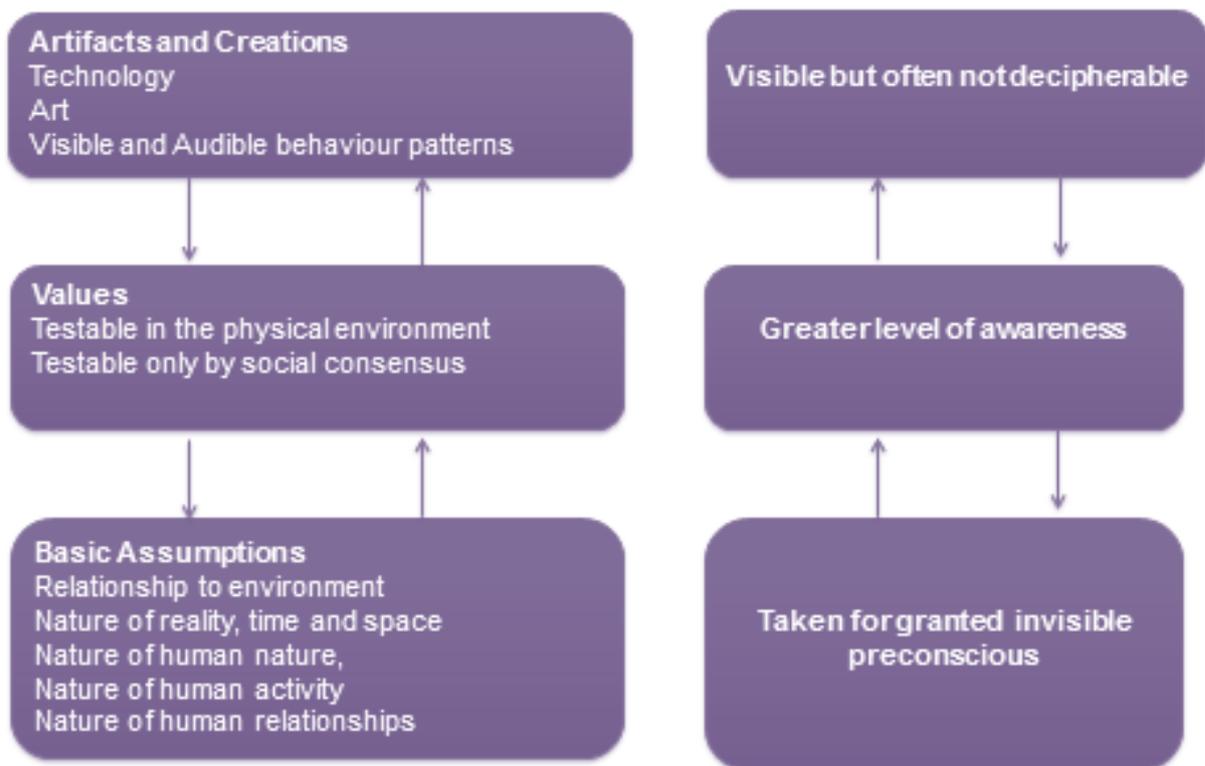


Figure 2.1: Levels of culture and their interaction (Schein, 1985, p. 14)

The deepest and least tangible level consists of basic assumptions — the unchallenged and non-debatable assumptions that are so taken for granted that very little dissimilarity exists within a cultural group (Schein, 1990). Basic assumptions reside at the core of organisational culture, and reflect the central questions people face, such as the nature of human nature (Schein, 1990, 1992). However, Hatch (1993) stated that Schein's model may be deficient because it does not address the interactive processes between artefacts, values, and assumptions. She therefore proposed an alternative model, based upon Schein's model, which is explored in the sections to follow. Furthermore, Hatch (1993) and Trice and Beyer (1993) both criticised Schein's view that assumptions represent the core of culture, because assumptions ignore the symbolic nature of culture. Nonetheless, Schein's model is considered to be of significance, and one from which many other models have emerged. It is also a model that offers a high level of abstraction and simplicity (Dauber *et al.*, 2012).

2.7.2. Hatch's model of organisational culture

Mary Jo Hatch (1993) expanded Schein's theory into a cultural dynamics model consisting of four concepts: assumptions, artefacts, values, and symbols (see Figure 2.2). Not only did Hatch add a fourth domain— symbols — she also defined the process that links each element of the organisational culture construct. She postulated that the interaction of assumptions, artefacts, values, and symbols is a cyclical process, as opposed to Schein's layered perspective. The elements of culture (assumptions, artefacts, values, and symbols) are less central to the relationships that connect them.

Hatch (1993) proposed that there are two likely means by which observable behaviour emerges through underlying assumptions: (a) through *manifestations* into values and *realisation* into artefacts or (b) through *interpretations* into symbols and through *symbolisation* into artefacts. It is, however, not clear under which situations such processes take place, or which factors define the path for the transformation of assumptions into artefacts or, in other words, when assumptions will manifest and realise, and when assumptions are interpreted and symbolised (Dauber *et al.*, 2012).

This model, however, represents a transition to a more dynamic view of culture, although to a somewhat limited extent, because external effects are not explicitly considered in the model (Dauber *et al.*, 2012).

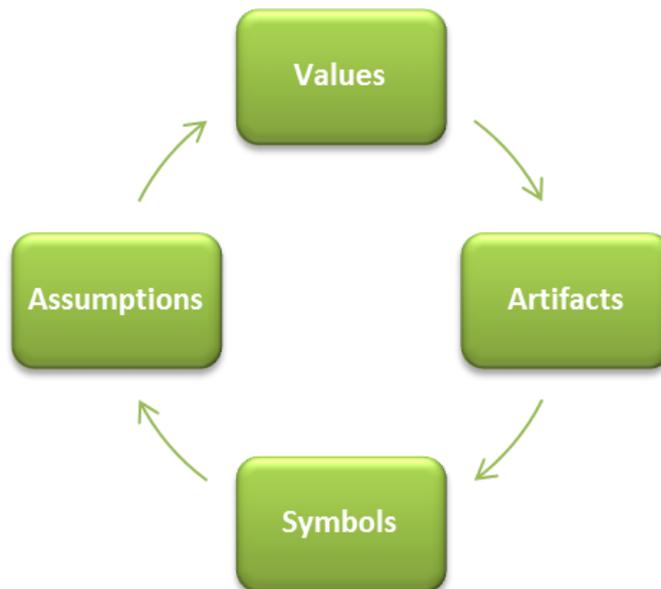


Figure 2.2: The cultural dynamics model (Hatch, 1993, p. 660)

Both Schein (1992) and Hatch (1993) offered a simplified but restricted view of culture in organisations (Dauber *et al.*, 2012). Their models, however, offer an important foundation for the development of an internal environment of an organisation. The high level of abstraction restricts the explanatory power relating to the interdependencies between organisational culture and other spheres of an organisation (e.g., strategy, structure, operations, etc.). External pressures on organisational culture are not clearly specified in their models. A more complete model should illustrate internal processes steered by organisational culture, and also demonstrate the consequences for the external environment, and vice versa (Dauber *et al.*, 2012).

2.7.3. Hofstede's model of organisational culture

In the model put forward by Hofstede *et al.* (1990) (see Figure 2.3), symbols denote the words, gestures, pictures, or objects that hold a specific meaning within a culture, and are recognised by those who share the culture. Heroes are persons, alive or

dead, real or invented, who embody qualities strongly valued in the culture, and hence serve as models for behaviour. Rituals are collective activities that are technically superfluous in reaching desired ends, but are regarded as socially essential within a culture, and are thus undertaken for their own sake.

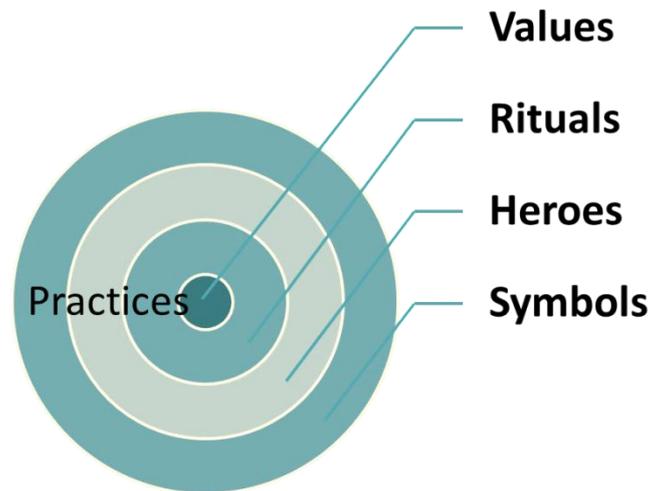


Figure 2.3. Manifestations of culture: From shallow to deep (Hofstede, Neuijen, Ohayv & Sanders, 1990, p. 291)

Symbols, heroes, and rituals can be subsumed under the concept of practices. The heart of culture is crafted by values, which is the broad inclination to prefer certain states of affairs over others. Values drive practices. Feelings that are generally unconscious and cannot be discussed or directly observed by outsiders can only be inferred from the way in which people behave under various situations (Hofstede *et al.*, 1990). Hofstede and his colleagues used the onion model to visualise the relationship between culture, values, and practices.

Hofstede *et al.* (1990) see culture as essentially unchanged over time, as they place value at the core of culture, and see values as unchanged over time. According to Fang (2009) however values can be understood as a relative and changing construct. What is evil or good in today's society might be quite different to what these were in the past. Also the relationship between values (beliefs and norms), on the one hand, and behaviours and artefacts (symbols, heroes, and rituals), on the other, should be understood as a dynamic one; both sides can influence and be influenced by each other (Fang, 2009).

2.7.4. Homburg & Pflesser's model of organisational culture

Homburg and Pflesser's (2000) model (see Figure 2.4) illustrates the relationship between organisational culture and performance outcomes. They stated that market dynamism (the external environment) moderates the relationship between organisational culture and performance outcomes (Homburg & Pflesser, 2000). Organisational culture is defined as having three levels, similarly to the postulation by Schein (1985). However, in their model, artefacts and behaviour belong to the same level. Artefacts reflect the stories, arrangements, rituals, and language, while behaviour constitutes the organisational behaviour patterns. Homburg and Pflesser (2000) stated that behaviour is influenced by norms and artefacts. Market-oriented organisational culture includes four components:

- (1) organisation-wide shared basic values upholding market orientation;
- (2) organisation-wide norms upholding market orientation;
- (3) perceptible artefacts of market orientation; and
- (4) market-oriented behaviours.

The model, however, does not consider interaction, and focuses only on linear effects from culture to performance. Hence, the model has limited explanatory power regarding the effects of the external environment, and assumes no feedback processes (Dauber *et al.*, 2012).

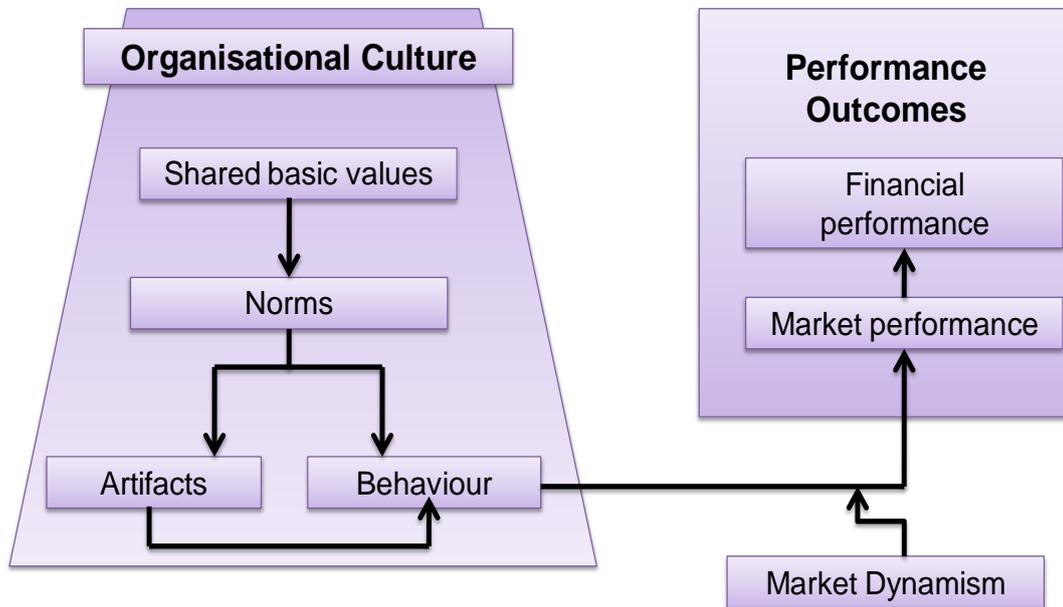


Figure 2.4. Multiple-Layer Model of Market-Oriented Organisational Culture (Homburg & Pflesser, 2000, p. 451).

2.7.5. Martins' model of culture

Martins (1989) developed a model based on the work of Schein (1985) to describe organisational culture (see Figure 2.5). The model is based on the interaction between the organisation's subsystems (goals, values, and structural managerial, technological, and psychosocial subsystems), the two survival functions (external environment and the internal systems) and the dimensions of culture. The model is based on the interaction between three key elements: the organisational subsystems, survival functions, and the dimensions of culture (Martins, 1989).

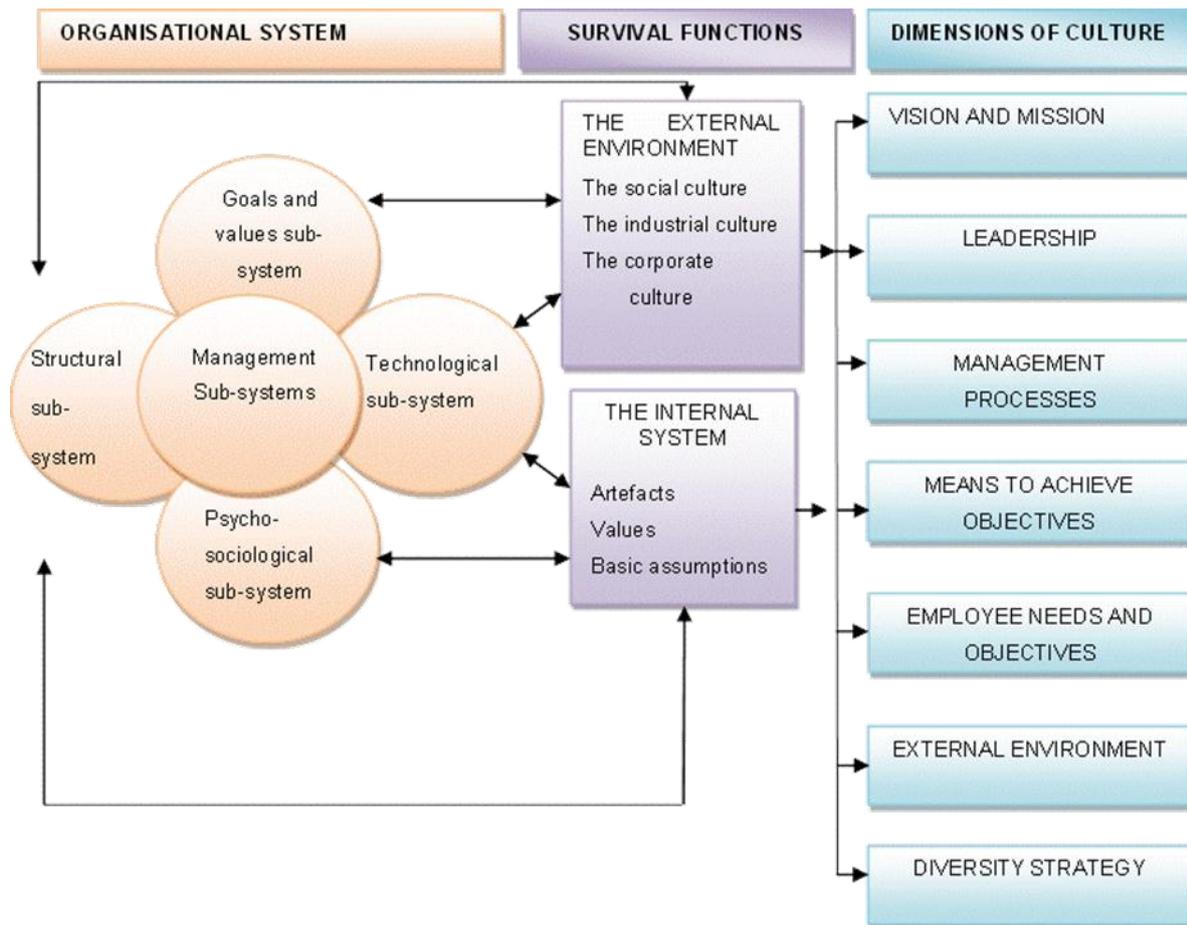


Figure 2.5. Martins' organisational culture model (Martins, 1989, p.92)

2.7.5.1. Organisational Subsystems

According to Martins' (1989), the organisational system comprises the following five sub systems:

- (1) *Goals and values*: These generally consist of various related subordinate objectives that can be linked back to the mission and strategy of the organisation, with the mission and strategy being the main reason for the existence of the organisation and linked to a need that exists in the community.
- (2) *Technological*: This refers to the utilisation and application of specialised knowledge and skills, machines, equipment, and the layout of facilities that are used to convert inputs into outputs. This subsystem consists of artefacts and creations.

- (3) *Structural*: This subsystem relates to the task expectations and technology that have a significant influence on the structure of an organisation. This subsystem flows, to a great degree, to the goal and technical subsystems, and is, in fact, the link between the two.
- (4) *Psycho-sociological*: Consists of individuals and groups within the organisation, and is linked to the interpersonal and group relationships in the organisation, the climate in the organisation, and the motivation to attain common goals through which individuals' needs and goals are integrated with those of the organisation.
- (5) *Management subsystems*: Refers to the way in which the organisation is related to its environment, the setting of goals and objectives, the development of comprehensive strategies and operational plans, the design of structures, the establishment of control processes, and the management of human resources. This subsystem cuts across the four subsystems.

As a consequence of the interaction between and reciprocal influence on one another of the various subsystems, a distinct culture is created in each organisation, which distinguishes it from all others (Martins, 1989).

2.7.5.2. *Survival Functions*

The two main elements that compose the survival functions are:

- (1) *the external environment*, which refers to the survival of the organisation in the external environment, with reference to the structure, goals, and values, as well as technological sub-system (Martins, 1989); and
- (2) *the internal environment*, which refers to the survival of the organisation in the internal environment as it relates to the structural, psycho-sociological, and technological sub-system (Martins, 1989).

2.7.5.3. *Dimensions of Culture*

The Organisational Culture Model includes the following culture dimensions, identified by Martins (1989), which have direct relevance to the present study.

- (1) *Leadership*: The emphasis is on explicit characteristics that enhance leadership, such as people management, leaders' competence, managing the work, and personal contact with employees.
- (2) *Means to achieve objectives*: These are the ways in which organisational structure and support mechanisms such as support services, conflict handling, physical appearance, work distribution, and co-ordination contribute to the effectiveness of the organisation.
- (3) *Management processes*: The focus is on the way in which management processes take place in the organisation. These processes include aspects such as management of change, setting and implementing goals, training, delegation, and performance management.
- (4) *Employee needs and objectives*: The focus is on interpersonal aspects that influence the individual, such as the remuneration system, equal opportunities, caring, trust, career planning, and participation in decision-making.
- (5) *Vision and mission*: This dimension refers to employees' awareness of the vision, mission, and values of the organisation, and how these can be converted into quantifiable individual and team objectives.
- (6) *External environment*: This dimension is refers to employees' understanding of the effectiveness and importance of community involvement.
- (7) *Diversity strategy*: This dimension relates to a focus on the communication of the organisation's employment equity or diversity strategy, in line with employment equity/diversity in South Africa (Martins & von der Ohe, 2006).

This model is comprehensive, and encompasses all the aspects of an organisation on which organisational culture could have an influence, and vice versa (Martins *et al.*, 2004). The model is also a dimensional approach to studying culture, and can

thus be implemented to describe which dimensions of organisational culture may influence work engagements in organisations, justifying its use in the present research.

2.8. MEASURING AND DIAGNOSING ORGANISATIONAL CULTURE

Most culture researchers either undertake a quantitative analysis to assess the content of culture, or conduct surveys to qualitatively measure espoused values and beliefs or a set of work practices deemed to underpin organisational culture (Ostroff *et al.*, 2013). Due to its association with intangible aspects and ethnographic influences, organisational culture research historically adopted a qualitative research paradigm (Jung *et al.*, 2009). Qualitative methods were also used as an applicable means of and justification for differentiating culture research from climate research (Bellot, 2011). Past researchers also took the view that standardised, quantitative measurements were unsuitable for culture assessment, as they are incapable of adequately revealing the idiosyncratic and distinctive elements of each culture.

Qualitative approaches, such as participant observation, interviews, discussions, and documentary analysis, allow us to identify structures through patterns displayed by individual behaviour (Jung *et al.*, 2009). Qualitative methods offer comprehensive and meaningful investigation and scrutiny of underlying values, beliefs, and assumptions, presenting a rich interpretation of the cultural forces at work and of complexity within an organisation (Jung *et al.*, 2009). However, academics and researchers who have challenged the strictly qualitative view have stressed that the comparison between cultures is not possible using this method. Hence, quantitative methods arose as a consequence of dissatisfaction with the limited generalisability and time demands of qualitative tools to assess culture (Jung *et al.*, 2009). Other authors have also promoted the notion of a mixed-methods approach to provide a richer assessment of an organisation's culture (Bellot, 2011).

The present researcher agrees with Ostroff *et al.* (2013), who proposed that it may be senseless to debate the merits of using surveys (quantitative) rather than case studies (qualitative). There is too much variety in each method, and both offer

valuable insight into organisational culture (Ostroff *et al.*, 2013). Furthermore, as Bellot (2011) stated, using either qualitative or quantitative methods alone opens up the possibility of omitting critical aspects of culture.

Due to changes in the market, as well as cost and time implications, Martins and von der Ohe (2006) stated that it may be necessary to make use of quantitative tools, provided that they have been validated as measuring the criteria they are required to measure. Cameron and Quinn (2011) stated that, when using quantitative tools, it is important that these address underlying values, rather than climate. The present researcher adopted a quantitative approach to the study of culture, making use of the SACI. A quantitative approach is preferable when exploring organisational culture, due to the ease with which large samples can be covered, as well as time constraints, lower level of intrusiveness and limitations imposed by human resources and organisational policy (Jung *et al.*, 2009). The SACI is a South African tool designed specifically for the South African work environment, and has been shown to be scientifically and objectively valid and reliable, justifying the use of the tool in the present study.

2.9. DIFFERENCES BETWEEN ORGANISATIONAL CULTURE AND ORGANISATIONAL CLIMATE

Historically, the concept of climate preceded the concept of culture, and was formally introduced by the social psychologist Kurt Lewin in the late 1960s (Ostroff *et al.*, 2013). Studies on climate were characterised by a blending of psychological and sociological epistemologies, and during the 1960s and 1970s, climate studies commonly emphasised professional socialisation and orientation or assimilation of a new member (Bellot, 2011). The concepts *organisational culture* and *organisational climate* were then used interchangeably in research, and it was only in the mid-1970s that symbolic framing that presented an anthropological epistemology to the examination of organisational climate emerged (Bellot, 2011). Climate researchers felt that the *climate* construct did not fully account for the holism of the work setting, which signified the start of conceptualisation and definition of organisational culture (Bellot, 2011).

The most widely accepted definition of climate is “the relatively enduring organisational environment that, (a) is experienced by the occupants, (b) influences their behaviour, and (c) can be described in terms of the values or a particular set of characteristics or attributes of the environment” (Tagiuri & Litwin, 1968, p. 25, as cited in Bellot, 2011, p. 32). Bellot (2011) stated that this definition quite closely resembles that of organisational culture. Schneider, Ehrhart, and Macey (2013) defined organisational climate as the shared perceptions of and meaning attached to the policies, practices, and procedures employees experience.

Research has placed a great deal of focus on whether the two concepts are different or the same (Bellot, 2011), and more recently looked at how and why these two constructs can be interrelated to offer a more complete and parsimonious interpretation of higher-order social structures of an organisation (Ostroff *et al.*, 2013).

Moran and Volkwein’s (1992) review on how culture forms and informs organisational climate concluded that climate and culture overlap, and that they are elements of the expressive, communicative, and socially created dimensions of organisations. The difference is that climate is a sign of the attitudes and behaviour of organisational members, openly apparent to outsiders, whereas culture denotes the assumptions, expectations, and outlooks that are taken for granted by organisational members, and are therefore not instantaneously understood by outsiders.

Climate focuses on the situation and its link to perceptions, feelings, and behaviours of employees, and can be perceived as temporal, subjective, and perhaps susceptible to influence by authority figures (Denison, 1996). Whilst climate is about experiential perceptions of what happens, culture helps to define why it happens. Climate is more immediate than culture, and individuals can sense climate upon entering an organisation. Climate is vested within individuals and their perceptions of the organisation context, whilst culture is the property of the collective (Ostroff *et al.*, 2013). Climate develops from the deeper core of culture.

Rostila, Suominen, Asikainen, and Green (2010) highlighted the similarities between the two constructs, as discussed below.

- (1) Both climate and culture attempt to identify the environment that affects behaviour in organisations.
- (2) Both deal with the ways in which members of an organisation make sense of their environment, which manifests in shared meaning.
- (3) Both seem to be learned through the socialisation process and symbolic interaction among members.

There have also been significant differences in the methods employed to study climate and culture. Historically, climate was measured by quantitative techniques, and is commonly compared across settings, whilst research on culture has been characterised by qualitative methods. However, research shows that, recently, culture has more often been studied using surveys, and the questions posed may correspond to or be significantly different from the questions posed in climate surveys (Ostroff *et al.*, 2013).

Denison (1996) explained that the debate between the two concepts is, in many ways, an example of methodological differences concealing a basic substantive similarity. Denison (1996) stated that the development of the concept of culture put a spanner in the works for climate researchers, proposing new techniques, and allowing for variation of assessment. However, he also stated that the shortfalls of one approach have become the justification for the other. The question is not so much what is being studied, but how to study it. He adopted this premise based on two grounds: both concepts focus on organisation-level behavioural characteristics, and they share a similar problem. Hence, it is clear that both culture and climate include the interplay between individuals and their surroundings, but it becomes a circular debate to determine which produces or affects the other (Bellot, 2011). Although many authors acknowledge that climate is a more superficial manifestation of culture, it is less clear if this overlap is indicative of different concepts or simply two aspects of the same construct (Bellot, 2011). Denison (1996) called for

integration of the two schools of thought, in order to better serve the future of understanding organisations.

Ostroff *et al.* (2013) stated that practices, policies, procedures, and routines play a role in both culture and climate, and they are perceived as the artifacts in culture, and as the basis of the formation of climate perceptions. The authors proposed that the set of actual practices, policies, and procedures is the linking mechanism between culture and climate, not a measure of either culture or climate. They postulated that any attempt to transform culture necessitates a change in climate, and that both should be examined simultaneously.

The present study adopted the view taken by Denison (1996) and Schneider (2000), who stated that culture and climate are not strongly differentiated, but are complementary constructs that represent different but overlapping interpretations of the nuances in the psychological life of organisations. In measuring the interactions and overlap between the concepts of organisational culture and climate, Yahyagil (2006) found that there is a fit between the concepts of organisational culture and climate, with statistical analyses showing a meaningful composition of cultural and climatic variables. The findings, to a certain extent, support Denison's (1996) and Schneider's (2000) view that the two concepts address a common phenomenon. The focal point is that these two concepts exist in work settings and, contrary to general belief, they are not mutually exclusive (Ashkanasy & Jackson, 2001). For these reasons, and although the focus of the present study remains organisational culture, the study will briefly discuss any related literature that investigates the link between climate and work engagement.

2.10. HOW WORK ENGAGEMENT IS CONCEPTUALISED

The past decade has seen a sharp surge in scientific studies on work engagement. According to a review by Simpson (2008), the definition and measurement of engagement at work is not adequately understood or agreed upon, despite the fact that it has surfaced as a possibly key area of focus in organisations.

Macey and Schneider (2008) pointed out that the concept has been used at different times to signify psychological states, traits, and behaviours, in addition to their antecedents and outcomes. According to Macey and Schneider (2008), what is universal to these definitions is the idea that employee work engagement is a condition that is sought after, has organisational purpose, and implies involvement, commitment, passion, enthusiasm, directed effort, and energy, which suggests both attitudinal and behavioural elements.

Referring to Simpson's (2008) study as a basis for our discussion, four types of work engagement are evident in the literature, namely personal engagement as defined by Kahn (1990), burnout/engagement as defined by Maslach and Leiter (1997), employee engagement as defined by Harter, Schmidt, and Hayes (2002), and work engagement as defined by Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002). These are explored in more detail below.

2.10.1. Personal engagement

Kahn (1990) was the first to conceptualise engagement, defining personal engagement as the concurrent manifestation and expression of an individual's ideal self in task behaviours that encourage a connection to work and to others, a connection to personal presence (physical, cognitive, and emotional), and a connection to active, full role performance. Kahn (1990) also presented three psychological conditions, namely meaningfulness, safety, and availability, as a result of which people personally engage or disengage. Saks (2006), in a study to test Kahn's model, found that the three psychological conditions (meaningfulness, safety, and availability) are significantly related to engagement at work. The study found that employees' engagement at work increased when the job situation offered them more psychological meaningfulness and safety, and when they were more psychologically available.

Engaged employees apply themselves "physically, cognitively and emotionally during role performances" (Kahn, 1990, p. 694). When disengaged, employees become withdrawn, and they defend themselves physically, emotionally, and cognitively during work role performances.

Employees experience meaningfulness when they feel worthwhile, useful, and valuable, and when they are able to give to others and to the work itself in their roles (Kahn, 1990). Task, role, and work interactions are elements that influence meaningfulness.

Psychological safety is defined as the comfort of being able to express and apply oneself without fear of damaging one's self-image or reputation at work; it is a feeling that one would not suffer for personally engaging (Kahn, 1990). Interpersonal relationships, group and intergroup dynamics, management style, and process and organisational norms are the four elements that most directly influence psychological safety (Kahn, 1990).

Psychological availability is seen as the sense of having the physical, emotional, and psychological means to personally engage at a specific time. Depletion of physical and emotional energy, individual security, and our lives outside of work are four types of distractions that can influence psychological availability (Kahn, 1990).

2.10.2. Burnout/Engagement

Another approach to studying engagement was steered by Maslach and Leiter (1997), which holds that engagement exists on a continuum, and is the direct opposite of the three burnout dimensions of exhaustion, cynicism, and a sense of inefficacy. Maslach and her colleagues re-conceptualised burnout as an eradication of engagement at work, a positive opposite to burnout, exemplified by energy, involvement, and efficacy—the converse of the three burnout dimensions (i.e. exhaustion, cynicism, and professional inefficacy). Energy denotes a person's application of a high level of mental and physical resources into the work task. Involvement signifies the interpersonal context of engagement, and points to a positive, attentive, and attached reaction to features of the work. Efficacy denotes a person's own perception of his or her work, and relates to a feeling of competence and the capacity to deliver superior work. In line with this, the Maslach Burnout Inventory (Maslach & Leiter, 1997) measures both burnout and engagement, with the reverse scoring pattern of the three constituents of burnout inferring engagement.

However, according to Schaufeli and Salonova (2011), burnout and engagement are exclusive of one another. Individuals undergoing low burnout may not be undergoing high engagement, and vice versa, which led Schaufeli *et al.* (2002) to operationalise work engagement as distinct from burnout.

2.10.3. Employee engagement

The definition and model of employee engagement offered by Harter *et al.* (2002) arose over the course of 30 years of research conducted by the Gallup Organisation. Employee engagement is defined as a person's involvement in, satisfaction with, and enthusiasm for work. Similar to Khan's definition, engagement ensues when one is emotionally attached to others and cognitively aware.

The Harter *et al.*'s (2002) model of employee engagement outlines four antecedent components as essential for engagement within the workplace. These are: (a) employees knowing what is expected of them and having the tools and resources they require to perform their work, (b) opportunities to feel an impact and fulfilment in their work, (c) having a sense that they are part of something important and greater than the self, and (d) opportunities to progress and develop. The Gallup Workplace Audit measurement consists of 12 items measuring employee perceptions of work characteristics (Harter *et al.*, 2002). Harter *et al.* (2002) stated that these 12 items explain a significant portion of the variance in overall job satisfaction, and are antecedents of personal job satisfaction and other affective constructs.

Employees may be categorised as actively engaged, non-engaged, or actively non-engaged. Actively engaged employees are involved in, satisfied with, and enthusiastic about their work. When employees are engaged in their organisation, they demonstrate a sense of confidence, integrity, pride, and passion (Guthrie & Shayo, 2005).

The Gallup Workplace Audit refers to work conditions, not to the work task. A psychological connection with the performance of a work task is an important characteristic of work engagement. Thus, the Gallup Workplace Audit does not

conform to this conceptualisation of work engagement, as it reflects attitudes towards features of the organisation or job (Christian, Garza & Slaughter, 2011).

2.10.4. Work engagement

The present researcher agrees with the argument presented by Bakker, Schaufeli, Leiter, and Taris (2008) that the field of engagement at work is served best by a consistent definition for work engagement, one that addresses employees' experience of work activity, and the researcher therefore adopted the definition of work engagement postulated by Schaufeli *et al.* (2002, p. 74), referring to work engagement as:

...a positive, fulfilling, work-related state of mind that is characterized by vigour, dedication, and absorption. Rather than a momentary and specific state, engagement refers to a more persistent and pervasive affective-cognitive state that is not focused on any particular object, event, individual, or behaviour.

According to Schaufeli *et al.* (2002, p. 74), work engagement consists of:

- (1) *Vigour*, which refers to an elevated degree of energy and mental stamina while working, the motivation to devote effort in one's work, and determination, even in the face of hardships;
- (2) *Dedication*, which refers to being highly involved in one's work and experiencing a sense of meaning, eagerness, inspiration, pride, and challenge. It represents a wider scope than identification, including not only cognitive or belief states, but also an affective element; and
- (3) *Absorption*, which is characterised by being totally concentrated on and contentedly immersed in one's work; time elapses swiftly, and one has difficulty disconnecting oneself from work.

Work engagement is considered an independent and distinct concept that is negatively linked to burnout (Bakker *et al.*, 2008). Vigour and dedication are regarded as direct opposites of exhaustion and cynicism respectively, the two core

symptoms of burnout (Schaufeli & Taris, 2005). The term *energy* represents the continuum that extends between dedication and exhaustion, whilst *identification* refers to the continuum that extends between dedication and cynicism (Gonzalez-Roma, Schaufeli, Bakker, & Lloret, 2006). After comprehensive interviews, *absorption* was incorporated as the third component of work engagement (Schaufeli *et al.*, 2002).

In engagement, fulfilment exists in contrast to the hollowness of a life that leaves people with a feeling of emptiness, as in burnout (Schaufeli & Bakker, 2010). The key reference for Kahn (1990) is the work role. However for those who consider engagement as a positive antithesis of burnout it is in the employees' work activity or the work itself (Schaufeli & Bakker, 2010).

Most academics agree that engagement contains an energy dimension and an identification dimension, and thus work engagement is characterised by high levels of energy and strong identification (Bakker *et al.*, 2008).

2.10.5. Measurement of work engagement

There are numerous tools available to assess work engagement. Table 2.2 presents a brief explanation of the instruments that have been validated more extensively. Schaufeli and Salanova (2011) explained that the Maslach Burnout Inventory (MBI) and Disengagement subscale of the Oldenburg Burnout Inventory (OLBI) assume that burnout and work engagement are each other's perfect opposite. From a psychological view, the postulation of a perfectly inverse relationship between burnout and work engagement is not feasible. For instance, not feeling burnt out does not necessarily imply that one feels engaged, and vice versa (Schaufeli & Salanova, 2011). The UWES has been used in most empirical work engagement research (Bakker *et al.*, 2008), and was also used as a measure of work engagement in the present study.

Table 2.2

Measures of work engagement

Measure	Description	Source
Maslach Burnout Inventory (MBI)	Energy is assessed by low scores on exhaustion. Involvement (low score on cynicism). Professional efficacy (high score on efficacy)	Maslach & Leiter (1997)
Disengagement subscale of the Oldenburg Burnout Inventory (OLBI)	Initially developed to measure burnout, but comprises positive and negative items, and can be used to measure work engagement. Includes two dimensions ranging from exhaustion to vigour, and, secondly, ranging from cynicism (disengagement) to dedication.	Demerouti, Bakker, Nachreiner, & Ebbinghaus (2002)
Shirom-Melamed Vigour Measure (SMVM)	Measure of affective response in the context of work settings. Feelings of physical strength, emotional energy, and cognitive liveliness.	Shirom (2005)
Utrecht Work Engagement Scales	The measure has three scales: Vigour; Dedication; and Absorption. A high score indicates high levels of engagement.	Schaufeli <i>et al.</i> (2002)

2.10.6. Antecedents of work engagement

Studies have also demonstrated that engagement is a distinct concept that is best predicted by job resources (e.g., autonomy, supervisory coaching, and performance feedback) and personal resources (e.g., optimism, self-efficacy, and self-esteem) (Bakker *et al.*, 2008). Resources may be situated at the level of the organisation (e.g., salary, career opportunities, and job security), interpersonal and social relations (e.g., supervisor and co-worker support and team climate), the organisation of work (e.g., role clarity and participation in decision-making), or the level of the task (e.g., performance feedback, skill variety, task significance, task identity, and autonomy) (Bakker, Demerouti, & Verbeke, 2004). Thus, engagement can have antecedents at both individual and organisational level.

Wollard and Shuck (2011) conducted a quantitative review of the work engagement literature, in the hope of identifying potential antecedents within the organisation. Their analysis, through a structured literature review, revealed 42 antecedents, categorised according to two levels: (a) individual antecedents and (b) organisational antecedents.

Individual antecedents were defined as “constructs, strategies and conditions that were applied directly to or by individual employees and that were believed to be foundational to the development of employee engagement” (Wollard & Shuck, 2011, p. 433). Organisational-level antecedents were defined as constructs, strategies, and conditions applied across an organisation as foundational to the development of work engagement at the structural or systematic level (Wollard & Shuck, 2011). Table 2.3 presents the individual and organisational antecedents, as well an indication of which antecedents are empirically or theoretically driven, based on the literature reviews (Wollard & Shuck, 2011). Several types of antecedents were presented; some were based on empirical evidence, while others were more conceptual. Individual antecedents to work engagement that have been examined empirically include, for example, meaningful work, work-life balance, personal involvement in corporate citizenship behaviour, vigour, dedication, and absorption, whilst those examined conceptually included, for example, proactive personality, autotelic personality, conscientiousness, and trait positive affect (Macy & Schneider, 2008).

With respect to organisational antecedents, the role of the manager has been empirically examined in various ways, but more importantly for the purposes of the present study, the roles of culture and micro-cultures have been examined as antecedents to work engagement (Brown & Leigh, 1996; Shuck, Reio & Rocco, 2011). Culture as an organisational dimension is generally perceived to be beyond an employee’s direct control, but often within a leader’s or manager’s circle of influence, implying a conceptual relationship between leader behaviour and employee engagement (Shuck & Herd, 2012). In addition, supportive, authentic, and positive workplace climates have been shown to enhance employee work engagement.

Table 2.3:

Individual-level and organisational-level antecedents of work engagement (adapted from Wollard & Shuck, 2011, p.455)

Individual Antecedents to Work Engagement	Organisational Antecedents to Work Engagement
Absorption*	Authentic corporate culture*
Available to engage	Clear expectations*
Coping style	Corporate social responsibility*
Curiosity	Encouragement
Dedication*	Feedback
Emotional fit	Hygiene factors
Employee motivation	Job characteristics*
Employee/work/family status	Job control
Feelings of choice and control	Job fit*
Higher levels of corporate citizenship*	Leadership
Involvement in meaningful work*	Level of task challenges*
Link individual and organisational* goals	Manager expectations*
Optimism	Manager self-efficacy*
Perceived organisational support*	Mission and vision
Self-esteem, self-efficacy	Opportunities for learning
Vigour*	Perception of workplace safety
Willingness to direct personal energies	Positive workplace climate*
Work-life balance*	Rewards*
Core self-evaluation*	Supportive organisational culture*
Value congruence*	Talent management
	Use of strengths*

* Denotes antecedents with empirical evidence

Saks (2006) also identified a number of antecedents, based on the work of Kahn (1990) and Maslach, Shaufeli and Leiter (2001), as depicted in Figure 2.7. These antecedents include:

- (1) *Job characteristics*: These are jobs that are high in core job characteristics (i.e. skill variety, task identity, task significance, autonomy, and feedback), and offer individuals the space and motivation to bring more of themselves into their work, or to be more engaged (Kahn, 1992).
- (2) *Rewards and recognition*: Kahn (1990) stated that employees differ in their engagement as a function of their perceptions of the benefits they receive from a role. Thus, it is presumed that employees are more inclined to engage

themselves at work to the degree that they perceive a greater sum of rewards and recognition for the output (Saks, 2006).

- (3) *Perceived organisational and supervisor support:* Perceived organisational support refers to a general belief that the organisation values employees' contributions and cares about their well-being. Psychological safety refers to the sense of being able to show and employ the self without negative consequences (Kahn, 1992). A critical element of safety comes from the degree of care and support employees perceive to be offered by their company and their direct supervisors. Kahn (1990) stated that supportive and trusting interpersonal relationships, as well as supportive management, enhance psychological safety. May, Gilson and Harter (2004) found that supportive supervisor relations are positively related to psychological safety. Perceived organisational and supervisor support are two variables that are most likely to capture the fundamental nature of social support (Saks, 2006). A study by Schaufeli and Bakker (2004) found that a measure of job resources, including support from colleagues and social support, as depicted in the Maslach *et al.* (2001) model, predicted engagement.
- (4) *Distributive and procedural justice:* When employees have elevated perceptions of justice in their organisation, they are more likely to feel obliged to also be fair in how they undertake their roles, by offering more of themselves through enhanced levels of engagement (Saks, 2006). Low perceptions of fairness are likely to cause employees to withdraw and disengage themselves from their work roles (Saks, 2006).



Figure 2.6. A model of antecedents and consequences of work engagement (Saks, 2006, p. 604)

De Lange, De Witte, and Notelaers (2008) found 16 previous studies that reported strong positive relations between job resources and work engagement across both homogenous and heterogeneous samples. The key predictive job resources that were included ranged from task-related resources (such as job control or autonomy) to social or team-related resources (such as social support) to organisational-level resources (such as social climate or information). De Lange *et al.* (2008) also found that low work engagement, low job autonomy, and low departmental resources predicted movement to another company. In addition, for employees who remained with the organisation ('stayers'), they found positive effects of job autonomy on work engagement, and vice versa. In all the studies reviewed by De Lange *et al.* (2008), work engagement was measured using the UWES (Schaufeli, Bakker, & Salanova, 2006), presenting relatively high psychometric quality across all studies. The UWES is available in 23 languages (refer to <http://www.schaufeli.com>), reflecting its widespread use and popularity. Macey and Schneider (2008) stated that measures of engagement must get the conceptualisation and the theoretical underpinning correct, and have a consistent definition of the term, and that very few measures meet these criteria. This must also be supported by studies demonstrating that the measuring tool is reliable and valid, and that it offers practical utility to an organisation. The most commonly used scientifically derived measure of engagement is the UWES, justifying the use of the UWES in the present study.

2.10.1. Outcomes of work engagement

The strong appeal and legitimacy of work engagement can be attributed to the multitude of studies that report the strong relationship between work engagement and important organisational performance outcomes. Studies show high engagement levels associated with commitment (Saks, 2006; Halbesleben, 2010), greater financial profit (Harter, Schmidt & Hayes, 2002), improved performance (Bakker & Bal, 2010), improved inter-role and extra-role behaviour (Saks, 2006), enhanced job satisfaction (Saks, 2006), managerial effectiveness (Luthans & Peterson, 2002), better individual performance (Kahn, 1990), greater business unit performance (Harter *et al.*, 2002), and proactive behaviour (Salanova & Schaufeli, 2008). Harter *et al.* (2002) found that engagement is linked to meaningful business

outcomes on a scale that is significant to many organisations. Halbesleben (2010), in a meta-analysis, found that work engagement was positively associated with positive work outcomes.

2.11. The theoretically conceptualised relationship between organisational culture and work engagement

As the literature shows, antecedents of work engagement may be situated at the level of the organisation (e.g., salary, career opportunities, and job security), interpersonal and social relations (e.g., supervisor and co-worker support and team climate), the organisation of work (e.g., role clarity and participation in decision-making), and the level of the task (e.g., performance feedback, skill variety, task significance, task identity, and autonomy) (Bakker, Demerouti, & Verbeke, 2004). Thus, engagement can have antecedents at both the individual and the organisational level. However, only a few studies have investigated organisation-level antecedents, and even fewer that specifically investigated the relationship between organisational culture and work engagement.

Greenidge (2010) investigated the link between leadership communication, culture, and engagement. The study revealed that there is a statistically significant relationship between the culture of the organisation and employees' level of engagement, in both the private and the public sector. Employees were more engaged in organisations described as having a more positive culture. Furthermore, leaders who displayed a positive communication style led organisations that maintained a positive culture, and the more positive the leaders communication style, the more engaged the employees appeared to be, whilst those with a negative style managed organisations with a negative culture. From a functionalist school of thought, leaders are the architects of culture and culture change whilst, from an anthropological view, leaders are part of culture, and not separate from it (Sarros, Cooper, & Santora, 2008). Schein (2004) contended that leadership and culture appear to be two sides of the same coin; neither can be fully understood in isolation. The founders create and shape the cultural traits of their organisations. In addition, communication is one of the most important mechanisms for culture change

(Williams, Dobson, & Walters, 1990). Greenidge's (2010) study highlighted and confirmed leadership and communication as key dimensions of culture, and significant predictors work engagement.

In investigating predictors of work engagement, Alarcon, Lyons, and Tartaglia (2010) found that leaders affect employees' work engagement through their influence on the environment and through employees' perceptions of role clarity, rather than having a direct effect. This is consistent with leadership theory, which contends that a key aspect of leadership is to clarify the roles of the workers, as well as to foster a productive organisational culture (Alarcon, *et al.*, 2010). Some studies have reported a positive link between work engagement and charismatic leadership (Babcock-Roberson & Strickland, 2010) and between work engagement and authentic leadership (Hassan & Ahmed, 2011). Furthermore, Leary *et al.* (2013) showed that leadership behaviours such as intimidation and avoiding others have a significant negative relationship with work engagement.

Alarcon *et al.* (2010) also found that a positive organisational culture (i.e. a trusted, supportive, risk-tolerant environment) in a US military organisation was related to higher work engagement, suggesting that these aspects of the organisation comprise some level of espoused values, which make up one layer of an organisation's culture (Alarcon *et al.*, 2010).

Several studies have shown that a supportive organisational culture is linked to work engagement. Saks (2006) found that perceived organisational support is an antecedent of work engagement. Senior leaders who are highly competent in organisation- and talent development are likely to cultivate a sense that the organisation truly values the contributions of employees and cares about their well-being (Saks, 2006). In a study of Finnish school teachers, Bakker, Hakanen, Demerouti & Xanthopoulou (2007) found that supervisor support, innovativeness, appreciation, and organisational climate were important job resources that correlated positively with work engagement. In a meta-analysis, Halbesleben (2010) demonstrated that resources, specifically social support, autonomy, feedback, positive organisational climate, and self-efficacy are positively linked to work

engagement. These studies illustrated that supportive organisational cultures are likely to lead to higher levels of work engagement.

However, in a more recent study, conducted by Remo (2012), results showed, surprisingly, that there was no relationship between a supportive and innovative culture and work engagement. Furthermore, the study also showed that job characteristics impact work engagement directly, without any effect from organisational culture (Remo, 2012).

Interpersonal aspects of an organisations culture, such as remuneration and reward systems, that influence the individual have also been shown to drive work engagement. According to Bhattacharya and Mukherjee (2009), it is generally agreed that work engagement and level of contribution hinge on staff feeling that they are fairly rewarded for their skills, knowledge, and contribution. Since reward strategies play a crucial part in reflecting organisational culture, organisations need to adapt their reward strategy to their own specific business goals (Bhattacharya & Mukherjee, 2009). Their study in India revealed that the information technology sector gives much more importance to the use of rewards, which definitely contributes to attracting and retaining employees, making them feel more valued, and thus increasing engagement. In addition, they found that employees consider rewards to be important for keeping them engaged in the organisation.

Sardar, Rehman, Yousuf, and Aijaz (2011) also found a significant relationship between work engagement and reward strategies, as well as other HR practices (decision-making/co-ordination, performance reward systems, and employee involvement). Employee involvement is also a key cultural trait, characterised by empowerment, team orientation, and investment in the development of employees' skills and capabilities (Ludik, Smit, & Forste, 2008).

Brown (2011) demonstrated that various management practices, which include a focus on employees' professional development, teambuilding, aligning employee- and organisational goals, and setting clear and reasonable expectations, positively predicted work engagement as measured by the *Vigour* component. Members of developed cultures have consensus on how to measure results and what corrective

steps are required if something goes wrong (Champoux, 2010). This may suggest that individuals who understand what is expected of them will be able to use more time and resources in carrying out a task, rather than identifying what is required of them (Alarcon *et al.*, 2010). Employees may have the aspiration to engage in their work, and, in the absence of clarity, may fail to engage (Alarcon *et al.*, 2010).

The embedding of social responsibility values in organisational discourses and practices often leads to the creation of a corporate social responsibility culture that, over time, permeates the broader culture of the organisation (Duarte, 2010). Community involvement and social corporate responsibility may result in, not only a greater gain for society, but also greater gain for organisations, through higher work engagement (Alferman, 2011). In a study conducted by Alferman (2011), using Hofstede's (1998) national dimensions of masculinity/femininity and collectivism/individualism, it was found that engagement in an organisation's corporate social responsibility positively affects work engagement. Yener, Yaldran and Ergun (2012) showed that work engagement is positively and significantly related to ethical climate, with the social responsibility climate having a greater effect on work engagement than the remaining eight dimensions measured (i.e. self-interest, company profit, efficiency, friendship, team interest, personal morality, rules and standard operating procedures, and laws and professional codes).

Organisational climate can be viewed as the more visible or tangible level of organisational culture, represented by shared perceptions of work structures and practices, which, in turn, reflect deeper levels of culture, such as shared values and beliefs (Parkes & Langford, 2008). Parkes and Langford (2008) found that work engagement was highly correlated with organisational climate scales of management of change, degree of innovation, belief in the organisation's mission and values, successfully achieving organisational objectives, participation and involvement in decision-making, career opportunities, competence in leadership, and employee perceptions of customer satisfaction with goods and services.

Chaudhary, Rangnekar & Barau (2012) demonstrated that both the Human Resource Development (HRD) climate (general climate, culture of openness,

confrontation, trust, autonomy, proactivity, authenticity, and collaboration in and implementation of HRD mechanisms) and self-efficacy were significant predictors of work engagement, although self-efficacy emerged as a stronger predictor of work engagement than the HRD climate.

The role of culture as an antecedent to work engagement is evident from the discussed research findings. A more detailed analysis of the way in which organisational variables such as organisational culture influence work engagement, and the ways in which managers might implement policy and practice, is required (Linz, Good, & Huddleston, 2006). The present study aims to address this need, and to contribute to the limited research in this area and add to the body of knowledge regarding work engagement and organisational culture. Based on Martin's (1989) model of organisational culture and the UWES model of work engagement (Schaufeli *et al.*, 2002), a hypothesised model of the relationship between each of the dimensions of organisational culture (and their respective determinants) and work engagement respectively is presented in Figure 2.8. While values lie at the core of organisational culture, they are expressed and identified via seven cultural dimensions. At the overt level, culture implies the existence of dimensions or characteristics that are closely related and interdependent (van der Post *et al.*, 1997). These dimensions are illustrated below.

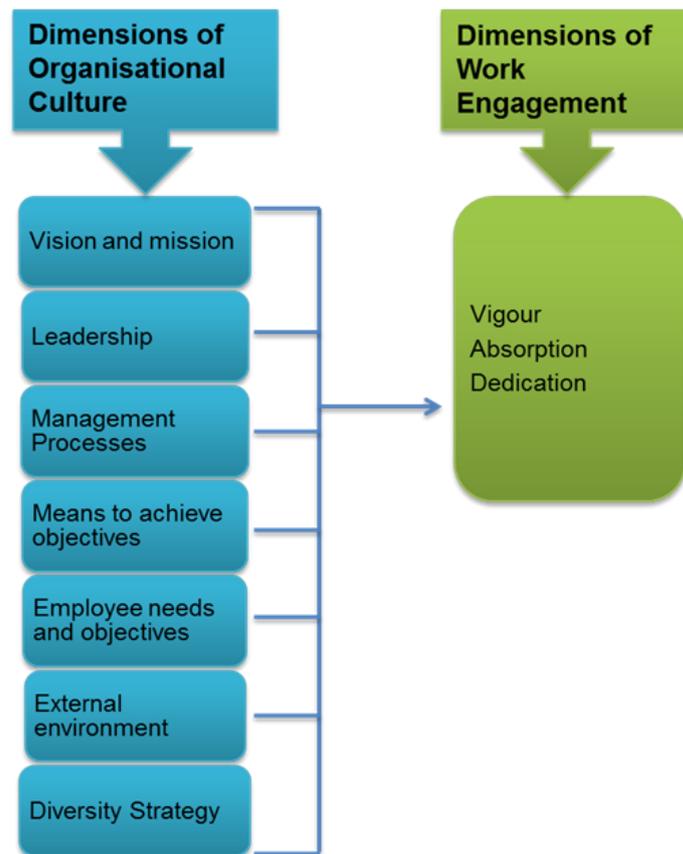


Figure 2.7. Model of organisational culture and work engagement

- (1) *Vision and mission:* These embody the core values of the organisation, and capture the hearts and minds of employee, while providing guidance and direction (Denison, 1996). Strategy and co-ordination are significant determinants for the management of organisational culture in the organisation and, for the purpose of describing the organisational culture, it is imperative to know how much clarity the organisation has about its strategic direction (Ludik *et al.*, 2008). Individuals who lack an understanding of the vision and mission, and whose values are incongruent with the organisational values, will burden the organisation, and will likely be disengaged (Martins, 1989).
- (2) *Leadership:* Leadership is inextricably linked to organisational culture, and the role of senior managers in promoting the values and culture of the organisation is a critical factor requiring on-going attention (Pillay & Pillay, 2012). When employees recognise that their immediate superiors and top management have the skilful insight and ability to augment the growth and

productivity of the organisation by making competent decisions, they are assured of a more profitable future with the organisation (Hassan & Ahmed, 2011), which may lead to a more engaged workforce. In other words, there can be an increase in work engagement amongst employees if there is a sound sense of trust in the competence and capability of immediate supervisors (Hassan & Ahmed, 2011). It is therefore likely that positive perceptions of leadership will lead to a positive culture (Hassan & Ahmed, 2011) and, in turn, a more engaged workforce.

- (3) *Management processes*: Specific goals derived from the mission and vision and the means to achieve those goals through proper training, delegation, performance management, and the management of change will be part of the culture (Champoux, 2010). Members of developed cultures have consensus on how to measure results, and what corrective steps are required if something goes wrong (Champoux, 2010). Culture directs the organisation to goal attainment (Champoux, 2010). Supervisory coaching in the form of assisting employees in locating their goals, organising their work, highlighting drawbacks, and taking a keen interest in their professional and career advancement has been positively related to work engagement (Hassan & Ahmed, 2011).
- (4) *Means to achieve objectives*: This refers to the way in which organisational structure and support mechanisms such as support services, conflict handling, physical appearance, work distribution, and co-ordination contribute to the effectiveness of the organisation. Through integration and co-ordination, these elements are intended to support and empower employees towards service delivery. In any organisation, it is vital that the necessary resources are provided to achieve key results efficiently and effectively (Pillay & Pillay, 2012). Inadequate resources may have a negative effect on work engagement.
- (5) *Employee needs and objectives*: Here the focus is on interpersonal aspects that influence the individual, such as the remuneration systems, equal opportunities, caring, trust, career planning, and participation in decision-

making. For example, organisational culture defines rewards and sanctions that managers may implement (Champoux, 2010). An organisation's approach to rewards and remuneration conveys a strong cultural message. When employees believe that certain behaviours lead to financial rewards, they are more likely to respond accordingly, thereby increasing the prospects of an engaged workforce. Caring and trust are also critical elements. Kahn (1992) indicated that employees who experience psychological safety show increased willingness to engage fully in work roles, as a consequence of supportive management and trusting interpersonal relationships. Individuals also feel safe when they have control over their work — managerial reluctance to loosen its grip on control sends a message that employees are not to be trusted (Rich, LePine & Crawford, 2010).

- (6) *External environment:* This refers to employees' understanding of the effectiveness and importance of community involvement. Community involvement and social corporate responsibility may result in not only a greater gain for society, but also greater gain for organisations, through higher work engagement, as business and society are learning that more and more employees want to bring their whole selves to work and to be part of a company that has values that are in alignment with their own, that contributes to the communities of which they are a part, and that allows employees to care about others (Alfermann, 2011).
- (7) *Diversity strategy:* This aspect focuses on the communication of the organisation's employment equity or diversity strategy. Many organisations in South Africa have miscalculated the effects associated with the process of establishing employment equity on different organisational procedures, practices, and roles, as well as on the organisation's climate and culture (Nienaber, 2007). A lack of effective communication of the underlying purpose and implementation of the employment equity and diversity strategy may lead to negative perceptions, and could potentially lead to a disengaged workforce.

The model of organisational and culture and work engagement is a comprehensive model that aims to expand the literature regarding organisational culture and work

engagement, to include a measure of overall culture, and can make a unique contribution to our understanding of employee- and organisational behaviour.

2.12. CHAPTER SUMMARY

This chapter began with a background to organisational culture, and examined the various ways in which the concept of organisational culture has been defined and conceptualised. The characteristics, functions, and dimensions of organisational culture and the various models proposed by a number of influential academics were examined. The differences between organisational culture and organisational climate were also explored, and a stance was taken regarding this debate. The concept of engagement at work was then introduced with a detailed discussion on the various definitions of the concept, followed by a review on the antecedents and outcomes of engagement at work. Through the synthesis of the literature, a theoretical relationship between an organisation's culture and engagement at work was investigated, and a model depicting the relationship between each dimension of organisational culture and work engagement respectively was proposed. Chapter 3 discusses the empirical findings of the study in the form of a research article.

CHAPTER 3

*RESEARCH ARTICLE: THE RELATIONSHIP BETWEEN ORGANISATIONAL CULTURE AND WORK ENGAGEMENT

ABSTRACT

Orientation: Extant research highlights the benefits of having an engaged workforce. Organisational culture has been identified as an antecedent to work engagement, and a framework that can facilitate higher levels of employee work engagement.

Research Purpose: The main purpose of the present study was to investigate the relationship between organisational culture and work engagement. A secondary aim was to investigate whether organisational culture predicts work engagement.

Motivation for the study: The ubiquitous and permeating nature of an organisation's culture demands that management identify the fundamental dimensions of their organisational culture and its effect on employee-related variables such as work engagement. Work engagement has been shown to be powerfully linked to a range of business success outcomes, including commitment, satisfaction, productivity, innovation, and retention. Even though a large number of studies have investigated the link between work engagement and different organisational variables, there is a dearth of scientific research on organisational culture and its impact on work engagement.

Research design, approach, and method: A quantitative research design was undertaken in a South African ICT company. Proportionate stratified random sampling targeted permanent employees from middle-management levels and below ($N = 20771$), and a sample of 3 000 employees yielded a total of 455 usable questionnaires. The SACI and UWES were administered to all participants. Descriptive statistical analysis, factor analysis, and SEM multivariate analysis, as well as reliability analysis and correlation calculations, were performed.

Main findings: Fit indices from SEM multivariate analysis confirmed the factor analysis and the validity of factor structure of the measuring instruments, with most

indices indicating the data to be a good or acceptable fit to the hypothesised model, and therefore no changes were implemented to enhance the model. In line with previous research, correlation analysis showed that all the dimensions of organisational culture correlated positively with work engagement dimensions. Furthermore, regression analysis revealed that the culture dimensions of leadership, management processes, goals, and objectives make the strongest statistically unique contribution in predicting the dimensions of work engagement.

Managerial implications: As work engagement has been shown to relate to several positive work outcomes, it makes sense for organisations to increase levels of work engagement by addressing and improving organisational culture. Furthermore, certain dimensions of culture are key determinants of level of work engagement, which in itself enhances or inhibits progress towards organisational goals.

Contribution/Value-add: Scientific understanding of the potential relationship between these constructs can be highly beneficial and contribute to the mounting body of knowledge related to the theory of organisational culture, work engagement, and positive psychology in the work domain. This study extends organisational culture and work engagement literature by empirically establishing an association between the two constructs, and broadens the psychology research focus by more fully investigating positive states.

Keywords: organisational culture, work engagement, antecedents

*Please note: the guidelines provided by the South African Journal of Industrial Psychology have been applied as a broad and general framework for the research article.

3.1. INTRODUCTION

The following section intends to clarify the focus and background of the study. General trends found in the literature will be presented, as well as the objectives and potential value added by the research.

3.1.1. Key focus of the study

For decades, researchers have determined that an organisation's culture lead to a significant competitive advantage in the business environment (Fortado & Fadil, 2012). Organisational culture is acquiring support as a predictive and explanatory construct in organisational studies (Liu *et al.*, 2006), and has been linked to job satisfaction and commitment (Silverthorne, 2004), and is perceived to be a central determinant of overall organisational efficacy (Haggard & Lapoint, 2005). The ubiquitous and permeating nature of an organisation's culture demands that organisations identify the fundamental dimensions of their organisational culture and the effect thereof on employee-related variables, such as work engagement. In a study on engagement conducted by the consulting company Right Management (2009), results showed that an organisation's culture, strategy execution, leadership ability, structure, and processes are all inter-related with engagement levels. Work engagement appears to be a good indicator of outcomes that a business values, and is thus a better barometer of organisational health (Rich *et al.*, 2010), and been shown to be powerfully linked to a range of business success outcomes, including commitment, satisfaction, productivity, innovation, and retention, and, in general, positive work outcomes (Halbesleben, 2010).

Work engagement can make a real difference for employees, and may present companies with the competitive advantage they desperately seek (Bakker, Schaufeli, Leiter, & Taris, 2008). Work engagement is measured at the individual level, with emphasis on competence, dedication, high levels of energy, and meaningfulness (Alarcon, Lyons, & Tartaglia, 2010). However, there clearly are organisational (i.e. culture, leadership, etc.) and relational (i.e. degree of role clarity and peer group affinity) factors that will influence an employee's engagement levels (Alarcon *et al.*,

2010). Thus, creating a culture that is conducive to work engagement is critical for optimal organisational outcomes. If organisations hope to retain their high performers, they must focus on enhancing positive work experiences (Alarcon *et al.*, 2010). Therefore, the focus of the present study was to investigate the relationship between each of the dimensions of organisational culture and work engagement respectively, in an effort to determine whether employees' perceptions of organisational culture are related to their level of work engagement, and to add to the contemporary research literature on organisational culture and work engagement.

3.1.2. Background to the study

Even though a large number of studies have investigated the link between work engagement and different variables, there is a dearth of scientific research on organisational culture and its impact on work engagement, despite the fact that there are several recognised organisation-level factors that impact on work engagement (Alarcon *et al.*, 2010). If an organisation does not have employees who are committed and engaged, strategy implementation and execution, as well as change, will be difficult, if not impossible (Saks, 2006). Understanding the conditions under which individuals would actively engage, while others would disengage, is highly relevant for both employees and employers (Wildermuth & Pauken, 2008). In a literature search conducted by Wildermuth and Pauken (2008) on the organisational roots of engagement, three important environmental factors were found to be connected to engagement: (1) relationships, (2) work-life balance, and (3) values. Of particular significance to the present study is the value factor that is connected to engagement and, specifically, the congruence between organisational and individual values.

Values are considered to be standards of desirability; unwritten rules according to which others are expected to behave (Maslowski, 2006). Organisational values, along with beliefs, assumptions, expectations, attitudes, philosophies, and norms, form the basis of organisational culture, and are integral to the distinct identity of every organisation (Schein, 1990). Values relate to work engagement on at least two

levels: safety and meaningfulness (Wildermuth & Pauken, 2008). Kahn (1990) found that safe jobs are predictable, clear, and open to employees' values and beliefs. Meaningfulness, on the other hand, gives employees a return on investment for their efforts and energy (Kahn, 1990). Chalofsky (2003) stated that meaningfulness is more likely to be experienced at work when there is congruence between the employee's and the organisation's values. When individuals find more meaningfulness in their work, they should, in turn, exhibit higher engagement. Thus, culture and work engagement are in danger when employees' personal values are incongruent with those of the organisation. An organisation cannot hope to build an environment where employees offer of their best if management practices, systems, and processes are not crafted on established facts regarding what leads to desired behaviour (Daniels, 2009, as cited in Ludwig & Frazier, 2012, p 77). Bhattacharya and Mukherjee (2009) stated that, in the information technology industry, work engagement, innovation, and leadership are the three pillars of creating business excellence, new technological developments, and unmatched intellectual capital. The implication that organisational culture may influence levels of work engagement may have a far-reaching impact, and the implied link between these constructs makes this an important relationship to study and understand.

3.1.3. Trends from the literature research

The following section provides a brief discussion of the literature on the constructs of organisational culture and work engagement.

3.1.3.1. Organisational culture

Studies on organisational culture have been conducted since the 1940s, but it was not until the early 1980s that interest in the concept became widespread (Alverson, 2002). Pettigrew (1979) introduced the term *organisational culture* in his seminal article titled *On studying organisational Cultures*. This was followed by a surge in the interest in organisational culture and ideal management, largely from the business discipline. Specifically, works by Deal and Kennedy (1982), Ouchi (1981), Peters and Waterman (1982), and Schein (1985) were primarily responsible for

promoting the popularity of the concept of an organisational culture. This wealth of literature offers strong support for the notion that organisational culture is an important concept in business (see, for example, Deal & Kennedy, 1982; Denison, 1990; Ouchi, 1981; Peters & Waterman, 1982, and Schein, 1988), that it may be linked to organisational effectiveness (Ott, 1989) and fundamental processes, such as leadership and governance (Schein, 1985), and that it is a fundamental component of the general performance of an organisation (Martins, Martins, & Terblanche, 2004).

Despite the fact that organisational culture is a concept that scholars, authors, and the public use regularly, it remains one of the most elusive concepts for which to obtain an agreed-upon definition. Numerous accepted definitions of organisational culture are used in the literature, which represent the epistemological backgrounds of the researchers (Bellot, 2011).

Schein's (1990) definition and variations thereof have been used by most culture researchers. Schein (1990) views culture as a more deeply rooted level of basic assumptions and beliefs that are common to individuals of an organisation, that function unconsciously, and that describe in a basic, implied manner the organisation's perception of itself and its environment. Organisational values, along with beliefs, assumptions, expectations, attitudes, philosophies, and norms, form the basis of organisational culture, and are integral to the distinct identity of every organisation (Schein, 1990). However, although organisational culture may dwell in the collective minds of organisational members, it manifests in tangible ways, such as behaviours, throughout the organisation (Campbell, 2004).

Hostede (1998) defined organisational culture as the collective indoctrination of the mind, which differentiates the members of one organisation from those of another. Alversson (2002) described culture as a relatively unified system of meanings and symbols in terms of which social interaction occurs. Social structure is perceived to be the behavioural patterns that the social interaction itself creates. Organisational culture is the context in which these elements become clear and significant; it is below the surface, and can be either valuable or limiting.

Although there seems to be no consensus regarding the definition of organisational culture, through the continued work of scholars some consistency of thought has arisen (Bellot, 2011). In this regard, Bellot (2011) postulated that:

- (1) organisational culture exists;
- (2) it is socially constructed;
- (3) it is the creation of groups, not individuals, and is based on shared experience;
- (4) cultures are intrinsically vague in that they include contradictions, paradoxes, ambiguities, and confusion; and
- (5) each organisation's culture is fairly distinctive, flexible, and subject to constant change.

The present study adopted the theoretical definition developed by Martins, who defined culture as:

... an integrated pattern of human behaviour which is unique to a particular organisation and which originated as a result of the organisations survival process and interaction with its environment. Culture directs the organisation to goal attainment. Newly appointed employee must be taught what is regarded as the correct way of behaving (Martins, 1989, p. 15).

There also seems to be a wealth of organisational culture models that attempt to explain the relationships between organisational culture and related constructs. Martins (1989) developed a model based on the work of Schein (1985), to describe organisational culture. The model is based on the interaction between the organisation's subsystems (goals, values, and structural managerial, technological, and psychosocial subsystems), the two survival functions (external environment and internal systems), and the dimensions of culture.

More relevant to the present study are the dimensions of culture, which are: vision and mission, the external environment, means to achieve objectives, the image of the organisation, management processes, employee needs and objectives,

interpersonal relationships, and leadership. The model by Martins (1989) model is comprehensive, as it encompasses all the aspects of an organisation upon which organisational culture could have an influence, and vice versa (Martins, Martins, & Terblanche, 2004). The model can thus be used to describe organisational culture, and used to determine which dimensions of organisational culture may influence work engagement in organisations.

With respect to the measurements of culture, Ostroff *et al.* (2013) stated that it may be senseless to debate the merits of using surveys (quantitative) versus case studies (qualitative), as there is too much variety in each method, and both offer valuable insight into organisational culture. In agreement with Martins and von der Ohe (2006), who stated that it may become necessary to make more use of quantitative tools (provided that they have been validated in terms of measuring the criteria they are required to measure), the present research adopted a quantitative approach to the study of organisational culture.

3.1.3.2. *Differences between organisational culture and organisational climate*

Research has placed a great deal of emphasis on whether culture and climate are different or similar, and, more recently, looked at how and why these two constructs can be interrelated, to offer a more complete and parsimonious interpretation of higher-order social structures of an organisation (Ostroff *et al.*, 2013). The most accepted definition of climate is “the relatively enduring organisational environment that (a) is experienced by the occupants, (b) influences their behaviour, and (c) can be described in terms of the values or a particular set of characteristics or attributes of the environment” (Tagiuri & Litwin, 1968, p. 25, as cited in Bellot, 2011, p. 32). Schneider *et al.* (2013) defined organisational climate as the shared perceptions of and meaning attached to the policies, practices, and procedures employees experience.

According to Denison (1996), climate focuses on the situation and its link to perceptions, feelings, and behaviours of employees, and can be perceived as temporal, subjective, and perhaps susceptible to influence by authority figures. Whilst climate is about experiential perceptions of what happens, culture helps to

explain why it happens. Climate is more immediate than culture, and individuals can sense climate upon entering an organisation. Climate is vested within individuals and their perceptions of the organisational context, whilst culture is a property of the collective (Ostroff *et al.*, 2013). Climate develops from the deeper core of culture. The focal point is that these two concepts exist in work settings and, contrary to general belief, they are not mutually exclusive (Ashkanasy & Jackson, 2001).

The present study adopted the view taken by Denison (1996) and Schneider (2000), who stated that culture and climate are not strongly differentiated, but are complementary constructs that represent different but overlapping interpretations of the nuances in the psychological life of organisations.

3.1.3.3. *Work engagement*

The discussion of and interest in work engagement has been escalating in human resource development, psychology, management, and in occupational health care communities (e.g., see Bakker *et al.*, 2008; Luthans, Norman, Avolio, & Avey, 2008; Rich, Lepine, & Crawford, 2010; Christian, Garza, & Slaughter, 2011; Shuck *et al.*, 2011), and within the context of the broader field of positive organisational behaviour (Bakker & Schaufeli, 2008), with an emphasis on positive aspects of organisational life (Sonnetag, 2011).

According to a review by Simpson (2008), the definition and measurement of engagement at work is not adequately understood, despite the fact that it has surfaced as a possible key area of focus in organisations. According to Macey and Schneider (2008), what is universal to these definitions is the idea that engagement is a condition that is sought after, has organisational purpose, and implies involvement, commitment, passion, enthusiasm, directed effort, and energy, suggesting both attitudinal and behavioural elements.

Simpson (2008) identified four types of engagement, namely personal engagement as defined by Kahn (1990), burnout/engagement as defined by Maslach and Leiter (1997), employee engagement as defined by Harter, Schmidt, and Hayes (2002),

and work engagement as defined by Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002).

Kahn (1990) was the first to conceptualise engagement, defining personal engagement as the concurrent manifestation and expression of an individual's ideal self in task behaviours that encourage a connection to work and to others, a connection to personal presence (physical, cognitive, and emotional), and a connection to active, full role performance.

Similar to Kahn's (1990) definition, the definition and model of engagement offered by Harter *et al.* (2002) arose over the course of 30 years of research conducted by the Gallup Organisation. According to Harter *et al.* (2002), engagement is defined as a person's involvement and satisfaction with and enthusiasm for work. Engagement ensues when one is emotionally attached and cognitively aware.

Another approach to engagement was steered by Maslach and Leiter (1997), who postulated that engagement exists on a continuum, and is the direct opposite of the three burnout dimensions, namely exhaustion, cynicism, and a sense of inefficacy. However, according to Schaufeli and Salanova (2011), burnout and engagement are exclusive of one another; individuals undergoing low burnout may not be undergoing high engagement, and vice versa, which led Schaufeli *et al.* (2002) to operationalise work engagement as distinct from burnout.

Work engagement as defined by Schaufeli *et al.* (2002, p. 74) is

... a positive, fulfilling, work-related state of mind that is characterized by vigour, dedication, and absorption. Rather than a momentary and specific state, engagement refers to a more persistent and pervasive affective-cognitive state that is not focused on any particular object, event, individual, or behaviour.

Furthermore, work engagement, according to Schaufeli *et al.* (2002), consists of the following:

- (1) *Vigour*, which refers to an elevated degree of energy and mental stamina while working, the motivation to devote effort to one's work, and determination, even in the face of hardships.
- (2) *Dedication*, which refers to being highly involved in one's work and experiencing a sense of meaning, eagerness, inspiration, pride, and challenge.
- (3) *Absorption*, which is characterised by being totally concentrated and contentedly immersed in one's work, whereby time elapses swiftly, and one has difficulty disconnecting oneself from work.

Vigour and dedication are regarded as direct opposites of exhaustion and cynicism, respectively, the two core symptoms of burnout (Schaufeli & Taris, 2005). The term *energy* represents the continuum that extends between dedication and exhaustion, whilst *identification* refers to the continuum that extends between dedication and cynicism (Gonzalez-Roma, Schaufeli, Bakker, & Lloret, 2006). After in-depth interviews, absorption was included as the third component of work engagement (Schaufeli *et al.*, 2002).

In engagement, fulfilment exists in contrast to the hollowness of life that leaves people with a feeling of emptiness, as happens in burnout (Schaufeli & Bakker, 2010). The key reference for Kahn (1990, 1992) is the work role, whereas for those who consider engagement the positive antithesis to burnout, the key lies in the employee's work activity or the work itself (Schaufeli & Bakker, 2010).

Most academics agree that engagement contains an energy dimension and an identification dimension, and thus work engagement is characterised by high levels of energy and strong identification (Bakker *et al.*, 2008).

The present researcher agrees with the argument presented by Bakker, Schaufeli, Leiter, and Taris, (2008) that the field of engagement at work is best served by a consistent definition for work engagement, one that addresses employees' experience of work activity. The present study therefore adopted the definition of work engagement as postulated by Schaufeli *et al.* (2002).

The strong appeal and legitimacy of work engagement can be attributed to the multitude of studies that reported the strong relationship between engagement and organisational performance. Many studies support the relationship between high engagement levels and the following outcomes: commitment (Halbesleben, 2010; Saks 2006), financial profit (Harter, Schmidt, & Hayes, 2002), improved performance (Bakker & Bal, 2010), in terms of improved inter-role and extra-role behaviour (Saks, 2006), enhanced job satisfaction (Saks, 2006), managerial effectiveness (Luthans & Peterson, 2002), better individual performance (Kahn, 1990), greater business unit performance (Harter *et al.*, 2002), and proactive behaviour (Salanova & Schaufeli, 2008). Harter *et al.* (2002) postulated that engagement is linked to meaningful business outcomes on a scale that is highly significant to many organisations.

3.1.3.4. *The relationship between organisational culture and work engagement*

Antecedents of work engagement may be situated at the level of the organisation, in interpersonal and social relations, in the organisation of the task, or at the level of the task (Bakker, Demerouti, & Verbeke, 2004). Despite this, there are only a few studies that have investigated organisation-level antecedents, and even fewer that specifically investigated organisational culture and work engagement. Wollard and Shuck's (2011) quantitative review revealed that, among the 42 potential antecedents of work engagement, the roles of culture and micro-cultures have been empirically shown to be organisational antecedents to work engagement (Brown & Leigh, 1996; Shuck *et al.*, 2011). Furthermore, culture as an organisational dimension is generally perceived to be beyond an employee's direct control, but often within a leader's or a manager's circle of influence, implying a conceptual relationship between leader behaviour and employee engagement (Shuck & Herd, 2012).

Greenidge (2010) showed that leaders who displayed a positive communication style led organisations that maintained a positive culture, and the more positive the leaders' communication style, the more engaged the employees appeared to be, whilst those with a negative style managed organisations with a negative culture. While investigating predictors of work engagement, Alarcon, Lyons, and Tartaglia

(2010) found that leaders affects work engagement through their influence on the environment, and through employees' perceptions of role clarity, rather than having a direct effect, consistent with leadership theory that contends that a key aspect of leadership is to clarify the roles of the workers, as well as to foster a productive organisational culture (Alarcon *et al.*, 2010).

In addition, supportive organisational culture and authentic and positive workplace climates have been shown to enhance the conditions of work engagement in several studies (Wollard & Shuck, 2011; Alarcon *et al.*, 2010, Saks, 2006, Bakker *et al.*, 2007; Halbesleben, 2010). According to Wollard and Shuck (2011), the organisational aspect of creating a supportive organisational culture is certainly related to perceived organisational support.

Remuneration and reward systems have also shown to drive potential conditions for work engagement (Bhattacharya & Mukherjee, 2009). Since reward strategies play a crucial part in reflecting organisational culture, organisations need to adapt their reward strategy to their own specific business goals (Bhattacharya & Mukherjee, 2009). Sadar, Rehman, Yousuf, and Aijaz (2011) also found a significant relationship between work engagement and HR practices (decision-making/co-ordination, performance reward systems, and employee involvement). Involvement, for example, is a key cultural trait, characterised by empowerment, team orientation, and investment in the development of employees' skills and capabilities (Ludik, Smit, & Forste, 2008). The HRD climate (general climate, culture of openness, confrontation, trust, autonomy, proactivity, authenticity, collaboration, and implementation of HRD mechanisms) and self-efficacy were also found to be significant predictors of work engagement (Chaudhary *et al.*, 2012). Management influences culture and climate by way of organisational practices (Rostila *et al.*, 2011). Brown (2011) demonstrated that various management practices, which include a focus on employees' professional development, teambuilding, aligning employees' goals with the organisational goals, and setting clear and reasonable expectations, positively predicted their work engagement, as measured by the *Vigour* component.

Research has also shown that community involvement and social corporate responsibility may result in not only a greater gain for society, but also greater gain for organisations, through higher work engagement, (Alfermann, 2011; Yener *et al.*, 2012). The embedding of social responsibility values in organisational discourses and practices often leads to the creation of a corporate social responsibility culture that, over time, permeates the broader culture of the organisation (Duarte, 2010).

The role of culture as an antecedent to work engagement is evident in the research findings mentioned above, highlighting the need for a more detailed analysis of the way in which organisational variables such as organisational culture influence work engagement, and the ways in which managers might implement policies and practices (Linz, Good, & Huddleston, 2006). Based on the Martins (1989) model of organisational culture and the UWES model of work engagement (Schaufeli *et al.*, 2002), a hypothesised model of the relationship between each of the dimensions of organisational culture (and their respective determinants) and work engagement respectively is presented in Figure 3.1. At the overt level, culture implies the existence of dimensions or characteristics that are closely related and interdependent (van der Post *et al.*, 2007). These dimensions include:

- (1) *Vision and mission*: This embodies the core values (Denison, 1996), and individuals who lack an understanding of the vision and mission, and whose values are incongruent with the organisational values, will burden the organisation, and will likely be disengaged (Martins, 1989).
- (2) *Leadership*: Leadership is inextricably linked to organisational culture (Pillay & Pillay, 2012), and there can be an increase in work engagement amongst employees if there is a sound sense of trust in the competencies and capability of their immediate supervisors (Hassan & Ahmed, 2011).
- (3) *Management processes*: Specific goals derived from the mission and vision and the means to achieve those goals through proper training, delegation, performance management, and the management of change will be part of the culture (Champoux, 2010). For example, supervisory coaching in the form of assisting employees in locating their goals, organising their work, highlighting

drawbacks, and taking a keen interest in their professional and career advancement has been positively related to work engagement (Hassan & Ahmed, 2011).

- (4) *Means to achieve objectives:* The organisational structure and support mechanisms are intended to support and empower employees towards service delivery (Pillay & Pillay, 2012). Inadequate resources and support may have a negative effective on work engagement.
- (5) *Employee needs and objectives:* An organisation's approach to remuneration systems, equal opportunities, caring, trust, career planning, and participation in decision-making conveys a strong cultural message. When employees believe that certain kinds of behaviours lead to financial rewards, they are more likely to respond accordingly, thereby increasing the prospects of an engaged workforce. Employees experience psychological safety as a consequence of supportive management and trusting interpersonal relationships, and this feeling of safety increases their willingness to engage fully in their work roles (Kahn, 1992).
- (6) *External environment:* Community involvement and social corporate responsibility may not only result in a greater gain for society, but may also lead to greater gain for organisations, through higher work engagement, as business and society are learning that more and more employees want to bring their whole selves to work and to be part of a company whose values are in alignment with their own, that contributes to the communities of which they are a part, and that allows employees to care about others (Alferman, 2011).

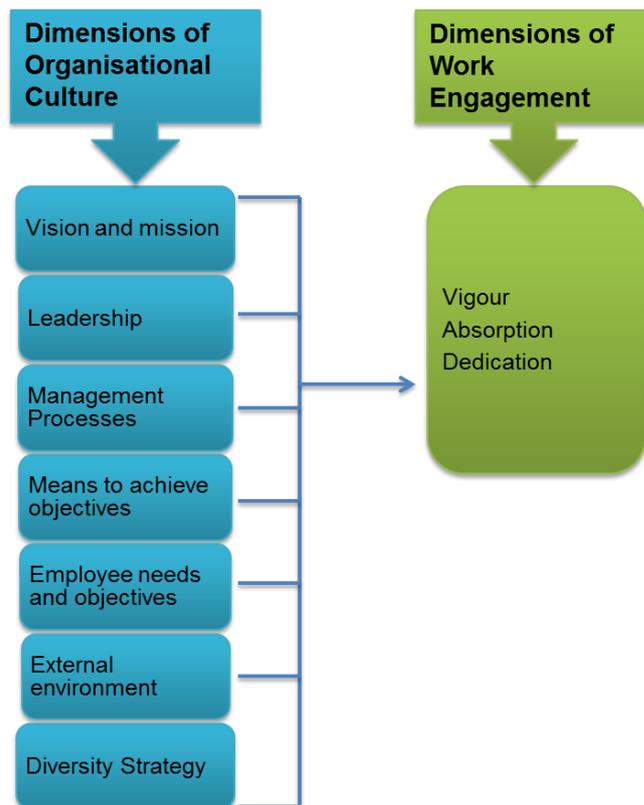


Figure 3.1 Model of organisational culture and work engagement

- (7) Diversity strategy: Many organisations in South Africa have miscalculated the effects of the process of establishing employment equity on different organisational procedures, practices, and roles, as well as on the organisation's climate and culture (Nienaber, 2007). A lack of effective communication of the underlying purpose and implementation of the employment equity and diversity strategy may lead to negative perceptions, and could potentially lead to a disengaged workforce.

Figure 3.1 provides a comprehensive model that aims to expand the literature regarding organisational culture and work engagement, to include a measure of overall culture, and can make a unique contribution towards our understanding of employee- and organisational behaviour.

In the light of the literature study, the following hypotheses were empirically tested:

- H1: There is a statistically significant positive correlation between each of the dimensions of organisational culture and work engagement respectively.

H2: Organisational culture is a statistically significant predictor of work engagement.

3.1.4. Research objectives

The main objectives of the study were to: (1) investigate the relationship between each of the dimensions of organisational culture and work engagement respectively, and (2) to determine if organisational culture is a statistically significant predictor of work engagement.

3.1.5. Potential value-add of the study

Scientific understanding of the potential relationship between these constructs can be highly beneficial, and will contribute to the mounting body of knowledge related to the theory of organisational culture and work engagement, as well as to positive psychology in the work domain. The role of organisational culture as an antecedent to work engagement is evident from the research findings of the present study, and an investigation of the relationship between organisational culture and work engagement can make a unique contribution towards our understanding of employee- and organisational behaviour. The present study extends organisational culture and work engagement literature by empirically establishing an association between the two constructs.

3.1.6. What will follow

The following section will provide an explanation of the research design, outlining the research approach and method applied. The results will then be presented, followed by a discussion of the findings, with a focus on significant results and the interpretation of these in the light of previous research. Conclusions will be presented and discussed, and limitations pointed out. Finally, implications for practice and recommendations for future research will be proposed.

3.2. RESEARCH DESIGN

Mouton and Marais (1996) defined a research design as the planning and structure of any given research project, which served as the blueprint for the present study. The research design and the methodology were outlined in Chapter 1.

3.2.1. Research approach

A scientific quantitative survey was used to achieve the research objectives and to test the hypotheses. SEM multivariate analysis was used to confirm the factor analysis and the validity of factor structure of the measuring instruments, and to determine the fit of the data to the hypothesised model. Correlation and regression data analysis techniques were applied, which offered plausible ex post facto explanations for the relationships between each of the dimensions of organisational culture and work engagement respectively, and the predictive value of the dimensions of organisational culture.

3.2.2. RESEARCH METHOD

3.2.2.1. Participants and sampling

The sample consisted of 3 000 permanent employees from middle-management levels and below in an ICT company in South Africa (N=20771). Proportionate random stratified sampling was implemented, which allowed the researcher to sample the rare extremes of the population for higher statistical precision, compared to random sampling. The sample size of each stratum was proportionate to the population size of the stratum when viewed against the entire population. This means that each stratum had the same sampling fraction (Marczyk, DeMatteo, & Festinger, 2005).

A total of 455 usable questionnaires were received, which yielded a response rate of 15.14%. As seen in Table 3.1, most participants were male (70.8%). The majority of the respondents were White (39.6%), followed by Black (38%), Coloured (13.2%), and Indian (9.2%). This suggested an adequate representation of the organisation's

labour force. The mean age of the sample was 42.51, suggesting a mature workforce. The majority of the sample comprised employees at an operational level (62.4%) (See Table 3.1).

Table 3.1

Biographical and demographic profile of the respondents (N= 455)

Item	Category	Frequency (f)	Percentage (%)
Gender	Male	322	70.8
	Female	133	29.2
Race	African	173	38
	Coloured	60	13.2
	Indian	42	9.2
	White	180	39.6
Age	20-29	38	8.4
	30-39	132	29
	40-49	180	39.6
	50+	105	23
Job level	Management	35	7.7
	Operational	284	62.4
	Specialist	99	21.8
	Supervisor	37	8.1
Region	Central	25	5.5
	Corporate	122	26.8
	Eastern	47	10.3
	Gauteng Central	75	16.5
	North Eastern	80	17.6
	Southern	34	7.5
	Western	72	15.8

3.2.2.2. *Measuring instruments*

The web-based questionnaire consisted of two sections. In Section 1, the demographic and biographical data were collected (See Annexure A1), and in the second section, the two scales used to measure the selected variables were included.

- **The Utrecht Work Engagement Scale (UWES)**

The UWES was developed by Schaufeli *et al.* (2002), and is aimed at measuring the participants' work engagement. The instrument consists of 17 items, which are

scored on a 7-point frequency scale, ranging from *Never* (0) to *Daily* (6). The measure has three sub-scales, namely *Vigour*, *Dedication*, and *Absorption* (Schaufeli *et al.*, 2002).

A typical item for *Vigour* is: "When I get up in the morning, I feel like going to work." A typical item for *Dedication* is: "My job inspires me." A typical item for *Absorption* is: "I am immersed in my work." A high score indicates high levels of engagement. The internal consistency of the measure ranges from a Cronbach alpha coefficient of 0.68 to one of 0.91 (Schaufeli *et al.*, 2002). In the South African context, Storm and Rothmann (2003) confirmed a three-factor structure for the UWES, reporting Cronbach alpha coefficients of 0.78 for *Vigour*, 0.89 for *Dedication*, and 0.78 for *Absorption*, for a sample of 2 398 South African police officers.

- **The South African Culture Instrument (SACI)**

The SACI was locally developed for the SA context, and measures the extent to which employees identify with the various elements of the organisation's existing and ideal culture (Martins & Coetzee, 2007).

The overall reliability (Cronbach alpha coefficient) of the SACI was measured at 0.933, and the internal consistency of the dimensions ranged from 0.655 to 0.932 (Martins, Martins, & Terblanche, 2004). The questionnaire comprises the following seven dimensions:

- Leadership;
- Means to achieve objectives;
- Management processes;
- Employee needs and objectives;
- Vision and mission;
- External environment; and
- Diversity strategy

Respondents make use of a 5-point Likert scale to rate each statement. A low rating (1) indicates that the respondent strongly disagrees, and a high rating (5) indicates strong agreement. A typical question for the *Leadership* dimension is: “My immediate manager sets an example everyone can follow – he/she walks the talk.” A typical question for *Means to achieve objectives* is: “Conflict between divisions/functions in the company does not cause a waste of resources.” The questionnaire is scored for each of the dimensions. All factors are scored such that a low score indicates non-acceptance of the cultural dimension, while a high score indicates acceptance (Martins & Coetzee, 2007). The validity and reliability of the questionnaire is discussed in the next section.

3.2.2.3. *Research procedure*

Permission to conduct the study was obtained from the management of the organisation within which the study was conducted. The survey was conducted with a web-based questionnaire application. In a pilot study, the Universal Resource Locator (URL) of the online survey was sent via e-mail to 50 employees, randomly selected from the target population, to obtain an indication of any complications that could arise during the main roll-out to the entire sample. After receiving no reported concerns from the pilot group, the survey questionnaires were sent electronically via the company’s electronic communication system to the sample of 3 000 permanent employees, requesting them to participate in the survey. A personal invitation was sent to each person in the sample, with the URL of the online survey attached to the e-mail.

As the questionnaires were completed online, they were collated electronically. In the invitation e-mail, it was clearly stated that participation was voluntary, and that no information provided would be linked to the identity of a specific person (i.e. anonymity would not be compromised), and no incentives were provided to encourage participation. The collected information was captured via a database management system commonly referred to as Structured Query Language (SQL), which was also used to monitor and ensure that all the electronically submitted questionnaires were received correctly. The collected data were analysed and

cleaned by eliminating incomplete responses and extreme scores (outliers). The collected data were included in the final data set for statistical analysis.

3.2.2.4. Statistical analysis

The University of South Africa's statistical department analysed the data using the Statistical Program for Social Science (SPSS) Version 20 for Windows (Pallant, 2007) and Analysis of Moment Structures (AMOS) (Arbuckle, 2010). The statistical techniques employed were descriptive statistical analysis, factor analysis, and SEM multivariate analysis, reliability analysis, correlation, and regression analysis.

3.3. RESULTS

The purpose of the research study was to investigate the relationship between each of the dimensions of organisational culture and work engagement respectively, and to determine if the dimensions of organisational culture are able to predict the dimensions of work engagement. In this section, factor- and SEM analysis, the reliability, and intercorrelations of the measuring instruments are presented. This is followed by multiple regression analysis to test Hypothesis 2.

3.3.1. Factor and reliability analysis of the SACI

The SACI, developed by Martins (1989), was used to measure organisational culture. The instrument consists of 89 items and, of these, 60 were used in the present study. These 60 items were categorised into seven dimensions in the questionnaire. The underlying structures of the SACI used in the research were determined through principle component factor analysis, a statistical method that estimates how much variance due to common factors is shared between a set of variables (communality) (Pallant, 2007). The KMO-MSA and Bartlett's test of sphericity were used to establish the suitability of the item inter-correlation matrices of all the measuring scales of the data for the SACI for factor analysis (Pallant, 2007). As per Table 3.2, the KMO-MSA value was measured at 0.952, which exceeded the recommended value of 0.6, supporting the factorability of the

correlation matrix, whilst Bartlett's test of sphericity reached statistical significance ($p=.000$), indicating suitability for factor analysis (Pallant, 2007).

Table 3.2

The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy (MSA) and Bartlett's Test of Sphericity of the South African Culture Instrument

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.952
	Approx. Chi-Square	18352.36
Bartlett's test of sphericity	df	1770
	Sig.	0

Ten factors were postulated according to Kaiser's criterion, and extracted by means of a principal component analysis, also called principal axis factoring. All components with an eigenvalue of less than 1 were eliminated, which resulted in a total of ten components.

The factor matrix obtained was rotated to simple structure by means of Varimax rotation. Factors with fewer than three items were eliminated, because a factor with fewer than three items is generally considered weak and unstable (Costello & Osborne, 2005). Factor 10, which was composed of only two items, was therefore eliminated.

To reduce the number of factors further, Factors 7 and 8, which had two items each, were combined into one factor and renamed (*External and internal environment*). An item correlation analysis indicated that the Cronbach alpha was 0.79; therefore, this combination was acceptable.

Lastly, Factor 9 was eliminated due to cross-loading with Factor 1. Factor 2 was separated into two different factors and renamed accordingly (*Strategy and change management* and *Goals and objectives*) to reflect more accurately the determinants that were being measured. It was decided to retain the following seven factors for further investigation and analysis.

- (1) *Leadership* (determinants included: setting an example, people management, managing the work, and competence/skills);
- (2) *Strategy and change management* (determinants included: management of change, understanding of the vision and mission, informed regarding strategy, integration of core values, and measurable standards);
- (3) *Employee needs and objectives* (determinants included: remuneration, equal opportunities, openness/trust, and participation in decision-making);
- (4) *Means to achieve objectives* (determinants included: conflict management work distribution and co-ordination, organisational structure, performance evaluation, and retention);
- (5) *Management processes* (determinants included: commitment to change, rules and regulations, work procedures and methods, and setting and implementing of goals);
- (6) *Goals and objectives* (determinants included: understanding the organisation's goals, and aligning one's own goals to the goals, objectives, and mission of the organisation); and
- (7) *External and internal environment* (determinants included: community involvement, communication, and understanding of EE/diversity strategy).

The overall reliability of the SACI (Cronbach alpha coefficient) was 0.967. The reliability coefficients ranged from 0.727 to 0.944, which indicated that the internal consistency of the SACI is acceptable (see Table 3.3). According to Pallant (2007), Cronbach alpha coefficients of 0.70 or higher are considered acceptable.

3.3.2. Descriptive statistics

The culture of the organisation was measured using the SACI, and work engagement was measured using the UWES, both discussed earlier in this chapter. The descriptive statistics, presented in Table 3.3 and Table 3.4, was computed for the various dimensions assessed by both questionnaires.

3.3.2.1. *Descriptive and reliability statistics of the South African Culture Instrument (SACI)*

The questions of the SACI can be found in Annexure A3. The descriptive statistics of the dimensions of the SACI appears in Table 3.3, which includes the mean, standard deviation, skewness, and kurtosis. All dimensions had a negative skewness, suggesting an overall positive tendency towards *Organisational culture*. This finding is supported by the fact that a slight majority of dimensions had a mean value greater than the middle category (3.2), with an overall mean score of 3.27 across all dimensions (on a scale of 1-5, *Strongly disagree* to *Strongly agree*).

Table 3.3

Descriptive statistics and reliabilities for the dimensions of the South African culture instrument

	N	Mean	Std. Deviation	Skewness	Kurtosis	Cronbach's alphas
Leadership	455	3.54	0.85	-0.65	-0.04	0.94
Strategy and change management	455	3.06	0.81	-0.36	-0.41	0.91
Employee needs and objectives	455	2.83	0.87	-0.11	-0.81	0.89
Means to achieve objectives	455	3.02	0.77	-0.25	-0.51	0.86
Management processes	455	3.30	0.71	-0.39	-0.20	0.86
Goals and objectives	455	3.99	0.66	-0.70	1.36	0.73
External and internal environment	455	3.61	0.75	-0.44	0.18	0.79

Mean scores were used to summarise the culture of the organisation, and to distinguish between possible positive and negative perceptions, with scores above 3.2 indicating a positive perception and scores below 3.2 indicating a negative perception of that dimension. According to the Human Sciences Research Council (1994, as cited in Odendaal & Roodt, 1998), research shows that an average of 3.20

can be seen as a reasonable cut-off point to differentiate between positive and negative perceptions.

Goals and objectives (3.99), followed by *External and internal environment* (3.60), *Leadership* (3.54), and *Management processes* (3.30) were positively perceived by employees, meaning that the majority of the organisational culture dimensions were positively viewed by employees. Among those dimensions that were perceived negatively was *Employee needs and objectives*, which scored the lowest, with a mean score of 2.83, suggesting that employees view aspects such as the remuneration systems, equal opportunities, trust and openness, and participation in decision-making negatively. *Means to achieve objectives* was seen as slightly negative (3.02), suggesting that employees perceived aspects such as support services, conflict handling, physical appearance, and work distribution and co-ordination as negative. *Strategy and change management* (3.06) was also seen as somewhat negative, indicating that employees viewed employee's awareness of management of change, understanding of the vision and mission, being informed regarding strategy, integration of core values, and having measurable standards as negative. Table 3.3 also provides reliability statistics of all the dimensions of the questionnaire.

3.3.2.2. *Descriptive and reliability statistics of the Utrecht Work-engagement Scale (UWES)*

The questions of the UWES can be found in Annexure A2. The descriptive statistics of the sub-dimensions of the UWES appears in Table 3.4. Table 3.4 illustrates that all sub-dimensions had a strongly negative skewness, suggesting a positive tendency towards work engagement. This outcome was to be expected, as the tool was developed to give negatively skewed results (Schaufeli *et al.*, 2002).

Table 3.4 also provides reliability statistics of all the sub-dimensions of the questionnaire. The alpha coefficients of all three sub-dimensions ranged from 0.85 to 0.87, indicating internal consistencies within the recommended range. The overall reliability of the UWES was 0.949.

Table 3.4

Descriptive statistics and reliabilities for the dimensions of the Utrecht Work Engagement Scale

	N	Mean	SD	Skewness	Kurtosis	Cronbach's Alphas
Vigour	455	4.56	1.16	-1.04	0.70	0.87
Dedication	455	4.63	1.27	-1.16	0.93	0.89
Absorption	455	4.44	1.19	-1.01	0.55	0.85

3.3.3. Structural equation modelling

In SEM using AMOS (Arbuckle, 2010), the emphasis is on the relationship between theoretical constructs, represented by latent factors, and extends confirmatory factor analysis by looking at direct, indirect, and total effects among latent variables (Schreeber *et al.*, 2006). However, for the purposes of the present study, the SEM was used only to confirm the factor structure of the measuring instruments, and to determine whether the hypothesised model provided a good fit to the data (Hox & Bechger, 1998). In accordance with the two-step procedure suggested by Anderson and Gerbing (1988), prior to testing the hypothesis, confirmatory factor analysis (CFA) was performed on the data from 455 participants, to examine reliability and convergent and discriminant validity of the multi-item construct measures, using AMOS.

When establishing the fit of the model, a chi-square of 145.356 on 34 degrees of freedom with a p value = 0.000 ($N=455$) was found. Chi-square is the historic measure for evaluating overall model fit, and measures the degree of discrepancy between the sample and fitted covariance matrices (Hu & Bentler, 1999). The chi-square statistics was significant at the 0.001 significance level ($p = 0.000$). However, as the chi-square is almost always statistically significant for large samples ($N>400$), (Bentler & Bonnet, 1980), as in the present study, researchers have suggested that alternative measures be implemented to assess the fit of the model.

Among the most common measures, reported by Schreiber *et al.* (2006) are:

- (1) *Normed Fit Index (NFI)* (Bentler & Bonnet, 1980), which assesses the model by comparing the χ^2 value of the model to the χ^2 of the null model (Hooper, Coughlan, & Mullen, 2008). Hu and Bentler (1999) indicated values $\geq .95$ for acceptance of the model.
- (2) *Non-Normed Fit Index (NNF, also referred to as TLI)* is an index that adjusts the proportion of explained variance for model complexity (Hu & Bentler, 1999). Hu and Bentler (1999) indicated values $\geq .95$ for acceptance of the model.
- (3) *Incremental Fit Index (IFI)* (Bollen, 1989) or *Comparative Fit Index (CFI)* (Bentler, 1990) is an index that describes the proportion of explained variance. Hu and Bentler (1999) indicated values $\geq .95$ for the CFI as indicative of a good fit.
- (4) *Root mean square error of approximation (RMSEA)* is an index based on standardised residuals such as root mean square error of fit index, and tells us how well the model, with unknown but optimally selected parameter estimates, would fit the population's covariance matrix (Byrne, 1998, Steiger, 1990). MacCallum, Browne, and Sugawara (1996) used 0.01, 0.05, and 0.08 to indicate excellent, good, and mediocre fit respectively.
- (5) *Standardized root mean square residual (SRMR)* refers to the square root of the difference between the residuals of the sample of the covariance matrix and the hypothesized covariance model (Hooper, Coughlan, & Mullen, 2008). The closer the SRMR is to 0, the better the model fit is (Hooper, Coughlan, & Mullen, 2008). Hu and Bentler (1999) indicated values $\leq .08$ as acceptable.

Table 3.5 provides fit indices for the model. An inspection of these goodness-of-fit indices established that this model demonstrated good to acceptable fit (NFI = .952; TLI = .950; IFI = .963; CFI = .963; RMSEA = .085; SRMR = .0488). Since most indices indicated that the model was a good or acceptable fit, no changes were implemented to enhance the model. The SEM multivariate analysis technique confirmed the factor analysis results and the validity of factor structure of the

measuring instruments. Secondly the results indicated that the model provided is a good fit to the data.

Table 3.5:

Goodness-of-fit statistics for the hypothesised model

Model	χ^2	χ^2/df	NFI	TLI	IFI	CFI	RMSEA	SRMR
Default Model	145.36	34	.952	0.95	0.963	0.963	0.085	0.0488

3.3.4. Inter-Correlations between dimensions

Intercorrelations between the dimensions were calculated using Pearson's product-moment correlation coefficient to measure the nature and the strength of the relationship between the variables. As Cohen (1988) stated, correlations between values of $r(n) = .1$ and $.3$ pose a small effect, $r(n) > .3$ to $.5$ pose a moderate effect, and those greater than $r(n) = .5$ pose a large effect size. Anything less than $r(n) = .1$ is not statistically significant. The intercorrelation matrix for the study is presented in Table 3.6.

The intercorrelation matrix, reflected in Table 3.6, was used for testing H1, which stated that each of the dimensions of organisational culture is positively related to the dimensions of work engagement. It was found that all the dimensions of organisational culture were positively related to all the dimensions of work engagement. Thus there is a statistically significant relationship between each of the dimensions of organisational culture and work engagement respectively. The OC variable *Leadership* correlated significantly and positively with *Vigour* ($r = .378$; medium effect; $p, \leq 0.01$), *Dedication* ($r = .316$; medium effect; $p, \leq 0.01$), and *Absorption* ($r = .316$; medium effect; $p, \leq 0.01$).

Table 3.6:

Inter-correlations matrix (Pearson correlations) of different constructs

		1	2	3	4	5	6	7	8	9	10
1	Leadership	1									
2	Strategy & change management	.477**	1								
3	Employee needs and objectives	.489**	.727**	1							
4	Means to achieve objectives	.522**	.712**	.593**	1						
5	Management processes	.568**	.752**	.665**	.712**	1					
6	Goals and objectives	.277**	.500**	.376**	.347**	.405**	1				
7	External and internal environment	.272**	.552**	.550**	.409**	.479**	.436**	1			
8	Vigour	.378**	.358**	.306**	.322**	.409**	.360**	.260**	1		
9	Dedication	.316**	.354**	.294**	.310**	.392**	.326**	.242**	.861**	1	
10	Absorption	.316**	.312**	.278**	.254**	.332**	.265**	.220**	.808**	.812**	1

** . Correlation is significant at the 0.01 level (2-tailed). $r = \geq 0.1 \geq 0.3$ - small practical effect; $r = \geq 0.30 \leq 0.49$ – medium practical effect; $r \geq 0.50$ – large practical effect

The OC dimension *Strategy and change management* correlated significantly and positively with *Vigour* ($r = .358$; medium effect; $p, \leq 0.01$), *Dedication* ($r = .354$; medium effect; $p, \leq 0.01$), and *Absorption* ($r = .312$; medium effect; $p, \leq 0.01$). The OC dimension *Management processes* correlated significantly and positively with *Vigour* ($r = .409$; medium effect; $p, \leq 0.01$), *Dedication* ($r = .392$; medium effect; $p, \leq 0.01$), and *Absorption* ($r = .332$; medium effect; $p, \leq 0.01$). However, a statistically significant weak relationship was found between *Employee needs and objectives* and *Dedication* and *Absorption*; between *Means to achieve objectives* and *Absorption*; between *Goals and objectives* and *Absorption*; and between *External and internal environment* and *Dedication*, *Vigour*, and *Absorption*.

Based on the above, H1: There is a significant positive relationship between each of the dimensions of organisational culture and work engagement respectively, is accepted.

3.3.5. Inferential statistics: Multiple regression

3.3.5.1. Regression analysis for dependent variable: Vigour

According to Table 3.7, the dimensions of organisational culture explained 22.8% of the variance in *Vigour*. This finding was confirmed by the significance of the F-value ($p \leq 0.000$) in the ANOVA calculation. *Goals and objectives* made the strongest statistically unique contribution in predicting *Vigour* ($\beta = 0.218$; $p \leq 0.000$). This was followed by *Management processes* ($\beta = 0.216$; $p \leq 0.01$) and *Leadership* ($\beta = 0.207$; $p \leq 0.000$), indicating that these organisational culture dimensions made a slightly less but nonetheless statistically unique contribution in predicting *Vigour*. The association between the organisational culture variables of *Strategy & change management*, *Employee needs and objectives*, *Means to achieve objectives*, and *External and internal environment* with *Vigour* was insignificant ($\beta = 0.003$, $p = 0.965$; $\beta = -0.031$, $p = 0.629$; $\beta = -0.010$, $p = 0.881$ and $\beta = 0.024$, $p = 0.643$), suggesting that these variables did not make a significant contribution to the prediction of *Vigour*. Based on the above, H2: The dimensions of organisational culture are statistically significant predictors of the dimensions of work engagement, is partially accepted.

Table 3.7:

Multiple Regression Analysis: Model Summary, ANOVA and Coefficients of dimensions of organisational culture predicting vigour

Model Summary				ANOVA					
R	R Square	Adjusted R Square	Std. Error of the Estimate	Vigour	Sum of Squares	df	Mean Square	F	Sig.
				Regression	145.981	7	20.854	20.181	.000 ^a
.490 ^a	0.24	0.228	1.01655	Residual	461.921	447	1.033		
				Total	607.903	454			

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	t	p
(a)Predictors	B	Std. Error	Beta		
(Constant)	0.88	0.348		2.53	0.012
Leadership	0.284	0.071	0.207	3.996	0.000
Strategy and change Management	0.005	0.112	0.003	0.044	0.965
Employee needs and objectives	-0.042	0.087	-0.031	-0.483	0.629
Means to achieve objectives	-0.015	0.097	-0.01	-0.15	0.881
Management processes	0.35	0.116	0.216	3.007	0.003
Goals and objectives	0.385	0.087	0.218	4.446	0.000
External and internal environment	0.037	0.081	0.024	0.463	0.643

3.3.5.2. Regression analysis for dependent variable: Absorption

According to Table 3.8, the dimensions of organisational culture explained 14.2% of the variance in *Absorption*. This finding was confirmed by the significance of the F-value ($p \leq 0.000$) in the ANOVA calculation. *Leadership* made the strongest statistically unique contribution in predicting *Absorption* ($\beta = 0.181$; $p \leq 0.001$). This was followed by *Management processes* ($\beta = 0.143$; $p \leq 0.05$) and *Goals and*

objectives ($\beta = 0.125$; $p \leq 0.01$), indicating that these organisational culture dimensions made a slightly less but nonetheless statistically unique contribution in predicting *Absorption*. The association between the organisational culture variables *Strategy & change management*, *Employee needs and objectives*, *Means to achieve objectives*, and *External and internal environment* with *Absorption* was insignificant ($\beta = 0.070$, $p = 0.400$; $\beta = 0.016$, $p = 0.811$; $\beta = -0.054$, $p = 0.431$ and $\beta = 0.022$, $p = 0.699$), suggesting that these variables did not make a significant contribution to the prediction of *Absorption*. Based on the above, H2: The dimensions of organisational culture is a statistically significant of work engagement, is partially accepted.

Table 3.8:

Multiple regression analysis: model summary, ANOVA and coefficients of dimensions of organisational culture predicting absorption

Model Summary				ANOVA					
R	R Square	Adjusted R Square	Std. Error of the Estimate	Absorption	Sum of Squares	df	Mean Square	F	Sig.
0.394 ^a	0.156	0.142	1.1003	Regression	99.692	7	14.242	11.764	.000 ^b
				Residual	541.164	447	1.211		
				Total	640.856	454			

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	p
	B	Std. Error			
(Constant)	1.594	0.376		4.237	0
Leadership	0.254	0.077	0.181	3.308	0.001
Strategy & change Management	0.102	0.121	0.07	0.842	0.4
Employee needs and objectives	0.022	0.094	0.016	0.239	0.811
Means to achieve objectives	-0.082	0.105	-0.054	-0.788	0.431
Management processes	0.239	0.126	0.143	1.892	0.059
Goals and objectives	0.227	0.094	0.125	2.426	0.016
External and internal environment	0.034	0.088	0.022	0.387	0.699

3.3.5.3. Regression analysis for dependent variable: Dedication

As can be seen in Table 3.9, the dimensions of organisational culture explained 18.6% of the variance in *Dedication*. This finding was confirmed by the significance of the F-value ($p \leq 0.000$) in the ANOVA calculation. *Management processes* made the strongest statistically unique contribution in predicting *Dedication* ($\beta = 0.223$; $p \leq 0.01$). This was followed by *Goals and objectives* ($\beta = 0.183$; $p \leq 0.000$) and

Leadership ($\beta = 0.126$; $p \leq 0.05$), indicating that these organisational culture dimensions made a slightly less but nonetheless statistically unique contribution in predicting *Dedication*. The association between the organisational culture variables *Strategy and change management*, *Employee needs and objectives*, *Means to achieve objectives*, and *External and internal environment* with *Dedication* was insignificant ($\beta = 0.049$, $p = 0.547$; $\beta = -0.023$, $p = 0.730$; $\beta = -0.001$, $p = 0.983$ and $\beta = 0.008$, $p = 0.886$), suggesting that these variables did not make a significant contribution to the prediction of *Dedication*. Based on the above, H2: The dimensions of organisational culture is a statistically significant predictor of the dimensions of work engagement, is only partially accepted.

Table 3.9:

Multiple regression analysis: model summary, ANOVA and coefficients of dimensions of organisational culture predicting dedication

Model Summary				ANOVA					
R	R Square	Adjusted R Square	Std. Error of the Estimate	Dedication	Sum of Squares	df	Mean Square	F	Sig.
.445 ^a	0.198	0.186	1.14757	Regression	145.759	7	20.823	15.812	.000 ^b
				Residual	588.666	447	1.317		
				Total	734.425	454			

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	t	p
	B	Std. Error	Beta		
(Constant)	1.056	0.393		2.69	0.007
Leadership	0.189	0.08	0.126	2.357	0.019
Strategy and change management	0.076	0.126	0.049	0.603	0.547
Employee needs and objectives	-0.034	0.098	-0.023	-0.345	0.73
Means to achieve objectives	-0.002	0.109	-0.001	-0.022	0.983
Management processes	0.397	0.131	0.223	3.017	0.003
Goals and objectives	0.355	0.098	0.183	3.631	0
External and internal environment	0.013	0.091	0.008	0.143	0.886

3.3.5.4. Regression analysis for dependent variable: Work engagement

As can be seen in Table 3.10, the dimensions of organisational culture explained 20.7% of the variance in the total UWES. This finding was confirmed by the significance of the F-value ($p \leq 0.000$) in the ANOVA calculation. *Management processes* made the strongest statistically unique contribution in predicting *Work engagement* ($\beta = 0.205$; $p \leq 0.01$). This was followed by *Goals and objectives* ($\beta = 0.183$; $p \leq 0.000$) and *Leadership* ($\beta = 0.126$; $p \leq 0.01$) indicating that these organisational culture dimensions made a slightly less but nonetheless statistically unique contribution in predicting *Work Engagement*. The association between the organisational culture variables *Strategy and change management*, *Employee needs and objectives*, *Means to achieve objectives*, and *External and internal environment* with *Work engagement* was insignificant ($\beta = 0.049$, $p = 0.547$; $\beta = -0.023$, $p = 0.73$; $\beta = -0.001$, $p = 0.983$ and $\beta = 0.008$, $p = 0.886$), suggesting that these variables do not make a significant contribution to the prediction of *Work engagement*. Based on the above, H2: The dimensions of organisational culture are a statistically significant predictor of the dimensions of work engagement, is partially accepted.

Table 3.10

Multiple regression analysis: model summary, ANOVA and coefficients of dimensions of organisational culture predicting work engagement

Model Summary				ANOVA					
R	R Square	Adjusted R Square	Std. Error of the Estimate	Dedication	Sum of Squares	df	Mean Square	F	Sig.
				Regression	127.38	7	18.197	17.98	.000 ^b
.469 ^a	0.22	0.207	1.00603	Residual	452.405	447	1.012		
				Total	579.785	454			

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	t	p
	B	Std. Error	Beta		
(Constant)	1.184	0.344		2.69	0.007
Leadership	0.245	0.07	0.126	2.357	0.019
Strategy and change management	0.06	0.111	0.049	0.603	0.547
Employee needs and objectives	-0.017	0.086	-0.023	-0.345	0.73
Means to achieve objectives	-0.035	0.096	-0.001	-0.022	0.983
Management processes	0.324	0.115	0.223	3.017	0.003
Goals and objectives	0.32	0.086	0.183	3.631	0
External and internal environment	0.029	0.08	0.008	0.143	0.886

3.4. DISCUSSION

The main objectives of the study were to: (1) investigate the relationship between each of the dimensions of organisational culture and work engagement respectively, and (2) to determine if organisational culture is a statistically significant predictor of work engagement.

3.4.1. The relationship between the dimensions of organisational culture and work engagement

Fit indices from SEM multivariate analysis confirmed the factor analysis and the validity of factor structure of the measuring instruments, with most indices indicating the model to be a good or acceptable fit; therefore, no changes were implemented to enhance the model. It can be said that the general constructs of organisational culture can be described by the seven specific dimensions of leadership, strategy and change management, employee needs and objectives, means to achieve objectives, management processes, goals and objectives, and external and internal environment. Work engagement can be described by the three dimensions of vigour, absorption, and dedication.

Correlation analysis indicated a statistically positive relationship between each of the variables of organisational culture and work engagement respectively. The findings of the study therefore support Hypothesis 1, which postulated a positive relationship between each of the dimensions of organisational culture with work engagement respectively. This suggests that positive perceptions of organisational culture are likely to be related to higher levels of work engagement. These results are consistent with those of previous studies that investigated the culture-work engagement relationship (Greenidge, 2010 and Alarcon *et al.*, 2010). The present study provides evidence that organisational culture is a key consideration in understanding work engagement.

3.4.2. Organisational culture is a statistically significant predictor of work engagement

Regression analysis indicated that only three of the seven culture dimensions make a statistically unique contribution in predicting the dimensions of work engagement. The findings of the study therefore provide partial support for Hypothesis 2, which postulated that all the dimensions of organisational culture would significantly predict work engagement.

Overall, the organisational culture dimensions of leadership, goals and objectives, and management processes seem to have a greater influence on the work engagement variables of vigour, dedication, and absorption, suggesting a greater effect on work engagement. It appears that leadership factors such as good people

management, leadership competence, and effective management of work and on-going personal contact with employees have a direct effect on employees' levels of work engagement. If employees recognise that their immediate and top management have the competence to augment growth and productivity by making sound decisions, and if there is a sound sense of trust in the effectiveness and ability of supervisors, it would give employees increased assurance of a more profitable future with the organisation, which could lead to an increase in their levels of work engagement (Hassan & Ahmed, 2011).

As noted earlier, leadership is inextricably linked to organisational culture, and the role of senior managers in promoting the values and culture of the organisation is a critical factor requiring on-going attention (Pillay & Pillay, 2012). In the most recent Global Workforce Trends Report conducted by Towers Watson (2012), leadership and supervisors were ranked among the top five drivers of engagement, illustrating the effect of positive leadership on work engagement. This is supported by studies that demonstrated a link between leadership and work engagement (Parkes & Langford, 2008; Babcock-Roberson & Strickland, 2010; Hassan & Ahmed, 2011; Leary *et al.*, 2013). Leaders can also play a critical role in macro-culture change (Ostroff *et al.*, 2013). A culture change not only involves a change in values, but also a significant change in an organisation's policies, practices, and procedures (Ostroff *et al.*, 2013). Harter, Schmidt, and Hayes (2002) indicated that immediate supervisors and leaders have a major influence over employees' level of commitment and engagement.

Furthermore, a focus on the way in which management processes are carried out, including commitment to change, clear setting and implementing of goals, efficient work procedures and methods, and effective delegation, appear to have a direct effect on work engagement. Supervisory coaching in the form of assisting employees in identifying their goals, organising work, highlighting drawbacks, taking a keen interest in their professional and career advancement, and offering advice as needed has been positively related to work engagement (Schaufeli & Bakker, 2004). This is supported by studies that showed a significant relationship between management practices and processes and work engagement (Parkes & Langford, 2008; Brown,

2011). This may suggest that individuals who understand what is expected of them will be able to use more time and resources in carrying out a task, rather than identifying what is required of them (Alarcon *et al.*, 2010). Employees may have the aspiration to engage in their work, but in the absence of clarity, may fail to engage. Research has shown that, when given the opportunity to set their own goals, employees generalise behaviours beyond the targeted behaviours specified in the goals (Alarcon *et al.*, 2010).

Understanding and aligning one's own goals to the goals, objectives, and mission of the organisation appear to be directly linked to work engagement. Goals and objectives (i.e. employees understanding the business goals, the steps they need to take to achieve these, and how their jobs contribute to achieving goals) were also ranked among the top five drivers of engagement in the Towers Watson (2012) Global Workforce Trends Report, highlighting the significance of goals and objectives to work engagement. This is supported by studies demonstrating a link between work engagement and the following: aligning employees' goals with organisational goals, and setting clear and reasonable expectations (Brown, 2011; Parkes & Langford, 2008). Thus, being able to understand how one's own goals relate to the goals of the wider organisation may have a profound effect on work engagements levels. Employees may be more engaged when they are able to see how their efforts contribute the overall objectives of the organisation, possibly because they find that more meaningful and valuable.

3.5. CONCLUSION

New attempts to enhance organisational performance have begun to stress positive organisational behaviour (Bakker & Schaufeli, 2008). The present study is among the first to investigate culture as an organisation-level antecedent to work engagement, confirming the importance of organisational culture to work engagement in the ICT sector. Employment in the ICT sector presents particular challenges, as the sector is currently experiencing considerable skills and labour shortages (Marzec *et al.*, 2009). The capacity of employers to retain their IT staff has been a significant factor in the effort to achieve strategic business goals. If specific

cultural antecedents are uncovered and rectified, behaviours can be then clearly stated and strengthened, possibly resulting in the conditions linked to work engagement.

The results of this study not only indicate that organisational culture is positively linked with work engagement, but that certain dimensions of organisational culture are a statistically significant predictor of the dimensions of work engagement. This finding is in line with previous research where the strong relationship between organisational culture and work engagement was confirmed (Alarcon, 2010; Greenidge, 2010, Shuck *et al.*, 2011). Several lines of research evidence indicate that engaged employees outperform their disengaged counterparts on a number of organisational metrics (Shuck, *et al.*, 2011). As work engagement has been shown to relate to several positive work outcomes, the results of the present study suggest that it makes sense for organisations to foster a positive culture, and to ensure that employees remain engaged in their work, in order to retain workers longer than organisations that fail to promote engagement (Alarcon *et al.*, 2010).

Furthermore, the organisational culture dimensions of leadership, goals and objectives, and management processes seem to have a greater influence on the work engagement variables of vigour, dedication, and absorption. This is supported by studies demonstrating a link between leadership and work engagement (Parkes & Langford, 2008; Alarcon, 2010; Babcock-Roberson & Strickland, 2010; Greenidge, 2010; Hassan & Ahmed, 2011; Leary *et al.*, 2013), between management practices and processes and work engagement (Parkes & Langford, 2008; Brown, 2011), and between aligning employees' goals with organisational goals, setting clear and reasonable expectations, and work engagement (Brown, 2011; Parkes & Langford, 2008). The literature suggests that antecedents to work engagement should be in place before organisations can reap the benefits of an engaged workforce (Rich *et al.*, 2010; Saks, 2006).

If the organisational cultural drivers of work engagement are understood, they can be manipulated through appropriate interventions that focus on organisational change. Human resource practitioners who are able to pinpoint possible cultural antecedents

of work engagement within their organisations may be better able to offer workable strategies to stakeholders, identify possible difficulties, and communicate with clear vision and direction (Wollard & Shuck, 2011). Practitioners can begin with an assessment within the organisation at the organisational level, to determine which antecedents are most powerful in supporting engagement, and those that are not. Simply focusing on what the organisation does well and the people who seem to do well within the culture can be a first step towards enhancing work engagement. Even small efforts to focus on recognising what the organisation does well can have a positive effect on engagement levels (Wollard & Shuck, 2011).

3.6. LIMITATIONS

The first limitation is the extent to which these findings can be generalised to respondents working in other industrial sectors. As the study was conducted in a single organisation, it cannot be generalised to all other ICT organisations or to the rest of the South African workforce.

Secondly, the fact that limited research has been conducted on the relationship between organisational culture dimensions and work engagement internationally, as well as among South African ICT employees, made it difficult to refer to other studies.

Thirdly, consistent with some research (Shimazu *et al.*, 2008; Sonnetag, 2003), there is a strong statistically significant positive correlation between the subscales of the work engagement questionnaire, indicating that they are related concepts, and that there may be some evidence that work engagement, as measured by the UWES, is possibly a one-dimensional concept.

3.7. RECOMMENDATIONS

While a causal relationship between organisational culture dimensions and work engagement cannot be proved, being able to identify what will have the strongest and most significant impact, and taking the necessary steps to address these elements, will often be the deciding factor between success and failure on individuals

and organisations. As it is very difficult for an organisation to get all the elements of culture right all the time, or even most of the time, and while it may take time to change a culture, it can be modified in important ways. Based on the results, a number of the most important recommendations are presented that can assist the organisation under study to increase employee' levels of work engagement.

A first step is simply to increase the nature and the magnitude of what an organisation does well. Not only are the leadership and management processes positively perceived, they also show the strongest relationship to work engagement, as well as in terms of predicting work engagement. Leadership can be strengthened through interventions such as formal development and coaching programmes that focus on talent management practices that enhance work engagement; training leaders, managers, and supervisors about the conditions that relate to work engagement; and including leadership and supervisor support as a measure in performance appraisals of leadership and supervisors. Leadership recruitment and development interventions can also emphasise that leadership and management understand and model the desired behaviour (e.g., competence, trust, integrity, transparency, reliability, concern, etc.) that appear to be important to employees, and that can enhance levels of work engagement.

Using formal change management teams and methods to assist with communicating and implementing cultural change, and communicating the strategic plan openly and clearly can ensure that all employees buy into and understand the vision, mission, and strategic priorities of the organisation.

Providing visibility throughout the organisation in terms of performance management, together with creating shared accountability between employees, and communicating expectations clearly during all stages of goal attainment should enhance both management processes and the attainment of goals and objectives. Setting goals that clearly support the organisation's strategy should allow for quicker attainment of that strategy. In addition, management can work to create interdepartmental goal visibility to create greater awareness of each department's goals and to reduce silo mentality thinking.

Employee needs and objectives was viewed negatively by employees, suggesting that aspects such as the remuneration system, equal opportunities, trust and openness, and participation in decision-making need to be addressed by the organisation. Reward systems need to be realigned with desired behaviours and cultural attributes, and a pay-for-performance culture may need to be established. Furthermore, the organisation should attempt to recruit individuals who are able to form and build positive and trusting relationships with others.

3.8. SUGGESTIONS FOR FUTURE RESEARCH

This study did not look into the effect of subgroup differences related to age, gender, seniority, or service units. Identifying aspects of organisational culture that have the strongest impact on work engagement and for specific occupational groups in areas where there is high turnover, resignations, and burnout can be highly valuable. A further recommendation would be to combine quantitative and qualitative methods when researching culture, to provide a better understanding of the phenomenon under investigation. Along with organisational cultural antecedents, the consequences of work engagement can also be included in future studies.

3.9. CHAPTER SUMMARY

This chapter provided an in-depth discussion of the findings of the empirical research. Descriptive and inferential statistics were used to examine the relationship between each of the dimensions of organisational culture and work engagement respectively. The results were analysed, interpreted, and integrated to reveal important observations relating to the relationship between the variables examined in this study.

Chapter 4 discusses the conclusions and limitations of the study in detail. Furthermore, recommendations for future research are made.

CHAPTER 4

CONCLUSIONS, LIMITATIONS, AND RECOMMENDATIONS

Chapter 4 discusses the outcome of the research study. It draws attention to the limitations of the literature review and the research study, and offers recommendations for practical application of the findings and for future research.

4.1. CONCLUSIONS

The conclusions regarding both the literature review and empirical study will be discussed in the following sections.

4.1.1. Conclusion regarding the literature review

The general aim of this research was to investigate the magnitude, direction, and statistical significance of the relationship between each of the dimensions of organisational culture and work engagement respectively and, secondly, to determine whether employees' experience of organisational culture has predictive value for work engagement levels. This was undertaken through a detailed literature review to determine if any theoretical relationships exist between the dimensions of organisational culture and the dimensions of work engagement. The general aim of the study was attained by addressing and realising the specific aims. This information was used to support the purpose of the study and the research findings.

4.1.1.1. *The first aim: Conceptualise organisational culture from the available literature*

The first aim was realised in Chapter 2, and the following conclusions may be drawn.

From the literature review, it is evident that the conceptualisation of organisational culture is a complex task, due to the lack of consensus on a single, agreed-upon definition, approach, theoretical perspective, model, or measurement of the concept. Numerous accepted definitions of organisational culture are used in the literature, which represent the epistemological backgrounds of the researchers (Bellot, 2011). Although organisational culture has been defined in several ways by several

academics, authors, and scholars, there seems to be relative agreement on the major elements of its definition (Bellot, 2011). For the purposes of the present study, the definition of organisational culture was based on that of Martins (1989) conceptualisation of the concept.

There also appears to be three approaches to studying organisational culture: the typological approach (cultural types), the interrelated structure approach, and the trait approach (cultural dimensional approach) (Dauber *et al.*, 2012), each of which appears to have its advantages and disadvantages. As the purpose of this study was to look at relationships between constructs, the dimensional approach seemed most appropriate. Furthermore, the integration, differentiation, and fragmentation perspectives of organisational culture presented by Martin (2004) highlights the notion that organisational culture can be studied at multiple levels, using multiple units of analysis, and from different vantage points (Ostroff *et al.*, 2013).

The literature review also revealed that, as with the definitions, there seems to be a wealth of organisational culture models in current research, among the most noticeable being the organisational culture models offered by Schein (1985), Hatch (1993), Hofstede (1990), and Homburg and Pflesser (2000). For the purposes of the present study, the model developed by Martins (1989), which is based on the work of Schein (1985), to describe organisational culture was used. Martins (1989) model is comprehensive, and encompasses all the aspects of an organisation upon which organisational culture could have an influence, and vice versa (Martins, Martins, & Terblanche, 2004). The model was thus implemented to describe organisational culture, as well as to determine which dimensions of organisational culture may influence work engagement in organisations.

Methods of diagnosing and assessing culture have also broadened over the years. Historically, culture was studied using qualitative research methods. Despite the fact that qualitative methods offer comprehensive and meaningful investigation of underlying values, they are time-intensive, and have limited generalisability. Quantitative methods that are psychometrically valid and have been tested have now arisen as a result of the limitations of qualitative tools, such as the fact that it is costly

and time-consuming. Authors such as Bellot (2011) advocated a combination of quantitative and qualitative methods when researching culture, to provide a better understanding of the phenomenon under investigation. The present research adopted a quantitative approach to the study of culture, making use of the SACI, a tool that has been shown to be scientifically and objectively valid and reliable. A quantitative approach is preferable when exploring organisational culture, due to the ease with which large samples can be covered, as well as time constraints, lower level of intrusiveness and due to limitations imposed by human resources and organisational policy (Jung *et al.*, 2009)

There is a debate related to the question of the measurement of culture in terms of organisational culture versus organisational climate. Much research and time has been devoted to differentiation culture from climate (Bellot, 2011), with climate historically having been measured through quantitative techniques and commonly compared across settings, whilst research on culture has been characterised by qualitative case studies. There seems to be a notion that these two concepts exist in work settings and, contrary to general belief, they are not mutually exclusive (Ashkanasy & Jackson, 2001), and reveal overlapping yet distinguishable nuances in the psychological life of organisations. The present study adopted the view taken by Denison (1996) and Schneider (2000), who stated that culture and climate address a common phenomenon.

4.1.1.2. The second aim: Conceptualise work engagement from the available literature

The second aim was realised in Chapter 2. From the literature review, it was concluded that the definition and measurement of work engagement is not adequately understood or agreed upon, despite the fact that it has surfaced as a possible key area of focus in organisations. Various definitions of engagement exist, and most academics agree that engagement contains an energy dimension and an identification dimension, and, thus, work engagement is characterised by high levels of energy and strong identification (Bakker *et al.*, 2008). This study agrees with the argument presented by Bakker *et al.* (2008) that the field of engagement at work is

served best by a consistent definition for work engagement, and the present researcher therefore adopted the definition of work engagement as defined by Schaufeli *et al.* (2002, p. 74). In terms of the measurement of work engagement, the UWES has been used in most empirical research studies (Bakker *et al.*, 2008); it is popular worldwide, and is based on sound theory, thereby justifying its use in the present study.

The strong appeal and legitimacy of work engagement can be attributed to the multitude of studies that reported a strong relationship between engagement and important organisational performance outcomes. Many studies support the relationship between high engagement levels and the following outcomes: commitment (Halbesleben, 2010; Saks 2006), financial profit (Harter, Schmidt, & Hayes, 2002), improved performance (Bakker & Bal, 2010), in terms of improved inter-role and extra-role behaviour (Saks, 2006), enhanced job satisfaction (Saks, 2006), managerial effectiveness (Luthans & Peterson, 2002), better individual performance (Kahn, 1990), greater business unit performance (Harter *et al.*, 2002), and proactive behaviour (Salanova & Schaufeli, 2008). Harter *et al.* (2002) resolved that engagement is linked to meaningful business outcomes on a scale that is highly significant to many organisations.

With regard to the antecedents of work engagement, it is clear from the multitude of studies that engagement can have antecedents at both the individual and the organisational level, of which some are based on empirical findings, whilst others are more conceptually or theoretically based.

4.1.1.3. The third aim: Conceptualise the theoretical relationship between the dimensions of organisational culture and work engagement respectively, based on the available literature

Despite the fact that several studies demonstrated that engagement can have antecedents at both the individual and the organisational level, there are only a few studies that have investigated organisation-level antecedents, and even fewer that specifically investigated the link between organisational culture and work engagement. The role of culture as an antecedent to work engagement is evident in

the literature review and empirical findings (Greenidge, 2010, Alarcon *et al.*, 2010). However, the dearth of research in this field indicates a need for a more detailed analysis of the way in which organisational culture influences work engagement, and the ways in which managers might implement policies and practices (Linz *et al.*, 2006). Such research can provide a unique contribution towards the understanding of employee- and organisational behaviour. Based on the literature review and using Martins' (1989) model of organisational culture and the UWES model of work engagement (Schaufeli *et al.*, 2002), a hypothesised model of the relationship between each of the dimensions of organisational culture and work engagement respectively was presented (see Figure 2.8).

4.1.2. Conclusions regarding the empirical study

This empirical study had three aims:

- (1) To determine whether a statistically significant positive correlation between each of the dimensions of organisational culture and work engagement respectively exists, based on the available data.
- (2) To determine if the dimensions of organisational culture are statistically significant predictors of the dimensions of work engagement, based on the available data.
- (3) To formulate recommendations for organisational practices and possible future research, based on the findings of the present study.

Based on the findings, Hypothesis 1 (There is a significant positive relationship between each of the dimensions of organisational culture and work engagement respectively) is accepted. However, Hypothesis 2 (The dimensions of organisational culture are statistically significant predictors of the dimensions of work engagement) is partially accepted.

4.1.2.1. The first aim: Determine whether a statistically significant positive correlation exists between the dimensions of organisational culture and work engagement respectively, based on the available data.

Three specific conclusions were reached in terms of this research aim. The conclusions are discussed below:

Conclusion 1

Fit indices from SEM multivariate analysis confirmed the factor analysis and the validity of factor structure of the measuring instruments, with most indices indicating the hypothesised model to be a good or acceptable fit; therefore, no changes were implemented to enhance the model. Therefore, it can be said that the general constructs of organisational culture can be described by the seven specific dimensions of leadership, strategy and change management, employee needs and objectives, means to achieve objectives, management processes, goals and objectives, and external and internal environment. Work engagement can be described by three specific dimensions: vigour, absorption, and dedication.

Work engagement (vigour, dedication, and absorption) appears to be positively influenced by organisational culture (leadership, strategy and change management, employee needs and objectives, means to achieve objectives, management processes, goals and objectives, and external and internal environment). This suggests that positive perceptions of organisational culture are likely to be related to higher levels of work engagement. Goals and objectives, followed by external and internal environment, and leadership and management processes, were positively perceived by employees, resulting in the majority of the organisational culture dimensions having been positively viewed by employees. Participants viewed the organisational culture dimensions of employee needs and objectives, means to achieve objectives, and strategy and change management negatively. The study provides evidence that organisational culture is a key consideration in understanding work engagement, and is a likely antecedent to work engagement.

Conclusion 2

Overall, the organisational culture dimensions of leadership, strategy and change management, and management processes seem to have a moderately statistically significant relationship with the work engagement variables of vigour, dedication, and

absorption, suggesting a stronger relationship to work engagement. A statistically significant weak relationship was found between employee needs and objectives, dedication, and vigour; between means to achieve objectives and absorption; between goals and objectives and absorption; and between external and internal environment and dedication, vigour, and absorption, suggesting that these organisational culture variables may have less of an effect on levels of work engagement. Hence, some dimensions of organisational culture may have a stronger relationship with work engagement than others, and may thus have a greater impact on work engagement levels.

4.1.2.2. The second aim: Determine if the dimensions of organisational culture are statistically significant predictors of work engagement based on the available data

Three specific conclusions were reached in terms of this research aim. The conclusions are discussed below

Conclusion 1:

The organisational culture dimensions of leadership, management processes, and goals and objectives have a direct relationship with the levels of work engagement. This suggests that leadership factors such as good people management, leadership competence, effective management of work, and on-going personal contact with employees are likely to increase the levels of work engagement. Furthermore, a focus on the way in which management processes are carried out, including commitment to change, clear setting and implementing of goals, efficient work procedures and methods, and effective delegation, is also likely to increase the levels of work engagement. Finally, understanding and aligning one's own goals to the goals, objectives, and mission of the organisation appear to increase the levels of work engagement.

Conclusion 2

The organisational culture dimensions of strategy and change management, employee needs and objectives, means to achieve objectives, and external and

internal environment do not make a significant contribution to the prediction of work engagement. This suggests that, although these organisational culture dimensions are likely to influence levels of work engagement, they are unlikely to have a direct effect on predicting employees' work engagement levels.

4.1.3. Conclusions regarding the central hypothesis

Based on the findings of this study, the central hypothesis is herewith accepted. The central hypothesis of the study stated that there is a statistically significant positive relationship between each of the dimensions of organisational culture and work engagement respectively. Evidence was provided that showed a statistically significant relationship between all seven dimensions measured by the SACI and the three dimensions of work engagement.

4.1.4. Conclusions regarding the contribution of this study to the field of industrial and organisational psychology

Findings from the literature review, along with the research findings, have contributed new knowledge in several ways to the field of industrial and organisational psychology and, in particular, to organisational culture and work engagement.

The literature review contributes to a significant area of organisational life in South Africa, and lends support to the critical role that organisational culture plays in work engagement. It will enable the organisation under study to better understand its current culture, so as to identify gaps in achieving its ideal culture, in order to increase levels of work engagement.

The present study makes contributions to the work engagement literature by extending the predictability of work engagement, by incorporating organisational characteristics.

Among the contributions include insights into the organisational culture and work engagement research streams, as it creates a better understanding of their relationship, which may be used to design and implement processes and HR

interventions for organisations within the IT industry. It draws pertinent attention to the cultural antecedents of work engagement. This study is among the first to investigate culture as an organisation-level antecedent to work engagement, confirming the importance of organisational culture to work engagement in the ICT sector.

Organisational culture dimensions have been identified as the key drivers of work engagement that may have an impact on employee performance, which, in turn, may have an effect on the organisation's bottom line. If the drivers of work engagement are understood, they can be manipulated through appropriate interventions that focus on organisational change.

The results of this study provide evidence that organisational culture and work engagement are both practically and theoretically meaningful constructs worthy of further research.

Both employees and organisations want to do well, and identifying and addressing the culture of the organisation is one way in which organisations can enhance work engagement, to ensure that all stakeholders perform. The values and skills of OD and industrial and organisational psychology scholars, academics, and practitioners are most suitable and appropriate for helping organisations do just that.

4.2. LIMITATIONS OF THE STUDY

Several limitations associated with the present study with regard to the literature review and the empirical findings need to be acknowledged.

4.2.1. Limitations of the literature review

The fact that limited research has been conducted on the relationship between organisational culture dimensions and work engagement internationally, as well as among South African ICT employees, made it difficult to refer to other studies.

Theoretical models do not clarify the relationship between organisational culture and work engagement; therefore, there is a lack of knowledge about the theoretical

relationship between these variables. This could be attributed to the fact that work engagement is a relatively new concept, and further research into this area is on-going.

4.2.2. Limitations of the empirical study

Firstly, the extent to which these findings may be generalised to other industrial sectors is not clear, as the study was conducted in a single organisation, and may not be generalisable to all other ICT organisations or to the rest of the South African workforce.

Secondly, the fact that limited research has been conducted on the relationship between organisational culture dimensions and work engagement internationally, as well as among South African ICT employees, made it difficult to refer to other studies.

Thirdly, all data were collected using self-report questionnaires, raising the possibility of responses being affected by a common method. Common method variance denotes the variance that can be attributed to measurement method, as opposed to the construct or constructs embodied by the measures (Meade, Watson, & Kroutalis, 2007). A degree of social desirability, leniency, and random responding can be expected with self-reporting measures (Meade *et al.*, 2007). Measurement context effects (such as the simultaneous measurement of predictor and criterion variables) can also give rise to common method variance (Meade *et al.*, 2007), which can threaten the validity of the data.

Fourthly, the measuring instruments were administered in English, the official business language of the organisation under study. This may have had a negative effect on the understanding of the scale items of participants whose first language is not English.

Lastly, there is a strong statistically significant positive correlation between the subscales of the work engagement questionnaire, indicating that they are related concepts, and that there may be some evidence that work engagement, as

measured by the UWES, is a one-dimensional concept. This is consistent with some research that failed to demonstrate the three-factor structure of work engagement (Sonnetag, 2003; Shimazu *et al.*, 2008). As noted by Bakker *et al.* (2008), this could be due to the translation of items that contain metaphors (e.g., “Time flies when I am working”).

4.3. RECOMMENDATIONS

The results suggest that there is a positive relationship between organisational culture dimensions and work engagement dimensions. The main objective of the study was hereby achieved. As organisations are constantly on the lookout for ways to improve work engagement, this study will assist the organisation under study to use this information to identify specific organisational culture factors that may be a barrier to work engagement, and to design and implement organisational culture change and training interventions to foster and drive work engagement. While no causal relationships between organisational culture dimensions and work engagement can be proved, the fact that all cultural dimensions were identified as positively linked to work engagement suggest that companies may need to look at these areas more closely, as these may impact on work engagement.

As it is very difficult for an organisation to get all the elements of culture right all the time, or even most of the time, and while it may take time to change a culture, an organisation’s culture can be modified in important ways. Being able to identify what will have the strongest and most significant impact, and taking the necessary steps to address these elements, will often be the deciding factor in terms of success or failure. Based on the results, a number of recommendations are presented that can assist the organisation to increase levels of work engagement. See Figure 4.1 for a summary of the core conclusions and recommendations based on the findings.

Hypotheses accepted based on the findings of the research

H1: There is a significant positive relationship between the dimensions of organisational culture and work engagement respectively

- All the dimensions of organisational culture were positively related to all the dimensions of work engagement.
- Leadership, strategy and change management, and management processes seem to have a greater influence on the WE variables of vigour, dedication and absorption, suggesting a greater effect on WE.
- A statistically significant weak relationship was found between employee needs and objectives and dedication and vigour; means to achieve objectives and absorption; goals and objectives and absorption; and external and internal environment and dedication, vigour and absorption.

Hypotheses partially accepted based on the findings of the research

H2: The dimensions of organisational culture are a statistically significant predictor of the dimensions of work engagement

- The OC dimension of leadership, has a direct effect on the levels of work engagement.
- The OC dimension management processes has a direct effect on the levels of work engagement.
- The OC dimension of goals and objectives has a direct effect on the levels of work engagement.
- The OC dimensions of strategy and change management, employee needs and objectives, means to achieve objectives and external and internal environment do not make a significant contribution to the prediction of work engagement.

Strengthen leadership:

- Implement recruitment and formal development and coaching programmes to ensure that leadership and management understands and models the desired behaviour.
- Increase leadership visibility and accessibility.
- Train leaders, managers and supervisors about the conditions that relate to work engagement.
- Include quality of leadership, supervisor support and feedback and relationships with employees as a measure for performance appraisals of leadership and supervisors.

Communicate the strategy and change management process

- Communicate the strategic plan clearly and openly.
- Use formal change management teams and methods to communicate and implement cultural change.

Improve management processes

- Provide visibility throughout the organisation in terms of performance management.
- Create shared accountability between employees and managers.
- Communicate expectations clearly during all stages of goal attainment.
- Provide managers with key approaches to providing effective informal feedback and common mistakes to avoid.
- Establish a pay for performance culture.
- Develop standards based on the correct methods and procedures.
- Create interdepartmental goal visibility and communication.
- Set goals that clearly support the organisations strategy.
- Focus on further training for older workers in order to improve retention and work engagement.

Address key employee needs and objectives

- Realign reward systems with desired behaviours and cultural attributes.
- Provide employees with feedback that may help prevent or remove barriers to engagement.
- Encourage employee involvement in goal setting, problem solving and decision making.
- Recruit leaders who are able to form and build positive and trusting relationships with others.

Enhance the means to achieve objectives

- Create focus groups to identify concerns about how conflict is handled and work distributed and co-ordinated.
- Recognise, identify and adopt a planned approach to conflict resolution

Figure 4.1 Summary of core conclusions and recommended organisational culture interventions

A first step is to simply increase the nature and the magnitude of what an organisation does well. Strengthening the leadership, improving the way employees are managed, clearly aligning individual goals to strategic objectives, and a strong focus on social responsibility and diversity (organisational culture dimensions positively perceived by participants) may lead to increased levels of work engagement. Not only are leadership and management processes positively perceived, they also show the strongest relationship to work engagement, also in terms of predicting work engagement. Interventions for leaders, managers, and supervisors could take the form of formal development and coaching programmes that focus on talent management practices that enhance work engagement. HRD practitioners can also train leaders, managers, and supervisors in the conditions that promote work engagement (Shuck *et al.*, 2011). Furthermore, the quality of leadership and supervisor support and relationships with employees should be included as a measure in performance appraisals of leadership and supervisors. Leadership recruitment and development interventions can also emphasise that leadership and management should understand and model the desired behaviour (e.g., competence, trust, integrity, transparency, reliability, concern, etc.) that appear to be important to employees, which can enhance levels of work engagement.

Using formal change management teams and methods to assist with communicating and implementing cultural change interventions can assist to ensure that the change takes place effectively. Change management must also be strongly aligned to the strategic priorities of the organisation. In addition, communicating the strategic plan openly and clearly can ensure that all employees buy into and understand the vision, mission, and strategic priorities, and allow them to see how their individual goals relate to the goals of the wider organisation.

Providing visibility throughout the organisation in terms of performance management, creating shared accountability between employees, and communicating expectations clearly during all stages of goal attainment should enhance both management processes and the attainment of goals and objectives. Setting goals that clearly support the organisation's strategy should allow for quicker attainment of strategy. In addition, management can work to create interdepartmental goal visibility. A specific

challenge related to the organisation under study is the older workforce, given the mean age of the sample. Advances in technology are perceived to be a push factor leading to a decrease in labour participation of the older workers (Marzec *et al.*, 2009). This, in itself, may impact on work engagement. Creating a culture that addresses this need, e.g., focusing on further training for older workers, in order to improve retention and work engagement may be required (Marzec *et al.*, 2009).

Employee needs and objectives was viewed negatively by employees, suggesting that aspects such as the remuneration systems, equal opportunities, trust and openness, and participation in decision-making need to be addressed by the organisation. Reward systems need to be realigned with desired behaviours and cultural attributes, and a pay-for-performance culture may need to be established. Furthermore, the organisation should attempt to recruit individuals who are able to form and build positive and trusting relationships with others.

Aspects such as conflict handling, physical appearance, work distribution, and co-ordination were also viewed negatively by employees. Interventions and focus groups can help identify how conflict is handled, and how work is distributed and co-ordinated, and what can be done to enhance these aspects, in order to start changing the culture. Recognising, identifying, and adopting a planned approach to conflict resolution may also be necessary.

4.4. FUTURE RESEARCH

This study did not look into the effect of sub-group differences, such as age, gender, seniority, and service units. Identifying aspects of organisational culture that have the strongest impact on work engagement and for specific occupational groups and in areas where there is high turnover, resignations, and burnout can be highly valuable. A further recommendation would be to combine quantitative and qualitative methods when researching culture, to provide a better understanding of the phenomenon under investigation. The attraction of mixed-method approaches lies in its methodological pluralism, which often results in superior research, compared to a mono-method design (Johnson & Onwugbuzie, 2004). Along with organisational

cultural antecedents, the consequences of work engagement can also be included in future studies.

4.5. INTEGRATION OF THE STUDY

This study investigated the relationship between the dimensions of organisational culture and work engagement respectively. The results suggest that a relationship does exist, and that, furthermore, some dimensions of organisational culture (namely leadership, goals and objectives, and management processes) indeed have a direct effect on level of work engagement. Characteristics of a culture can either work to support organisational objectives or to hinder them. If cultural antecedents are uncovered and rectified, behaviours can then be clearly stated and strengthened, possibly resulting in the conditions linked to work engagement. Organisational culture and work engagement have been shown to relate to several positive organisational work outcomes; it therefore makes sense for organisations to foster a positive culture and to ensure that employees remain engaged in their work, in order to retain workers longer. The capacity of employers to retain their IT staff has been a significant factor in the effort to achieve strategic business goals. The knowledge gained regarding the relationship between these two variables may have practical implications for organisational performance and worker well-being. It is believed that this research will inform organisational practices directed at improving organisational culture, with the goal of increasing levels of work engagement for improved employee retention and individual and organisational performance.

4.6. CHAPTER SUMMARY

The chapter discussed the conclusions of both the theoretical and the empirical findings. Limitations of the study were highlighted, and recommendations for future research were proposed. This research study concluded with an integration of the study, providing support for a positive relationship between the dimensions of organisational culture and WE respectively. The study is herewith concluded.

REFERENCES

- Alarcon, G., Lyons, J. B., & Tartaglia, F. (2010). Understanding predictors of engagement within the military. *Military Psychology, 22*, 301-310.
- Alfermann, A. L. (2011). *The effects of corporate social responsibility on employee engagement* (Doctoral dissertation). Benedictine University, Chicago, IL.
- Alverson, M. (2002). *Understanding organizational culture*. London: Sage Publications.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modelling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103*(3), 411-423.
- Arbuckle, J. (2010). IBM SPSS® AMOS™ 19 User's guide. Chicago, IL: Amos Development Corporation.
- Ashkanasy, N., & Jackson, C. (2001). Organizational culture and climate. In N. Anderson, D. Ones, H. Singangil, & C. Viswesvaran (Eds.). *Handbook of work and organizational psychology* (pp. 398-415). London: Sage.
- Ashkanasy, N. M., Wilderom, C. P. M. & Peterson, M. F. (Eds.). (2000). *Handbook of organizational culture and climate*. California: Sage Publications.
- Babcock-Roberson, M., & Strickland, O. (2010). The relationship between charismatic leadership, work engagement and organizational citizenship. *The Journal of Psychology, 144*(3), 313-32.
- Bakker, A. B., & Bal, P. M. (2010). Weekly work engagement and performance: A study among starting teachers. *Journal of Occupational and Organizational Psychology, 83*, 189-206.
- Bakker, A. B., Demerouti, E., & Verbeke, W. (2004). Using the job demands-resources model to predict burnout and performance. *Human Resource Management, 43*(1), 83-104.
- Bakker, A. B., Hakanen, J. J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology, 99*, 274-284.

- Bakker, A. B., & Schaufeli, W. B. (2008). Special issue: Contexts of positive organizational behavior. *Journal of Organizational Behavior*, 29, 147-261.
- Bakker, A. B., Schaufeli, W. B., Leiter, M. P., & Taris, T. W. (2008). Work engagement: An emerging concept in occupational health psychology. *Work & Stress: An International Journal of Work, Health & Organizations*, 23(2), 187-200.
- Bate, P. (1984). The impact of organization culture on approaches to organizational problem solving. *Organizational Studies*, 5, 43-66.
- Bellot, J. (2011). Defining and assessing organizational culture. *Nursing Forum*, 46(1), 29-37.
- Bentler, P. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107, 238-246.
- Bentler, P., & Bonnet, D. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88(3), 588-606.
- Berg, Z., & Theron, A. (2005). *Psychology in the work context (2nd ed.)*. Cape Town: Oxford University Press.
- Bhattacharya, S., & Mukherjee, P. (2009). Rewards as a key to employee engagement: A comparative study on IT professionals. *ASMB Journal of Management*, 11(1), 160-175.
- Bollen, K. (1989). A new incremental fit index for general structural models. *Sociological Methods and Research*, 17, 303-316.
- Brown, J. (2011). *An examination of management practices as predictors of employee work engagement* (Master's thesis). San Jose State University, California.
- Brown, S. P., & Leigh, T. W. (1996). A new look at psychological climate and its relationship to job involvement, effort, and performance. *Journal of Applied Psychology*, 81(4), 359-368.

- Byrne, B. (1998). *Structural equation modelling with LISREL, PRELIS and SIMPLIS: Basic concepts, applications and programming*. Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Cameron, K., & Quinn, R. (2011). *Diagnosing and changing organizational culture (3rd ed.)*. San Francisco: Josey-Bass.
- Campbell, C. R. (2004). A longitudinal study of one organization's culture: Do values endure? *Mid-America Journal of Business*, 19(2), 41-51.
- Chalofsky, N. (2003). The emerging construct for meaningful work. *Human Resource Development International*, 6, 69-83.
- Champoux, J. (2010). *Organizational behaviour: Integrating individuals, groups, and organizations (4th ed.)*. New York: Taylor & Francis.
- Chaudhary, R., Rangnekar, S., & Barua, M. K. (2012). HRD climate, occupational self-efficacy and work engagement: A study from India. *The Psychologist-Manager Journal*, 15, 86-105.
- Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). Work engagement: A quantitative review and test of its relations with task and contextual performance. *Personnel Psychology*, 64(1), 89-136.
- Coetzee, M., & De Villiers, M. (2010). Sources of job stress, work engagement and career orientations of employees in a South African financial institution. *Southern African Business Review*, 14(1), 27-57.
- Coetzee, W., & Rothmann, S. (2007). A psychometric evaluation of measures of affective well-being in an insurance company. *South African Journal of Industrial Psychology*, 33(2), 7-15.
- Cohen, J. (1988). *Statistical power analysis for the behavioural sciences (2nd ed.)*. Hillsdale NJ: Lawrence Erlbaum.
- Costello, A., & Osborne, J. (2005). Best practices in exploring factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research & Evaluation*, 10(7), 1-9.

- Dauber, D., Fink, G., & Yolles, M. (2012). A configuration model of organizational culture. *Sage Open*, 1-16.
- De Lange, A. H., De Witte, H., & Notelaers, G. (2008). Should I stay or should I go? Examining longitudinal relations among job resources and work engagement for stayers versus movers. *Work & Stress*, 22(3), 201-223.
- Deal, T. E., & Kennedy, A. A. (1982). *Corporate cultures: The rites and rituals of corporate life*. Reading, MA: Addison-Wesley.
- Demerouti, E., Bakker, A., Nachreiner, F., & Ebbinghaus, M. (2002). From mental strain to burnout. *European Journal of Work and Organizational Psychology*, 11, 423-442.
- Denison, D. R. (1990). *Corporate culture and organisational effectiveness*. New York: Wiley.
- Denison, D. R. (1996). What is the difference between organisational culture and organisational climate? A native's point of view on a decade of paradigm wars. *Academy of Management Review*, 21, 619-654.
- Denison, D., & Mishra, A. (1995). Toward a theory of organisational culture and effectiveness. *Organisation Science*, 6, 204-223
- Duarte, F. (2010). Social responsibility as organisational culture in a Brazilian mining company: A three-perspectival narrative. *Journal of Organizational Culture, Communications and Conflict*, 14(1), 13-30.
- Fang, T. (2009). Asian management research needs more self-confidence: Reflection of Hofstede (2007) and beyond. *Asian Pacific Journal of Management*, 27, 155-170.
- Feldman, D. D., & Ng, T. W. (2013). Theoretical approaches to the study of job transitions. In N. Schmitt, S. Highhouse, & I. Weiner (Eds.). *Handbook of Psychology* (2nd ed., pp. 292-307). Hoboken: John Wiley & Sons.
- Fortado, B., & Fadil, P. (2012). The four faces of organisational culture. *Competitiveness review: An International Business Journal incorporating Journal of Global Competitiveness*, 22(4), 283-298.

- Gonzalez-Roma, V., Schaufeli, W. B., Bakker, A., & Lloret, S. (2006). Burnout and engagement: Independent factors or opposite poles? *Journal of Vocational Behaviour*, 68(1), 165-174.
- Greenidge, S. A. (2010). *Leadership communication, culture and employee engagement: A correlation study*. (Doctoral dissertation). Phoenix: University of Phoenix.
- Guthrie, R., & Shayo, C. (2005). The Columbian disaster: Culture, communication and change. *Journal of Information Technology*, 1(1), 57-77.
- Haggard, C. R., & Lapoint, P. A. (2005). An examination of subcultural effects: A comparison of faculty and administrative perceptions of organisational culture in a small, liberal arts, religious-affiliated university. *Journal of Organisational Culture, Communications and Conflict*, 9(1), 105-114.
- Halbesleben, J. R. (2010). A meta-analysis of work engagement: Relationships with burnout, demands, resources and consequences. In & M. A. Bakker & M.P. Lieter. *Work engagement: A handbook of essential theory and research* (pp. 10-24). New York: Psychology Press.
- Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement and business outcomes: A meta-analysis. *Journal of Applied Psychology*, 87(2), 268-279.
- Hassan, A., & Ahmed, F. (2011). Authentic leadership, trust and work engagement. *International Journal of Human and Social Sciences*, 6(3), 164-170.
- Hatch, M. J. (1993). The dynamics of organisational culture. *Academy of Management Review*, 18(4), 657-693.
- Hofstede, G. (1998). Attitudes, values and organisational culture: Disentangling the concepts. *Organisation Studies*, 19(3), 477-493.
- Hofstede, G., Neuijen, B., Ohavy, D., & Sanders, G. (1990). Measuring organisational cultures: A qualitative and quantitative study across twenty cases. *Administrative Science Quarterly*, 35(2), 286-316.

- Homburg, C., & Pflesser, C. (2000). A multiple-layer model of market-oriented organisational culture: Measurements issues and performance outcomes. *Journal of Marketing Research*, 37(4), 449-462.
- Hooper, D., Coughlan, J., & Mullen, M. (2008). Structural equation modelling: Guidelines for determining model fit. *The Electronic Journal of Business Research Methods*, 6(1), 53-60.
- Hox, J. J., & Bechger, T. M. (1998). An introduction to structural equation modelling. *Family Science Review*, 11, 354-373.
- Hu, L., & Bentler, P. M. (1999). Cut-off criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6:1, 1-55.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14-26.
- Jung, T., Scott, T., Davies, H. T., Bower, P., Whalley, D., McNally, R., et al. (2009). Instruments for exploring organisational culture. *Public Administration Review*, November 2009, 1086-1096.
- Kauffman, C. (2006). Positive psychology: The science at the heart of coaching. In D. Stober, & A. Grant (Eds.). *Evidence based coaching handbook: Putting best practice to work for your clients* (pp. 219-253). New York: John Wiley & Sons, Inc.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692-724.
- Kotter, J. P., & Heskett, J. L. (1992). *Corporate culture and performance*. New York: Free Press.
- Kristoff-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: A meta-analysis of person-job, person-organisation, person-group and person-supervisor fit. *Personnel Psychology*, 58, 281-342.

- Landy, F. L., & Conte, J. M. (2013). *Work in the 21st century: An introduction to industrial and organizational psychology (4th ed.)*. Hoboken, NJ: John Wiley & Sons.
- Langdrige, D., & Hagger-Johnson, G. (2013). *Introduction to research methods and data analysis in psychology (3rd ed.)*. Harlow: Pearson.
- Leary, T., Green, R., Denson, K., Schoenfeld, G., Henley, T., & Langford, H. (2013). The relationship among dysfunctional leadership dispositions, employee engagement, job satisfaction and burnout. *The Psychologist-Manager Journal*, 16(2), 112-130.
- Leedy, P. D., & Ormrod, J. E. (2010). *Practical research: Planning & design (9th ed.)*. Boston, MA: Pearson Education.
- Levin, M. M., & Buckett, A. (2011). Discourses regarding ethical challenges in assessments — Insights through a novel approach. *South African Journal of Industrial Psychology*, 37(1), Art.#949, 13 pages.
- Linz, S. J., Good, L. K., & Huddleston, P. (2006). Worker morale in Russia: An exploratory study. *Journal of Managerial Psychology*, 21(5), 415-437.
- Liu, A. M., Shuibo, Z., & Meiyung, L. (2006). A framework for assessing organisational culture of Chinese construction enterprises. *Engineering Construction and Architectural Management*, 13(4), 327-342.
- Ludwig, T. D., & Frazier, C. B. (2012). Employee engagement and organisational behaviour management. *Journal of Organisational Behaviour Management*, 32(1), 75-82.
- Luthans, F., & Doh, J. P. (2012). *International management: Culture, strategy, and behaviour*. New York, NY: McGraw-Hill.
- Luthans, F., Norman, S. M., Avolio, B.J., & Avey, J. B. (2008). Supportive climate and organizational success: The mediating role of psychological capital. *Journal of Organizational Behaviour*, 29, 219-238.

- Luthans, F., & Peterson, S. (2002). Employee engagement and manager self-efficacy implications for managerial effectiveness and development. *Journal of Management Development*, 21(5/6), 376-387.
- MacCallum, R., Browne, M., & Sugawara, H. (1996). Power analysis and determination of sample size for covariance structure modelling. *Psychological Methods*, 1(2), 130-149.
- Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology* (1), 3-30.
- Marcoulides, G. A., & Heck, R. H. (1993). Organizational culture and performance: Proposing and testing a model. *Organisation Science*, 4(2), 209-225.
- Marczyk, G., DeMatteo, D., & Festinger, D. (2005). *Essentials of research design and methodology*. Hoboken: John Wiley & Sons, Inc.
- Martin, J. (2004). Organisational culture. Research Paper Series. Stanford Graduate School of Business.
- Martins, E., Martins, N., & Terblanche, F. (2004). An organisational culture model to stimulate creativity and innovation in a university library. *Advances in Library Administration and Organisation*, 2, 83-130.
- Martins, N. (1989). Organisasiekultuur in 'n finansiële instelling (Unpublished doctoral thesis). Pretoria: University of Pretoria.
- Martins, N., & Coetzee, M. (2007). Organisational culture, employee satisfaction, perceived leader emotional competency and personality type: An exploratory study in a South African engineering company. *South African Journal of Human Resource Management*, 5(2), 20-32.
- Martins, N., & von der Ohe, H. (2006). Detecting sub-cultures in an organisation. *South African Business Review*, 10(2), 130-149.
- Marzec, I., Van der Heijden, B., Scholariosc, D., Van der Schoot, E., Jedrzejowicz, P., Bozionelso, N., et al. (2009). Employability management practices in the Polish ICT sector. *Human Resource Development International*, 12(5), 471-492.

- Maslach, C., & Leiter, M. P. (1997). *The Truth about burnout*. San Francisco: Jossey-Bass.
- Maslach, C., Schaufeli, W., & Leiter, M. (2001). Job burnout. *Annual Review of Psychology*, 52, 397-422.
- Maslowski, R. (2006). A review of inventories for diagnosing school culture. *Journal of Educational Administration*, 44(1), 6-35.
- May, D., Gilson, R., & Harter, L. (2004). The psychological condition of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of Occupational & Organisational Psychology*, 77, 11-37.
- Meade, A. W., Watson, A. M., & Kroustalis, C. M. (2007, April), Assessing common method bias in organisational research. Paper presented at the 22nd Annual Meeting of the Society for Industrial and Organizational Psychology, New York.
- Meyer, A. D., Tsui, A. S., & Hinings, C. R. (1993). Configurational approaches to organizational analysis. *Academy of Management Journal*, 36, 1175-1195.
- Moran, E., & Volkwein, J. (1992). The cultural approach to the formation of organisational climate. *Human Relations*, 45, 19-47.
- Mouton, J., & Marais, H. C. (1996). *Basic concepts in methodology of the Social Sciences*. (5th ed.). Pretoria: Van Schaik.
- Nicholson, I. R. (2011). New technology, old issues. Demonstrating the relevance of the Canadian code of ethics for psychologists to the ever sharper cutting edge of technology. *Canadian Psychology*, 52(3), 215-224.
- Nienaber, H. (2007). Assessing the management status of South Africa. *European Business Review*, 19(1), 72-88.
- Odendaal, A., & Roodt, G. (1998). Corporate culture and participation: Independent constructs? *Journal of Industrial Psychology*, 24(3), 14-21.

- Ostroff, C., Kinicki, A. J., & Muhammad, R. S. (2013). Organizational culture and climate. In N. Schmitt, S. Highhouse, & I. Weiner (Eds.). *Handbook of Psychology* (2nd ed., Vol. 12, pp. 643-676). Hoboken, NJ: John Wiley & Sons.
- Ott, J. S. (1989). *The organisational culture perspective*. Chicago: Dorsey Press.
- Ouchi, W. G. (1981). *Theory Z: How American business can meet the Japanese challenge*. Reading, Mass: Addison-Wesley.
- Pallant, J. (2007). *SPSS survival manual: A step by step guide to data analysis using SPSS version 15* (2nd ed.). New York: Open University Press.
- Parkes, L. P., & Langford, P. H. (2008). Work-life balance or work-life alignment? A test of the importance of work-life balance for employee engagement and intention to stay in organisations. *Journal of Management & Organisation*, 14(3), 267-284.
- Peters, T. J., & Waterman, R. H. (1982). *In search of excellence: Lessons from America's best-run companies*. New York, NY: Harper and Row.
- Pettigrew, A. (1979). On studying organisational culture. *Administrative Science Quarterly*, 24, 570-581.
- Pillay, S., & Pillay, P. (2012, November). Organisational change and culture: A case study of the University of KwaZulu-Natal, South Africa. *European Conference on Management, Leadership and Governance* (pp. 531-XIII). Kidmore End, UK: Academic Conferences International Limited.
- Quinn, R. E., & Rohrbaugh, J. (1983). A spatial model of effectiveness criteria: Toward a competing values approach to organisational analysis. *Management Science*, 29, 363-377.
- Remo, N. (2012). *Comparing two models of employee engagement: An examination of antecedents and outcome variables*. (Doctoral dissertation). University of Windsor: Canada.
- Rich, B., Lepine, J. A., & Crawford, E. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, 53(3), 617-635.

- Right Management. (2009). *Employee engagement: Maximising organisational performance*. Philadelphia: Right Management Inc. Retrieved from Right Management Manpower Group website:<http://www.right.com/thought-leadership/research/employee-engagement---maximizing-organizational-performance.pdf>
- Rogelberg, S. G., & Stanton, J. M. (2007). Introduction: Understanding and dealing with organisational survey nonresponse. *Organization Research Methods*, 10(2), 195-209.
- Rostila, I., Suominen, T., Asikainen, & Green, P. (2011). Differentiation of organisational climate and culture in public health and social services in Finland. *Journal of Public Health*, 19, 39-47.
- Sagiv, L., & Schwartz, S. H. (2007). Cultural values in organisations: Insights for Europe. *European Journal of International Management*, 1, 176-190.
- Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21(7), 600-619.
- Salanova, M., & Schaufeli, W. B. (2008). A cross-national study of work engagement as a mediator between job resources and proactive behaviour. *The International Journal of Human Resource Management*, 19(1), 116-131.
- Sardar, S., & Rehman, A., Yousaf, A., & Aijaz, A. (2011). Impact of HR practices on employee engagement in the banking sector of Pakistan. *Interdisciplinary Journal of Contemporary Business*, 378-389.
- Sarros, J., Cooper, B. K., & Santora, J. (2008). Building a climate for innovation through transformational leadership and organizational culture. *Journal of Leadership & Organizational Studies*, 15(2), 145-158.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students (5th ed.)*. Essex: Pearson Education Limited.
- Schaufeli, W. B., & Bakker, A. B. (2003). UWES manual. Utrecht University: Occupational Health Psychology Unit.

- Schaufeli, W. B., & Bakker, A. B. (2010). Defining and measuring work engagement: Bringing clarity to the concept. In A. Bakker & M. P. Leiter (Eds.) *Work engagement: A handbook of essential theory and research* (pp. 10-24). New York: Psychology Press.
- Schaufeli, W. B., & Taris, T. W. (2005). The conceptualisation and measurement of burnout: Common ground and worlds apart. *Work and Stress*, 19, 256-262.
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire. A cross-national study. *Educational and Psychological Measurement*, 66(4), 701-716.
- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3, 71-92.
- Schaufeli, W., & Salanova, M. (2011). Work engagement: On how to better catch a slippery concept. *European Journal of Work and Organisational Psychology*, 20(1), 39-46.
- Schein, E. H. (1985). *Organisational culture and leadership: A dynamic view*. San Francisco, CA: Jossey-Bass
- Schein, E. H. (1990). Organisational culture. *American Psychologist*, 45(2), 109-119.
- Schein, E. H. (1992). *Organizational culture and leadership* (2nd ed.). San Francisco, CA: Jossey-Bass.
- Schein, E. (2004). *Organizational culture and leadership* (3rd ed.). Francisco: Francisco: Jossey-Bass.
- Schneider, B. (2000). The psychological life of organisations. In N. Ashkanasy, C. Wilderom, & M. Peterson (Eds.). *Handbook of organizational culture and climate* (pp. xvii-xxi). Thousand Oaks, CA: Sage.
- Schneider, B., Ehrhart, M., & Macey, W. (2013). Organisational climate and culture. *Annual Review of Psychology*, 64, 361-388.

- Schreiber, J. B., Stage, F. K., King, J., Nora, A., & Barlow, E. A. (2006). Reporting structural equation modelling and confirmatory factor analysis results: A review. *Journal of Educational Research, 99*(6), 323-327.
- Seligman, M. E., & Csikszentmihalyi, M. (2000). Positive psychology. *The American Psychologist, 55*, 5-14.
- Shimazu, A., Schuafeli, W. B., Kosugi, S., Suzuki, A., Nashiwa, H., Kato, A., et al. (2008). Work engagement in Japan: Validation of the Japanese version of the Utrecht Work Engagement Scale. *Applied Psychology: An International Review, 57*(3), 510-523.
- Shirom, A. (2005). Shirom-Melamed Vigour Measures. Retrieved February 2, 2014, from [http:// www.tau.ac.il/~ashirom](http://www.tau.ac.il/~ashirom)
- Shuck, B., & Herd, A. M. (2012). Employee engagement and leadership: Exploring the conceptual convergence of two frameworks and implications for leadership development in HRD. *Human Resource Development Review, 11*(2), 156-181.
- Shuck, B., Reio, T., & Rocco, T. (2011). Employee engagement: An examination of antecedent and outcome variables. *Human Resource Development International, 14*(4), 427-445.
- Siehl, C., & Martin, J. (1983). Organisational culture and counter culture. *Organisational Dynamics, 12*(2), 52-64.
- Silverthorne, C. (2004). The impact of organisational culture and person-organisation fit on organisational commitment and job satisfaction in Taiwan. *Leadership Organisation Development Journal, 25*, 592-599.
- Simpson, M. R. (2008). Engagement at work: A review of the literature. *International Journal of Nursing Studies. DOI:10.1016/j.ijnurstu.2008.05.003*.
- Sonnetag, S. (2003). Recovery, work engagement, and proactive behaviour: A new look at the interface between non-work and work. *Journal of Applied Psychology, 88*, 518-528.

- Sonnentag, S. (2011). Research on work engagement is well and alive. *European Journal of Work and Organizational Psychology*, 20 (1), 29-38
- Steiger, J. (1990). Structural model evaluation and modification. *Multivariate Behavioural Research*, 25, 214-212
- Storm, K., & Rothman, I. (2003). A psychometric analysis of the Utrecht Work Engagement Scale in the South African police. *South African Journal of Industrial Psychology*, 29(4), 62-70.
- Tagiuri, R., & Litwin, G. (Eds.) (1968). *Organisational climate: Explorations of a concept*. Boston: Harvard Business School.
- Terre Blanche, M., Durrheim, K., & Painter, D. (2006). *Research in practice: Applied methods for the social sciences* (2nd ed.). Cape Town: University of Cape Town Press.
- Towers Watson. (2012). Global Workforce Study. Towers Watson. Retrieved from <http://towerswatson.com/assets/pdf/2012-Towers-Watson-Global-Workforce-Study.pdf>
- Trice, H. M., & Beyer, J. M. (1993). *The cultures of work organisations*. Upper Saddle River, NJ: Prentice-Hall.
- Van der Post, W. Z., De Coning, T. J., & Smit, E. M. (1997). An instrument to measure organisational culture. *South African Journal of Business Management*, 28(4), 147-169.
- Vandenberghe, C. (1999). Organisational culture, person-culture fit, and turnover: A replication in the health care industry. *Journal of Organisational Behaviour*, 20, 175-184.
- Wallach, E. J. (1983). Individuals and organisations: The cultural match. *Training and Development Journal*, 37(2), 29-36.
- Wicks, A. (2001). Occupational potential: A topic worth of exploration. *Journal of Occupational Science*, 8(3), 12-19.
- Wicks, A. (2005). Understanding occupational potential. *Journal of Occupational Science*, 12(3), 130-139.

- Wildermuth, C., & Pauken, P. D. (2008). A perfect match: Decoding employee engagement - Part II: Engaging jobs and individuals. *Industrial and Commercial Training*, 40, 206-210.
- Williams, A., Dobson, P., & Walters. (1990) *Changing culture. New organisational approaches*. IPA. London.
- Wollard, K. K., & Shuck, B. (2011). Antecedents to employee engagement: A structured review of the literature. *Advances in Developing Human Resources*, 13(6), 429-446.
- Yahyagil, M. Y. (2006). The fit between the concepts of organisational culture and climate. *Journal of Organisational Culture, Communication and Conflict*, 10(2), 77-104.
- Yener, M., Yaldran, M., & Ergun, S. (2012). The effect of ethical climate on work engagement. 8th International Strategic Management Conference. 58, pp. 724-722. *Procedia — Social and Behavioural Sciences*.