

**THE RELATIONSHIP BETWEEN PERSONALITY TRAITS, PSYCHOLOGICAL  
CAPITAL AND JOB PERFORMANCE AMONG SALES EMPLOYEES WITHIN AN  
INFORMATION, COMMUNICATION AND TECHNOLOGY SECTOR**

by

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the degree of

**MASTER OF COMMERCE**

In the subject

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at the

UNIVERSITY OF SOUTH AFRICA

SUPERVISOR: PROFESSOR R M OOSTHUIZEN

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# **SUMMARY**

## **THE RELATIONSHIP BETWEEN PERSONALITY TRAITS, PSYCHOLOGICAL CAPITAL AND JOB PERFORMANCE AMONG SALES EMPLOYEES WITHIN AN INFORMATION, COMMUNICATION AND TECHNOLOGY SECTOR**

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DEGREE: MCOMM (Industrial and Organisational Psychology)

This research explores the relationship between personality traits, Psychological Capital and job performance amongst sales employees within an Information, Communication and Technology (ICT) sector in South Africa. The study was conducted through quantitative research. The study used the Basic Traits Inventory short form (BTI) to measure personality traits; the Psychological Capital questionnaire (PCQ) to measure the Psychological Capital; and the Job Performance questionnaire (JBQ) to measure individual performance. A biographical questionnaire was also used. The questionnaires were administered to a population of 145 sales employees, 85 of whom were based in the company's Johannesburg office, with the rest dispersed in the company's Cape Town, Durban, Port Elizabeth, Bloemfontein, wider Free State and Mpumalanga offices. In view of the fact that the sample was small, 100% of the population was included in the study. A theoretical relationship between the constructs was determined and an empirical study provided evidence of the degree of relationship that existed between them. The results reveal significant relationships to exist between some sub-scales; however, statistical significance could not be reached for some correlations.

### **KEY WORDS:**

Personality traits, Psychological Capital, job performance, individual performance, positive organisational behaviour; sales employees; sales targets; competitive advantage; ICT sector; recruitment practices

## TABLE OF CONTENTS

DECLARATION.....	i
ACKNOWLEDGEMENTS.....	ii
SUMMARY.....	iii
KEY WORDS.....	iii
CHAPTER 1.....	1
SCIENTIFIC ORIENTATION TO RESEARCH .....	1
1.1 BACKGROUND TO AND MOTIVATION FOR THE RESEARCH .....	1
1.2 THE PROBLEM STATEMENT .....	5
1.2.1 Research questions with regard to the literature review .....	5
1.2.2 Research questions with regard to the empirical study.....	6
1.3 AIMS OF THE RESEARCH .....	6
1.3.1 General aim .....	6
1.3.2 Specific aims.....	7
1.3.2.1 Literature review.....	7
1.3.2.2 Empirical study.....	7
1.4 PARADIGM PERSPECTIVES OF THE RESEARCH.....	8
1.4.1 Disciplinary context .....	9
1.4.1.1 Industrial and Organisational Psychology.....	9
1.4.1.2 Career Psychology .....	9
1.4.1.3 Personnel Psychology.....	10
1.4.1.4 Psychometrics.....	10
1.4.2 Paradigm perspective of the research.....	10
1.4.2.1 The psychodynamic paradigm.....	10
1.4.2.2 Behavioural paradigm .....	12
1.4.2.3 Positivist research paradigm .....	12
1.4.3 Theoretical models.....	13
1.4.3.1 Personality Traits .....	13
1.4.3.2 Psychological Capital .....	13
1.4.3.3 Job Performance.....	13
1.4.4 Conceptual descriptions .....	14
1.4.4.1 Personality Traits .....	14
1.4.4.2 Psychological Capital .....	15
1.4.4.3 Job Performance.....	15

1.5 THE CENTRAL HYPOTHESIS .....	16
1.6 RESEARCH METHOD.....	16
1.6.1 Phase one: Literature Review .....	16
1.6.2 Phase two: Empirical study .....	17
1.6.3 Ethical Considerations.....	22
1.7 CHAPTER DIVISION .....	22
1.8 CHAPTER SUMMARY.....	23
CHAPTER 2.....	24
LITERATURE REVIEW: PERSONALITY TRAITS, PSYCHOLOGICAL CAPITAL AND JOB PERFORMANCE .....	24
2.1 CONCEPTUAL FOUNDATION OF PERSONALITY TRAITS .....	24
2.1.1 Background.....	24
2.1.2 Definition of personality traits .....	26
2.1.3 Theoretical conceptualisation and models related to personality traits .....	28
2.1.3.1 The three factor model of personality .....	29
2.1.3.2 Cattell's theory: The Sixteen Factors Model of personality .....	30
2.1.3.3 Five Factor Model (FFM) of personality traits .....	31
2.1.4 Implications of personality traits for sales employees .....	34
2.1.5 Biographical variables affecting personality traits .....	36
2.1.5.1 Gender.....	36
2.1.5.2 Age .....	37
2.1.5.3 Race .....	38
2.2 CONCEPTUAL FOUNDATION OF PSYCHOLOGICAL CAPITAL.....	38
2.2.1 Background.....	38
2.2.2 Definition of Psychological Capital .....	40
2.2.3 Theoretical conceptualisation and models related to Psychological Capital.....	41
2.2.3.1 Self-efficacy .....	41
2.2.3.2 Hope .....	42
2.2.3.3 Optimism.....	42
2.2.3.4 Resilience .....	43
2.2.3.5 The Psychological Capital model.....	44
2.2.4 Implications of Psychological Capital for sales employees .....	44
2.1.5 Biographical variables affecting Psychological Capital .....	45
2.1.5.1 Gender.....	46
2.1.5.2 Age .....	47
2.1.5.3 Race .....	47
2.3 CONCEPTUAL FOUNDATION OF JOB PERFORMANCE .....	48

2.3.1 Background.....	48
2.3.2 Definition of job performance.....	50
2.3.3 Theoretical conceptualisation and models of job performance .....	51
2.3.3.1 Campbell, Gasser and Oswald (1996) Model of job performance.....	52
2.3.3.2 The Viswesvaran, Ones, and Schmidt's (1996) model of job performance.....	52
2.3.3.3 Campbell's model of individual differences in job performance.....	53
2.3.4 Implications of job performance for sales employees .....	54
2.3.5 Biographical variables affecting job performance .....	55
2.3.5.1 Gender.....	56
2.3.5.2 Age .....	56
2.3.5.3 Race .....	57
2.4 THEORETICAL INTEGRATION OF PERSONALITY TRAITS, PSYCHOLOGICAL CAPITAL AND JOB PERFORMANCE .....	58
2.4.1 Theoretical definitions of constructs .....	58
2.4.1.1 Personality traits.....	58
2.4.1.2 Psychological Capital .....	59
2.4.1.3 Job performance .....	59
2.4.2 Theoretical relationships between personality traits, Psychological Capital and job performance of sales employees .....	59
2.4.3 Variables influencing personality traits, Psychological Capital and job performance...	60
2.4.4 Implications for Industrial Psychology and sales employees .....	62
2.5 CHAPTER SUMMARY .....	63
CHAPTER 3.....	64
*RESEARCH ARTICLE: THE RELATIONSHIP BETWEEN PERSONALITY TRAITS, PSYCHOLOGICAL CAPITAL AND JOB PERFORMANCE AMONG SALES EMPLOYEES WITHIN AN INFORMATION, COMMUNICATION AND TECHNOLOGY SECTOR .....	64
3.1 INTRODUCTION.....	66
3.1.1 Key focus and background of the study.....	66
3.1.2 Trends established in the research literature.....	68
3.1.2.1 Personality Traits .....	68
3.1.2.2 Psychological Capital .....	70
3.1.2.3 Job Performance.....	71
3.1.4 Research objectives.....	73
3.1.5 The potential value-add of the study.....	74
3.2 RESEARCH DESIGN.....	74
3.2.1 Research approach.....	74
3.2.2 Research method.....	75
3.2.2.1 Research participants.....	75

3.2.2.2 Measuring instruments .....	78
3.2.2.3 Research procedure and ethical considerations .....	82
3.2.2.4 Statistical analyses.....	83
<b>3.3 RESULTS.....</b>	<b>84</b>
3.3.1 Descriptive statistics.....	84
3.3.1.1 Descriptive statistics: Personality traits (BTI) .....	85
3.3.1.2 Descriptive statistics: Psychological Capital (PCQ) .....	86
3.3.1.3 Descriptive statistics: Job Performance (JPQ).....	86
3.3.2 Correlational statistics .....	86
3.3.2.1 Correlation analysis between personality traits (BTI), Psychological Capital (PCQ) and job performance (JP).....	86
3.3.2.2 Correlation analysis between biographical variables, personality traits (BTI), Psychological Capital (PCQ) and job performance (JP) .....	88
3.3.2.3 Spearman correlation analysis between the constructs and their sub-scales.....	90
3.3.3 Inferential statistics.....	93
3.3.3.1 Multiple regression analysis .....	93
3.3.3.2 Mean centred values .....	99
<b>3.4 DISCUSSION.....</b>	<b>103</b>
3.4.1 Biographical profile of the sample .....	103
3.4.2 Research aim 1: To assess the levels of personality traits (as measured by the Basic Traits Inventory), Psychological Capital (as measured by the Psychological Capital Questionnaire) and job performance (as measured by the Job Performance Questionnaire) amongst the sales employees within the ICT sector.....	104
3.4.3 Research aim 2: To assess the role of biographical variables (age, gender, marital status, racial group and tenure) in respect of personality traits, Psychological Capital and job performance amongst sales employees in the ICT sector. ....	105
3.4.4 Research aim 3: To assess the relationship between personality traits, Psychological Capital and job performance. ....	106
3.4.5 Research aim 4: To assess the interaction between personality traits and Psychological Capital in predicting job performance.....	106
3.4.6 Conclusions: Implications for practice .....	107
3.4.7 Limitations of the study.....	108
3.4.8 Recommendations for future research .....	109
<b>3.5 CHAPTER SUMMARY.....</b>	<b>109</b>
<b>REFERENCE LIST .....</b>	<b>111</b>
<b>CHAPTER 4:.....</b>	<b>116</b>
<b>CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS .....</b>	<b>116</b>
<b>4.1 CONCLUSIONS.....</b>	<b>116</b>
4.1.1 Conclusions arising from the literature review .....	116

4.1.1.1 Specific aim 1: Conceptualise from a theoretical perspective personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector ..	116
4.1.1.2 Specific aim 2: To determine theoretically the role of the biographical variables (gender, age and racial group) in respect of personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector .....	118
4.1.1.3 Specific aim 3: To conceptualise the theoretical relationship between personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector .....	119
4.1.1.4 Specific aim 4: To conceptualise the interaction between personality traits and Psychological Capital in predicting job performance of sales employees in the ITC sector.....	120
4.1.2 Conclusions in terms of the empirical study.....	120
4.1.2.1 Specific aim 1: To determine the levels of personality traits, Psychological Capital and job performance empirically amongst sales employees in the ITC sector.....	121
4.1.2.2 Specific aim 2: To determine the role of gender, age and racial group empirically in respect of personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector.....	121
4.1.2.3 Specific aim 3: To determine empirically the relationship between personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector ..	123
4.1.2.4 Specific aim 4: To assess the empirical interaction between personality traits and Psychological Capital in predicting job performance .....	124
4.1.2.5 Specific aim 5: To formulate recommendations based on the literature and empirical findings of this research, Industrial Organisational Psychology practices and future research with regard to personality traits, Psychological Capital and job performance among sales employees in the ITC sector and future research .....	125
4.1.3 Conclusions relating to the central hypothesis.....	126
4.2 LIMITATIONS OF THE STUDY .....	127
4.2.1 Limitations of the literature review .....	127
4.2.2 Limitations of the empirical study.....	128
4.3 RECOMMENDATIONS .....	129
4.3.1 Recommendations for Industrial Psychology practices.....	129
4.3.2 Recommendations for future research.....	130
4.4 INTEGRATION OF THE RESEARCH.....	131
4.5 CHAPTER SUMMARY.....	<b>Error! Bookmark not defined.</b>
REFERENCE LIST .....	133

## LIST OF FIGURES

1.1	Representation of a research study	8
2.1	Dimensions of Positive Organisational Capital	44
2.2	Campbell's determinants of job performance	54
3.1	Sample distribution by gender (N = 104)	75
3.2	Sample distribution by age (N = 104)	76
3.3	Sample distribution by ethnicity (N = 104)	76
3.4	Sample distribution by marital status (N = 104)	77
3.5	Sample distribution by years of sales experience (N = 104)	77
3.6	Sample distribution by sales function (N = 104)	77

## LIST OF TABLES

2.1	Eysenck's Three-Factor Model of personality factors and sub factors	30
2.2	Personality dimensions with associated descriptive words	33
2.3	BTI dimensions and associated sub-scales	34
2.4	Differences between task performance and contextual performance	49
3.1	Characteristics of participants (N=104)	79
3.2	Cronbach Alpha coefficients for the BTI and the five sub-dimensions	80
3.3	Cronbach Alpha coefficients for the PCQ and the four sub-dimensions	81
3.4	Descriptive statistics: means and standard deviations (N=104)	85
3.5	Correlation analysis between personality traits (BTI), Psychological Capital (PCQ) and job performance (JP)	87
3.6	Correlation analysis between biographical variables, personality traits (BTI), Psychological Capital (PCQ) and job performance (JP)	89
3.7	Spearman correlation coefficients between the constructs and their sub-scales	91
3.8 a	Multiple regression statistics summary: job performance (a - sales targets) as the dependent variable and BTI and PCQ subscales and demographics as the independent variable	94
3.8 b	Multiple regression statistics summary: job performance (b – targets achieved) as the dependent variable and BTI and PCQ subscales and demographics as the independent variable	95
3.8 c	Multiple regression statistics summary: job performance (c- performance rating) as the dependent variable and BTI and PCQ subscales and demographics as the independent variable	96
3.9	Multiple regression statistics summary: Psychological Capital as the dependent variable and BTI subscales and biographical variables as the independent variable	97
3.10	Moderated regression analysis with job performance as dependent variable, personality traits as independent variables and Psychological Capital as the moderator	98
3.11	Clustering of biographical groups	99
3.12	Significant mean differences	102

# **CHAPTER 1**

## **SCIENTIFIC ORIENTATION TO RESEARCH**

This study focuses on the nature of the relationship between personality traits, Psychological Capital and job performance amongst sales employees within an Information, Communication and Technology (ICT) sector in South Africa. This chapter provides the background to and the motivation for the study, as well as the problem statement of the research. The aims, paradigm perspectives, research design and research method of the study will also be set out. This chapter ends with a conclusion, limitations of the study, recommendations and the chapter division to the rest of this study.

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

The source behind an organisation's growth and success is its people. In the dynamic environment of the 21<sup>st</sup> century, characterised by growing emerging markets, innovative technology, political and economic turbulence, flatter organisational structures and cross-border migration patterns, organisations effectively have become global competitors (Gratton, 2011; Pandey, 2012; Polatc & Akdoğan, 2014). Further to these challenges, organisations are also in a war for talent as there has been an increased awareness around organisations' reliance on their workforce as the key to gaining and sustaining a competitive advantage within this turbulent environment (Luthans, Youssef, & Avolio, 2007; Lynch & de Chernatony, 2007; Schwepker & Ingram, 1994; Tarique & Schuler, 2010; Toor & Ofori, 2010). Moreover, organisations are increasingly looking to their salesforce to spearhead their tangible commercial growth and influence their market position as they have realised that the performance of their salesforce often directly drives the performance of their organisation (Jensen & Mueller, 2009; Ştefan & Crăciun, 2011). Being the only revenue-injecting part of the organisation (Krafft, Albers, & Lal, 2004) further intensifies the importance of attracting, developing and retaining top salesforce talent. In response to this need, numerous studies have since centred on job performance (Dhammika, Ahmad, & Sam, 2012), with a particular interest on the

prediction of performance (du Plessis & Barkhuizen, 2012; Ntzama, De Beer, & Visser, 2008; Rothmann & Coetzer, 2003).

Job performance has received mounting attention, not only within the field of Industrial Psychology (Impelman, 2007), but also for being identified as a positive work-related outcome or commonly referred to as a positive organisational behaviour (POB). Emerging from within the positive psychology domain, the concept of positive organisational behaviours (Avey, Luthans, & Youssef, 2010; Luthans, Youssef, & Avolio, 2007; Martin, O'Donohue, & Dawkins, 2011) can be defined as “the study and application of positively-oriented human resource strengths and psychological capacities; measured, developed and effectively managed for performance improvement in today’s workplace” (Luthans, 2002, p. 54). Job performance as a POB has been acknowledged as one of the most relevant and imperative aspects for its significant practical implications for organisations. POB studies with links to job performance have recognised the significant relationship of predictors such as job satisfaction (Dhammika, Ahmad, & Sam, 2012) and cognitive ability (Roodt & La Grange, 2001). Moreover, other studies revealed inverse relations to negative work-related behaviours such as stress (Rothmann & Coetzer, 2003) and burnout (Maslach, Schaufeli, & Leiter, 2001). It is therefore clear that job performance studies have amplified with a concentration on identifying predictors of performance (Rothmann & Coetzer, 2003; Roodt & La Grange, 2001; Tett, Jackson, & Rothstein, 1991).

With direct implications, the spotlight thus shone on the field of Industrial and Organisational Psychology, to respond with urgency to find solutions to the amplifying need to attract, develop and retain talent. The assessment of individual potential to perform was achieved through the use of validated psychometric instruments to gather data of potential employees (Kaplan & Saccuzzo, 2010). It should be noted, though, that the use of psychometric instruments was under immense scrutiny to ensure that measures of human abilities, traits and behaviours complied with the local and international guidelines set out by the relevant governing institutions (ILO, 2007). Against the backdrop of South Africa’s history and unique environment, the use of predictive assessments for employment decisions were met

with conflicting views (Mauer, 2008). Employment and hiring practices became legislatively directed to ensure fairness, as well as the use of objective job-related criteria (Labour Relations Act, 1995).

For decades, performance studies have been dominated by investigations into the validity of personality as a predictor. With the conception of the Five Factor Model, personality studies escalated with more researchers attempting to prove the predictive nature of personality traits. Barrick and Mount (1991) conducted a meta-analysis, which concluded that the Five Factor Model provided a meaningful framework and could be used for testing hypotheses related to selection and performance, among others. Salgado's (1997) meta-analysis supported the Five Factor Model as a predictor of performance. In a meta-analytical review of predictors of job performance of salespeople, Vinchur, Schippmann, Switzer and Roth (1998) highlighted that the Big Five personality dimensions of Extraversion and Conscientiousness predicted sales success. Though literature provides an abundant source of studies supporting the predictive nature of personality, it is not exclusive of opposing views. McAdams (1992) shared a different perspective, claiming that owing to the broad nature of the Five Factor traits, the model holds true across cultural boundaries; however, for the same reason; the model is unable to predict behaviour in specific situations. He summed up this contradiction by saying, "Because the Big Five operate at such a general level of analysis, trait scores...may not be especially useful in the prediction of specific behaviour in particular situations" (McAdams, 1992, p. 338).

In recent studies, personality remains a pivotal and supported predictive construct of performance (Furnham & Fudge, 2008; Hertz & Donovan, 2000; Klang, 2012; Neubert, 2004). Personality has been identified and linked to a number of positive organisational behaviour studies (Barrick, Stewart, & Piotrowski, 2002; Judge, Heller, & Mount, 2002; Kim, Shin, & Swanger, 2009; O'Reilly, Chatman, & Caldwell, 1991), with some studies emphasising the importance of individuals in a sales function and the impact thereof on organisational performance (Hogan, Hogan, & Gregory, 1992; Roodt & La Grange, 2001; Vinchur, Schippmann, Switzer, & Roth, 1998).

Responding to the need for performance predicting assessment tools, came the surplus of studies investigating, suggesting and supporting that personality traits can predict job performance (Barrick & Mount, 1991; Hogan, Hogan, & Gregory, 1992; Salgado, 1997; Vinchur, Schippmann, Switzer, & Roth, 1998). However, owing to the fact that the personality studies, despite numerous investigations and not in their entirety, have only predicted job performance to some extent, has left the door open for researchers to explore other possible predictors of job performance. One such construct is that of Psychological Capital. Drawing from positive psychology, positive organisational scholarship and positive organisational behaviours, the construct of Psychological Capital was developed. Embracing the core elements of positive organisational behaviours, Psychological Capital can be “measured, developed and harnessed for performance improvement” (Newman, Ucbasaran, Zhu, & Hirst, 2014, p 121). Resultantly, Psychological Capital has been found to impact positively individual performance in a work environment (Brandt, Gomes, & Boyanova, 2011). Maheshwari and Singh (2015) advised that in order to achieve, psychological resources should not be underestimated. In accordance with the positive organisational behaviours theory, the nature of this construct is suggested to be “state-like”, implying that on a continuum of unstable (states) on one end to very stable (traits) on the other end, Psychological Capital is malleable enough to be developed (Newman, Ucbasaran, Zhu, & Hirst, 2014, p. 122). In comparison to Psychological Capital, personality is trait-like in nature, implying relative stability over time. Despite this state-trait difference between Psychological Capital and personality, both indicate a positive association with job performance.

Organisations have found themselves in quite a predicament, being in war for talent essential to gaining and sustaining competitive advantage, while – at the same time – overwhelmed with the abundance of pre-employment assessments (though not all meeting the legislative requirements) available and at their disposal. The mind set of organisations have shifted from questioning the use and need of assessments to now questioning which assessments to use. The purpose of this study is thus to explore the influence of personality traits and Psychological Capital on job performance on a sample of salespeople within an Information, Communication and

Technology company in South Africa. It is also to determine the predictive relationship of personality traits and Psychological Capital on job performance

The proceeding section will highlight the research problem and the research objectives of the study. The paradigmatic perspective of the study will then be discussed. A literature review on the concepts of personality traits, Psychological Capital and job performance will then follow. Thereafter, the research methodology section will provide insights into the research design, the participants, the procedures to be undertaken and the instruments to be utilised. Before concluding with the limitations and recommendations, the ethical considerations that would need to be accounted for will be described. This study will contribute to the existing literature on the topics of personality traits, Psychological Capital and job performance.

## **1.2 THE PROBLEM STATEMENT**

Working within the dynamic 21<sup>st</sup> century environment, a salesperson may require a certain set of psychological meta-competencies and a specific personality type to meet the organisational demands of the industry and achieve global competitiveness. Salespeople function within competitive environments. A study by Schwepker and Ingram (1994) found that salespeople tend to perform better in more competitive environments. A meta-analytical review conducted by Vinchur, Schippmann, Switzer and Roth (1998), focused on the predictors of job performance for salespeople and one of the deductions was that personality dimensions or patterns would be useful in predicting sales success. It was further acknowledged that individual differences in characteristics should be accounted for during the selection of salespeople as it could directly influence an organisation's bottom line (Vinchur, Schippmann, Switzer, & Roth, 1998, p. 587).

This research investigated the following questions:

### **1.2.1 Research questions with regard to the literature review**

- How are personality traits, Psychological Capital and job performance

amongst sales employees in the ICT sector conceptualised from a theoretical perspective?

- What role do the biographical variables (gender, age and racial group) play in respect of personality traits, Psychological Capital and job performance amongst sales employees in the ICT sector?
- How is the theoretical relationship between personality traits, Psychological Capital and job performance amongst sales employees in the ICT sector conceptualised in the literature?
- What recommendations can be formulated for Industrial Psychology practices and future research?

### **1.2.2 Research questions with regard to the empirical study**

- What is the level of personality traits, Psychological Capital and job performance amongst sales employees in the ICT sector?
- What is the role of gender, age and racial group, in respect of personality traits, Psychological Capital and job performance amongst sales employees in the ICT sector?
- What is the relationship between personality traits, Psychological Capital and job performance amongst sales employees in the ICT sector?
- What recommendations can be formulated for Industrial Psychology practices and future research, based on the literature and empirical findings of this research with regard to personality traits, Psychological Capital and job performance amongst sales employees in the ICT sector?

## **1.3 AIMS OF THE RESEARCH**

### **1.3.1 General aim**

The general aim of the study is to investigate the relationship between personality traits, Psychological Capital and job performance amongst sales employees in the ICT sector.

### **1.3.2 Specific aims**

The following specific aims were identified for the study:

#### *1.3.2.1 Literature review*

The specific aims of the literature review were to:

- Conceptualise from a theoretical perspective personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector;
- Determine theoretically the role of the biographical variables (gender, age and racial group) in respect of personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector;
- Conceptualise the theoretical relationship between personality traits, Psychological Capital and job performance among sales employees in the ITC sector;
- Conceptualise the interaction between personality traits and Psychological Capital in predicting job performance;
- Determine the implications for Industrial Organisational Psychology practices and future research.

#### *1.3.2.2 Empirical study*

The specific empirical aims of the study were to:

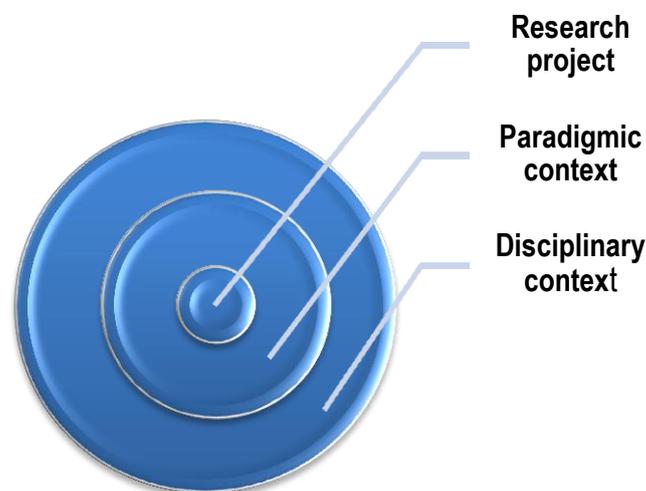
- Determine the levels of personality traits, Psychological Capital and job performance empirically amongst sales employees in the ITC sector;
- Determine the role of gender, age and racial group empirically in respect of personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector;
- Determine empirically the relationship between personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector;
- Assess the empirical interaction between personality traits and Psychological

Capital in predicting job performance;

- Formulate recommendations based on the literature and empirical findings of this research, Industrial Psychology practices and future research with regard to personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector and future research.

#### 1.4 PARADIGM PERSPECTIVES OF THE RESEARCH

It is imperative that an empirical study is positioned within the correct paradigm and disciplinary context to facilitate the understanding and analysis of its results. According to Morgan (1980), a paradigm denotes an implicit or explicit view of reality. It uncovers the core assumptions that characterise a specific worldview. A paradigm exists within a discipline. A research project has to be embedded in a specific discipline in which a specific paradigm will be adopted to tackle the research question and uncover the reality of the problem (Mouton & Marais, 1996). Figure 1.1 depicts the make-up of a research study.



**Figure 1.1 Representation of a research study (Mouton & Marais, 1996)**

The following section outlines the disciplinary context of the study and the paradigms used to uncover the reality of the research topic.

### **1.4.1 Disciplinary context**

This study is placed within the discipline of psychology, specifically the Industrial and Organisational Psychology branch. For the purposes of the literature study, the focus was on Career Psychology and Personnel Psychology, with the empirical study focused on psychometrics. The four branches of psychology are described below.

#### *1.4.1.1 Industrial and Organisational Psychology*

Kraiger (2004) defined Industrial and Organisational Psychology as an applied branch of psychology that is practised in the workplace (as cited in Beukes, 2010). It is concerned with people's attitudes, behaviours, cognitions and emotions at work. The main aim of this branch of psychology is to assist organisations in making better decisions about the entire process of employment and management of workers through scientific methods of collecting, analysing and utilising data. Industrial psychologists act as an advisory body. They conduct research that leads to the transformation and implementation of new human resource technology; organisational strategy; or an evaluation of the existing strategy (Beukes, 2010).

#### *1.4.1.2 Career Psychology*

Career Psychology, also known as Vocational Psychology, is focused on providing models and explanations for career-related activities, which brings about an understanding that personality traits, aptitudes, interests, motives and values, which are largely influenced by society, culture and economy, result in vocational behaviour, decision-making ability and vocational maturity (Beukes, 2010; Coetzee, 1996).

#### *1.4.1.3 Personnel Psychology*

Personnel Psychology is concerned with maximising productivity and employee satisfaction through the use of assessment and selection procedures, job evaluation, performance appraisal, ergonomics and career planning methodologies (Beukes, 2010).

#### *1.4.1.4 Psychometrics*

Psychometrics refers to the development and use of various kinds of assessment instruments to measure, predict, interpret, and communicate distinguished characteristics of individuals for a variety of work-related purposes, such as hiring, promotion, placement; successful work performance and development, such as career planning, skills and competency building, rehabilitation and employee counselling (Beukes, 2010).

### **1.4.2 Paradigm perspective of the research**

The literature review focuses on personality traits and Psychological Capital, followed by job performance. The literature review on personality traits and Psychological Capital is presented from the view of the psychodynamic paradigm. Job performance is examined from the behavioural paradigm, while the empirical study is looked at from the perspective of the positivist approach.

#### *1.4.2.1 The psychodynamic paradigm*

The assumptions of the psychodynamic paradigm include the following (Meyers et al., 1988, as cited in Coetzee, 1996):

- a given psychological phenomenon is always determined by specific internal factors;

- behaviour, therefore, is determined by forces within the individual of which they are largely unaware.

This paradigm is applicable to this study as phenomena such as personality and Psychological Capital are developed in the psychological realm, not by an individual's conscious efforts and choice. There are certain internal personal traits that will influence a person's performance.

#### *1.4.2.2 Behavioural paradigm*

The study of behaviour can be viewed in three main disciplines: psychology, sociology and anthropology. In psychology, the psychologist is concerned with the study of human behaviour. A study of the environment is done to determine why individuals behave in a certain way. A primary assumption of behaviourism is that it is concerned with observable behaviour. This type of behaviour can be objectively and scientifically measured (Watson, 1913).

Therefore, this paradigm is applicable to this study as job performance is the observable behaviour that this research aims to measure.

#### *1.4.2.3 Positivist research paradigm*

The basic assumptions of the positivist research paradigm are as follows (Terre Blanche, Durrheim, & Painter, 2006; Morgan, 1980):

- Ontology, the assumption is that external reality is stable and unchanging. Reality is law-like;
- It adopts a detached epistemological stance towards that reality. The researcher must be objective and an observer in the process;
- It employs a methodology that relies on control and manipulation, the aim of which is to provide an accurate description of the laws and mechanisms that operate in social life;
- It argues that knowledge and truth exist to the extent that they can be proved;
- It is concerned with understanding society in a way that generates useful empirical knowledge.

The positivist research paradigm was relevant to the current empirical study as human behaviour was studied in its context and measured by means of standardised psychometric instruments that provide an accurate and objective description of the facts.

### **1.4.3 Theoretical models**

The following section provides a brief, theoretical understanding to the constructs of personality traits, psychology capital, and job performance by means of conceptual definitions.

#### *1.4.3.1 Personality Traits*

In recent years, the trait approach to understanding personality has been dominated by the Five Factor Model of personality which identifies the “Big Five” personality traits. Personality traits have been researched and studied widely. Established as relatively stable in nature, it is expected that behaviour across time and even across situations would likely remain stable.

#### *1.4.3.2 Psychological Capital*

Psychological Capital is a new development in the study of positive organisational behaviour. The Psychological Capital model comprises of four constructs, which can be explained as an individual’s resources or capacities that influence positive organisational behaviours. Established as relatively malleable in nature, this state-like construct can be developed in the effort of improving performance.

#### *1.4.3.3 Job Performance*

Though central and imperative to the field of Industrial Psychology, job performance research tends to provide varying descriptions and measures for this construct. For the purposes of this study, the general model of individual differences in performance is used, which accounts for an individual’s personal attributes that influence their task knowledge and their conceptual knowledge. It also accounts for one’s motivation. Moreover, job performance will be understood as a goal-driven,

measurable behaviour. This study specifically refers to performance as the behaviour of meeting sales targets.

#### **1.4.4 Conceptual descriptions**

##### *1.4.4.1 Personality Traits*

Personality is a concept that – despite having a myriad of definitions – models and perspectives from different schools of psychology, it remains without a consensus or single agreed upon definition. Interest in personality psychology and the search to understand what makes people who they are, goes back to Ancient Greece. Personality can be explained in terms of factors, traits, types and states observed or elicited through behaviours. For the purpose of this study, only personality from a trait perspective is within the scope to be discussed. Allport (1937) defined personality as being “the dynamic organisation within the individual of those psychophysical systems that determine his unique adjustments to the environment”. Some people say, “your personality is what defines you”. Allport’s (1961) revised definition of personality as “...determining characteristic behaviour and thought” gave true meaning to that phrase. It appears that the revision provides for the idea that personality is related to an individual’s consistency in behaviour, implying that an individual’s behaviour and thoughts are not likely to be random. In other words, the difference in thoughts and action (compared to those of other individuals) and more so their stability in thoughts and action across situations, are what define individuals.

Ivancevich and Matteson (1993, p. 98) provided a rather all-encompassing view of personality as,

“...a relatively stable set of characteristics, tendencies and temperaments that have been formed significantly by inheritance and by social, cultural and environmental forces. This set of variables determines the commonalities and differences in the behaviour of the individual”.

#### *1.4.4.2 Psychological Capital*

Psychological Capital is a core concept in positive organisational behaviour (POB) literature, which focuses on improving performance in the current workplace through the measurement, development and effective management of human resource strengths and psychological resource capacities (Luthans, 2002a, p. 59). Psychological Capital is represented by four psychological resource capacities, namely self-efficacy, optimism, hope and resilience (Luthans, Luthans, & Luthans, 2004).

These are only four constructs that have met the stringent criteria set for being positive organisational behaviour. Luthans, Youssef and Avolio (2007, p. 3) defined the construct of Psychological Capital as “an individual’s positive psychological state of development”. It is theorised that during this state of development, individuals can be characterised as having self-efficacy, optimism, hope and being resilient. To possess these positive psychological capacities, an individual can be explained as having confidence to take on and put in the necessary effort to succeed (self-efficacy); willing to have a positive expectation about succeeding now and in the future (optimistic); being perseverant toward achieving goals and, when necessary, redirecting their paths toward goals in order to succeed (hope); and being able to endure and bounce back from adversity to attain success (resilience).

#### *1.4.4.3 Job Performance*

Some researchers suggest that job performance is a multi-factor construct (Boshoff & Arnolds, 1995; Roodt & La Grange, 2001), with some factors indicating of how well the individual performs at their work task, or how they manage their resources. From a different perspective, performance can be explained by two dimensions, namely the task performance dimension and the contextual performance dimension (Borman & Motowidlo, 1993). “Task performance” as Hogan and Brent explained, “corresponds to getting ahead and contextual performance corresponds to getting along with others” (2003, p. 101).

For the purposes of this study, performance will be understood as the behavioural aspect that refers to what people do while at work, the action itself (Campbell, 1990).

Performance encompasses specific behaviour (e.g., sales conversations with customers, teaching statistics to undergraduate students, programming computer software, assembling parts of a product). This conceptualisation implies that only actions that can be scaled (i.e., counted) are regarded as performance (Campbell et al., 1993). Therefore, the outcome of achieving a sales target is an indication of the behaviour of making a sale or closing a deal.

## **1.5 THE CENTRAL HYPOTHESIS**

The central hypothesis for this study is:

- There is a statistically significant and positive relationship between personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector.

## **1.6 RESEARCH METHOD**

This section briefly describes the conceptual pillars of the current research: Psychological Capital, personality traits and job performance. The methodology for this study will be discussed in more detail: phase one detailing the literature review and phase two explaining the empirical approach of the research, including the research design, research participants, measuring instruments, research procedure and statistical analysis is discussed.

### **1.6.1 Phase one: Literature Review**

- Step 1: Literature review of personality traits  
This involves the conceptualisation of the construct of personality traits;
- Step 2: Literature review of Psychological Capital  
This involves the conceptualisation of the construct of Psychological Capital;
- Step 3: Literature review of job performance  
This involves the conceptualisation of the construct of job performance;

- Step 4: Conceptualisation of the theoretical relationships  
Here the focus was on integrating the above literature to ascertain the theoretical relationship between Psychological Capital and personality traits, in relation to job performance as manifested in a South African ITC company.

### **1.6.2 Phase two: Empirical study**

The empirical study will be presented in the form of a research article in Chapter 3. The research article (Chapter 3) outlines the core focus of the study, the background to the study, trends from the research literature, the potential value added by the study, the research design (research approach and research method), the results, a discussion of the results, the conclusions, the limitations of the study and recommendations for practice and future research. Chapter 4 integrates the research study and discusses the conclusions, limitations and recommendations in more detail.

A non-experimental research design (Kerlinger & Lee, 2000) was used in this study. The use of a cross-sectional survey design is deemed appropriate in instances where interrelationships amongst variables within a population exist, without any manipulation or control of variables (Babbie & Mouton, 2001; Kerlinger & Lee, 2000). The sample was obtained through non-probability convenience sampling methods. This study utilised a quantitative, non-experimental research design (Kerlinger & Lee, 2000). A field survey approach retrieved the data from sales staff from the ICT organisation operating in South Africa.

#### ***Step 1: Determination and description of the sample***

Participants in this study represent employees from the salesforce of an ICT organisation within South Africa. The researcher distributed questionnaires to a compliment of 145 sales staff from the approached organisation. The prerequisite of the study was that the sample consisted of sales employees who were currently in a target-driven sales position and not those who were part of the sales team with no target (desk-based). Attached to each questionnaire was a letter pertaining to the rationale of the study, the confidentiality and anonymity procedures that would be

applied. It also informed employees that choosing to complete the survey was a sign of consent to participate in the study and provided the researcher the permission to use the collected data for research purposes.

### ***Step 2: Measuring Instruments***

The measuring instruments that were used are the Basic Traits Inventory short Psychological Capital Questionnaire (Coetzee's 2008; Luthans, Avolio, Avey, & Norman, 2007) and the Job Performance Questionnaire. A biographical questionnaire was also administered to record socio-demographic and biographical data of the participants. Information on age, gender, ethnic group, marital status and years of sales experience was collected.

#### **Basic Traits Inventory (BTI)**

The Basic Traits Inventory (BTI) was designed in response to the need for locally developed and valid personality instruments for the unique South African context. As a result, the BTI was developed to provide such an option. Its development was based on the Neo-Personality Inventory Revised (NEO PI-R) (Costa & McCrae, 1992), which had its development moulded by the Big Five and the Five Factor Model (FFM). Taylor (2004) confirmed the FFM as a suitable model for South Africa, and Taylor and De Bruin (2006) therefore based their development of the Basic Traits Inventory (BTI) on the FFM personality theory. Following the same structure, the BTI measures the Big Five personality factors, namely Extraversion (E), Neuroticism (N), Conscientiousness (C), Openness to experience (O) and Agreeableness (A). Taylor (2008) found that statistically, the BTI performs well in terms of little or no construct, item and response bias for the sample of students used in her study. The BTI is a paper-and-pencil test, in which the participant completes a questionnaire by means of self-reported answers. The BTI consists of 193 items rated on a 5-point Likert type scale, ranging from strongly disagree to strongly agree (Taylor & de Bruin, 2006).

In terms of the reliability of the five factors of the BTI, Taylor (2004) reported Cronbach Alpha coefficients above 0.88 for the different sub-dimensions for the total group. Satisfactory internal consistency reliabilities were reported as above 0.8 (Fan,

1998) and therefore the internal consistency reliabilities of the BTI are considered satisfactory, since values above 0.80 are generally indicated as acceptable (Kaplan & Saccuzzo, 2001). From her sample of students, Taylor (2008) found that statistically, the BTI performs well in terms of little or no construct, item and response bias.

Instead of the 193-item questionnaire, for the purposes of this study, the BTI short form was used and consisted of 77 items. The items were short, easy to understand and were measured on a 5-point Likert scale, ranging from strongly disagree to strongly agree.

### **Psychological Capital Questionnaire (PCQ)**

The Psychological Capital questionnaire, also referred to as the PCQ, consists of 24 items. It has four scales (Efficacy, Hope, Resilience and Optimism), each measured by six items. The resulting score represents an individual's level of positive Psychological Capital (Luthans, Avolio et al., 2007, p. 209). All constructs are measured on a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). In this study, each of the four subscales was drawn from established scales previously published, tested and used in recent workplace studies. More specifically, the Hope items were adapted from Snyder, Sympson, Ybasco, Borders, Babyak and Higgins, (1996) State Hope Scale. The Optimism items were derived from Scheier and Carver's (1985) Measure of Optimism; the Self-efficacy items from Parker's (1998) measure of self-efficacy in the workplace; and resilience stemmed from Wagnild and Young's (1993) Resilience Scale.

### **Job Performance Questionnaire**

Job performance will be measured based on results-orientated criteria (actual sales) by means of a Job Performance Questionnaire. Having gathered information as to how sales-driven organisations function, the researcher was able to compile a short, three question, survey, which was then approved by the supervisor overseeing the research. From the information gathered, the researcher was able to determine that sales employees each have a sales target that is set at the beginning of each financial year, and that the sales person would have to strive to make their sales

target within that current financial year. The idea of performance from the perspective of salespeople is simple; being a good performer means achieving and in some cases exceeding the set target. Sales employees have also indicated that achieving targets is a Key Performance Indicator, evaluated during performance reviews. Although not in isolation, management's performance ratings are also aligned with the percentage of target achieved. Due to confidentiality restrictions, it is understandable that management of the ITC company participating in the study was unwilling to provide information on actual sales data per employee. The questions included in the survey requested personal sales achievement data, which participants provided voluntarily. Job performance will be measured based on the percentage of sales target achieved for that period under measure. Organisational performance will be noted for the same period to serve as a point of reference.

### ***Step 3: Data collection***

Ethical clearance and institutional permission from the participating company as well as the supervising academic institution will be obtained prior to conducting the research. Internal validity will be ensured by minimising selection bias (targeting the population of sales individuals working in the ITC industry in the Gauteng region). The composite questionnaire, though intended to be emailed, will be administered in-person to the sales departments of the approached organisation. As large as possible a sample will be chosen to offset the effects of extraneous variables. A letter pertaining to the rationale of the study, as well as the confidentiality and anonymity procedures that will be addressed will be attached to the questionnaire. Participants will have the choice to either return their completed questionnaire by placing the completed survey into the collection boxes that will be placed within the sales department or to the researcher on days when she comes in to collect and retrieve surveys from the collection boxes. Respondents will be given three weeks to complete the composite questionnaire.

#### ***Step 4: Data Analysis***

The statistical analysis will be conducted with the use of the SPSS 18.0 program (SPSS, 2010). Descriptive statistics such as the mean, standard deviation and the Cronbach's Alpha coefficients will be used to analyse the data. Cronbach's Alpha coefficients ( $\alpha$ ) determine the internal consistency of the measuring instruments (Clark & Watson, 1995). Cut off points highlight the statistical and practical significance of the results. Statistical measures at significant levels of 95% ( $p < 0.05$ ) and 99% ( $p < 0.01$ ) will be highlighted. The practical significance of the results will be determined by interpreting its effect size in terms of being a small effect ( $R > 0.10$ ); medium effect ( $R > 0.30$ ) or large effect ( $R > 0.50$ ). Simple Regression analysis determines the amount of variance each independent variable (PsyCap and Personality traits) has on the dependant variable (Job Performance). Results from a Pearson Product Moment analysis determines the correlations (if any) between the variables.

#### ***Step 5: Hypothesis***

The research hypothesis was formulated in order to achieve the objectives of the study.

#### ***Step 6: Results***

Data analysis and findings were reported through statistical tables and figures. Interpretations relevant to statistical analysis were utilised to make sense of the data.

#### ***Step 7: Conclusions***

Conclusions emerging from the empirical study were drawn based on the questions that were presented.

### ***Step 8: Limitations of the research***

Limitations of the study were also highlighted.

### ***Step 9: Recommendations***

Recommendations were formulated with reference to the literature and the empirical objectives of the research.

### **1.6.3 Ethical considerations**

Referring to UNISA's Research Ethics Policy (2007), UNISA abides by five guidelines to conducting research involving human participants. These are:

- (i) Basic principles;
- (ii) Researcher-participant relationship;
- (iii) Informed consent;
- (iv) Privacy, anonymity and confidentiality;
- (v) International collaborative research involving human participants.

This study will take into account all of the above-mentioned ethical guidelines, relevant to the conduct of this study. Further to the ethical considerations surrounding the participants and the information, the study's first ethical action will be to attain institutional ethics approval, followed by organisational ethics approval.

## **1.7 CHAPTER DIVISION**

Chapter 1 Scientific orientation to the study

Chapter 2 Literature Review: Personality traits, Psychological Capital, job performance

Chapter 3 Empirical Study (Research Article)

## Chapter 4 Conclusions, Limitations and Recommendations

### **1.8 CHAPTER SUMMARY**

In this chapter, the research problem was presented and formulated. This was followed by a discussion of both the general aim of the study and the specific aims. The research design and methodology were presented and the divisions of the chapters indicated.

Chapter 2 presents the literature review on personality traits, Psychological Capital and job performance.

## **CHAPTER 2**

### **LITERATURE REVIEW: PERSONALITY TRAITS, PSYCHOLOGICAL CAPITAL AND JOB PERFORMANCE**

Chapter 2 conceptualises the constructs of personality traits, Psychological Capital, and job performance.

#### **2.1 CONCEPTUAL FOUNDATION OF PERSONALITY TRAITS**

In this section, the trait approach to personality is discussed. This discussion will include the contributions of theorists instrumental in the development of the trait approach, followed by definitions of personality. Thereafter, personality is conceptualised in terms of its models, with emphasis drawn to the Five Factor Model of personality. Ensuing is a discussion on the implications of personality traits for salespeople. This section will conclude with an examination on the biographical variables affecting personality traits before scrutinising Psychological Capital in the next section.

##### **2.1.1 Background**

According to Grobler (2014), personality can be described from either an ideographic or nomothetic paradigm. Emphasis on the individual and the impact of contextual variables are indicative of the ideographic paradigm. Describing and predicting individual differences in terms of predefined personality attributes (Chamorro-Premuzic, 2007) or universal laws of the human mind (Dumont, 2010) describes the nomothetic paradigm. The trait approach focuses on the concrete, conscious aspects of personality, leading trait theorists to perceive personality as the consistent and unchanging dispositions to think, feel and act, regardless of the context (Chamorro-Premuzic, 2007).

The study of personality can be approached from one of three perspectives, namely, the psychoanalytic, the behaviouristic and the phenomenological (Atkinson, Atkinson, Smith, Bem, & Nolen-Hoeksama, 1996).

- Sigmund Freud was the founder of the psychodynamic approach to psychology, which emphasised the influence of the unconscious mind on behaviour, motives and desires, as well as the importance of childhood experiences in shaping personality;
- One of the most prominent behavioural psychologists of all time, B F Skinner, supported the idea that behaviour was a response to stimuli; it was learnt and influenced by the environment. Moreover, there were differences in learning experiences, which was a determining factor behind individual differences in our behaviour;
- The phenomenological approach was the brainchild of Carl Rogers. This approach predominantly focused on the experiences of the individual, as their unique way of viewing and experiencing the world would ultimately mould their personality. It also assumed a positive stance that individual's innately strive toward growth and self-development.

Personality is a complex and multi-faceted phenomenon. Despite the myriad of available definitions, to date, no consensus has been reached toward a specific definition. The vast array of factors affecting it and more so, the uniqueness of individuals increases the difficulty for accepting a single definition of personality (Lamiel, 1997). While the debate on the definition of personality is presumably never-ending, it is likely only viewed from one of two perspectives (Grobler, 2014):

- (i) Human nature (which encompasses universal characteristics such as shared motives, goals and psychological processes);
- (ii) Individual differences (which encompasses habits and behaviours, which highlights distinctions or differences between individuals).

According to Briggs (1989), individual differences are best realised through traits, which are defined as “consistent patterns of individual differences in thoughts, feelings and behaviours” (McCrae, Costa, & Piedmont, 1993, p. 4). A similar interpretation was purported by Pervin and John (2001, p 251), who viewed traits as “a disposition to behave in a particular way as expressed in a person’s behaviour over a range of situations”.

“Behaviour is the mirror in which everyone shows his image” (Ajzen, 2005, p. 1). This statement voiced by the celebrated polymath, Johann Goethe, captured this essence of the trait approach of personality. In fact, in personality discourse, it is not uncommon for people to be described by their behaviour.

When predicting behaviour, the phenomenological approach focuses on the individual’s subjective experience, while the psychoanalytic and behaviouristic approaches refer to the individual’s motivational or reinforcement history (Atkinson et al., 1996). Deeply rooted in the belief of individual differences, the trait approach is the most common approach to personality psychology. McCrae and Costa (2003) defined traits as degrees of variation along dimensions (factors) that are hierarchically organised and emerged from native language, in accordance with the lexical hypothesis. The lexical approach enhances an instrument’s development by increasing its applicability to multicultural and multilingual environments such as the diverse context of South Africa. The lexical approach is based on two assumptions (Saucier & Goldberg, 2001); however, for a broader understanding please refer to the lexical approach (Lewis, 1993):

- (i) How frequently any specific term is used, in correspondence to its importance;
- (ii) The importance of a specific attribute is determined by the number of words referring to a particular personality attribute for the speakers of the language.

The Basic Trait Inventory (BTI) used in the current study is based on the nomothetic paradigm, where traits are used to describe personality attributes and types (Dumont, 2010). The Big Five personality factors, which were derived from research using the lexical approach, are measured with this instrument (Taylor & De Bruin, 2006).

### **2.1.2 Definition of personality traits**

Personality has always been definable through descriptive behaviour of the factors, types, traits or states that are either observable or elicited through assessment. In *The Online Newsletter for Personality Science*, Mayer (2007) argued that definitions

of personality in general were similar. Mayer purported that although there was a variation in word use, there remained a central idea that “personality is a system of parts that is organised, develops and is expressed in a person’s actions”. As evidence of this claim, Mayer reviewed the following five definitions of personality (Mayer, 2007, p. 1):

- Funder (2004, p. 5): Personality refers to an individual’s characteristic patterns of thought, emotion and behaviour, together with the psychological mechanisms – hidden or not – behind those patterns;
- Larsen and Buss (2005, p. 4): Personality is the set of psychological traits and mechanisms within the individual that are organised and relatively enduring and that influence his or her interactions with, and adaptations to, the intrapsychic, physical and social environments;
- McAdams (2006, p. 2): Personality psychology is the scientific study of the whole person...psychology is about many things: perception and attention, cognition and memory, neurons and brain circuitry...We try to understand the individual human being as a complex whole...[and] to construct a scientifically credible account of human individuality;
- Mayer (2007, p. 14): Personality is the organised, developing system within the individual that represents the collective action of that individual’s major psychological subsystems;
- Pervin, Cervone and John (2005, p. 6): Personality refers to those characteristics of the person that account for consistent patterns of feelings, thinking and behaving.

The author is in agreement with Mayer’s argument that there are underlying similarities in the existing definitions of personality. The above definitions are aligned in their explanation of personality, with the difference being the words that were used.

Contrary to the argument of similarities, personality definitions vary in accordance with the different approaches to personality (Meyer, Moore, & Viljoen, 1997). For example, from the Psychoanalytic Theory, Freud emphasised the role of the unconscious mind. Though he did not provide a specific definition for personality, he

described it as comprising three aspects of the psyche, namely, the ID, the ego and the super ego. From the Behaviouristic approach, Skinner explained that behaviour is learned through a sequence of rewards and punishment. Bandura complemented the Learning Theory with the concept of social learning, which expanded that people learn behaviour through their observations of others. The Humanistic approach was influenced by Rogers, who described the “self” as central to understanding personality. He believed that to become one’s real self, one needs to understand what the self is, then accept and value oneself. Supplementing the humanistic approach was the concept that personality was motivated by a hierarchy of needs. Maslow’s explanation found that individuals are in a constant strive toward a state of self-actualisation; however, according to his pyramid model, the basic, physiological needs have to be met first. Understanding personality from the trait approach assumes that people will behave in a relatively stable manner across time and situations, although being characteristically different (from others) in nature. A well-known and accepted premise of the trait approach is the emphasis of observed behaviour, that human behaviour can be organised by labelling and classifying observable personality.

Ivancevich and Matteson (1993, p. 98) provided a broad, umbrella-like definition for personality that seems to encompass all the ideas incorporated by the definitions above:

“...a relatively stable set of characteristics, tendencies and temperaments that have been formed significantly by inheritance and by social, cultural and environmental forces. This set of variables determines the commonalities and differences in the behaviour of the individual”

From this definition, the essence of personality can be assumed to be all the variables that make each individual similar to and different from another individual.

### **2.1.3 Theoretical conceptualisation and models related to personality traits**

In this section, three models of personality will be discussed, namely Eysenck’s Three Factor Model of personality, Cattell’s Sixteen Factors Model of personality, and the Five Factor Model of personality.

### 2.1.3.1 *The three factor model of personality*

Strongly rooted in biology, Eysenck's model is built on his belief that personality traits are heritable and have a psycho-physiological foundation. During the 1940s, Eysenck worked at the Maudsley Psychiatric Hospital in London, where he was tasked with making the initial assessment of each patient before their mental disorder was diagnosed by a psychiatrist. He compiled a battery of behavioural questions, which he applied to 700 soldiers, who were being treated for neurotic disorders at the hospital (Eysenck, 1947).

Finding similarities between the soldier's responses indicated to him that there were a number of different personality traits, which were being revealed. Eysenck referred to these as first order personality traits. Using factor analysis, he was able to condense behaviours into factors that can be grouped together under separate dimensions. Eysenck (1947) found that the soldiers' behaviour could be represented by two dimensions: Introversion / Extroversion (E) and Neuroticism / Stability (N). These dimensions Eysenck referred to as second-order personality traits. According to Eysenck, these dimensions are normally distributed and continuous, resulting in a wide range of individual differences (Hjelle & Ziegler, 1992). The dimensions furthermore assume numerous specific traits.

In an attempt to explain individual differences, Eysenck later proposed the Three-Factor Model, also known as the PEN model. According to Eysenck (1995), personality comprises three basic types of dimensions, which he described as:

- Introversion-extraversion;
- Emotional stability – neuroticism (a factor sometimes called instability – stability);
- Tough-mindedness – psychoticism (tender-mindedness).

This approach makes it possible to separate people into four groups, each being a combination of low or high on one dimension, with a low or high on the other dimension. For example: A moderately extraverted person, who is also moderately unstable might be characterised by these traits: aggression, excitability and changeability (Eysenck, 1995). An extremely introverted person, who is also midway

on the stable-unstable dimension might be viewed as unstable, quiet, passive and careful. Eysenck's Three-Factor Model is one of the most sophisticated and influential trait approaches in the study of personality. The model (Table 2.1) is used in the assessment and description of behaviours in various applications (Kruger, 2008).

**Table 2.1: Eysenck's Three Factor Model of personality factors and sub factors**

<b>Extroversion vs Introversion</b>	<b>Emotional Stability vs Neuroticism</b>	<b>Tough-mindedness vs Psychoticism</b>
Activity	Low self-esteem	Aggressiveness
Sociability	Unhappiness	Assertiveness
Risk-taking	Anxiety	Achievement orientated
Impulsive	Obsessiveness	Manipulation
Expressiveness	Lack of autonomy	Sensation seeking
Lack of reflection	Hypochondria	Dogmatism
Lack of responsibility	Guilt	Masculinity

### *2.1.3.2 Cattell's theory: The Sixteen Factors Model of personality*

When researching personality traits, Cattell believed that there were three sources of data, namely, L-data, Q-data and T-data. L-data was also referred to as life data and included a person's actual records of behaviour in society. Cattell gathered the majority of L-data from peer ratings. Q-data was obtained through self-rating questionnaires, which allowed people to rate their own behaviour. T-data was the objective test. By means of a unique situation, the personality trait being measured was unknown to the person completing the question (Pervin & John, 2001).

Through factor analysis, Cattell identified what he referred to as surface and source traits. He referred to the innumerable differences that could be observed among people as surface traits (Gregory, 1996); language provided the total domain of surface traits. Cattell considered source traits as more important than surface traits in understanding personality (Hall & Lindzey, 1978; Maddi, 1996; Peterson, 1992). Source traits represent the underlying structure of the personality. The identified source traits became the primary basis for the 16 PF Model.

Cattell's 16 Personality Factor Model was an attempt at constructing a common taxonomy of traits, using the lexical approach. His contributions to factor analysis

have been exceedingly valuable to the study of Psychology, with the lexical approach to language having created the foundation of a shared taxonomy of natural language of personality description (John, 1990). Although Cattell's theory was strongly criticised as never having been replicated, his empirical findings lead the way for investigation and later discovery of the 'Big Five' dimensions of personality. Simplifying Cattell's variables, Fiske (1949) and later, Tupes and Christal (1961) identified five recurrent factors known as extraversion or surgency, agreeableness, consciousness, emotional stability and intellect or openness (Pervin & John, 1999).

### 2.1.3.3 *Five Factor Model (FFM) of personality traits*

The Five Factor Model (FFM) (Goldberg, 1990; McCrae & John, 1992; McCrae & Costa, 1987) was selected for this research project, as the personality instrument utilised was developed based on the FFM model, with previous research indicating its suitability for environments as culturally and linguistically diverse as South Africa (De Bruin & Taylor, 2005b; Taylor, 2004, 2008 and Taylor & De Bruin, 2004, 2006). Measuring the "Big Five" personality traits, the FFM is one of the most widely known and commonly used taxonomies of personality (Goldberg, 1990; Hogan, Hogan, & Roberts, 1996). Costa and McCrae (1988) recognised that personality is fairly stable over time (Barrick, Mount, & Judge, 2001), while a follow-up study (McCrae & Costa, 1997) established the replicable nature of the FFM, using different assessment approaches, in different cultures, with different languages and using ratings from different sources. The FFM also serves as a practical approach to studying individual differences (Costa & McCrae, 1992; Barrick & Mount, 1991). The FFM consists of five personality traits, namely Neuroticism, Extraversion, Openness to experience, Agreeableness and Conscientiousness. It is easily remembered by using the acronym OCEAN.

Table 2.2 summarises each trait with the associated descriptive words (Farrington, 2012, p. 4; Barrick & Mount, 1991), after a brief definition is provided for each.

- Extroversion (or Surgency) is defined by the quantity and intensity of interpersonal interaction;
- Emotional Stability (or Neuroticism) is a measure of lack of adjustment versus emotional stability;
- Agreeableness (or Likability) is associated with traits such as trust, cooperation, flexibility, tolerance and "soft-heartedness";
- Conscientiousness (or Will to Achieve) is an individual's degree of dependability, organisation, persistence and achievement-orientation;
- Openness to Experience (or Intellect) is associated with imagination, creativity, curiosity and artistic sensibility (Barrick & Mount, 1991; Costa & McCrae, 1985).

**TABLE 2.2: PERSONALITY DIMENSIONS WITH ASSOCIATED DESCRIPTIVE WORDS**

<b>Personality dimension</b>	<b>Descriptive words</b>
Neuroticism	Anxiety, depression, anger, embarrassment, worry, self-pity, insecurity, moody, emotionally unstable, highly excitable, self-conscious, melancholy, apprehensive, hostile, envious, insecure, impulsive and prone to stress (Weiten, 2010; Foulkrod, Field, & Brown, 2009; Raab, Stedham, & Neuner, 2005; Llewellyn & Wilson, 2003; Costa & McCrae, 1992; Barrick & Mount, 1991).
Extraversion	Sociable, assertive, talkative, active, outgoing, gregarious, optimistic, upbeat, energetic, enthusiastic, adventurous, ambitious, involved, talkative, frank, positive, cheerful, fun loving, courteous, flexible, trusting, good natured, cooperative, forgiving, soft hearted, affectionate and tolerant (Weiten, 2010; Barrick et al., 2001; Llewellyn & Wilson, 2003; Costa & McCrae, 1992; Barrick & Mount, 1991; John, 1990).
Openness to experience	Original, open minded, artistic, insightful, imaginative, intelligent, curious, flexible, unconventional, independent, inquiring, perceptive, thoughtful, creative, liberal, innovative, socially poised, polished, tolerant of ambiguity, unconventional and adaptive (Nadkarni & Herrmann, 2010; Weiten, 2010; Foulkrod et al., 2009; Barrick et al., 2001; Mount & Judge, 2001; Costa & McCrae, 1992; Barrick & Mount, 1991; John, 1990).
Agreeableness	Altruistic, empathetic, kind, cooperative, trusting, gentle, compliant, modest, values affiliation, conflict avoiding, easy going, likable, friendly, helpful, courteous, considerate, flexible, good natured, cooperative, forgiving, soft hearted, tolerant, affectionate, generous, sympathetic, straightforward, easy to get on with, widely liked, eager to help others, compassionate, mild, emotionally mature, self-sufficient and attentive to others (Weiten, 2010; Foulkrod et al., 2009; Bono & Judge, 2004; Barrick et al, 2001; Llewellyn & Wilson, 2003; Costa & McCrae, 1992; Barrick & Mount, 1991; John, 1990).
Conscientiousness	Dependable, responsible, careful, thorough, organised, hardworking, achievement orientated, efficient, deliberate, prudent, fussy, tidy, scrupulous, strong willed, punctual, goal directed, holding impulsivity in check, diligent, orderly, self-disciplined, dutiful and planning ahead (Nadkarni & Herrmann, 2010; Foulkrod et al., 2009; Judge et al., 2002b; Barrick et al, 2001; McCrae & Costa, 1997; Costa & McCrae, 1992; Barrick & Mount, 1991; John, 1990).

Developed in 2006, for the South African context, by Taylor and De Bruin, the Basic Traits Inventory (BTI) is the first multicultural personality instrument. It is rooted in the rich theory of the FFM and is aligned to measure personality by producing results on the same five dimensions. Table 2.3 presents the dimensions of the BTI, with the corresponding sub-scales measured by each dimension (Taylor & De Bruin, 2006).

**TABLE 2.3: BTI DIMENSIONS AND ASSOCIATED SUB-SCALES**

<b>BTI Personality dimension</b>	<b>Subscales</b>
Neuroticism	Depression, Anxiety, Affective Instability and Self-Consciousness
Extraversion	Ascendance, Gregariousness, Excitement-Seeking, Activity and Positive Affectivity
Openness to Experience	Aesthetics, Ideas, Actions, Values and Imagination
Agreeableness	Straightforwardness, Compliance, Tendermindedness, Prosocial Tendencies and Modesty
Conscientiousness	Effort, Order, Prudence, Self-Discipline and Dutifulness

While the BTI may be considered a long questionnaire, it was found to be more reliable than shorter personality inventories (Metzer, De Bruin, & Adams, 2014). In addition to staff development, counselling, within educational settings, for psychodiagnostics and for research purposes, the BTI can also be used as part of the recruitment and selection process for new staff, thereby reinforcing its appropriateness to this study.

#### **2.1.4 Implications of personality traits for sales employees**

In time, emphasis shifted from defining personality to measuring it. Barrick and Mount (1991) highlighted the following more convincing personality arguments:

- Personality constructs, while abstractions of behaviour, can be measured with reasonable reliability;
- There is stability to personality measures over time and occasions;
- Personality measures are significantly related to some non-test criterion measures of performance;
- Personality measures are useful in predicting performance of candidate sales employees in certain settings (Roodt & La Grange, 2001, p. 35).

With time, personality dimensions have arguably become one of the most investigated predictors of job performance, as there is an expectation that having a more aligned personality type to job task requirements would create the right environment for performance. Although this may seem obvious, empirical studies have revealed equivocal results. Mischel (1968) noted that validity coefficients very rarely exceeded the  $r = 0.30$  upper limit, indicating low correlations for predicting individual behaviour. However, in larger samples this result would be significant.

Four traits of the FFM significantly predict job performance (Rothmann & Coetzer, 2003, p. 69), with the exception of Openness to Experience, which could be explained by the fact that jobs have varying requirements. Conscientiousness as a personality predictor has been recognised for its ability to be generalised across occupations and work environments (Barrick & Mount, 1991; Barrick, Mount, & Judge, 2001; Hertz & Donovan, 2000; Salgado, 1997). Barrick and Mount's (1991) study revealed that the corrected predictor-criterion relationships for sales employees were 0.23 for Conscientiousness and 0.15 for Extraversion. The remaining three traits were considerably lower. A meta-analytic review conducted by Vinchur, Schippmann, Switzer and Roth (1998) yielded consistent results, stating that only certain personality traits predicted job performance well within a sample of sales employees.

The value of personality instruments as predictors of workplace performance (Grobler, 2014) became evident with a wealth of studies suggesting personality traits can predict job performance (Barrick & Mount, 1991; Hogan, Hogan, & Gregory, 1992; Salgado, 1997; Vinchur, Schippmann, Switzer, & Roth, 1998). The advantages of utilising personality assessments as part of the selection of new sales employees

is resultantly assumed, given the multitude of personality instruments developed for this purpose.

### **2.1.5 Biographical variables affecting personality traits**

This section investigates the influence of gender, age and ethnicity/race (biographical variables) on personality traits. The study of biographical variables are likely to provide some aid to understanding personality, the similarities and differences between males and females, the relative stability of traits over the course of one's life, and the impact of race on personality. Personality literature regarding gender is abundant, while age is sufficient; however, research pertaining to race and personality appears to be limited.

#### *2.1.5.1 Gender*

Biographical research studies, in relation to personality have predominantly focused on gender differences (Goldberg, Sweeney, Merenda, & Hughes Jr (1998). It seems that there has always been an interest, scientific or general desire, to comparatively analyse personality in order to understand the differences between genders. Owing to social expectations toward nurturing roles, it is expected that in general, women would naturally portray and score higher on personality aspects related to care, warmth, concern, and emotions (Costa, Terracciano, & McCrae, 2001; Feingold, 1994; Larsen & Buss, 2008).

Goldberg, Sweeney, Merenda and Hughes Jr (1998) conducted a review of four meta-analyses. Nine average gender-personality correlations were observed, suggesting that most gender differences in personality variables are quite weak. Another gender difference study found that men and women scored high on different facets of the same trait (Costa, Terracciano, & McCrae, 2001). While men scored higher in some facets of Extraversion, such as Excitement Seeking, women scored higher in other Extraversion facets such as Warmth. Other findings indicated that men scored higher in some facets of Openness, such as Openness to Ideas, while women scored higher in others such as Openness to Aesthetics and Feelings. The comparisons identified in Costa, Terracciano, and McCrae's (2001) investigation

revealed that on a trait or factor level, personality differences in terms of gender are generally insignificant, rather significant gender differences can be found on the facet level of personality. The scope of this study does not include an investigation of the facet level of personality and will therefore not report on such findings. Future research is encouraged to take a facet level approach to understand the influence of gender on personality.

#### 2.1.5.2 *Age*

In a review of personality studies relating to age, though exhaustive, it explained that with age, personality traits do tend to change moderately. Costa, McCrae and colleagues (2000) demonstrated that based on of the Five Factor Model of personality (McCrae & John, 1992), the broad domains of Neuroticism (N), Extraversion (E) and Openness to Experience (O) decline, whereas Agreeableness (A) and Conscientiousness (C) increase between adolescence and later adulthood.

A 40-year longitudinal study supported Costa and colleagues' hypothesis of moderate personality change with age. However, it was argued that personality change would be most prominent after the age of 30 years and not before (Helson, Jones, & Kwan, 2002, p. 752). In an effort to determine whether these difference are a result of sampling biases or cohort effects, or whether they accurately represent different developmental paths in different cultures and samples, McCrae, Costa Jr, Kovač, Nek, Martin, Oryol, Rukavishnikov, and Senin (2004) conducted a study on a large sample of Czech and Russian participants. In support of Costa and colleagues' (2000) previous research, Neuroticism, Extraversion and Openness to Experience appeared to decrease with age after late adolescence, whereas Agreeableness and Conscientiousness increased.

The results of a recent study on an Indian population comprising of 155 subjects (Magan, Mehta, Sarvottam, Yadav, & Pandey, 2014) concluded with a suggestion that while personality traits may change with age; it is gender-dependant, possibly related to the facets of such traits.

### 2.1.5.3 *Race*

Goldberg and colleagues' study (1998) included an investigation of racial/ethnic status. They predicted and empirically affirmed that group differences on personality dimensions would be small. Their largest difference was represented with a partial correlation with Conscientiousness (thus controlling for the other demographic variables).

## **2.2 CONCEPTUAL FOUNDATION OF PSYCHOLOGICAL CAPITAL**

This section provides an overview of the Psychological Capital construct. A brief background to the construct is provided first, followed by its operational definition. The four constructs or sub-scales (attributes or the dimensions) of Psychological Capital are then explained, with particular focus on the findings from previous studies. Thereafter, the model of Psychological Capital is presented, preceded by a discussion on the implications of Psychological Capital for salespeople. Before proceeding to the next section on job performance, this section will conclude with a discussion on the biographical variables affecting Psychological Capital.

### **2.2.1 Background**

The Positive Psychology movement is “the science of positive subjective experience, positive individual traits and positive institutions” (Donaldson & Ko, 2010, p. 187). Introduced in 1998 by Martin Seligman and his colleagues, the field of Positive Psychology has since continued to gain momentum and thrive. Seeded within this field, Fred Luthans pioneered a new branch in Positive Psychology by applying positive research to the work environment, which has resultantly blossomed into what is commonly known as Positive Organisational Behaviour (POB). The purpose of this new branch was to redirect the almost monopolised attention on dysfunctional mental illness to a more positive approach on mental health, with an increased emphasis on the building of human strength (Avey, Luthans, & Youssef, 2010; Luthans, Youssef, & Avolio, 2007; Luthans, 2002a).

Positive organisational behaviour has been defined as “the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed and effectively managed for performance improvement” (Luthans, 2002b, p. 59). In an effort to gain practical value and usefulness, the following criteria were set for determining the constructs to be included in this definition of positive organisational behaviour: (a) grounded in theory and research; (b) valid measurement; (c) relatively unique to the field of organisational behaviour; (d) state-like and hence, open to development and change as opposed to a fixed trait; and (e) have a positive impact on work-related individual-level performance and satisfaction (Luthans, 2002a, 2002b; Luthans et al., 2007). To date, there are only four positive psychological constructs that meet the set inclusion criteria, namely, hope, optimism, self-efficacy and resilience; and when combined, together they represent the core construct that has been termed Psychological Capital or PsyCap (Luthans & Youssef, 2004; Luthans et al., 2007).

As is evident, there is an abundance of research focusing on the constructs of Psychological Capital as well as its sub-constructs, thereby affirming that it has and would likely continue to draw the attention of researchers and practitioners alike in future studies. This is primarily attributable to two parts of the inclusion criteria highlighted earlier, namely, (d) state-like and hence, open to development and change as opposed to a fixed trait; and (e) have a positive impact on work-related individual-level performance and satisfaction. Though it may be probable that both aspects, in their individual capacity, would spark the interest of research, being characteristics of a single construct would provide practical findings that would contribute not only to the field of Industrial Psychology, but also be beneficial to practitioners and hiring staff for organisations.

Going beyond human capital (“what you know”) and social capital (“who you know”), Psychological Capital is more directly linked with ‘who you are’ and more importantly ‘who you are becoming’ (Luthans, Avey, Avolio, Norman & Combs, 2006, p. 388). Most, if not every job, has a certain degree of stress, or unplanned / unforeseen circumstances or potential for failure, thereby making Psychological Capital an individual capacity that – as being developed – would positively impact the individual and through effective performance, also their organisation. Therefore, it is clear that

Psychological Capital is likely to have a significant impact on further studies in the field of Industrial Psychology, particularly on the positive organisational behaviour of job performance.

### **2.2.2 Definition of Psychological Capital**

Luthans, Youssef, and Avolio (2007, p. 3) defined Psychological Capital as:

“...an individual’s positive psychological state of development that is characterised by (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive expectation (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success”.

Each of the attributes making up Psychological Capital are defined below (Brandt, Gomes, & Boyanova, 2011; Luthans & Youssef, 2004).

*Self-efficacy*: One’s conviction (or confidence) about one’s abilities to mobilise the motivation, cognitive resources and courses of action needed to successfully execute a specific task within a given context. Among the four concepts, self-efficacy is the one concept that is better structured both from a theoretical and practical standpoint. In fact, it is deeply rooted in Bandura’s (1997) human social cognition theories.

*Hope*: Following Snyder’s (2000) theory and research on hope, this concept is defined as a positive motivational state that is based on an interactively derived sense of successful: 1) agency (goal-directed energy), and 2) pathways (planning to meet goals).

*Optimism*: Seligman (1998) claimed that optimism is an explanatory style that attributes positive events to personal, permanent and pervasive causes and interprets negative events in terms of external, temporary and situation-specific factors.

*Resilience*: This is the most recent addition to Psychological Capital, and it has been defined as the capacity of rebound or bounce back from adversity, conflict, failure or even positive events, progress and increased responsibility (Luthans, 2002b). Taken from Positive Psychology, the definition of resilience is to widen with the inclusion of the ability to overcome not only the negative, but also the positive and challenging events.

### **2.2.3 Theoretical conceptualisation and models related to Psychological Capital**

The four subscales attributed to Psychological Capital were recognised and accepted as constructs in psychology prior to their association with positive organisational behaviour. The Psychological Capital questionnaire drew from established scales, previously published, tested and used in recent workplace studies. More specifically, the Hope items were adapted from Snyder, Sympson, Ybasco, Borders, Babyak and Higgins' (1996) State Hope Scale; the Optimism items from Scheier and Carver's (1985) Measure of Optimism; the Self-Efficacy items from Parker's (1998) measure of self-efficacy in the workplace; and Resilience from Wagnild and Young's (1993) Resilience Scale. Although *self-efficacy*, *hope*, *optimism* and *resilience* may be generally understood in everyday words, the next section briefly expands on these constructs from a positive psychology perspective.

#### **2.2.3.1 Self-efficacy**

As a result of the widely recognised work of Albert Bandura on conceptualising and validly measuring efficacy as a construct that is both generalised and domain-specific, self-efficacy is arguably the most extensively researched and accepted of all Psychological Capital constructs (Luthans, Avey, Avolio, Norman, & Combs, 2006). When presented with a daunting task, Bandura (2000) highlighted that it is the individual's perception and interpretation of that challenge that would influence the approach to and experience of that task. In other words, in a stressful work environment such as a sales environment, the more difficult a task, the more self-efficacy an individual would need to possess to perceive that task as surmountable. Furthermore, a study revealed the mediating effect of self-efficacy of negative work-

related outcomes such as stress and burnout (Rothmann, 2003). Though studies that explore self-efficacy and its relation to the positive organisational behaviour of job performance in a South African context are limited, Orpen (1995) found significantly positive correlations between self-efficacy beliefs and performance (self-rating and average supervisor ratings).

### 2.2.3.2 *Hope*

Although historically part of humanistic psychology, positive psychology Professor Rick Snyder (2002) explained hope to be a multidimensional construct, which consists of an individual's goal-directed energy and planning to meet goals (Kappagoda, Othman, Fithri, & Alwis, 2014; Snyder, 2000; Snyder, Irving, & Anderson, 1991). Therefore, it is likely that through hope, individuals are motivated and seek out the best pathways toward successful accomplishment of goals (Avey et al., 2008). Resulting in these two components of hope, they elicit particular relevance to the emphasis in today's workplace on self-motivation, autonomy, as well as contingency plans (Snyder, 2000). In addition, there were a number of studies conducted that highlighted the relation of hope with various work-outcomes. Hope was shown to be related to financial performance as well as employee satisfaction and retention (Peterson & Luthans, 2003), while Luthans, Avolio, Walumbwa, and Li (2005) found the relation with supervisory-rated performance of Chinese factory workers'. In 2007, Youssef and Luthans related hope to employee performance, satisfaction, happiness and commitment.

### 2.2.3.3 *Optimism*

In general, optimism is understood as having a positive outlook on life: *the glass half full* mentality. Individuals with an optimistic outlook are unlikely to view setbacks as obstacles, but rather as opportunities that can eventually lead to success (Luthans et al., 2005). In a study amongst South African support staff in a higher education institution, Rothmann and Essenko (2007) found that dispositional optimism had a direct effect on exhaustion and cynicism (Simons & Buitendach, 2013). The study of Chinese factory workers found that optimism had a significant relationship with rated performance (Luthans, Avolio, Walumbwa, & Li, 2005). In a later study (Youssef &

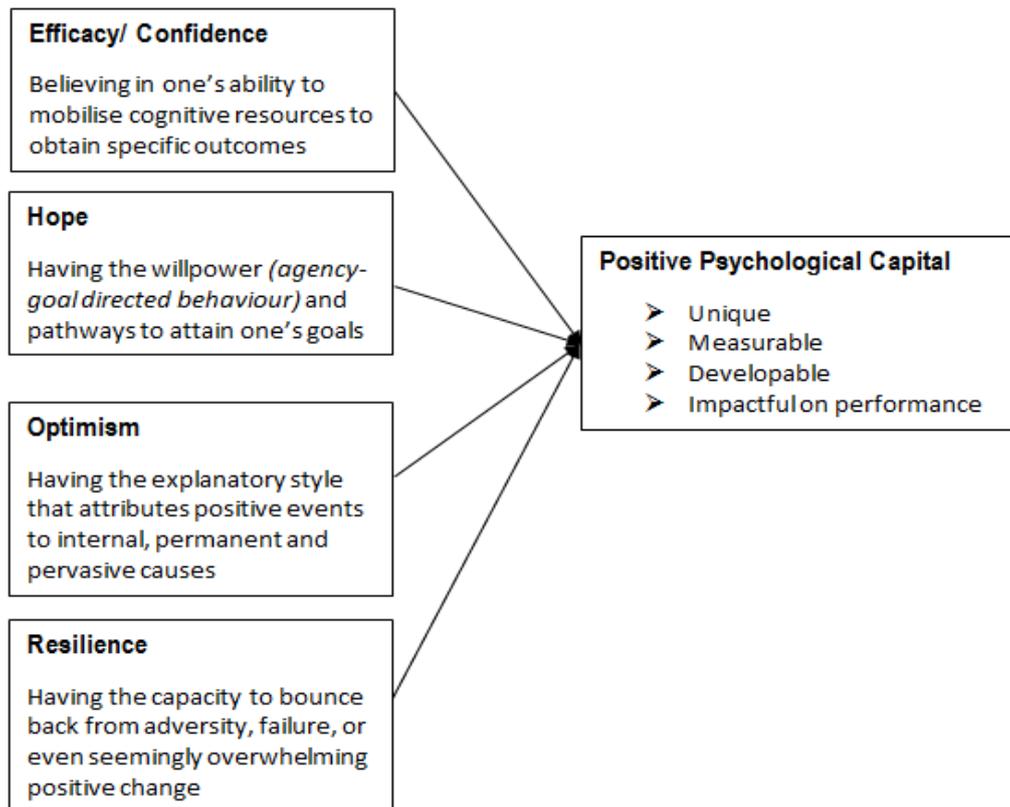
Luthans, 2007), it was reported that employees' optimism related to their performance evaluations, their job satisfaction and work happiness. In his study, Seligman (1998) found optimism to be significantly and positively related to the performance of some insurance sales agents. Optimism, in the author's view, is a vital part of a salespersons' resource capacities as an optimistic attitude in the face of adverse and challenging situations could potentially have a positive impact on the achievement of work-related goals.

#### 2.2.3.4 *Resilience*

To display resilience, an individual would need to be able to experience and overcome overwhelming circumstances (positive or negative) to be in a position to move on past that circumstance and continue with daily life. In a novel illustration of this idea, resilience can be the 'bounce forward' (as opposed to the customary "bouncing back"), thus implying that the individual does not return to life as it once was, but rather takes into account the experience to move forward past that moment to a new moment in life. Baumgardner and Crothers (2010) viewed resilience centres as an individual's coping resources. Tugade, Fredrickson, and Barrett (2004) conducted a study that proved empirically that positive emotions enhance resilience in the face of negative events. It relates to the positive reaction of the upward spiral effects of emotions (Fredrickson & Joiner, 2002), which states that individuals may become more resilient after each time of effectively bouncing forward from a setback. Youssef and Luthans (2007) found resilience to be related to work attitudes of satisfaction, happiness and commitment (Choubisa, 2009), while Larson and Luthans (2006) found resilience related to job satisfaction of factory workers. Moreover, resilient employees are more likely to maintain their health, happiness and performance even in the daunting event of downsizing (Maddi, 1987). In a work environment often challenged by stress, adversity and rejection, possessing effective coping resources (resilience) is a necessity, not just to persevere, preserve and perform, but even just to survive.

### 2.2.3.5 The Psychological Capital model

Figure 2.1 illustrates the model of Psychological Capital, comprising of self-efficacy, hope, optimism and resilience.



**Figure 2.1: Dimensions of Positive Organisational Capital**

Adapted from Luthans and Youssef, (2004, p. 152)

### 2.2.4 Implications of Psychological Capital for sales employees

As a central aspect of positive organisational behaviours, and in accordance with its associated criteria, Psychological Capital was determined to be positive, unique, developable, measurable and performance-related (Luthans & Youssef, 2004). By complying with the defined criteria, Psychological Capital has ascertained significant correlations with positive organisational behaviours such as organisational commitment (Luthans, Norman, Avolio, & Avey, 2008); job satisfaction (Luthans, Avolio, Avey, & Norman, 2007); and job performance (Luthans, Avey, Avolio, & Peterson, 2010). Psychological Capital, as a higher level component, produced

significant correlations with performance versus its individual dimensions (Luthans, Avolio, Avey & Norman, 2007). Martin, O'Donohue, and Dawkins (2011) measured Psychological Capital on job satisfaction and turnover. The hypothesis was supported (in the individual level), as Psychological Capital was found to be significantly associated with both job satisfaction and turnover. A recent study by Polatc and Akdoğan (2014) confirmed that Psychological Capital empirically predicted job performance ( $r = 0.40$ ). These links between Psychological Capital and the aforementioned positive organisational behaviours can be attributed to what Psychological Capital represents, which is an individual's "positive appraisal of circumstances and probability for success based on motivated effort and perseverance" (Luthans, Avolio, Avey, & Norman, 2007, p. 550).

While studies under the psychology umbrella, as well as those focusing on the prediction of job performance, may be rather recent, Psychological Capital has been found to have been promising with numerous positive associations with positive organisational behaviour, including that of performance. Sales is a numbers-driven function, making the environment stressful and placing the sales employees always under strain. Undoubtedly, having sales employees, who are confident in their abilities, motivated, with a positive outlook and perseverant through challenges, would be a competitive advantage on its own. The assessment of Psychological Capital can assist in the selection of future sales talent and the development of current talent by measuring an individual's level of self-efficacy, hope, optimism and resilience, the benefit of which would be the ability of these attributes to be developed and enhanced.

### **2.1.5 Biographical variables affecting Psychological Capital**

The researcher was unable to find studies pertaining specifically to biographical variables; therefore, the information provided in this section is limited. To enrich literature on the topic, it is suggested that future research of Psychological Capital include an investigation into the role and influence of biographical variables. This study will resultantly contribute to the limited content on the topic of biographical variables and its influences on Psychological Capital.

### 2.1.5.1 *Gender*

A review of Psychological Capital studies reveals a scarcity of information with regard to biographical variables. Whilst there are studies that investigate biographical variables on the facet level of Psychological Capital, studies of the facet of self-efficacy are predominant.

In a study of 6,380 seventh-grade students, Vantieghem and Van Houtte (2015) investigated academic self-efficacy and the impact of gender conformity pressure. Their study indicated that girls' academic self-efficacy did not decline when experiencing more pressure for gender conformity, whereas boys' academic self-efficacy decreased when exposed to similar levels of pressure. Conversely, Ze-Wei, Wei-Nan, and Kai-Yinye (2015), in their study of Chinese adolescents, found that adolescent girls had lower general self-efficacy than adolescent boys. This was consistent with a previous study of Kling, Hyde, Showers, and Buswell (1999), which noted that women reported lower self-efficacy. It would be important to establish whether gender or cultural backgrounds were the overriding factors causing the differences between these studies.

When measuring the level of resilience on a sample of police officers, Balmer, Pooley, and Cohen (2014) found no significant differences and both males and females reported similar scores. Sylvester (2009) conducted an investigation of the impact of the dimensions of resilience and key demographics on the transformational leadership behaviours of sales professionals operating on the frontlines of a variety of industries. The analysis of 356 sales professionals demonstrated that resilience accounted for 23% of the variance in the transformational leadership behaviours, thereby indicating that resilience was a low to moderate predictor of transformational leadership behaviour. Bausch, Michel, and Sonntag (2014), on the other hand, established self-efficacy and gender as predictors of well-being.

Khan (2012) examined the relationship of positive psychological strengths and their dimensions with subjective well-being and the role of demographic characteristics. This study suggested a significant positive relationship between positive psychological strengths and subjective well-being. Moreover, it was found that

gender contributes and has significant influence on positive psychological strengths and subjective well-being. Similarly, Zubair and Kamal (2015) examined the direct and indirect effects of work-related flow and Psychological Capital on employee creativity. The analysis of 532 software employees revealed that men exhibited greater Psychological Capital compared to women. This study also suggested that job tenure had a direct relationship with Psychological Capital. Extended tenure may increase the level of Psychological Capital that an employee possesses. This may also be a reverse deduction whereby the correct Psychological Capital led to longer tenure.

#### 2.1.5.2 *Age*

Balmer, Pooley and Cohen (2014, p. 272) purported that an individual's level of resilience can be influenced by demographic variables such as age, gender, marital status, educational level and length of employment. Their study on a sample of police officers highlighted a relationship between age and resilience. The youngest group of officers, aged 18–35 years, demonstrated significantly more resilience than officers aged 36–45 years and officers aged 46 years and above. The hierarchical regression analysis included in Ze-Wei, Wei-Nan and Kai-Yinye's (2015) study showed that age and gender interacted in both self-efficacy development and training success. Their findings revealed that not only did men and women demonstrate different relationships in terms of age, self-efficacy and training success, but older women displayed more positive development compared with older men.

#### 2.1.5.3 *Race*

Hirsch, Visser, Chang, and Jeglic (2012) investigated hope and hopelessness and its impact between depressive symptoms and suicidal behaviour. The results indicated that while hope buffered the association between depressive symptoms and suicidal behaviour for Hispanics and Whites, low hopelessness buffered the association for the whole sample of Blacks and Whites. Furthermore, hope remained a significant moderator only in Whites, while hopelessness only in Blacks.

## **2.3 CONCEPTUAL FOUNDATION OF JOB PERFORMANCE**

This section provides an overview of job performance. A background to performance is provided through a discussion on the performance dimensions of task and contextual performance. Succeeding the definition of performance is the theoretical discussion and conceptual models of performance. This is preceded by a discussion on the implications of job performance for salespeople. Concluding this section is a discussion on the biographical variables affecting job performance.

### **2.3.1 Background**

Current literature on job performance has revealed that not only is it a subject of global interest, but decades of studies have identified different approaches from various fields such as management, occupational health and organisational psychology, each providing a different perspective and contribution. The primary occupation held by the field of management has been focused on how one can make an employee as productive as possible, whereas an emphasis on the prevention of productivity loss due to a certain disease or health impairment is the focus from the occupational health field. Contrary to both these fields, work and organisational psychologists, have an interest in the influence of determinants, such as work engagement, satisfaction and personality, on individual work performance (Halbeslebe, Wheeler, & Buckley, 2008; Barrick, Mount, & Judge, 2001). Despite the interest or relevance to the fields, no conceptual framework for job performance (individual) exists (Koopmans, Bernaards, Hildebrandt, Schaufeli, de Vet, & van der Beek, 2011).

Being a central focus for improvement, a literature search conducted by Sonnentag and Frese (2001) revealed that a large number of performance studies focus on individual performance, specifically as the dependant variable in the study. Not only is job performance an important construct within the Industrial and Organisational Psychology field, but according to Borman and colleagues (1995), in organisational behaviour and HRM literature, it is also the most extensively researched criterion variable.

Performance can be explained by two dimensions, namely the task performance dimension and the contextual performance dimension (Borman & Motowidlo, 1993). “Task performance” as Hogan and Brent explained, “corresponds to getting ahead and contextual performance corresponds to getting along with others” (2003, p. 101).

Task performance is the manual activity involved by replenishing raw materials, distributing finished products, providing planning, coordination, supervising or staff functions that enable the organisation to function effectively and efficiently. Contextual performance is the description of the types of behaviours that should lead to cooperation, cohesiveness and improved morale at the group level and that will positively impact group performance

The three assumptions, which differentiate task performance and contextual performance, are tabulated below (Borman & Motowidlo, 1997; Motowidlo & Schmit, 1999):

**Table 2.4: Differences between task performance and contextual performance**

<b>Task performance</b>	<b>Contextual performance</b>
Activities vary between jobs	Activities are relatively similar across jobs
Is related to ability	Is related to personality and motivation
Is more prescribed and constitutes in-role behaviour	Is more discretionary and extra-role

- (1) Activities relevant for task performance vary between jobs, whereas contextual performance activities are relatively similar across jobs;
- (2) Task performance is related to ability, whereas contextual performance is related to personality and motivation;
- (3) Task performance is more prescribed and constitutes in-role behaviour, whereas contextual performance is more discretionary and extra-role.

Further to being a core pillar fundamental to Industrial-Organisational Psychology research, job performance has practical implications that could positively impact

behaviour (sales performance) in an organisational environment. As a result, any study attempting to understand, predict or influence job performance may be ascertained to be providing practical contributions to the field of study and to the practitioners in the workplace.

### **2.3.2 Definition of job performance**

Research revealed that numerous definitions (or versions) of job performance exist. However, Murphy (1989) advised that to avoid employees finding the easiest way to achieving the end result, job performance should not focus exclusively on the outcomes; instead, it should also include a focus on behaviours. Campbell, McCloy, Oppler, and Sager (1993) explained that performance consists of the behaviours that employees actually engage in and which can be observed. Campbell, McHenry, and Wise (1990) defined job performance as the observable behaviours relevant to the goals of the organisation. Motowidlo, Borman, and Schmit (1997) defined job performance as behaviours or activities that are adapted towards the organisation's goals and objectives. It was also inferred that these behaviours or activities should be measurable or evaluative. Deduced from the definitions are three underpinning concepts of job performance, namely it is a:

- (i) Behaviour;
- (ii) Goal and organisationally focused;
- (iii) Measure of achievement.

Traditionally, the evaluation of job performance was accepted as the individual's proficiency to execute and complete well-defined tasks specified in their job description (Borman & Motowidlo, 1993; Kappagoda, Othman, & Alwis, 2014). However, the changing dynamics and landscape of work and organisations have challenged the traditional view of job performance. In a more recent study, Motowidlo explained job performance to be the total expected value to the organisation of the discrete behavioural episodes that an individual carries out over a standard period of time (Motowidlo, 2003). In other words, it is the measurable output (organisation value = goals achieved) that an organisation can expect from an employee during

the time (actively working on the task) that work-related tasks (organisational targets and goals) are being completed.

Taking into account all of the above, this study will approach performance from the following view (Sonnentag, Volmer, & Spychala, 2010, p. 427):

On the most basic level, one can distinguish between a process aspect (i.e., behavioural) and an outcome aspect of performance (Borman & Motowidlo, 1993; Campbell, McCloy, Oppler, & Sager, 1993; Roe, 1999). The behavioural aspect refers to what people do while at work, the action itself (Campbell, 1990). Performance encompasses specific behaviour (e.g., sales conversations with customers, teaching statistics to undergraduate students, programming computer software, assembling parts of a product). This conceptualisation implies that only actions that can be scaled (i.e., counted) are regarded as performance (Campbell et al., 1993). Moreover, this performance concept explicitly only describes behaviour, which is goal-oriented, i.e. behaviour that the organisation hires the employee to do well as performance (Campbell et al., 1993).

In terms of this study, an objective measure of job performance is the measurement of actual sales. Measuring pure performance of sales staff is a challenging process as sales are always affected by external factors such as the economic environment and customer's budget and competition (Impelman, 2007; Hogan & Brent, 2003). However, from the above argument, the outcome of achieving a sales target, which involves making / closing a sales opportunity, is measurable and goal-orientated, and is then assumed to be the performance behaviour measured to determine individual performance.

### **2.3.3 Theoretical conceptualisation and models of job performance**

The following comprehensive models of job performance were presented by Campbell, Gasser, and Oswald (1996) and Viswesvaran, Ones, and Schmidt (1996). While more recent models may have been developed from this model, for the

purposes of this research, Campbell's (1990) model of individual differences in job performance will be used.

#### 2.3.3.1 *Campbell, Gasser and Oswald (1996) Model of job performance*

This model is based on a review of the job performance literature and extensive confirmatory research conducted in the United States military settings. On the basis of this research, they settled on eight components of job performance, which are:

- (i) 'Job-specific task Proficiency';
- (ii) 'Non job-specific Task Proficiency';
- (iii) 'Written and Oral Communication Task Proficiency';
- (iv) 'Demonstration of Effort';
- (v) 'Maintenance of Personal Discipline';
- (vi) 'Facilitation of Peer and Team Performance';
- (vii) 'Supervision-Leadership';
- (viii) 'Management-Administration'.

Taking into account the situational component, not every job will comprise of all eight facets that measure job performance. While Campbell, Gasser and Oswald (1996) suggested that these components account for most variation on performance assessments, their research concluded that there were at least two general factors or major types of job performance: aspects that are 'job-specific' and reflect technical and specific competencies, and 'non job-specific' aspects that are considered to be broadly similar for every job. However, they deny that these eight factors are the representation of job performance.

#### 2.3.3.2 *The Viswesvaran, Ones, and Schmidt's (1996) model of job performance*

Derived from an application of the lexical hypothesis (Goldberg, 1990), this model suggests that someone in the employment relations or organisational behaviour

literature would have, at some point, identified and labelled all practically significant variations in performance.

Using content analysis and conceptual grouping Viswesvaran, Ones, and Schmidt (1996) identified ten dimensions of performance:

- (i) Productivity;
- (ii) Effort;
- (iii) Job Knowledge;
- (iv) Interpersonal competence;
- (v) Administrative competence;
- (vi) Quality;
- (vii) Communication competence;
- (viii) Leadership;
- (ix) Compliance with authority;
- (x) Overall performance.

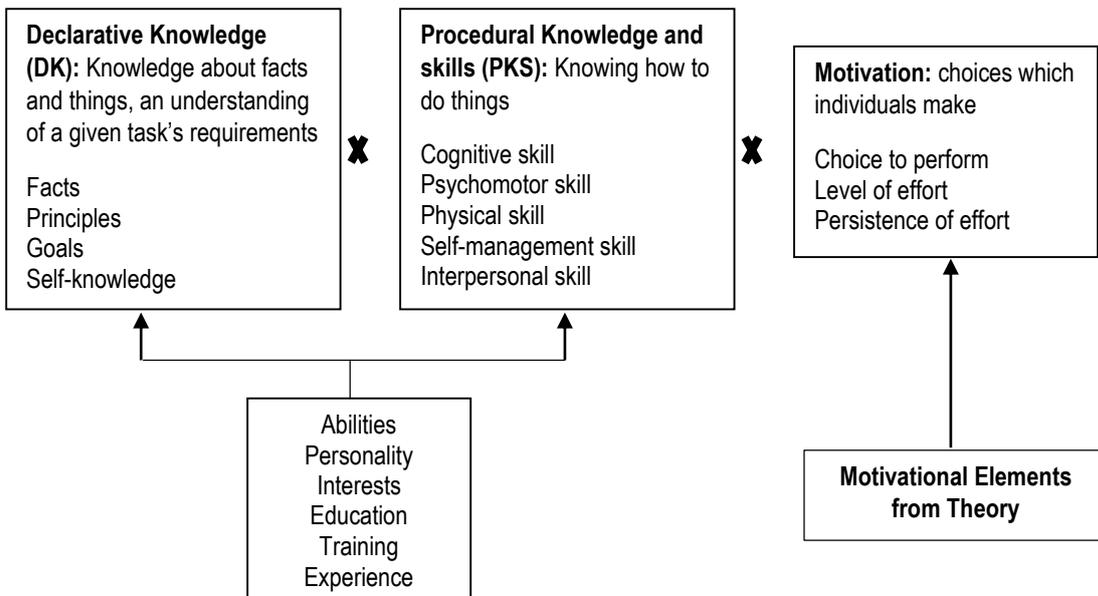
It is noticeable that while there is a large overlap between these two lists of performance dimensions, they do not match, specifically the Viswesvaran et al. (1996) model does not include job-task-specific and non-task-specific proficiencies.

#### 2.3.3.3 *Campbell's model of individual differences in job performance*

Campbell (1990) proposed a general model of individual differences in performance, which became very influential (Campbell, McCloy, Oppler, & Sager, 1993). In his model, Campbell differentiated performance components (e.g., job-specific, task proficiency), determinants of job performance components and predictors of these determinants. Campbell described the performance components as a function of three determinants:

- (1) Declarative knowledge: Declarative knowledge includes knowledge about facts, principles, goals and the self. It is assumed to be a function of a person's abilities, personality, interests, education, training, experience and aptitude-treatment interactions;

- (2) Procedural knowledge and skills: Procedural knowledge and skills include cognitive and psychomotor skills, physical skills, self-management skills and interpersonal skills. Predictors of procedural knowledge and skills are again abilities, personality, interests, education, training, experience, aptitude-treatment interactions and additionally practice.
- (3) Motivation: Motivation comprises choice to perform, level of effort and persistence of effort. Campbell did not make specific assumptions about the predictors of motivation (Sonnentag, 2003, p. 4). It should be noted that self-efficacy was identified as a motivational skill, domain-specific and influenced by situational factors, a construct in the motivational domain, which was highly relevant for performance (Bandura, 1997; Stajkovic & Luthans, 1998).



**Figure 2.2: Campbell's determinants of job performance**  
(Campbell, McCloy, Oppler, & Sager, 1993)

### 2.3.4 Implications of job performance for sales employees

Performance of sales employees is probably the most noticeable return on investment, more so than of any other profession, owing to the nature of the job. If they perform well, sales targets are met, injecting revenue into the business; conversely, not meeting sales targets is a clear indication of poor performance.

Organisations have become acutely aware that salespeople are their driving force, directly influencing their success. Becoming and remaining successful, profitable and sustainable are fundamental reasons why organisations start up, and through the performance of their people these goals become attainable. With new competitive realities forcing organisations to re-examine how their salesforces contribute to their competitive advantage, salespeople are under immense pressure to perform (Leimbach, 2016).

Through the decades, the role of the salesperson has evolved from being a “persuader” between the 1950s to the 1970s, to being a “problem-solver” from the 1970s through to today. However, in the current economic environment, it is simply not enough to provide a solution or product, clients are looking for more. More competitors in the market mean more options for clients, making the job for a salesperson that much more challenging. In the Information, Communication and Technology (ICT) industry in South Africa, network providers are increasingly encouraged to find innovative ways to distinguish themselves from their competitors. To be successful in this environment, sales employees have had to become experts in their customers' businesses, taking on more strategic roles, providing clients with customised insights aligned to the vision and challenges of the client.

Therefore, the sales environment has experienced a shift, changing the dynamic and increasing the demands made of salespeople. Performance is crucial to the success and sustainability of the organisation.

### **2.3.5 Biographical variables affecting job performance**

Similar to personality, job performance is also a central and pivotal focus area in Psychology, receiving mounting interest. Job performance in terms of biographical variables is rather controversial and inspires debate. The research tends to compare males and females, younger and older employees to determine who would be the better performer, in the particular context. Race and job performance studies are limited.

### 2.3.5.1 Gender

A past, a current and most likely a future point of debate is and will be the argument as to which gender will be the better performer. Historically, studies found performance more related to men than women (Hartman, 1988). In a study on sex-role characteristics of mature, health and socially competent adults (Broverman, Broverman, Clarkson, Rosenkrantz, & Vegal, 1970), there was a consensus that competence was more characteristic of healthy male respondents than healthy females. This was a result of healthy women still being viewed as submissive, less independent, less adventurous, less objective, more easily influenced, less aggressive, less competent, more emotional, more concerned about their appearance and more prone to having their feelings hurt. However, many of these characteristics reflect cultural beliefs and practices of a *women's place being in the home* rather than fundamental differences in gender (Champion, Kurth, Hastings, & Harris (1984). Knudson studied the assertiveness of women in a management role, the results indicated that women were as assertive as men and performed equally as well, when provided with the appropriate training (1982).

### 2.3.5.2 Age

Statistically, according to the International Labor Organisation (2005), the largest portion of the working population in 1980 was young adults between the ages of 20 and 24 years. Ten years later, that bracket shifted by 10 years making the 30–34 age group the largest segment of the working population, and in the last decade the largest segment of the world's working population increased to the age 40–44 cohort (Ng & Feldman, 2008). For an older workforce, while a resource to an organisation in terms of experience, when compared to a younger workforce, stereotypical concerns could arise, such as being less physically capable, preferring to invest more time with family rather than on their job (Fung, Lai, & Ng, 2001; Paul & Townsend, 1993), being less technologically savvy and being less adaptable in volatile environments (Isaksson & Johansson, 2000; Riolli-Saltzman & Luthans, 2001). These concerns lead to a concern of employee productivity (Avolio & Waldman, 1994; Greller & Simpson, 1999; Hassell & Perrewe, 1995; Lawrence, 1996). Research has found that organisations had to spend more money on succession planning, pension

benefits, health insurance and medical benefits to compensate for the shift to an older workforce (Beehr & Bowling, 2002; Paul & Townsend, 1993).

Three different results were achieved from three different studies of age and job performance. Waldman and Avolio (1986) found a moderate-sized positive relationship between age and performance, McEvoy and Cascio (1989) found that age was largely unrelated to performance, while Sturman, (2003) found that the age–performance relationship took an inverted-U shape. Ng and Feldman (2008) were able to explain these differences as a result of a narrow focus on performance of core tasks activities, which they found to be unrelated to age.

In study of salespeople, Vinchur, Schippmann, Switzer, and Roth, (1998) identified age as a predictor of job performance; however, not of actual sales. Waldman and Avolio (1986) empirically evidenced that the ageing processes alone account for little variance in performance. Moreover, measuring job performance should include aspects of tenure (McDaniel, Schmidt, & Hunter, 1988) and rank order (Hofmann, Jacobs, & Gerras, 1992). The best performers at a given point in time might not be the best performers five or ten years later.

#### 2.3.5.3 *Race*

The researcher sourced minimal relevant information on this topic to include in this section. It is assumed that the controversial nature of race may be a deterring factor for research. This research will discuss findings related to race in an unbiased and diplomatic manner, with no intention of harm.

On average, Whites perform better than Blacks, was a general assumption made in the past (Ford, Kraiger, & Schechtman, 1986; Sackett & Dubois, 1991). Ford, Kraiger, and Schechtman (1986) noted that objective measures as opposed to subjective measures of performance often showed smaller differences between ethnic groups (Roth, Bobko, & Huffcutt, 2003). A meta-analytical review focused on ethnic group differences and job performances suggested a standardised ethnic group difference for performance rating for Black–White comparison groups (Roth, Bobko, & Huffcutt, 2003).

Kirnan, Farley, and Geisinger (1989) investigated the talent pool and new hire survival of life insurance agents in a large insurance company, when compared to recruiting sources. The formal versus informal recruiting source use showed significant group differences. The formal recruiting source was used more frequently by females and Blacks rather than by males, non-minorities and Hispanics. Contrarily, the informal recruiting sources yielded higher quality applicants and more successful hires for all groups.

## **2.4 THEORETICAL INTEGRATION OF PERSONALITY TRAITS, PSYCHOLOGICAL CAPITAL AND JOB PERFORMANCE**

This section presents an integration of sections 2.1, 2.2 and 2.3, respectively. It was established that there are fundamental differences between the constructs. This section discusses the theoretical link that exists between the constructs of personality traits, Psychological Capital and job performance.

### **2.4.1 Theoretical definitions of constructs**

The theoretical definitions of the constructs underpinning the study are summarised below.

#### *2.4.1.1 Personality traits*

With an insurmountable variety of definitions available for personality, Ivancevich and Matteson (1993, p. 98) provided a rather all-encompassing description. According to them, personality traits are a relatively stable set of characteristics, tendencies and temperaments that have been formed significantly by inheritance and by social, cultural and environmental forces. This set of variables determines the commonalities and differences in the behaviour of the individual.

#### 2.4.1.2 *Psychological Capital*

Coined by Luthans, Youssef, and Avolio (2007, p. 3), Psychological Capital can be described as “an individual’s positive psychological state of development that is characterised by (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive expectation (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success”.

#### 2.4.1.3 *Job performance*

While job performance has been described by many (Campbell, McCloy, Oppler, & Sager, 1993; Campbell, McHenry, & Wise, 1990; Motowidlo, 2003; Motowidlo, Borman, & Schmit, 1997), fundamentally there are commonalities that exist between them that provide a general understanding. These deductions are aligned with Sonnentag, Volmer, and Spsychala’s (2010) explanation, which described job performance ultimately as a behaviour that is goal driven and measurable.

### **2.4.2 Theoretical relationships between personality traits, Psychological Capital and job performance of sales employees.**

The dynamic and turbulent 21<sup>st</sup> century, also known as the information age, is a time of constant and competitive communication and technological growth (Gratton, 2011; Pandey, 2012; Polatc & Akdoğan, 2014). This wave does not appear to have any intention of slowing down or stopping. With technology advancing faster than people can keep up, the market is flooded with options. Organisations have realised that their economic success and sustainability are in the hands of their only revenue-injecting team, their sales employees (du Plessis & Barkhuizen, 2012; Ntzama, De Beer, & Visser, 2008; Rothmann & Coetzer, 2003). Thus, salespeople within the communication and technology space have to up their game continuously, take on a

more competitive approach to sales and become the strategic partner, providing that much sought-after competitive advantage to clients.

Literature provided the evidence that personality traits (Vinchur, Schippmann, Switzer, & Roth, 1998; Furnham & Fudge, 2008; Hurtz & Donovan, 2000; Klang, 2012; Neubert, 2004) and Psychological Capital (Brandt, Gomes, & Boyanova, 2011; Newman, Ucbasaran, Zhu, & Hirst, 2014) positively correlate with job performance. Studies revealed that some dimensions of personality and Psychological Capital were found to account significantly for the variance in performance with Extraversion and Conscientiousness specifically predicting sales success. Owing to the sales environment being a dynamic, competitive, target-driven, market-lead environment, it was expected that similar to previous research, sales employees would display high levels of extroversion. It was also expected that sales employees would possess higher levels of the Psychological Capital, specifically in terms of self-efficacy and resilience, to ensure success. In accordance with literature, this study has established that performance will be the measure of actual sales targets achieved.

#### **2.4.3 Variables influencing personality traits, Psychological Capital and job performance**

The field of psychology involves the study of the mind and behaviour. According to the Oxford and Cambridge Advanced Learner's Dictionaries, psychology is a scientific discipline aimed at understanding the human mind, its functions and its influences on behaviour. To understand the human mind, one needs to compare the human mind to understand its functions, compare its functions and to understand the resultant behaviour, it too needs to be compared. Comparing human beings to each other provides psychologists the foundation on which to build theories and to understand people in terms of similarities and differences. With biographical research, psychologists can begin to unravel the secrets of the human mind and behaviours.

The predominant biographical variables studied in psychology are gender and age. Race is another significant variable; however, research focuses on cultural

differences. At any given point in time, an individual can only be a particular set of biographical data. This immediately designates the sample, allowing the researcher to interpret the data in a way that provides meaningful results. The more biographical qualifications included, the more specific the results are to a particular sample of people; for example, any results discussed about a sample defined as *White, male, married, aged between 30-45 years, with more than 10 years' experience in sales*, becomes very meaningful to individuals who meet that criteria. Therefore, not only does biographical information provide researchers with information to understand people, but it also provides the participants with information to understand themselves better.

From the research presented, gender and age influence the measures of personality and job performance. Results found small differences between males and females in terms of personality traits (Goldberg, Sweeney, Merenda, & Hughes Jr, 1998), with more significant differences at a facet level (Costa, Terracciano, & McCrae, 2001). Initially demonstrated by Costa, McCrae and colleagues (2000) and later affirmed by McCrae, Costa Jr, Kovač, Nek, Martin, Oryol, Rukavishnikov, and Senin (2004), age was found to impact personality moderately. Between adolescence and later adulthood, Neuroticism, Extraversion and Openness to Experience show signs of decline, while Agreeableness and Conscientiousness appear to increase.

A review of Psychological Capital literature reveals a lack of studies on the role of biographical variables. Being independent, established constructs, the dimensions of self-efficacy, hope, resilience and optimism have – in their own capacities – received focus in terms of biographical variables. While self-efficacy appears to have received the majority of the studies' attention, findings remain inconsistent. Vantieghem and Van Houtte's (2015) study of academic self-efficacy found that girls' academic self-efficacy did not decline when experiencing more pressure for gender conformity, whereas boys' academic self-efficacy did. Conversely, a study of Chinese adolescents indicated that adolescent girls had lower general self-efficacy than adolescent boys (Ze-Wei, Wei-Nan, & Kai-Yinye, 2015). Balmer, Pooley, and Cohen (2014) highlighted no significant gender-differences in resilience of a sample of police officers; however, their studies confirmed that younger police officers

demonstrated significantly more resilience than their older colleagues. Contribution to the relationship between psychological strengths and subjective well-being was purported to be by the biographical variable of gender (Khan, 2012).

In terms of job performance, studies provided conflicting views, with some indicating males as being more related to performance (Hartman, 1988), while conversely another study found women to be equally as competent as men (Knudson, 1982). The disparity of gender in the workforce in terms of the ratio of men to women and specifically in terms of performance may stem from cultural systems, where women were usually not allowed to work in companies and were often regarded as the inferior gender in terms of their abilities. Though there has been a shift in perspective, it will take a considerable amount of time for the stigma related to gender-stereotypes to pass.

#### **2.4.4 Implications for Industrial Psychology and sales employees**

Industrial and Organisational Psychology is the scientific study of human behaviour in a work environment. It is an applied science that not only attempts to explain behaviour, but also seeks to provide practical guidelines for the prediction and control of behaviour that promotes efficiency and human psychological welfare (Landy & Conte, 2009; Riggio, 2015)

The turbulent environment and constantly evolving technologies of the 21<sup>st</sup> century create the backdrop for this research study. The role of the ICT sales employees has developed beyond negotiator and problem-solver; today they are the strategic partner to clients and the source of competitive advantage for their organisations. With an understanding of the environment and the role of the sales person, attention turned to the field of Industrial and Organisational Psychology to respond with urgency to the amplifying need to attract, develop and retain talent.

Aligned with the organisational need, this explorative study is aimed at understanding the influence of personality traits and Psychological Capital on job performance of salespeople within the ICT environment. This study also aims to

understand individual characteristics (of personality) and psychological capacities of salespeople within the ICT sector of South Africa. Industrial psychologist may find this study to be of interest as there is a focus on the predictive ability of personality traits and Psychological Capital on job performance of salespeople. ICT organisations in South Africa may value the finding of this study, as it may provide insights to guide the recruitment, selection and development of salespeople. The findings may also assist salespeople in the ICT sector of South Africa to understand their own personality traits linked to their performance.

## **2.5 CHAPTER SUMMARY**

The constructs of personality traits, Psychological Capital and job performance were conceptualised in this chapter. Previous studies and theoretical relationships between these constructs were explored. The first research aim of this study (that is, to conceptualise personality traits, Psychological Capital and job performance, and to establish the theoretical relationships between them) and the second research aim of this study (that is to determine theoretically the role of the biographical variables in respect of personality traits, Psychological Capital and job performance among sales employees in the ITC sector) has therefore been achieved. This concludes the literature review.

The empirical study follows in Chapter 3 and is in the form of a research article. The research article shall begin with an introduction and purpose of the study, ensued by a literature review of the constructs and the research methodology. Thereafter, results are discussed. The article concludes with a focus on the limitations of the study, and the recommendations for future research.

## CHAPTER 3

### **\*RESEARCH ARTICLE: THE RELATIONSHIP BETWEEN PERSONALITY TRAITS, PSYCHOLOGICAL CAPITAL AND JOB PERFORMANCE AMONG SALES EMPLOYEES WITHIN AN INFORMATION, COMMUNICATION AND TECHNOLOGY SECTOR**

#### **ABSTRACT**

**Orientation:** Global competitiveness and constantly evolving technologies gives rise to the growing concern of talent acquisition and retention within the Information, Communication and Technology (ICT) sector. Employee performance has significant benefits and positive consequences for the organisation, including contributions toward competitive advantage.

**Research purpose:** The objectives of the study were: (1) to determine the levels of personality traits (as measured by the Basic Traits Inventory), Psychological Capital (as measured by the Psychological Capital Questionnaire) and job performance (as measured by the Job Performance Questionnaire) amongst the sales employees within the ICT sector; (2) to determine the role of biographical variables (age, gender, marital status, racial group and tenure) in respect of personality traits, Psychological Capital and job performance amongst sales employees in the ICT sector; (3) to determine the relationship between personality traits, Psychological Capital and job performance; (4) to assess the interaction between personality traits and Psychological Capital in predicting job performance; (5) to formulate recommendations based on the literature and empirical findings of this research for Industrial Psychology (I/O) practices and future research with regard to personality traits, Psychological Capital and job performance.

**Motivation for the study:** While an organisation's ability to function effectively may rely on the harmonious workings of all its parts, there is an acute awareness that the key to gaining and sustaining competitive advantage within this turbulent environment resides with one specific department. In the Information, Communication and Technology (ICT) sector, talent acquisition and retention

strategies for sales employees, therefore, is of particular concern as their performance often directly drives the performance of their organisation. As the only revenue-injecting part of the organisation, the importance of attracting, developing and retaining top salesforce talent is evidenced.

**Research design, approach and method:** A quantitative cross-sectional survey-based research design was used in this study. Accordingly, the three measuring instruments were administered to a non-probability convenience sample of 145 permanently employed, target-driven, commission-earning sales employees in a South African ICT company. Descriptive statistics, correlations, independent t-tests and regressions were used for data analyses.

**Main findings:** Statistically significant and positive relationships between personality traits, Psychological Capital and job performance of sales employees in the ITC sector were established in this research study. The empirical study did not statistically support a predictive relationship between personality traits and Psychological Capital on job performance. On the subscale level however, the empirical findings did provide statistical evidence between various sub-dimensions of personality traits, Psychological Capital and performance. Psychological Capital did not moderate the personality traits–job performance relationship.

**Practical/managerial implications:** Talent acquisition strategies should consider the relationships between personality traits, Psychological Capital and job performance. Having the right people, with the appropriate personality and capabilities, in the right position can mean the difference between an organisation experiencing success and competitive advantage or failure.

**Contribution/value-add:** This study contributes to the expanding body of knowledge pertaining to talent management and talent retention. The findings contribute to the existing research literature on the relationship between personality traits, Psychological Capital and job performance. The study contributes valuable insight and knowledge to the field of Industrial and Organisational Psychology regarding the acquisition of employees in the ICT Sector.

**Key words:** Talent acquisition, personality traits, Psychological Capital, job performance, individual performance, sales employees; sales targets; competitive advantage; ICT sector; recruitment strategies and practices

### **3.1 INTRODUCTION**

The following section aims to clarify the focus and background of the study. General trends found in the literature will be highlighted, and the objectives and potential value added by the study will be outlined.

#### **3.1.1 Key focus and background of the study**

The turbulent environment, the “war for talent” and the constantly evolving technologies of the 21<sup>st</sup> century create the backdrop for this research study (Luthans, Youssef, & Avolio, 2007; Lynch & de Chernatony, 2007). The South African Information, Communication and Technology (ICT) sector comprises of a few major players, thereby giving ICT clients and customers a number of options, which results in increased competition amongst the service providers.

While recruitment was once considered a concern exclusively handled by HR, its implications and organisational impact has seen it shift to more of a strategic focus area. With the developing strategic HR view, employees gained recognition as being valued assets of their organisations as they obtained the knowledge, skills, abilities and personal attributes required to perform effectively. The changing world of work, characterised by emerging markets, innovative technology, political and economic turbulence, flatter organisational structures and cross-border migration patterns, have all contributed to organisations effectively becoming global competitors (Gratton, 2011; Pandey, 2012; Polatc & Akdoğan, 2014). In order for companies to survive and be sustainable, improving performance and increasing competitiveness emerge as organisational objectives, which can only be realised through effective resourcing, management and retention of human capital (Martins & Coetzee, 2011; Martins & Coetzee, 2007).

Within competitive environments, organisations increasingly look to their salesforce to spearhead their tangible commercial growth as well as influence their market position as they have realised that the performance of their salesforce often directly drives the performance of their organisation (Jensen & Mueller, 2009; Ştefan & Crăciun, 2011). With the role of the ICT sales employee having developed from a negotiator to an external strategic partner, internal source of competitive advantage, and being the only revenue-injecting part of the organisation (Krafft, Albers, & Lal, 2004), the importance of attracting, developing and retaining top salesforce talent is further justified, evidenced and emphasised.

The ability of each sales employee to achieve their sales target is an indication of their individual performance, which directly impacts the organisation's performance. Functioning within the demanding, client-focused competitive sales environment, sales employees may require a particular set of psychological meta-competencies and personality attributes to meet the organisational demands of the industry as well as to achieve global competitiveness. Over and above the knowledge and skills required for any particular job, the personal attributes of an individual contribute to their preference for the job as well as their performance within the job. Therefore, it is evident that knowledge of personality traits, Psychological Capital and job performance and the nature of the relationships between these constructs be considered, in order to inform strategies aimed at improving employee ("talent") attraction and retention in the ICT sector.

This study explored the relationship between personality traits, Psychological Capital and job performance amongst sales employees within an ICT company in South Africa, with the aim of identifying the personality traits and levels of Psychological Capital present in successful sales employees. This information could assist organisations with the attraction and selection of employees with the potential to be successful in a sales environment. For industrial psychologists and ICT sales employers, this study could enhance the understanding and measure of job performance through the predictive nature of personality traits and Psychological Capital for sales employees in the ICT sector.

### **3.1.2 Trends established in the research literature**

The following section provides a brief overview of the dominant trends in the research literature pertaining to personality traits, Psychological Capital and job performance of sales employees.

#### *3.1.2.1 Personality Traits*

The concept of personality is complex and multi-faceted. It is the only branch in psychology focusing on explaining the whole person, with the sub-disciplines of cognitive, developmental, biological and social psychology, contributing towards different perspectives, personality psychology. This is where it all comes together, making personality the most important aspect of psychology (Benet-Martínez, Donnellan, Fleeson, Fraley, Gosling, King, Robins, & Funder, 2015). This current view of personality supports McAdams' almost decade-old stance, which explains personality psychology as,

“the scientific study of the whole person ... psychology is about many things: perception and attention, cognition and memory, neurons and brain circuitry ... We try to understand the individual human being as a complex whole...[and] to construct a scientifically credible account of human individuality” (McAdams, 2006, p. 2).

Despite the myriad of available definitions, to date, no consensus has been reached toward a specific definition of personality. While personality has always been explained through descriptive behaviour of the factors, types, traits or states that are either observable or elicited through assessment, definitions vary in accordance with the different approaches to personality (Meyer, Moore, & Viljoen, 1997). In addition, the vast array of factors affecting it and more so, the uniqueness of individuals increases the difficulty for accepting a single definition of personality (Lamiel, 1997). However, over time, emphasis shifted from defining personality to measuring it. Models provided the means for interpreting personality measures and, while numerous models exist, this study focuses on personality from the trait approach and utilises the Five Factor Model of personality.

The development of the Five Factor Model (FFM) created the opportunity for researchers to prove the predictive nature of personality traits. With personality predominantly understood in terms of behaviour, most studies focused on the influence of personality on different behaviour outcomes. Personality psychology under the umbrella of Industrial and Organisational psychology, studies the variations in organisational behaviours caused by differences in personality. Personality studies rapidly intensified and were dominated by investigations into the validity of personality as a predictor of work behaviours, specifically of positive organisational behaviours (Barrick, Stewart, & Piotrowski, 2002; Judge, Heller, & Mount, 2002; Kim, Shin, & Swanger, 2009; O'Reilly, Chatman, & Caldwell, 1991). Barrick and Mount (1991) confirmed that the FFM was a meaningful framework and could be used for testing selection and performance hypothesis. The FFM found support of being a predictor of performance by Salgado (1997), with Vinchur, Schippmann, Switzer, and Roth (1998) having highlighted that Extraversion and Conscientiousness predicted sales success. Through the decades, personality studies confirmed its impact on organisational performance (Hogan, Hogan, & Gregory, 1992; Roodt & La Grange, 2001; Vinchur, Schippmann, Switzer, & Roth, 1998). Current research still holds that personality remains a pivotal and supported predictive construct of performance (Benet-Martínez, Donnellan et al., 2015; Furnham & Fudge, 2008; Hurtz & Donovan, 2000; Klang, 2012; Neubert, 2004).

In South Africa, researchers have shown renewed interest in personality, aligned with the country's need for indigenous assessments. The importance of personality research and its practical implications to the working environment in the form recruitment strategies and practices, together with the unique and diverse cultural landscape has been the motivation for researchers to approach personality studies with a different purpose. The South African Personality Inventory (SAPI) was the response to this need and was intended to develop an indigenous and psychometrically sound personality instrument that met the legislative requirement of South Africa as well as accounted for the cultural biases of the 11 official languages (Hill, Nel, van de Vijver, Meiring, Velichko, Valchev, Adams, & de Bruin, 2013). The Basic Traits Inventory is a personality instrument developed by Taylor and de Bruin (2006), based on the FFM and established to be a cross-culturally valid instrument.

Another strong influence on the study of personality is the impact of biographical differentiators. Comparing human beings to each other provides psychologists the foundation on which to build theories and to understand people in terms of similarities and differences. With biographical research, psychologists can begin to unravel the secrets of the human mind and behaviours. Gender and age have emerged as the prominent biographical variables that have been found to influence the measures of personality and job performance. Though small differences were confirmed between males and females in terms of personality traits (Goldberg, Sweeney, Merenda, & Hughes Jr, 1998), Costa, Terracciano, and McCrae (2001) determined more significant differences at a facet level. Age was found to moderately impact personality between adolescence and later adulthood (McCrae, Costa Jr, Kovač, Nek, Martin, Oryol, Rukavishnikov, & Senin, 2004).

#### *3.1.2.2 Psychological Capital*

Psychological Capital is the embodiment of positive organisational behaviours, which Luthans described as “the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed and effectively managed for performance improvement” (2002b, p. 59). Psychological Capital is an “individual’s positive psychological state of development”, whereby the individual possesses sufficient levels of human resource strengths and psychological capacities (namely, self-efficacy, hope, resilience and optimism), enabling the individual to effectively manage their performance. Self-efficacy, hope, resilience and optimism are the only four constructs that have met the stringent POB criteria and are included in PsyCap’s structure.

Before becoming the sub-scales of Psychological Capital, self-efficacy, hope, resilience and optimism were each studied in their own capacity. Rothmann (2003) established the mediating effect of self-efficacy on negative work-related outcomes such as stress and burnout. Orpen (1995) found significantly positive correlations between self-efficacy beliefs and performance (self-rating and average supervisor ratings). Hope was shown to be related to financial performance as well as employee satisfaction and retention (Peterson & Luthans, 2003). In 2007, Youssef and Luthans related hope to employee performance, satisfaction, happiness and commitment.

Rothmann and Essenko (2007) found that dispositional optimism had a direct effect on exhaustion and cynicism (Simons & Buitendach, 2013). Youssef and Luthans, (2007) reported that employees' optimism related to their performance evaluations, their job satisfaction and work happiness. Youssef and Luthans (2007) found resilience to be related to work attitudes of satisfaction, happiness and commitment (Choubisa, 2009), while Larson and Luthans (2006) found resilience related to job satisfaction. As is evident, even prior to becoming sub-scales of Psychological Capital, these constructs were found to influence organisational behaviours.

By virtue of its development, Psychological Capital has ascertained significant correlations with positive organisational behaviours such as organisational commitment (Luthans, Norman, Avolio, & Avey, 2008), job satisfaction (Luthans, Avolio, Avey, & Norman, 2007) and job performance (Luthans, Avey, Avolio, & Peterson, 2010). Psychological Capital, as a higher level component, produced significant correlations with performance versus its individual dimensions (Luthans, Avolio, Avey, & Norman, 2007).

### *3.1.2.3 Job Performance*

Current literature on job performance has revealed that not only is it a subject of global interest, but decades of studies have identified different approaches from various fields such as management, occupational health and organisational psychology, each providing a different perspective and contribution. Within the Industrial and Organisational Psychology field, not only is job performance an important construct, but according to Borman and colleagues (1995), in organisational behaviour and HR Management literature, it is also the most extensively researched criterion or variable.

As expected, there are an insurmountable number of studies investigating the impact of different constructs on job performance, with particular interest on its prediction. Job performance is an organisational behaviour outcome that can be influenced either positively or negatively, resulting in positive or negative impact on the organisation. POB studies with links to job performance have recognised the

significant relationship of predictors such as job satisfaction (Dhammika, Ahmad, & Sam, 2012) and cognitive ability (Roodt & La Grange, 2001). Other studies revealed inverse relations to negative work related behaviours such as stress (Rothmann & Coetzer, 2003) and burnout (Maslach, Schaufeli, & Leiter, 2001). For decades – and still applicable currently, investigations into performance predicting variables have been dominated by the validity of personality and this despite the inconsistency in research findings.

Silently fuelling many studies, research tends to analyse employees' biographical differentiating factors to determine who will be the better performer. The primary biographical variables researched in terms of job performance are gender and age, with race/ethnicity approached from a culture standpoint. With the threat of controversy and debate, there have been no findings that suggest in absolute terms that a specific gender or age bracket may be best suited to perform more effectively in any specific role. Studies have instead provided conflicting views with some indicating males as more related to performance (Hartman, 1988), while another study found women to be equally as competent as men (Knudson, 1982). The discrepancy in the ratio of male to female may be the result of cultural systems, where women were expected to stay home, be responsible for the home and for the rearing of children. These gender stereotypes will likely take a considerable length of time to overcome. Similarly, stereotypes tend to arise when considering age. An older workforce, while a resource to an organisation in terms of experience and knowledge, when compared to a younger workforce, may be perceived as less physically capable, preferring to invest more time with family rather than on their job (Fung, Lai, & Ng, 2001), being less technologically savvy and being less adaptable in volatile environments (Isaksson & Johansson, 2000; Riolli-Saltzman & Luthans, 2001).

While a number of measures exist to assess job performance, such as rating scales, tests of job knowledge, hands-on job samples and archival records, the most commonly used measure is performance rating (Campbell et al, 1990; Viswesvaran et al, 1996). According to Deloitte's Global Human Capital Trends (2014), traditional performance management is damaging employee engagement, alienating high

performers and impacting on managers' valuable time. From their survey, only 8% of companies reported a performance management process that drives high levels of value, while 58% of the companies said it was not an effective use of time. As part of their report, Deloitte highlighted the following practical example of performance measures, which have a positive effect on the individual and the company.

Adobe, an 11,000-strong work force, abandoned the traditional performance management system as it was inconsistent with Adobe's strong culture of teamwork and collaboration. A simpler and more effective system was implemented, where every three months, employees and managers meet. Prior to this meeting, a group of employees provided feedback on the employee's performance, which formed the basis of a conversation about performance improvement, rather than a dispute about compensation or ranking. The goal was to make coaching and developing a continuous, collaborative process between managers and employees. Focusing on both ends of the performance curve, Adobe's new system keeps high performers happy and offers practical advice for lower performers looking to improve. Since rolling out the new approach worldwide, Adobe experienced a 30% reduction in voluntary staff turnover in a highly competitive talent environment.

### **3.1.4 Research objectives**

The objectives of the study were: (1) to determine the levels of personality traits (as measured by the Basic Traits Inventory), Psychological Capital (as measured by the Psychological Capital Questionnaire) and job performance (as measured by the Job Performance Questionnaire) amongst the sales employees within the ICT sector; (2) to determine the role of biographical variables (age, gender, marital status, racial group and tenure) in respect of personality traits, Psychological Capital and job performance amongst sales employees in the ICT sector; (3) to determine the relationship between personality traits, Psychological Capital and job performance; (4) to assess the interaction between personality traits and Psychological Capital in predicting job performance; (5) to formulate recommendations based on the literature and empirical findings of this research for Industrial Psychology practices

and future research with regard to personality traits, Psychological Capital and job performance.

### **3.1.5 The potential value-add of the study**

This study has extended the existing body of knowledge and enhanced the understanding of industrial psychologists and information, communication and technology employers regarding the impact that personality traits and Psychological Capital have in predicting job performance in a sales environment. The relationships between these variables provide insights that guide recruitment practices and strategies for employees in the ICT sector in South Africa. They also inform future research into the role these variables play in retaining employees from different biographical groups. The current study furthermore identified the need for research with regard to the individual characteristics of sales employees, which influence their performance, especially in a competitive, target-driven environment like the South African ICT sales environment. Knowledge of the nature and relationships between these constructs will enable Industrial and Organisational psychologists to provide valuable information and insights, to help diagnose and solve problems, plan and assess employee performance and employee development through individual capacity development programmes aimed at enhancing individual internal resource capabilities, job performance and talent retention practices and strategies.

## **3.2 RESEARCH DESIGN**

This section presents and discusses the research design in terms of the research approach and the research method.

### **3.2.1 Research approach**

A quantitative, non-experimental research design (Kerlinger & Lee, 2000) was applied in this study. The use of a cross-sectional survey design was deemed appropriate in instances, where interrelationships amongst variables within a

population existed without any manipulation or control of variables (Babbie & Mouton, 2001; Kerlinger & Lee, 2000). In an effort to describe the relationship between personality traits, Psychological Capital and job performance, this study can be deemed as descriptive in nature. Descriptive studies aim to describe phenomena accurately either through narrative type descriptions, classification or measuring relationships (Durrheim, 2010). The research investigated the empirical relationships between the variables by means of correlational statistical analysis.

### 3.2.2 Research method

This section presents and discusses the research method in terms of the research participants, the measuring instruments, the research procedure, the ethical considerations and the statistical analyses.

#### 3.2.2.1 Research participants

The population for this empirical research was all sales employees of an ICT organisation in South Africa (n = 145). The prerequisite of the study was that the sample consisted of sales employees, who were currently in a target-driven sales position and not those, who were part of the sales team with no target (desk-based). Participants in this study represent the sales force of an ICT organisation within South Africa. In view of the fact that the population was small, 100% of the population was invited to participate voluntarily. The final sample of 104 respondents (n = 104) completed the questionnaires, yielding a response rate of 71.72%.

In terms of gender, the sample as shown in Figure 3.1 was marginally skewed towards males at 50.96% with a female participation rate of 49.04 %.

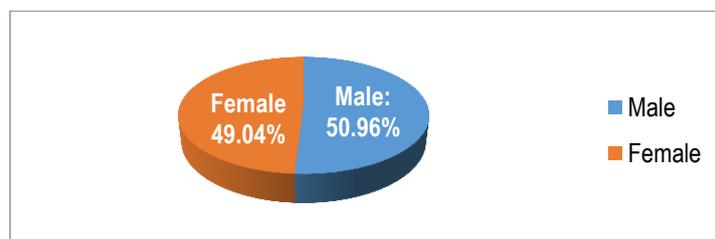


Figure 3.1: Sample distribution by gender (N = 104)

Figure 3.2 presents the age distribution of the participants with 77 aged between 30 and 45 years (74.04 %), 17 between 45 and 60 years (16.35 %), 8 between 18 and 30 years (7.69 %), and only 2 were aged 60 and older (1.92 %).

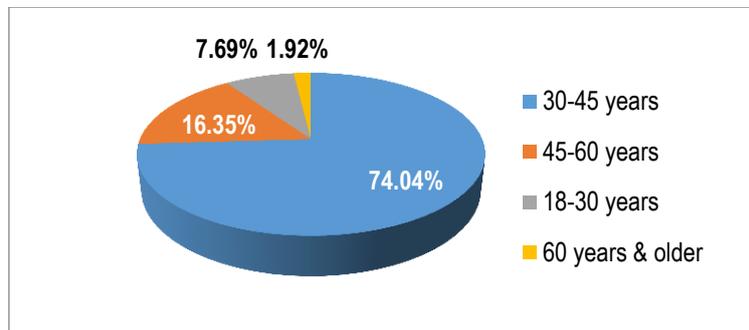


Figure 3.2: Sample distribution by age (N = 104)

In terms of ethnic groups, Whites represented 34.62% (36); Indians represented 30.77% (32); Blacks represented 21.15 % (22); Coloureds 12.50 % (13); and others 0.96% (1) of the sample, as shown in Figure 3.3.

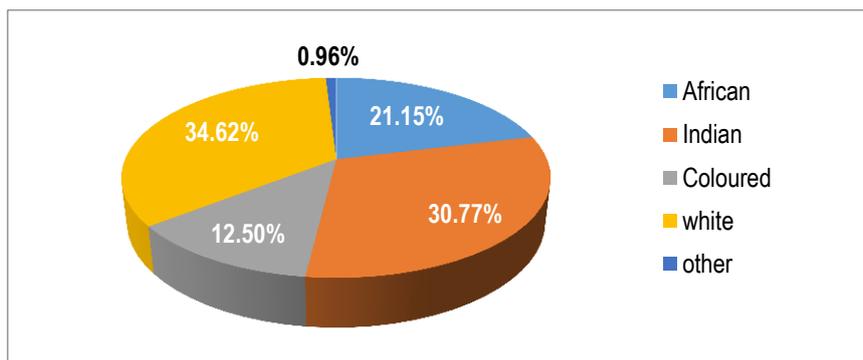


Figure 3.3: Sample distribution by ethnicity (N = 104)

As shown in Figure 3.4, 70.19% of participants were married (73), 21.15% were single (22), 7 participants were divorced (6.73%), 1 participant was widowed (0.96) and the remaining 0.96% chose other (1).

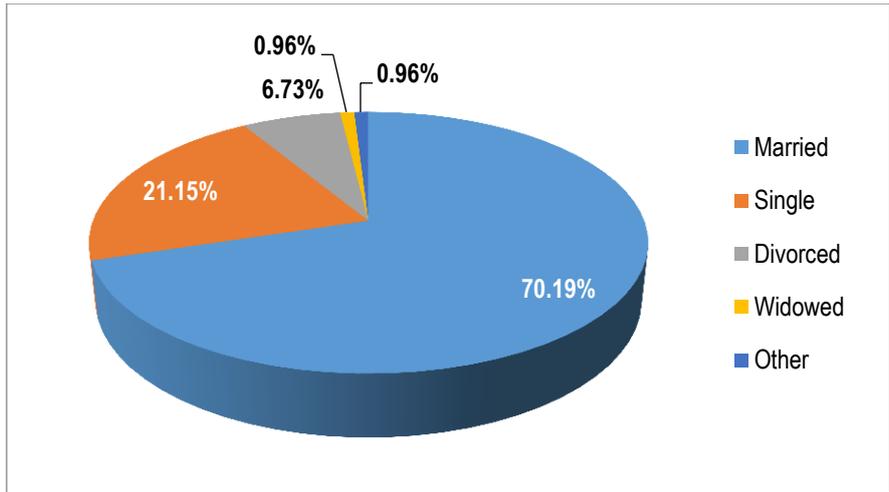


Figure 3.4: Sample distribution by marital status (N = 104)

As shown in Figure 3.5, 53.85% of participants had more than 10 years' experience (56), 25% had 5 to 10 years' experience (26), 9 had between 3 and 5 years' experience (8.65%), 7 had between 1 and 3 years' experience (6.73%) and only 5.77% of participants had up to 1 years' experience (6).

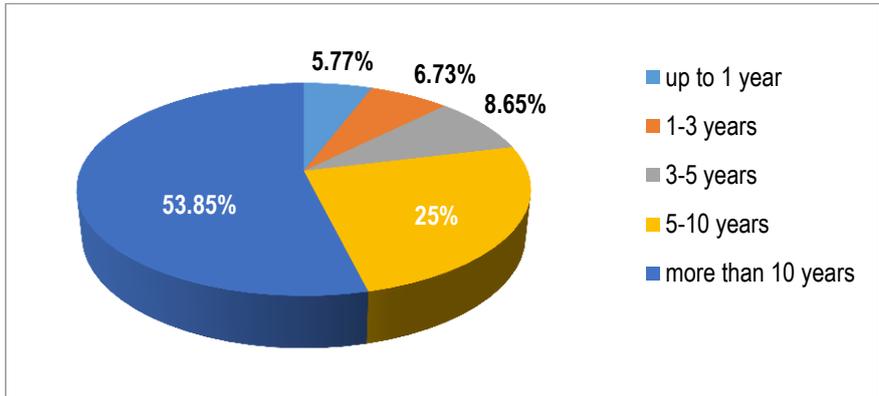


Figure 3.5: Sample distribution by years of sales experience (N = 104)

Figure 3.6 shows that 93.27% of the participants were active (target-driven) sales employees (97), with the remaining 7 participants were specifying a support function (6.73%).

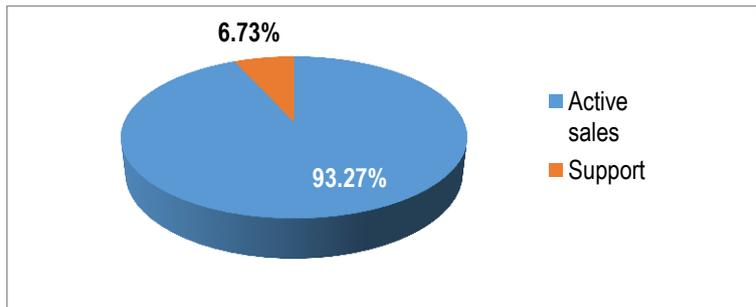


Figure 3.6: Sample distribution by sales function (N = 104)

In summary, the biographical profile obtained from the sample shows that the main sample characteristics are as follows: the majority of the sample were between the ages of 30 and 45 (74.04%), Whites represented 34.62% of the sample, 50.96% were male, 70.19% of the participants were married, 53.85% had more than 10 years' experience, and 93.27% of participants were active (target-driven) sales employees.

### *3.2.2.2 Measuring instruments*

#### *a) Biographical Questionnaire*

A biographical questionnaire was compiled and used in order to gather information pertaining to the participant's age, gender, ethnicity, marital status, tenure and function. The questionnaire consisted of a set of multiple choice options, where the respondents ticked the boxes that pertained to them. The biographical questionnaire provided valuable biographical data for the analysis of personality traits, Psychological Capital and job performance amongst the various biographical groups. Table 3.1 provides a summary of the participants' characteristics.

#### *b) Basic Traits Inventory (BTI)*

The Basic Traits Inventory (BTI) is a South African personality instrument, developed by Taylor and De Bruin and proven to be valid across cultures (Taylor & de Bruin, 2006). The BTI is grounded in the FFM theory and measures personality in terms of the Big Five personality traits, namely, Extraversion (E), Neuroticism (N), Conscientiousness (C), Openness to experience (O) and Agreeableness (A). The instrument consists of 193 items and is presented as a single list with no differentiation between factors or facets.

**Table 3.1: Characteristics of participants (N=104)**

<b>Variables</b>	<b>Items</b>	<b>F</b>	<b>%</b>
<b>Gender</b>	Male	53	50.96
	Female	51	49.04
<b>Age</b>	18-30	8	7.69
	30-45	77	74.04
	45-60	17	16.35
	>60	2	1.92
<b>Race/ Ethnic group</b>	African	22	21.15
	Coloured	13	12.50
	Indian	32	30.77
	White	36	34.62
	Other	1	0.96
<b>Marital status</b>	Married	73	70.19
	Divorced	7	6.73
	Widowed	1	0.96
	Single	22	21.15
	Other	1	0.96
<b>Years of sales experience</b>	0-1	6	5.77
	1-3	7	6.73
	3-5	9	8.65
	5-10	26	25.00
	>10	56	53.85
<b>Type of sales</b>	Active	97	93.27
	Support	7	6.73

The items are grouped according to the respective facets in this list as this assists the respondents to understand and contextualise the statements. A sample item for extraversion is, “I find it easy to talk to people I have just met”. “I plan tasks before doing them”, is an item measuring conscientiousness; and a sample item for neuroticism is, “I find it difficult to control my feelings” (Taylor & De Bruin, 2006).

The short version of the BTI was used for this study. Comprising 60 items, each trait was measured with 12 items. The items were short, easy to understand and measured on a 5-point Likert scale ranging from “strongly disagree” to “strongly agree”. The BTI reported Cronbach Alpha reliability coefficients as Extroversion (0.87), Neuroticism (0.93), Conscientiousness (0.93), Openness to Experience (0.87) and Agreeableness (0.89) (Taylor & de Bruin, 2006). In a study using the shortened, 60-item version of the BTI, extracted from the original questionnaire, the following Cronbach Alpha coefficients were obtained: Extroversion (0.84), Neuroticism (0.88),

Conscientiousness (0.88), Openness to Experience (0.85) and Agreeableness (0.81). The overall reliability of the short version of the BTI was greater than 0.80 and was therefore satisfactory (Kaplan & Saccuzzo, 2001). From her sample of students, Taylor (2008) found that, statistically, the BTI performs well in terms of little or no construct, item and response bias.

For the present study, a 77-item questionnaire was provided by Jopie van Rooyen Psychometrics (JvR), with the supplementary 12-items following the original 60-items and measuring two additional sub-scales. The two additional sub-scales are excitement seeking and dutifulness and contribute toward Extroversion and Conscientiousness, respectively. The Cronbach Alpha coefficients for the total BTI scale was 0.93, with its sub-dimensions equal or greater than 0.86, as presented in Table 3.2.

**Table 3.2 Cronbach Alpha coefficients for the BTI and the five sub-dimensions**

<b>Scale</b>	<b>N of items</b>	<b>Cronbach Alpha</b>	<b>Reliability</b>
<b>BTI</b>	60	0.934	Very high
<b>Extraversion</b>	12	0.866	Very high
<b>Neuroticism</b>	12	0.886	Very high
<b>Conscientiousness</b>	12	0.915	Very high
<b>Openness to experience</b>	12	0.912	Very high
<b>Agreeableness</b>	12	0.887	Very high
<b>Excitement seeking</b>	8	0.877	Very high
<b>Dutifulness</b>	9	0.861	Very high

*c) Psychological Capital Questionnaire (PCQ)*

The Psychological Capital Questionnaire (PCQ) is an instrument developed by Luthans, Youssef and Avolio, (2007) to measure an individual's internal resources and capacities. Psychological Capital (PsyCap) is a core construct in Positive Organisational Behaviour (POB) (Luthans & Youssef, 2004) and comprises of four sub-scales, namely, hope, optimism, resilience and self-efficacy (Luthans, Luthans, & Luthans, 2004). The 24-item instrument is a self-report questionnaire, with each subscale consisting of six items. All the responses for the PCQ were anchored on a six-point Likert scale with the response options: 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = strongly agree. A sample item for

self-efficacy is, “I feel confident in analysing a long-term problem to find a solution”, “I am optimistic about what will happen to me in the future as it pertains to work” is a sample item for optimism. “At the present time, I am energetically pursuing my work goals” is a sample item for hope, and a sample item for resilience is, “*I usually take stressful things at work in stride*”.

Confirmatory factor analyses have revealed strong psychometric properties of this instrument (Luthans, Avolio, Avey, & Norman, 2007). Good internal consistency for the respective sub-scales (hope: 0.72, 0.75, 0.80, 0.76; optimism: 0.74, 0.69, 0.76, 0.79; self-efficacy: 0.75, 0.84, 0.85, 0.75; and resilience: 0.71, 0.71, 0.66, 0.72) on the four samples utilised in the Luthans, Avolio, Avey, & Norman’s (2007) study were reported.

**Table 3.3 Cronbach Alpha coefficients for the PCQ and the four sub-dimensions**

Scale	N of items	Cronbach Alpha	Reliability
<b>PCQ</b>	24	0.912	Very high
<b>Self-efficacy</b>	6	0.891	Very high
<b>Hope</b>	6	0.851	Very high
<b>Resilience</b>	6	0.716	High
<b>Optimism</b>	6	0.643	Moderate

*d) Job Performance Questionnaire (JPQ)*

The job performance questionnaire was used to measure actual sales achieved for a specific period (2014/2015 financial year). Having gathered information and an understanding as to how sales-driven organisations function, the researcher was able to compile a short, three-question survey, which was then approved by the supervisor overseeing the research. A sample item for actual sales is, “What percentage of your sales target did you achieve in the last financial year?”. Respondents were provided with interval-percentage options from 0-20% to >100%. For the present study, Cronbach Alpha coefficients for the JPQ were 0.88, indicating internal reliability.

### *3.2.2.3 Research procedure and ethical considerations*

Before commencing with the research, ethical clearance and permission was obtained in writing from the Executive Head of Corporate Affairs of the organisation and the supervisory academic institution, the College of Economic and Management Sciences (CEMS) Research Ethics Review Committee (RERC) of the University of South Africa.

The composite survey was a paper-and-pencil version and was administered to each participant individually. The survey was accompanied by the signed letter from the Executive Head of the organisation, informing participants of the benefits and value of the study for the organisation and encouraging participation. The survey also consisted of a letter from the researcher informing the participants of the nature of, reason for, confidentiality, ethical procedures and voluntary nature of the study. The biographical questionnaire, the BTI, PCQ and job performance instruments were also provided to each participant, together with instructions from the researcher on how to complete the survey. Because of the sensitive nature of the study, participants were requested to complete the survey anonymously. The data was collected over a two-month period. In an attempt to ensure anonymity, the survey did not request any identifiable information from participants, more than was required for the research, including any signed documents; instead, it was accepted that completing and returning the survey constituted as full consent for the researcher to use the data provided for research purposes.

In respect to the organisation's and participant's work commitments and to ensure the honesty and integrity of the results, each participant was asked to complete the survey at their own leisure. The researcher was available at all times to answer any questions and address any concerns. The researcher maintained confidentiality, respected participants' privacy and kept the completed questionnaires secure. Feedback will be provided to the organisation, once the results have been compiled and the findings finalised. No harm was done to the participants during or after the study.

The ethical guidelines and principles stipulated by the Health Professions Council of South Africa (HPCSA) and the University of South Africa's (UNISA) department of Industrial and Organisational psychology formed the ethical basis of the study.

#### *3.2.2.4 Statistical analyses*

The data collected from the questionnaires was captured electronically and transformed into a meaningful and useable format to conduct the statistical analysis. The raw data was cleansed to establish whether or not there were any incomplete questionnaires. Only 97 of the 104 responses were complete and suitable for statistical analyses. The SPSS (Statistical Package for the Social Sciences, Version 23, 1999; 2013) and the SAS (Statistical Analysis System, Version 9.4, 2002; 2012) programs were used to analyse the data. There were three stages to the statistical procedures, namely:

##### *a) Stage 1: Descriptive statistics*

The minimum, maximum, mean and standard deviation values are given to describe the data set that was used during the analysis. The mean value is an indication of the central tendency of the measure (Forshaw, 2007). The standard deviation gives an indication of the spread of the responses in relation to the mean value (Forshaw, 2007). A low standard deviation will indicate tightly packed scores around the mean (leptokurtic), while a high standard deviation indicates widely distributed responses (platykurtic) (Forshaw, 2007).

##### *b) Stage 2: Correlational statistics*

Correlational statistics were used to determine the direction and strength of the relationships between the constructs. Pearson product-moment correlation coefficients were calculated to indicate the association and strength of the relationship between the variables. Spearman correlation coefficients were calculated to indicate the correlations between the different biographical groups and between the variables. Statistical measures of 95% ( $p < 0.05$ ) and 99% ( $p < 0.01$ )

levels of significance were discussed. The practical significance of the results was described as having either a small effect ( $R > 0.10$ ); medium effect ( $R > 0.30$ ) or large effect ( $R > 0.50$ ). For the purposes of this study,  $r$  values larger than 0.30 (medium effect) were regarded as practically significant (Cohen, 1992).

### *c) Stage 3: Inferential statistics*

Multiple regression analysis was conducted to analyse the data and determine whether personality traits and Psychological Capital predicted job performance, by assessing the proportion of variance in the dependent variable (job performance) that is explained by the independent variables (personality traits and Psychological Capital).

## **3.3 RESULTS**

This section reviews the descriptive, correlational and inferential statistics of significant value for each scale applied.

### **3.3.1 Descriptive statistics**

The Cronbach's Alpha coefficients for the sub-scales of the three measuring instruments were used to assess the internal consistency reliability of the measuring instruments and are presented in the Tables 3.2 and 3.3 above. The BTI instrument and each of its sub-scales (Extraversion, Conscientiousness, Neuroticism, Openness and Agreeableness) had high to very high internal consistency reliability with scores ranging from 0.866 - 0.915. Internal consistency reliability was very high for the overall PCQ scale with each of its sub-scales (Self-efficacy, Optimism, Hope and Resilience), ranging from moderate (0.643) to very high to with scores of 0.891. The descriptive statistics for the mean and standard deviations for the three constructs, namely, personality traits, Psychological Capital and job performance are presented in Table 3.4.

**Table 3.4: Descriptive statistics: means and standard deviations (N=104)**

	<i>N</i>	<i>Mean</i>	<i>Std Dev</i>	<i>Minimum</i>	<i>Maximum</i>
<b>BTI</b>	104	3.68	0.36	2.84	4.74
Extraversion	104	4.00	0.54	2.83	5.00
Neuroticism	104	1.96	0.70	1.00	4.42
Conscientiousness	104	4.17	0.64	2.50	5.00
Openness	104	4.07	0.51	2.73	5.00
Agreeableness	104	4.30	0.48	3.00	5.00
Excitement seeking	104	2.96	0.90	1.13	5.00
Dutifulness	104	4.28	0.47	3.00	5.00
<b>PCQ</b>	104	4.93	0.57	3.13	6.00
Self-efficacy	104	4.93	0.69	3.17	6.00
Hope	104	5.25	0.68	3.17	6.00
Resilience	104	4.88	0.68	2.83	6.00
Optimism	104	4.57	0.69	3.00	6.00
<b>Job performance</b>					
JP- Sales Targets	97	4.66	1.46	1.00	6.00
JP- Target Achieved	97	5.23	0.99	1.00	6.00
JP- Performance rating	100	3.55	0.81	2.00	5.00

### 3.3.1.1 Descriptive statistics: Personality traits (BTI)

In terms of means and standard deviations presented in Table 3.4, the total mean average score of the BTI was ( $M = 3.68$ ;  $SD = 0.36$ ), indicating relatively strong associations with the scale as a whole. The marginal deviation provides clarification that the scale recorded similar responses for the sample, which is expected as the sample was exclusive. On the BTI sub-scales, the sample participants obtained higher than average mean scores on Extraversion ( $M = 4.00$ ;  $SD = 0.54$ ); Conscientiousness ( $M = 4.17$ ;  $SD = 0.64$ ); Openness ( $M = 4.07$ ;  $SD = 0.51$ ); Agreeableness ( $M = 4.30$ ;  $SD = 0.48$ ); and Dutifulness ( $M = 4.2$ ;  $SD = 0.47$ ), indicating above or higher than average levels of positive association with the particular sub-scale of personality. The lowest mean score was for Neuroticism ( $M = 1.96$ ;  $SD = 0.70$ ), indicating very low levels of positive association with this particular personality sub-scale.

### 3.3.1.2 Descriptive statistics: Psychological Capital (PCQ)

Table 3.4 presents the means and standard deviations of the PCQ. The total mean average score of the PCQ was ( $M = 4.79$ ;  $SD = 0.54$ ), indicating a relatively strong association with Psychological Capital. The sample participants obtained the highest mean score on the Hope subscale ( $M = 5.25$ ;  $SD = 0.68$ ), implying that the sample participants identified most with goal-directed behaviour. Though not low, the lowest mean score was obtained for the Optimism sub-scale ( $M = 4.57$ ;  $SD = 0.69$ ), indicating that the sample participants identified least with expectations of positive outcomes.

### 3.3.1.3 Descriptive statistics: Job Performance (JPQ)

The means and standard deviations for job performance are also indicated in Table 3.4. On the JPQ1 (JP- Sales targets) sub-scale, the mean average score was ( $M = 4.66$ ;  $SD = 1.46$ ), suggesting that the majority of the sample participants indicated sales targets of R10 - R15 million. On the JPQ2 (JP- Targets achieved) sub-scale, the mean average score was ( $M = 5.23$ ;  $SD = 0.99$ ), suggesting that most of the sample participants indicated achievement at 80% - 100% of sales targets. On the JPQ3 (JP- Performance rating) sub-scale, the mean average score was ( $M = 3.55$ ;  $SD = 0.81$ ) suggesting that the sample participants achieved relatively average ratings for their performance.

## 3.3.2 Correlational statistics

Pearson product-moment correlations ( $r$ ) allowed the researcher to identify the direction and strength of the relationship between each of the variables. A cut-off of  $p \leq .05$  ( $r \geq .30$ , medium practical effect size) was used for interpreting the significance of the findings (Cohen, 1992).

### 3.3.2.1 Correlation analysis between personality traits (BTI), Psychological Capital (PCQ) and job performance (JP)

Table 3.5 shows the significant Pearson’s product-moment correlations between the constructs. The correlations vary from  $r = 0.28$  (small practical effect size) to  $r = 0.94$  (large practical effect size) at  $p \leq 0.05$ .

**Table 3.5: Correlation analysis between personality traits (BTI), Psychological Capital (PCQ) and job performance (JP)**

	JP- Sales target	JP- Target Achieved	JP- Performance rating	PCQ	BTI
JP- Sales target JPQ1	1.00000 97	0.16796 0.1001 97	0.08738 0.3947 97	0.18786 0.0654 97	0.01182 0.9085 97
JP- Target Achieved JPQ2	0.16796 0.1001 97	1.00000 97	0.46125 <.0001 97	0.00036 0.9972 97	-0.00652 0.9494 97
JP- Performance rating JPQ3	0.08738 0.3947 97	0.46125 <.0001 97	1.00000 100	0.24635 0.0135 100	0.23045 0.0211 100
PCQ	0.18786 0.0654 97	<b>0.00036***</b> <b>0.9972++</b> 97	0.24635 0.0135 100	1.00000 104	0.47201 <.0001 104
BTI	<b>0.01182*</b> <b>0.9085+++</b> 97	<b>-0.00652**</b> <b>0.9494+++</b> 97	0.23045 0.0211 100	0.47201 <.0001 104	1.00000 104

\*\*\*  $p \leq .001$ ; \*\*  $p \leq .01$ ; \*  $p \leq .05$  (two-tailed)  
 +  $r \leq .29$  (small practical effect size); ++  $r \geq .30 \leq .49$  (medium practical effect size); +++  $r \geq .50$  (large practical effect size)

As presented in Table 3.5, Job performance-sales targets displayed a significantly large, positive correlation to personality traits (BTI) ( $r = 0.90$ :  $p \leq 0.05$ ; large practical effect size). Job performance-targets achieved showed a significantly large, positive correlation to Psychological Capital (PCQ) ( $r = 0.99$ :  $p \leq 0.001$ ; large practical effect size), as well as a large, significantly negative correlation to personality traits (BTI) ( $r = -0.94$ :  $p \leq 0.01$ ; large practical effect size).

### 3.3.2.2 Correlation analysis between biographical variables, personality traits (BTI), Psychological Capital (PCQ) and job performance (JP)

Table 3.6 shows the significant Spearman correlation coefficients between the biographical variables, the constructs and their sub-scales. The correlations vary from  $r = 0.28$  (small practical effect size) to  $r = 0.94$  (large practical effect size) at  $p \leq 0.05$ .

As reflected in Table 3.6, personality traits (BTI) presented large positive correlations with age ( $r = 0.66$ ;  $p \leq 0.05$ ; large practical effect). Conscientiousness showed a large negative correlation with race ( $r = -0.81$ ;  $p \leq 0.05$ ; large practical effect). Dutifulness displayed a very strong positive correlation with gender ( $r = 0.94$ ;  $p \leq 0.01$ ; large practical effect).

From Table 3.6, Psychological Capital and its sub-scales demonstrated many correlations, though not all were significant. Hope showed a positive large correlation with race ( $r = 0.65$ ;  $p \leq 0.05$ ; large practical effect). Resilience showed a large negative correlation with age ( $r = -0.78$ ;  $p \leq 0.001$ ; large practical effect size), indicating that resilience declines with age. Optimism demonstrated a large positive correlation with race ( $r = 0.92$ ;  $p \leq 0.01$ ; large practical effect size) and a large negative correlation with gender ( $r = 0.94$ ;  $p \leq 0.01$ ; large practical effect size).

In terms of job performance, gender is shown to have large positive correlations to targets achieved ( $r = 0.87$ ;  $p \leq 0.05$ ; large practical effect size) as well as to performance ratings ( $r = 0.97$ ;  $p \leq 0.001$ ; large practical effect size).

**Table 3.6: Correlation analysis between biographical variables, personality traits (BTI), Psychological Capital (PCQ) and job performance (JP)**

	<i>Gender</i>	<i>Age</i>	<i>Race</i>
<i>BTI</i>	0.07128 0.4721 104	<b>0.04297*</b> <b>0.6649+++</b> 104	-0.06939 0.4840 104
<i>Extraversion</i>	-0.07122 0.4725 104	0.11460 0.2467 104	-0.06276 0.5268 104
<i>Neuroticism</i>	0.20696 0.0350 104	-0.14780 0.1343 104	0.11763 0.2344 104
<i>Conscientiousness</i>	0.11817 0.2322 104	0.14582 0.1397 104	<b>-0.02364*</b> <b>0.8118+++</b> 104
<i>Openness</i>	0.06644 0.5028 104	0.07610 0.4426 104	-0.12950 0.1901 104
<i>Agreeableness</i>	0.17565 0.0745 104	0.08046 0.4168 104	-0.22271 0.0231 104
<i>Excitement Seeking</i>	-0.16533 0.0935 104	-0.08462 0.3931 104	0.08133 0.4118 104
<i>Dutifulness</i>	<b>-0.00683**</b> <b>0.9451+++</b> 104	0.18441 0.0609 104	-0.07224 0.4661 104
<i>PCQ</i>	-0.09593 0.3327 104	0.09870 0.3189 104	0.05690 0.5662 104
<i>Self-efficacy</i>	-0.14022 0.1557 104	0.16331 0.0976 104	0.05423 0.5845 104
<i>Hope</i>	-0.08892 0.3694 104	0.10855 0.2727 104	<b>0.04484*</b> <b>0.6513+++</b> 104
<i>Resilience</i>	-0.08441 0.3943 104	<b>-0.02705*</b> <b>0.7852+++</b> 104	0.08217 0.4070 104
<i>Optimism</i>	<b>-0.00747**</b> <b>0.9400+++</b> 104	0.08417 0.3956 104	<b>0.00951**</b> <b>0.9237+++</b> 104
<i>JP- Sales Target</i>	-0.18012 0.0775 97	-0.10279 0.3164 97	0.18842 0.0646 97
<i>JP- Target Achieved</i>	<b>0.01658*</b> <b>0.8719+++</b> 97	0.12640 0.2173 97	0.24768 0.0144 97
<i>JP- Performance Rating</i>	<b>0.00373**</b> <b>0.9706+++</b> 100	0.07482 0.4594 100	0.13382 0.1844 100

\*\*\*  $p \leq .001$ ; \*\*  $p \leq .01$ ; \*  $p \leq .05$  (two-tailed)

+  $r \leq .29$  (small practical effect size); ++  $r \geq .30 \leq .49$  (medium practical effect size); +++  $r \geq .50$  (large practical effect size)

Table 3.7 shows the significant Spearman correlation coefficients between the biographical variables, the constructs and their sub-scales. The correlations vary from  $r = 0.28$  (small practical effect size) to  $r = 0.94$  (large practical effect size) at  $p \leq 0.05$ .

### 3.3.2.3 Spearman correlation analysis between the constructs and their sub-scales

As reflected in Table 3.7, personality traits (BTI) demonstrated two large correlations with job performance. Personality traits (BTI) showed a large positive correlation to job performance (JP)-sales targets ( $r = 0.91$ ;  $p \leq 0.05$ ; large practical effect size), as well as a large negative correlation to JP-targets achieved ( $r = 0.95$ ;  $p \leq 0.01$ ; large practical effect size). Each of the big five personality traits presented correlations with job performance.

Extraversion showed a large correlation to JP-sales targets ( $r = 0.89$ ;  $p \leq 0.05$ ; large practical effect size). Neuroticism and Openness displayed large positive correlations to JP-sales targets ( $r = 0.77$ ;  $p \leq 0.05$ ; large practical effect size and  $r = 0.93$ ;  $p \leq 0.01$ ; large practical effect size). Neuroticism also demonstrated a positive correlation with Conscientiousness ( $r = 0.81$ ;  $p \leq 0.05$ ; large practical effect size). Conscientiousness showed a large positive correlation with JP-targets achieved ( $r = 0.89$ ;  $p \leq 0.05$ ; large practical effect size), while Agreeableness presented a large negative correlation to JP-targets achieved ( $r = -0.87$ ;  $p \leq 0.05$ ; large practical effect size). Excitement seeking displayed large positive correlations to JP-sales targets ( $r = 0.66$ ;  $p \leq 0.05$ ; large practical effect size) and to JP-targets achieved ( $r = 0.66$ ;  $p \leq 0.05$ ; large practical effect size).

Table 3.7

*Spearman correlation coefficients between the constructs and their sub-scales*

	<i>BTI</i>	<i>Extr...</i>	<i>Neur...</i>	<i>Cons...</i>	<i>Open...</i>	<i>Agre...</i>	<i>E.S</i>	<i>Duti...</i>	<i>PsyCap</i>	<i>S. E</i>	<i>Hope</i>	<i>Resi...</i>	<i>Opti...</i>	<i>JP- S.T</i>	<i>JP- T. A</i>	<i>JP- P R</i>
<i>BTI</i>	1.00000 104															
<i>Extraversion</i>	0.64799 <.0001 104	1.00000 104														
<i>Neuroticism</i>	0.17322 0.0787 104	-0.21173 0.0310 104	1.00000 104													
<i>Conscientiousness...</i>	0.53183 <.0001 104	0.31156 0.0013 104	<b>0.02448*</b> <b>0.8052+++</b> 104	1.00000 104												
<i>Openness</i>	0.84309 <.0001 104	0.52367 <.0001 104	-0.18200 0.0644 104	0.50240 <.0001 104	1.00000 104											
<i>Agreeableness</i>	0.73388 <.0001 104	0.49229 <.0001 104	-0.17157 0.0816 104	0.34398 0.0003 104	0.67979 <.0001 104	1.00000 104										
<i>Excitement Seeking</i>	0.62346 <.0001 104	0.31969 0.0009 104	0.18091 0.0661 104	0.19868 0.0432 104	0.35027 0.0003 104	0.23962 0.0143 104	1.00000 104									
<i>Dutifulness</i>	0.74376 <.0001 104	0.42174 <.0001 104	-0.11686 0.2374 104	0.50765 <.0001 104	0.73919 <.0001 104	0.70148 <.0001 104	0.21973 0.0250 104	1.00000 104								
<i>PsyCap</i>	0.40783 <.0001 104	0.41999 <.0001 104	-0.33958 0.0004 104	0.25745 0.0083 104	0.49920 <.0001 104	0.43489 <.0001 104	0.17254 0.0799 104	0.40378 <.0001 104	1.00000 104							
<i>Self-Efficacy</i>	0.40725 <.0001 104	0.47415 <.0001 104	-0.28556 0.0033 104	0.19453 0.0478 104	0.48885 <.0001 104	0.34958 0.0003 104	0.15928 0.1063 104	0.39533 <.0001 104	0.85009 <.0001 104	1.00000 104						
<i>Hope</i>	0.33597 0.0005 104	0.32496 0.0008 104	-0.26470 0.0066 104	0.31445 0.0012 104	0.43535 <.0001 104	0.36500 0.0001 104	0.07952 0.4223 104	0.33675 0.0005 104	0.86235 <.0001 104	0.68937 <.0001 104	1.00000 104					

<i>Resilience</i>	0.32594 0.0007 104	0.27791 0.0043 104	-0.27572 0.0046 104	0.16260 0.0991 104	0.39183 <.0001 104	0.37106 0.0001 104	0.20451 0.0373 104	0.30725 0.0015 104	0.84674 <.0001 104	0.63724 <.0001 104	0.63843 <.0001 104	1.00000  104					
<i>Optimism</i>	0.29622 0.0023 104	0.32793 0.0007 104	-0.31069 0.0013 104	0.19059 0.0526 104	0.35526 0.0002 104	0.37085 0.0001 104	0.13497 0.1719 104	0.31194 0.0013 104	0.78984 <.0001 104	0.51812 <.0001 104	0.56092 <.0001 104	0.56393 <.0001 104	1.00000  104				
<i>JP-Sales Targets</i>	<b>0.01182*</b> <b>0.9085+++</b> 97	<b>0.01405*</b> <b>0.8914+++</b> 97	<b>0.02909*</b> <b>0.7773+++</b> 97	-0.08677 0.3981 97	<b>0.00884**</b> <b>0.9315+++</b> 97	-0.08060 0.4326 97	<b>0.04513*</b> <b>0.6607+++</b> 97	<b>0.03479*</b> <b>0.7351+++</b> 97	0.13961 0.1726 97	0.15496 0.1296 97	0.13195 0.1976 97	0.11486 0.2626 97	0.06633 0.5186 97	1.00000  97			
<i>JP-Target Achieved</i>	<b>-0.00652**</b> <b>0.9494+++</b> 97	0.16190 0.1131 97	-0.07572 0.4610 97	<b>0.01472*</b> <b>0.8862+++</b> 97	-0.07065 0.4917 97	<b>-0.01670*</b> <b>0.8710+++</b> 97	<b>0.04487*</b> <b>0.6625+++</b> 97	<b>-0.01051*</b> <b>0.9186+++</b> 97	0.05548 0.5894 97	0.09858 0.3367 97	0.09581 0.3505 97	0.08159 0.4269 97	-0.08936 0.3841 97	0.16796 0.1001 97	1.00000  97		
<i>JP-Rating</i>	0.23045 0.0211 100	0.20305 0.0428 100	0.08221 0.4161 100	0.12380 0.2197 100	0.14117 0.1612 100	0.10143 0.3153 100	0.19249 0.0550 100	0.17029 0.0903 100	0.24416 0.0144 100	0.19118 0.0567 100	0.24526 0.0139 100	0.26686 0.0073 100	0.11686 0.2469 100	0.08738 0.3947 97	0.46125 <.0001 97	1.00000  100	

\*\*\*  $p \leq .001$ ; \*\*  $p \leq .01$ ; \*  $p \leq .05$  (two-tailed)

+  $r \leq .29$  (small practical effect size); ++  $r \geq .30 \leq .49$  (medium practical effect size); +++  $r \geq .50$  (large practical effect size)

### 3.3.3 Inferential statistics

Inferential statistics were used to explore the proportion of variance in the dependent variable (job performance) that is explained by the independent variables (personality traits and Psychological Capital).

#### 3.3.3.1 Multiple regression analysis

Multiple regression analysis was conducted, using the biographical variables, personality traits variables, Psychological Capital variables and job performance.

a) *Regression analysis with job performance as the dependent variable and BTI and PCQ sub-scales and demographics as the independent variables*

Table 3.8 (a, b and c) below summarises the regression model between the biographical variables (gender, age and ethnicity), the sub-scales of personality traits (Extraversion, Neuroticism, Conscientiousness, Openness, Agreeableness, Excitement Seeking and Dutifulness) and the Psychological Capital sub-scales (Self-efficacy, Hope, Resilience and Optimism) as the independent variables and Job Performance (Table 3.8 [a] sales targets; Table 3.8 [b] targets achieved; 3.8 [c] performance rating) as the dependent variable.

Table 3.8 (a)

*Multiple regression statistics summary: job performance (a - sales targets) as the dependent variable and BTI and PCQ sub-scales and demographics as the independent variable*

Variable	Label	DF	Unstandardised Coefficients		Standardised Coefficient	t	p	F	Adj R Square	R Square
			B	Standard Error	Beta					
Intercept	Intercept	1	3.76200	2.10661	0	1.79	0.0781	0.61	-0.076	0.118
Gender		1	-0.41260	0.38048	-0.14292	-1.08	0.2816			
Age		1	-0.17524	0.44082	-0.04869	-0.40	0.6921			
Race		1	0.13095	0.39350	0.04388	0.33	0.7402			
Self-Efficacy		1	0.03651	0.38058	0.01666	0.10	0.9238			
Hope		1	0.29260	0.35659	0.13798	0.82	0.4144			
Resilience		1	0.07044	0.36374	0.03260	0.19	0.8470			
Optimism		1	0.00523	0.32340	0.00252	0.02	0.9871			
Extraversion		1	0.09052	0.38966	0.03438	0.23	0.8169			
Neuroticism		1	0.29714	0.27184	0.14640	1.09	0.2778			
Conscientiousness		1	-0.33671	0.33307	-0.14424	-1.01	0.3152			
Openness		1	-0.08952	0.57608	-0.03141	-0.16	0.8769			
Agreeableness		1	-0.64558	0.54945	-0.21658	-1.17	0.2436			
Excitement seeking		1	0.11429	0.21633	0.07102	0.53	0.5988			
Dutifulness		1	0.59323	0.61702	0.19446	0.96	0.3393			

\*\*\*  $p \leq .001$ ; \*\*  $p \leq .01$ ; \*  $p \leq .05$   
 $+R^2 \leq .12$  (small practical size effect);  $++R^2 \leq .13 \leq .25$  (medium practical size effect);  $+++R^2 \geq .26$  (large practical size effect)

The regression of the BTI and PCQ sub-scales and demographics variables on job performance (sales targets) was not a good fit and produced a non-statistically significant model ( $F = 0.61$ ;  $p = 0.078$ ).

**Table 3.8 (b) Multiple regression statistics summary: job performance (b – targets achieved) as the dependent variable and BTI and PCQ sub-scales and demographics as the independent variable**

Variable	Label	DF	Unstandardised Coefficients		Standardised Coefficient	t	p	F	Adj R Square	R Square
			B	Standard Error	Beta					
Intercept	Intercept	1	5.12800	1.29852	0	3.95	0.0002	1.95	0.146++	0.30
Gender		1	0.13136	0.23453	0.06573	0.56	0.5770			
Age		1	0.17107	0.27172	0.06866	0.63	0.5308			
Race		1	0.44514	0.24255	0.21545	1.84	0.0703			
Self-Efficacy		1	0.06507	0.23459	0.04287	0.10	0.9238			
Hope		1	0.19448	0.21980	0.13247	0.82	0.4144			
Resilience		1	0.06672	0.22421	0.04460	0.19	0.8470			
Optimism		1	-0.27826	0.19935	-0.19333	0.02	0.9871			
Extraversion		1	0.45188	0.24019	0.24790	0.23	0.8169			
Neuroticism		1	-0.18536	0.16757	-0.13192	1.09	0.2778			
Conscientiousness		1	-0.06206	0.20530	-0.03840	-1.01	0.3152			
Openness		1	-0.57574	0.35510	-0.29184	-0.16	0.8769			
Agreeableness		1	-0.08170	0.33868	-0.03959	-1.17	0.2436			
Excitement seeking		1	0.06315	0.13334	0.05669	0.53	0.5988			
Dutifulness		1	0.09175	0.38033	0.04345	0.96	0.3393			

\*\*\*  $p \leq .001$ ; \*\*  $p \leq .01$ ; \*  $p \leq .05$

+ $R^2 \leq .12$  (small practical size effect); ++ $R^2 \leq .13 \leq .25$  (medium practical size effect); +++  $R^2 \geq .26$  (large practical size effect)

The regression of the BTI and PCQ sub-scales and demographics variables on job performance 2 (targets achieved) produced a statistically significant model ( $F = 1.95$ ;  $p = 0.0002$ ), accounting for 30% ( $R^2 = 0.30$ ; medium practical size effect) of the variance in the job performance variable.

**Table 3.8 (c) Multiple regression statistics summary: job performance (c-performance rating) as the dependent variable and BTI and PCQ sub-scales and demographics as the independent variable**

Variable	Label	DF	Unstandardised Coefficients		Standardised Coefficient	t	p	F	Adj R Square	R Square
			B	Standard Error	Beta					
Intercept	Intercept	1	0.80736	1.10276	0	0.73	0.4663	1.34	0.058	0.228
Gender		1	0.05008	0.19917	0.03099	0.25	0.8022			
Age		1	0.13688	0.23076	0.06795	0.59	0.5548			
Race		1	-0.11876	0.20599	-0.07109	-0.58	0.5659			
Self-Efficacy		1	-0.12169	0.19923	-0.09918	-0.61	0.5431			
Hope		1	0.20798	0.18666	0.17521	1.11	0.2687			
Resilience		1	0.25959	0.19041	0.21462	1.36	0.1768			
Optimism		1	0.02618	0.16929	0.02249	0.15	0.8775			
Extraversion		1	0.24932	0.20398	0.16916	1.22	0.2253			
Neuroticism		1	0.19803	0.14230	0.17432	1.39	0.1680			
Conscientiousness		1	-0.13206	0.17435	-0.10107	-0.76	0.4511			
Openness		1	-0.14884	0.30157	-0.09332	-0.49	0.6230			
Agreeableness		1	-0.39906	0.28762	-0.23918	-1.39	0.1693			
Excitement Seeking		1	0.08396	0.11324	0.09321	0.74	0.4607			
Dutifulness		1	0.43050	0.32300	0.25212	1.33	0.1865			

\*\*\*  $p \leq .001$ ; \*\*  $p \leq .01$ ; \*  $p \leq .05$

+ $R^2 \leq .12$  (small practical size effect); ++ $R^2 \geq .13 \leq .25$  (medium practical size effect); +++  $R^2 \geq .26$  (large practical size effect)

The regression of the BTI and PCQ sub-scales and demographics variables on job performance 3 (performance rating) produced a statistically significant model ( $F = 1.34$ ;  $p = 0.466$ ), accounting for 28.8% ( $R^2 = 0.228$ ; small practical size effect) of the variance in the job performance variable.

b) *Regression analysis with Psychological Capital as the dependent variable and BTI sub-scales and demographics as the independent variables*

Table 3.9 below summarises the regression model between the biographical variables (gender, age and ethnicity) and the sub-scales of personality traits (Extraversion, Neuroticism, Conscientiousness, Openness, Agreeableness, Excitement Seeking and Dutifulness) as the independent variables and Psychological Capital as the dependent variable.

**Table 3.9 Multiple regression statistics summary: Psychological Capital as the dependent variable and BTI sub-scales and biographical variables as the independent variable**

Variable	Label	DF	Unstandardised Coefficients		Standardised Coefficient	T	P	F	Sig	Adj R Square	R Square
			B	Standard Error	Beta						
Intercept	Intercept	1	2.60538	0.56955	0	4.57	<.0001	4.23	<.0001	0.2939	0.3848
Gender		1	-0.18136	0.11076	-0.16310	-1.64	0.1051				
Age		1	-0.05190	0.13466	-0.03635	-0.39	0.7009				
Race		1	0.19886	0.11825	0.17096	1.68	0.0962				
Extraversion		1	0.16354	0.11296	0.15823	1.45	0.1512				
Neuroticism		1	-0.19253	0.07742	-0.24276	-2.49	0.0148				
Conscientiousness		1	0.03852	0.09219	0.04425	0.42	0.6771				
Openness		1	0.28369	0.16844	0.25392	1.68	0.0957				
Agreeableness		1	0.25362	0.16029	0.21905	1.58	0.1172				
Excitement Seeking		1	0.02123	0.06302	0.03438	0.34	0.7370				
Dutifulness		1	-0.12423	0.17618	-0.10453	-0.71	0.4826				

\*\*\*  $p \leq .001$ ; \*\*  $p \leq .01$ ; \*  $p \leq .05$

+ $R^2 \approx .12$  (small practical size effect); ++ $R^2 \approx .13 \leq .25$  (medium practical size effect); +++  $R^2 \approx .26$  (large practical size effect)

The regression of the BTI sub-scales and demographics variables on Psychological Capital produced a statistically significant model ( $F = 4.23$ ;  $p = 0.00$ ), accounting for 38.4% ( $R^2 = 0.384$ ; large practical size effect) of the variance in the Psychological Capital variable.

Neuroticism ( $\beta = -0.19$ ;  $p = 0.01$ ) contributed significantly and negatively to explaining the variance in Psychological Capital.

c) *Moderated regression analysis with job performance as dependent variable and personality traits and Psychological Capital as independent variables*

**Table 3.10 Moderated regression analysis with job performance as dependent variable, personality traits as independent variables and Psychological Capital as the moderator**

Variable	Label	DF	Unstandardised Coefficients		Standardised Coefficient	T	P	F	Sig	Adj R Square	R Square
			B	Standard Error	Beta						
Intercept	Intercept	1	-3.81942	11.07028	0	-0.35	0.7309	0.86	0.46	-0.0044	0.0269
BTI			1.80034	3.09035	0.45212	0.58	0.5616				
PCQ			1.88632	2.22523	0.74411	0.85	0.3988				
PCQ_BTI			-0.40824	0.61345	-0.92467	-0.67	0.5074				
Intercept			5.59000	7.60943	0	0.73	0.4644	0.13	0.94	-0.0278	0.0043
BTI			-0.26783	2.12423	-0.09898	-0.13	0.8999				
PCQ			0.00216	1.52957	0.00126	0.00	0.9989				
PCQ_BTI			0.03358	0.42167	0.11195	0.08	0.9367				
Intercept			6.48248	5.85506	0	1.11	0.2710	3.10	0.03	0.0597	0.088
BTI			-1.17076	1.62997	-0.52991	-0.72	0.4743				
PCQ			-0.84842	1.17944	-0.60655	-0.72	0.4737				
PCQ_BTI			0.30492	0.32443	1.24231	0.94	0.3496				

\*\*\*  $p \leq .001$ ; \*\*  $p \leq .01$ ; \*  $p \leq .05$

+  $R^2 \leq .12$  (small practical size effect); ++  $R^2 \geq .13 \leq .25$  (medium practical size effect); +++  $R^2 \geq .26$  (large practical size effect)

Table 3.10 summarises the moderated regression analysis between personality traits (BTI) as the independent variables, job performance as the dependent variable and Psychological Capital (PCQ) as the moderator.

The regression of personality traits and Psychological Capital variables on job performance (JPQ1-sales targets) did not produce a statistically significant model ( $F = 0.86$ ;  $p = 0.73$ ). The regression of personality traits and Psychological Capital variables on job performance (JPQ2-targets achieved) also did not produce a statistically significant model ( $F = 0.14$ ;  $p = 0.46$ ). The regression model presented for the personality traits and Psychological Capital variables on job performance (JPQ3-performance rating) was not a statistically significant model ( $F = 3.10$ ;  $p = 0.27$ ).

The regression of personality traits and Psychological Capital variables on job performance (JPQ1-sales targets and JPQ2-targets achieved) did not present models of good fit. There is no significant interaction between personality traits and Psychological Capital in predicting job performance. Personality traits did not act as a significant predictor of job performance, while Psychological Capital did not moderate the personality traits–job performance relation.

### 3.3.3.2 Mean centred values

For purposes of statistical analyses, the biographical groups were clustered as illustrated in Table 3.11 below. Table 3.12 presents the significant mean differences found between the various biographical groups in relation to the constructs.

**Table 3.11 Clustering of biographical groups**

Variable	Group A	Group B	
Gender	Male	Female	
Age	18-45	>45	
Race	Black	White	
Tenure	>10 years	5-10 years	0-5 years

a) *Significant mean differences: gender*

The only noted difference between males ( $M = 1.82$ ;  $SD = 0.58$ ;  $p = 0.03$ ) and females ( $M = 2.11$ ) was on Neuroticism, with females scoring significantly higher

than the male participants ( $M = 4.24$ ;  $SD = 0.79$ ;  $p \leq 0.03$ ;  $d = 0.42$ ; moderate practical effect).

*b) Significant mean differences: age*

For statistical purposes, the sample participants were clustered into two age brackets, namely, the 18-45 year group and the >45 year old group. Significant differences were evident between the 18-45 year old group ( $M = 4.10$ ;  $SD = 0.65$ ;  $p = 0.04$ ) and the >45 year old group ( $M = 4.44$ ) for Conscientiousness, with the older group scoring significantly higher ( $M = 4.44$ ;  $SD = 0.52$ ;  $p = 0.04$ ;  $d = 0.58$ ; moderate practical effect). This indicates that sales employees from the age of 45 years upwards tend to exhibit more conscientious behaviour than employees younger than 45 years old.

*c) Significant mean differences: race*

Significant differences were found in the BTI and PCQ sub-scales between ICT sales employees of different ethnicity. For statistical purposes, the sample participants were clustered into two groups, namely: Black and White employees. The Black group comprised Black, Coloured, Indian and Other employees. White employees reported lower mean scores ( $M = 4.17$ ;  $SD = 0.49$ ) than Black employees ( $M = 4.37$ ;  $SD = 0.47$ ) in terms of agreeableness ( $p \leq 0.05$ ;  $d = 0.42$ ; moderate practical effect). Black ICT sales employees reported lower mean scores ( $M = 5.00$ ;  $SD = 1.08$ ) than Whites ( $M = 5.60$ ;  $SD = 0.69$ ) in terms of JPQ2 (target achieved) ( $p \leq 0.00$ ;  $d = 0.66$ ; moderate practical effect).

*d) Significant mean differences: other*

Significant differences were evident in biographical groups, which were not the focus of this research, however deserve to be mentioned.

- (i) For statistical purposes, the marital status of the sample participants were clustered into two groups, namely married and all else. The group for all else included single, widowed and other. Married sales employees

reported lower scores ( $M = 1.84$ ;  $SD = 0.58$ ) than the remainder group ( $M = 2.23$ ;  $SD = 0.88$ ) in terms of Neuroticism ( $p = 0.01$ ;  $d = 0.52$ ; moderate practical effect).

- (ii) Significant differences were found in the BTI and job performance (JPQ2) between ICT sales employees of different sales types. Support employees reported lower mean scores ( $M = 3.60$ ;  $SD = 0.44$ ) than active sales employees ( $M = 4.03$ ;  $SD = 0.54$ ) in terms of Extraversion ( $p \leq 0.04$ ;  $d = 0.87$ ; large practical effect). This indicates that ICT sales employees in an active sales function (target-driven and commission-earning) exhibit more extraverted behaviour than support sales employees.
- (iii) Support employees also reported lower mean scores ( $M = 4.00$ ;  $SD = 2.45$ ) than active sales employees ( $M = 5.28$ ;  $SD = 0.88$ ) in terms of job performance (targets achieved) ( $p \leq 0.01$ ;  $d = 0.70$ ; large practical effect). This difference indicates that active sales employees associate themselves with more target-driven activities or goal-directed behaviour to ensure the achievement of their sales targets.

**Table 3.12 Significant mean differences**

Variable	Biographical group		N	Mean	SD	Levene's test for equality of variance		T-test for equality of means			Cohen d
						F	Sig	T	df	Sig. (2 tailed)	
Neuroticism	Gender	Male	53	1.82	0.58	1.83	0.03	-2.14	102	0.04*	0.42
		Female	51	2.11	0.79						
Conscientiousness	Age	18-45 years	85	4.10	0.65	1.54	0.30	-2.14	102	0.04*	0.58
		>45 years	19	4.44	0.52						
Agreeableness	Race	Black	67	4.37	0.47	1.08	0.76	1.97	101	0.05*	0.42
		White	36	4.17	0.49						
JPQ2-Target Achieved	Race	Black	61	5.00	1.08	2.42	0.00	-2.95	94	0.00**	0.66
		White	36	5.60	0.69						
Neuroticism	Marital status	Married	73	1.84	0.58	2.31	0.00	-2.65	101	0.01*	0.52
		All else	30	2.23	0.88						
Extraversion	Sales type	Active sales	97	4.03	0.54	1.48	0.66	2.04	102	0.04*	0.87
		Support sales	7	3.60	0.44						
JPQ2-Target Achieved	Sales type	Active sales	93	5.28	0.88	7.80	0.00	2.59	95	0.01*	0.70
		Support sales	4	4.00	2.45						

### **3.4 DISCUSSION**

At the onset of this research article, it was noted that the source of an organisation's competitive advantage is their employees. The skills, knowledge and experience they possess are what defines them as talent resources (Botha et al., 2011). Within the ICT sales environment, employees capable of achieving targets can be referred to as the organisation's performers; however, those who maintain current product knowledge, are able of providing good business advise and who develop and nurture client- and colleague relationships, are the real leverage of the organisation as they impact sustainability. In an age of global competition, the war for talent is at its peak. Attracting, retaining and managing talent has become a strategic focus, imperative to the organisation's survival, adaption and competitive advantage (Martins & Coetzee, 2007).

The objectives of the research were, therefore, to: (1) determine the levels of personality traits (as measured by the Basic Traits Inventory), Psychological Capital (as measured by the Psychological Capital Questionnaire) and job performance (as measured by the Job Performance Questionnaire) among the sales employees within the ICT sector; (2) determine the role of biographical variables (age, gender, marital status, racial group and tenure) in respect of personality traits, Psychological Capital and job performance among sales employees in the ICT sector; (3) determine the relationship between personality traits, Psychological Capital and job performance; (4) assess the interaction between personality traits and Psychological Capital in predicting job performance; and (5) formulate recommendations based on the literature and empirical findings of this research for Industrial Psychology practices and future research with regard to personality traits, Psychological Capital and job performance. Objective 5 will be discussed in the next section.

#### **3.4.1 Biographical profile of the sample**

The sample participants comprised of ICT employees, with the majority in an active sales position (93.27%), between the ages of 30 and 45 years. Though almost equivalent, the majority of participants were male (50.96%). Constituting toward more than half of the sample, the White (34.62%) and Indian (30.77%) participants

represented the largest ethnic groups. The majority of participants were married (70.19%). The majority of the sample participants indicated tenure of more than 10 years (53.85%).

Overall, the sample showed average to above average level of personality traits, indicating that ICT sales employees generally understand themselves well and associate themselves with traits that they identify with. In respect of the sub-dimensions, the sample tended towards high levels of extraversion, conscientiousness, openness, agreeableness and dutifulness traits. The sample participants reported the least association with neuroticism, indicating a very strong portrayal of emotional stability.

The sample demonstrated very high levels of Psychological Capital, indicating that ICT sales employees generally possess higher levels of internal resources and capacities, enabling them to succeed. In respect of the sub-dimensions, the sample was inclined toward high levels of hope, self-efficacy, resilience and optimism. The sample participants' strong resonance with the each of the dimensions of the Psychological Capital may imply that ICT sales employees tend to utilise the positive resources of self-efficacy, hope, resilience and optimism.

In terms of the three job performance indicators, the sample of ICT sales employees recorded high sales targets aligned with high target achievement percentages. However, the sample participants reported relatively average levels of performance ratings received from their managers. This may imply that while ICT sales employees tend to achieve a high percentage of their high sales targets, their job performance rating may not be a direct measure of their behaviour.

**3.4.2 Research aim 1:** To assess the levels of personality traits (as measured by the Basic Traits Inventory), Psychological Capital (as measured by the Psychological Capital Questionnaire) and job performance (as measured by the Job Performance Questionnaire) amongst the sales employees within the ICT sector.

This study explored the personality traits, Psychological Capital and job performance amongst Information, Communication and Technology (ICT) sales employees. The findings suggest that Information, Communication and Technology sales employees relate strongly to the personality traits comprised in the BTI scale. Extraversion; Conscientiousness; Openness; Agreeableness and Dutifulness demonstrated above-average mean scores, indicating that ICT sales employees identify with the associated characteristics such as being sociable, assertive, gregarious, dependable, responsible, achievement orientated; adaptive, innovative, unconventional; cooperative, considerate and attentive to others.

The findings of this study established that the ICT sales employees demonstrate a relatively strong association with Psychological Capital. This sample of sales employees report high mean scores across the sub-scales with the Hope subscale obtaining the highest mean score. This implies that the sample participants identify most with goal-directed behaviour. Though not low, the lowest mean score was obtained for the Optimism sub-scale, indicating that the sample participants identified least with expectations of positive outcomes.

This study obtained individual job performance data relating to sales targets, percentage of targets achieved and managers' performance rating, all for the same period of time. The findings of this study highlight that the average sales targets of the ICT sales employees range between R10 and R15 million for the financial year in question. On average, this sample indicates an achievement of 80% - 100% of their sales targets. The findings suggest that the sample reports having achieved relatively average ratings for the performance.

**3.4.3 Research aim 2:** To assess the role of biographical variables (age, gender, marital status, racial group and tenure) in respect of personality traits, Psychological Capital and job performance amongst sales employees in the ICT sector.

This study investigated the role of biographical variables (gender, age and race) in respect of personality traits, Psychological Capital and job performance amongst Information, Communication and Technology sales employees. The findings of this study confirm that gender relates largely and positively with job performance (targets achieved and performance rating) and Dutifulness, while it shows a negative relation

with Optimism. This study established a large negative correlation between age and Resilience indicating that Resilience declines as an individual gets older. Age related positively with the BTI scale as a whole. This study identified a negative correlation between race and Conscientiousness as well as large positive relations with Hope and Optimism.

**3.4.4 Research aim 3:** To assess the relationship between personality traits, Psychological Capital and job performance.

This study explored the relationship between personality traits, Psychological Capital and job performance amongst Information, Communication and Technology sales employees. The findings of this study established significant correlations between BTI and its sub-scales with job performance. Extraversion, Neuroticism, Openness and Excitement-seeking demonstrate large positive correlations to JP-sales targets. Conscientiousness shows a large positive correlation with JP-targets achieved, while Agreeableness shows a large negative correlation to JP-targets achieved. The PCQ scale as a whole displays a large positive correlation with JP-targets achieved, and a large negative correlation with the BTI scale as a whole. All PCQ sub-scales were unable to establish significant correlations between Psychological Capital with personality traits and job performance.

**3.4.5 Research aim 4:** To assess the interaction between personality traits and Psychological Capital in predicting job performance.

This study investigated the interaction effect between personality traits (independent variable) and Psychological Capital (moderating variable) in predicting job performance amongst Information, Communication and Technology sales employees. The findings of the study confirm no statistically significant model for explaining the variances in the job performance variable. There is no significant interaction between personality traits and Psychological Capital in predicting job performance. Psychological Capital does not act as a significant predictor of job performance, indicating that ICT employees, if they possess higher levels of Psychological Capital, do not automatically perform better. Psychological Capital

does not moderate the personality traits-job performance relationship and does not have a significant main effect on job performance.

### **3.4.6 Conclusions: Implications for practice**

Overall, it can be concluded that industrial psychologists and human resources practitioners should consider the ways in which personality traits and Psychological Capital affect the job performance of ICT sales employees, as part of their talent recruitment strategies. There is a significant positive relationship between Psychological Capital and job performance (targets achieved). Personality traits are positively related to job performance (sales targets) and negatively related to negative job performance (targets not achieved). This implies that the personality dimensions could both positively or negatively influence job performance.

BTI and PCQ sub-scales and demographics variables significantly explain and predict the variance in the job performance (targets achieved) and job performance (performance rating) of ICT sales employees. In addition, ethnicity significantly explains and predicts the variance in the job performance (targets achieved). Age and gender explain the variance in conscientiousness and neuroticism, respectively. Psychological Capital, however, does not have a significant effect on job performance and does not moderate the personality traits-job performance relationship.

Despite generally having the internal capacity and resources to perform in their jobs, the ICT sales environment is very stressful, confronting staff with demanding time pressures and targets. Industrial psychologists and human resources practitioners should consider capacities and resources development initiatives aimed at improving the individual's internal capacity to cope with the environment and job tasks expected of ICT sales employees, thus improving their job performance.

The findings of the study add to the body of literature pertaining to the core variables and contribute valuable information and knowledge on the relationships between personality traits, Psychological Capital and job performance, as well as the influence that various biographical variables have on these constructs within the context of the South African ICT sector. The conclusions and practical

recommendations for talent strategies of ICT sales employees will be discussed in greater detail in Chapter 4.

### **3.4.7 Limitations of the study**

The core limitations will be presented in this section, with a comprehensive overview of all the limitations identified following in Chapter 4.

#### **(i) Size**

While the results may be representative of the ICT organisation that participated in the research, and likely generalisable to sales staff in other similar ICT organisations in South Africa, the small sample size (n=97) may not truly reflect the demographics of the South African ICT sector. Researchers should, therefore, be cautious of generalising the findings as being representative of ICT employees in general. It is recommended that in order to generalise the findings of this study, future research should utilise a larger population and sample.

#### **(ii) Demographics**

This study was limited to target-driven, commission-earning, sales employees from a single ICT organisation in South Africa. As a result of the restrictions, the findings cannot be generalised to other occupational contexts.

#### **(iii) Survey design**

With a cross-sectional design, it was not possible to control for confounding variables. Despite a high overall response rate, the higher responses from the White and Indian groups compared to the Black group are indicative that the sample was not entirely representative of the demographics of the South African population. This limits the ability to draw inferences from this study to the greater South African population.

#### **(iv) Job performance instrument**

Arguing that performance was a measure of goal orientated behaviour and that behaviour being the is an idea simple to understand, however the measure proved The job performance instrument intended to measure actual sales achieved was too short, simplistic and subjective in nature. With no way of verifying and cross-

referencing the truthfulness or accuracy of data received, the reliability of the instrument may be compromised.

#### **3.4.8 Recommendations for future research**

The core recommendation will be presented in this section with a comprehensive overview of all the recommendation identified following in Chapter 4.

To improve the representativeness of the sample, it is recommended that future researchers replicate this study with the focus to obtain a larger representative sample. This will serve to improve external validity and ensure that the findings can be inferred on the South African population as a whole. Future research on this topic could be expanded to other industries, sectors as well as geographically locations.

The empirical findings of this study confirm the existence of a relationship between personality traits and Psychological Capital, as well as between the sub-dimensions of personality traits, Psychological Capital and job performance. It is recommended that future research be conducted to examine the impact of talent retention strategies and practices on the personality traits, Psychological Capital and job performance of information communication and technology employees over a period of time, using a longitudinal study.

Job performance is a sensitive issue with the measure being rather subjective. Gaining access to such information from organisations is usually a challenge due to the confidentiality and privacy assured to the employees. It is recommended that future research involving job performance make use of two instruments or two parts to retrieve the information. It is suggested that a valid, reliable instrument be utilised to gain empirical data, which should then be supplemented with a secondary qualitative questionnaire designed specifically for the occupation being assessed.

### **3.5 CHAPTER SUMMARY**

In this chapter, the literature underpinning this study was discussed with the emphasis on the core aspects of the variables, personality traits, Psychological Capital and job performance. The results were explained, conclusions were drawn,

the limitations were highlighted and recommendations were made for areas of possible future research. Chapter 4 will provide a more comprehensive discussion of the conclusions drawn and the identified limitations of the study. Recommendations will be made for the practical application of the findings.

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## **CHAPTER 4:**

### **CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS**

Chapter 4 focuses on the conclusions drawn from this research study. In this chapter, the limitations of both the literature review and the empirical results of the study are highlighted. The chapter further presents recommendations for the practical application of the findings and also for future research studies.

#### **4.1 CONCLUSIONS**

The following section discusses the conclusions that were drawn based on the literature review and the empirical findings of this study.

##### **4.1.1 Conclusions arising from the literature review**

The objectives of the study were to: (1) conceptualise from a theoretical perspective personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector; (2) determine theoretically the role of the biographical variables (gender, age and racial group) in respect of personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector; (3) conceptualise the theoretical relationship between personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector; (4) conceptualise the interaction between personality traits and Psychological Capital in predicting job performance; (5) determine the implications for Industrial Organisational Psychology practices and future research. This aim will be discussed together with the fifth aim of the empirical study.

*4.1.1.1 Specific aim 1: Conceptualise from a theoretical perspective personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector*

A literature review was undertaken in Chapter 2, whereby the conceptual relationships of personality traits, Psychological Capital and job performance were studied. From the literature review, it is concluded that the variables personality

traits, Psychological Capital and job performance are core issues in the industrial and organisational psychology field and are central to human resource development.

Personality has always been definable through descriptive behaviour of the factors, types, traits or states that are either observable or elicited through assessment. For the purposes of this study, personality is viewed as the “relatively stable set of characteristics, tendencies and temperaments that have been formed significantly by inheritance and by social, cultural and environmental forces” (Ivancevich & Matteson, 1993, p. 98) and can be assumed to be all the variables that make each individual similar to and different from another individual. The study of personality can be approached from one of three perspectives, namely, the psychoanalytic, the behaviouristic and the phenomenological (Atkinson et al., 1996). When predicting behaviour, the trait approach is the most common to personality psychology and follows the psychoanalytic perspective, which focuses on the individual’s motivational or reinforcement history (Atkinson et al., 1996). As the Five Factor Model serves as a practical approach to studying individual differences, it was selected to conceptualise personality (Goldberg, 1990; McCrae & Costa, 1987). Consisting of the ‘big five’ personality traits, this five-dimensional construct is often researched for its predictive nature.

A fairly recent inclusion to the field of Positive Organisational Behaviour was the development of the Psychological Capital construct by Luthans, Youssef, and Avolio (2007). The pioneers of this construct explain it to be an individual’s positive psychological state of development that is characterised its four sub-scales, namely, Self-Efficacy, Optimism, Hope and Resilience. As a central aspect of positive organisational behaviours, and in compliance with it the stringent inclusion criteria, Psychological Capital was determined to be positive, unique, developable, measurable and performance-related (Luthans & Youssef, 2004). By complying with the defined criteria, Psychological Capital has ascertained significant correlations with positive organisational behaviours, including job performance.

In conceptualising job performance for this study, Sonnentag, Volmer, and Spychala’s (2010) view was central. Accordingly, job performance was conceptualised as only the actions that could be scaled (i.e., counted), explicitly describing behaviour that was goal-oriented. For the purposes of this study, job

performance was viewed as a measurable, goal orientated behaviour with an organisational focus, particularly for this study, the outcome of achieving a sales target, which involves making/closing a sales opportunity, is measurable and goal-orientated, and is then assumed to be the performance behaviour measured to determine individual performance. Conceptualising job performance was achieved through Campbell's (1990) proposed general model of individual differences in performance. Campbell described performance components as a function of three determinants: declarative knowledge, procedural knowledge and skills, and motivation. While it may be a rather elaborate model, it was very influential and took perspective of job performance, accounting for various factors and influencers.

*4.1.1.2 Specific aim 2: To determine theoretically the role of the biographical variables (gender, age and racial group) in respect of personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector*

This aim was achieved in Chapter 2 of this study. The literature review focused on theoretically explaining the role of the biographical variables (age, gender, racial group) in respect of personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector. Various findings were identified that will now be discussed.

The biographical variables of gender, age and race were found to have a significant influence with some of its relations to personality, Psychological Capital and job performance. The literature highlights significant differences and conflicting views in terms of personality and Psychological Capital studies among different gender and age groups. Limited research was available regarding race group difference. Results found small differences between males and females in terms of personality traits (Goldberg, Sweeney, Merenda, & Hughes Jr, 1998), with more significant differences occurring at a facet level (Costa, Terracciano, & McCrae, 2001). While research yielded conflicting results in terms of gender differences, age was found to influence some of the Psychological Capital sub-scales. In terms of job performance, studies provided conflicting views with some identifying males with performance and other studies finding no difference between genders (Hartman 1988; Knudson, 1982). In

general, very limited research is available in terms of race group differences, which may be due to the controversial nature of the topic and interest being drawn to cultural influences.

*4.1.1.3 Specific aim 3: To conceptualise the theoretical relationship between personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector*

The literature review undertaken in Chapter 2 achieved this aim by conceptualising the theoretical relationships between the variables of personality traits, Psychological Capital and job performance. The literature review concluded that personality traits and Psychological Capital are both positively related to job performance.

Personality has been identified and linked to a number of positive organisational behaviour studies (Barrick, Stewart, & Piotrowski, 2002; Judge, Heller, & Mount, 2002; Kim, Shin, & Swanger, 2009; O'Reilly, Chatman, & Caldwell, 1991), with some studies emphasising the importance of individuals in a sales function and the impact thereof on organisational performance (Hogan, Hogan, & Gregory, 1992; Vinchur, Schippmann, Switzer, & Roth, 1998). Studies have established significant correlations between Psychological Capital and positive organisational behaviours such as organisational commitment (Luthans, Norman, Avolio, & Avey, 2008); job satisfaction (Luthans, Avolio, Avey, & Norman, 2007); and job performance (Luthans, Avey, Avolio, & Peterson, 2010). As a higher level component, Psychological Capital produced more significant correlations with performance versus its individual dimensions (Luthans, Avolio, Avey, & Norman, 2007). Literature provided the evidence that personality traits (Vinchur, Schippmann, Switzer, & Roth, 1998; Furnham & Fudge, 2008; Hurtz & Donovan, 2000; Klang, 2012; Neubert, 2004) and Psychological Capital (Brandt, Gomes, & Boyanova, 2011; Newman, Ucbasaran, Zhu, & Hirst, 2014) positively correlate with job performance.

#### *4.1.1.4 Specific aim 4: To conceptualise the interaction between personality traits and Psychological Capital in predicting job performance of sales employees in the ITC sector*

This aim was achieved in Chapter 2 as the literature review undertaken focused on the review of the theoretical, predictive relationships between the variables personality traits, Psychological Capital and job performance. Studies revealed that some dimensions of personality and Psychological Capital were found to account significantly for the variance in performance with Extraversion and Conscientiousness specifically predicting sales success. Four traits of the FFM significantly predict job performance (Rothmann & Coetzer, 2003, p. 69), with the exception of Openness to Experience, which could be explained by the fact that jobs have varying requirements. The literature review concluded that personality traits and Psychological Capital are both positively related to job performance with studies also confirming empirical findings, where both variables have predicted job performance.

#### **4.1.2 Conclusions in terms of the empirical study**

The empirical study undertaken focused on four specific aims relating to research, namely to: (1) determine the levels of personality traits, Psychological Capital and job performance empirically amongst sales employees in the ITC sector; (2) determine the role of gender, age and racial group, empirically in respect of personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector; (3) determine empirically the relationship between personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector; (4) assess the empirical interaction between personality traits and Psychological Capital in predicting job performance, (5) formulate recommendations based on the literature and empirical findings of this research, Industrial Organisational Psychology practices and future research with regard to personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector and future research.

*4.1.2.1 Specific aim 1: To determine the levels of personality traits, Psychological Capital and job performance empirically amongst sales employees in the ITC sector*

This aim was achieved in Chapter 3, by determining the personality traits, Psychological Capital and job performance levels amongst sales employees in the ITC sector.

Participants in the sample tended to have average mean scores on the BTI scale, indicating relatively strong associations with the scale as a whole. The marginal deviation provides clarification that the participants recorded fairly similar responses, which is expected as the sample was exclusive to ICT sales employees from one organisation. Low levels of positive association with the Neuroticism sub-scale indicate that ICT sales employees rather tend to be emotionally stable and are not likely to resonate with emotionally unstable characteristics. The sample participants demonstrate a relatively strong association with Psychological Capital, obtaining the highest mean score on the Hope sub-scale. This implies that the sample participants identify most with goal-directed behaviour. In terms of job performance, the majority of the sample participants indicate sales targets of R10 - R15 million, with most indicating target achievement at 80% - 100% of sales targets. Job performance rating scores suggest that the sample participants achieve relatively average ratings for their performance. Consistent with previous research, the overall sample demonstrate average to above average levels of personality traits and very high levels of Psychological Capital.

*4.1.2.2 Specific aim 2: To determine the role of gender, age and racial group empirically in respect of personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector*

Based on the findings of the empirical study, this aim was achieved with the following conclusions drawn regarding the role of biographical variables in relation to personality traits, Psychological Capital and job performance levels amongst ICT sales employees:

- a) There are no significant gender-differences found in relation to the BTI, PCQ and Job Performance. Negative linear relationships exist between gender and the BTI sub-scale of Dutifulness, as well as between age and PCQ sub-scale of Optimism. This indicates that the gender of the ICT sales employee can negatively influence their dutifulness as well as their perception of positive outcomes and so reduce their job performance. A positive linear relationship exists between age and job performance (targets achieved and sales performance), indicating that job performance varies in terms of age.
  
- b) A positive linear relationship exists between age and the BTI scale overall, which indicates that with age, ICT sales employees identify more distinctly with the traits they associate themselves with. The sample participants were clustered into two age brackets, namely, the 18-45 year group and the >45 year old group. The younger group of participants score lower on Conscientiousness than the older group, suggesting that ICT samples older than 45 years exhibit more conscientious behaviour than employees younger than 45 years old.
  
- c) Significant differences were found in the BTI and PCQ sub-scales between ICT sales employees of different race groups. The sample participants were clustered into two groups, namely: Black and White employees. The Black group comprised Black, Coloured, Indian and Other employees. White employees report lower mean scores than Black employees in terms of Agreeableness, suggesting that Black employees tend to behave more cooperatively, self-sufficiently and be more attentive to others (see Table 2.2 for more descriptions). Black ICT sales employees report lower mean scores than Whites in terms of JPQ2 (target achieved). Positive linear relationships exist between race and PCQ sub-scales of hope and optimism. A negative linear relationship exists between race and Conscientiousness.

The use of correlations showed significant relationships between biographical variables of gender, age and personality traits, Psychological Capital and job performance:

- Job performance (targets achieved) with gender (positive);
- Job performance (performance rating) with gender (positive);
- Dutifulness with gender (positive);
- Optimism with gender (negative);
- Resilience with age (negative);
- BTI scale with age (positive);
- Conscientiousness with race (negative);
- Hope with race (positive);
- Optimism with race (positive).

The regression analysis of BTI and PCQ sub-scales and demographics variables produced a statistically significant model, accounting for 30% of the variance in the job performance 2 (targets achieved) and 28% of the variance in the job performance 3 (performance ratings).

*4.1.2.3 Specific aim 3: To determine empirically the relationship between personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector*

This aim was achieved in Chapter 3 through the reporting, interpretation and illustration of the results of the empirical study. The following conclusions were drawn from the empirical study:

The use of correlation analysis showed that the most significant relationships between personality traits, Psychological Capital and job performance were between:

- BTI and its sub-scales and job performance;
- Extraversion, Neuroticism, Openness, Excitement-seeking and JP-sales targets;
- Conscientiousness and JP-targets achieved;
- Agreeableness and JP-targets achieved (negative);

- PCQ scale as a whole and JP- target achieved;
- PCQ and BTI (negative)

No statistically significant relationship exists between the BTI and PCQ sub-scales and demographics variables on job performance-JPQ1 (Sales targets).

A statistically significant relationship exists between the BTI and PCQ sub-scales and demographics variables on job performance-JPQ2 (targets achieved) accounting for 30% of the variance in the variable.

A statistically significant relationship exists between the BTI and PCQ sub-scales and demographics variables on job performance-JPQ3 (performance rating), accounting for 28% of the variance in the variable

A statistically significant relationship exists between the BTI sub-scales and demographics variables on Psychological Capital, accounting for 38% of the variance in Psychological Capital. Neuroticism contributed significantly and negatively to explaining the variance in Psychological Capital.

#### *4.1.2.4 Specific aim 4: To assess the empirical interaction between personality traits and Psychological Capital in predicting job performance*

This aim was achieved in Chapter 3 through the reporting, interpretation and illustration of the results of the empirical study. The following conclusions were drawn from the empirical study:

There is no significant interaction between personality traits and Psychological Capital in predicting job performance. Personality traits did not act as a significant predictor of job performance, while Psychological Capital did not moderate the personality traits-job performance relation.

*4.1.2.5 Specific aim 5: To formulate recommendations based on the literature and empirical findings of this research, Industrial Organisational Psychology practices and future research with regard to personality traits, Psychological Capital and job performance among sales employees in the ITC sector and future research*

Based on the empirical study, it can be concluded that industrial psychologists and human resources practitioners should consider the ways in which personality traits, Psychological Capital and job performance affect ICT sales employees as part of their talent recruitment strategies. Knowledge of personality traits, Psychological Capital and job performance and the relationships between these variables can inform employee development initiatives and talent recruitment strategies aimed at ensuring a best fit between the employee (which includes their personality traits and internal capacity) and the job environment within the ICT sector.

The sample of ICT sales employees reported average to above average levels of personality traits, generally high levels of Psychological Capital and moderate levels of job performance (JPQ1, JPQ2 and JPQ3), indicating that a number of sales employees have the required personality traits and possess a sufficient level of Psychological Capital to perform effectively. By understanding the relationships between personality traits, Psychological Capital and job performance, Industrial and Organisational psychologists, Human Resources practitioners and ICT employers will be able to manage talent recruitment effectively.

Through the reporting, interpretation and illustration of the results of the empirical study, the study confirmed no statistically significant model was found for explaining the variances in the job performance variable. There were no significant interactions between personality traits and Psychological Capital in predicting job performance. Psychological Capital did not act as a significant predictor of job performance and did not moderate the personality traits-job performance relationship. However, this study found significant interactions between personality traits, Psychological Capital and job performance.

Industrial psychologists and ICT employers should take cognisance of the differences between ICT sales employees from different biographical groups (gender, age and race) and consider the influence of these biographical variables, when addressing personality traits, Psychological Capital and job performance. The study found that it is important to consider the individual's age, race and tenure, when devising talent recruitment strategies and employee development initiatives.

The study adds to the body of literature pertaining to the core variables and contributed valuable information to the relationships between personality traits, Psychological Capital and job performance. Furthermore, the findings of the study demonstrate the influence that various biographical variables have on these constructs of ICT sales employees within the context of the South African ICT sector.

#### **4.1.3 Conclusions relating to the central hypothesis**

The central hypothesis of the research was formulated as follows:

*There is a statistically significant and positive relationship between personality traits, Psychological Capital and job performance amongst sales employees in the ITC sector.*

This study can conclude that statistically significant and positive relationships do exist between personality traits, Psychological Capital and job performance of sales employees in the ITC sector. The empirical study did not yield statistically significant evidence to support that a predictive relationship exists between personality traits and Psychological Capital on job performance. On the sub-scale level, however, the empirical findings provided statistically significant evidence between various sub-dimensions of personality traits, Psychological Capital and performance. As such, the central hypothesis is therefore partially accepted.

## **4.2 LIMITATIONS OF THE STUDY**

This section identifies and discusses the limitations of the literature review and the empirical study.

### **4.2.1 Limitations of the literature review**

The following limitations were identified in relation to the literature review

#### **(i) Personality**

While the rich history, development and significant contributions are thoroughly documented and personality research and studies investigating their influence on other psychology variables and organisational behaviours are insurmountable, this research study utilised a relatively new personality instrument. The Basic Traits Inventory (BTI) is a South African developed personality instrument that was found to be valid across the multicultural landscape. Though the use of the BTI instrument is advantageous to this study, the literature and studies available are limited.

#### **(ii) Psychological Capital**

Developed in the last decade, Psychological Capital is a relatively recent construct in psychology research with limited studies available in literature. Studies investigating Psychological Capital as a predictor of job performance are even scarcer. The sub-scales of Psychological Capital were all established constructs prior to being included in this structure and research conducted on each provide sufficient information to ensure a thorough literature account of the construct.

#### **(iii) Biographical variables**

The biographical variables of gender, age and ethnicity were investigated in this study. The study of psychology has a unique focus on understanding the similarities and differences between individuals, which consequently results in comparative analysis between different groups of people. Overall, gender- and age-related studies were the most available. Conversely, race and ethnic group literature was scarce. Particularly in South Africa, though a global concern, comparing race groups can yield controversial debate. It appears that race and ethnic group differences are

an issue treaded on very carefully. It should be noted that a reason for the lack of research on race and ethnic group differences may be that cultural studies attract more attention.

#### **4.2.2 Limitations of the empirical study**

The following limitations were identified in relation to the empirical study:

(v) Size

While the results may be representative of the ICT organisation that participated in the research, and likely generalisable to other similar ICT organisations in South Africa, the small sample size (n = 97) may not truly reflect the demographics of the South African ICT sector. Researchers should, therefore, be cautious of generalising the findings as being representative of ICT employees. It is recommended that in order to generalise the findings of this study, future research should utilise a larger population.

(vi) Demographics

This study was limited to target-driven, commission-earning sales employees from a single ICT organisation in South Africa. As a result of the restrictions, the findings cannot be generalised to other occupational contexts.

(vii) Survey design

With a cross-sectional design, it was not possible to control for confounding variables. Despite a high overall response rate, the higher responses from the White and Indian groups compared to the black group are indicative that the sample was not entirely representative of the demographics of the South African population. This limits the ability to draw inferences from this study to the greater South African population.

(viii) Job performance instrument

The researcher argued that performance was a measure of goal orientated behaviour, with the action (behaviour) of achieving sales targets (making a sale) being the associated behaviour directly related to performance. The job performance instrument was designed by the researcher and, while it provided crucial information

pertaining to sales targets, target achievements and performance rating scores, the measure was too short, simplistic and subjective in nature. Without the use of another valid job performance instrument, there was no way of verifying and cross-referencing the truthfulness or accuracy of data received, thus the reliability of the instrument may be compromised. The use of this instrument may have compromised the results of the empirical study of this research.

### **4.3 RECOMMENDATIONS**

Based on the findings, conclusions and limitations of this study, the following recommendations are offered for both Industrial Organisational Psychology practices and further research.

#### **4.3.1 Recommendations for Industrial Psychology practices**

The empirical findings of this study confirm the existence of relationships between Psychological Capital and job performance (targets achieved), personality traits and job performance (sales targets), as well as between the sub-dimensions of Psychological Capital, personality traits and job performance. In addition, the study confirms the existence of significant differences between the biographical groups regarding Psychological Capital, personality traits and job performance. The relationships between these variables provide insights that guide recruitment practices and strategies for employees in the Information, Communication and Technology (ICT) sector in South Africa and inform future research into the role that these variables play in attracting employees from different biographical groups.

While the majority of the participants in the sample reported above average scores of personality traits and Psychological Capital, the ICT sales environment is very stressful, with demanding time pressures and targets. Despite generally having the internal capacity and resources to perform in their jobs, one cannot expect that the dynamic world of work is going to remain the same for a long time. Industrial psychologists and HR practitioners should consider capacities and resources development initiatives aimed at improving the individuals' internal capacity to cope with the changing environment and job tasks expected of ICT sales employees, thus

aiding sales employees to remain consistent and effective in their job performance. It is suggested that future research also consider investigating the factors influencing Psychological Capital in sales environments, in order to inform their design of development initiatives for sales employees.

Personality has a history of studies attesting to its significant relationships and predictive relationships with job performance and other positive organisational behaviours, including this study, which found that sub-scales of personality and the biographical variables accounted for a large variance in Psychological Capital. Together, Psychological Capital and personality established positive and significant relationships with job performance (JPQ2 and JPQ3). It is recommended that industrial psychologists and HR practitioners consider the combination of these assessments as part of their recruitment practices, to aid in the successful hire of effective employees.

#### **4.3.2 Recommendations for future research**

To improve the representativeness of the sample, it is recommended that researchers replicate this study in future with the focus on obtaining a larger representative sample. This will serve to improve external validity and ensure that the findings can be inferred on the South African population as a whole. Future research on this topic could be expanded to other industry sectors as well as geographical locations.

The empirical findings of this study confirm the existence of a relationship between personality traits and Psychological Capital, as well as between the sub-dimensions of personality traits, Psychological Capital and job performance. It is recommended that future research be conducted to examine the impact of talent retention strategies and practices on the personality traits, Psychological Capital and job performance of information communication and technology employees over a period of time using a longitudinal study.

Job performance is a sensitive issue with the measure being rather subjective. Gaining access to such information from organisations is usually a challenge due to the confidentiality and privacy assured to the employees. It is recommended that future research involving job performance make use of two instruments or two parts to retrieve the information. It is suggested that a valid, reliable instrument be utilised to gain empirical data, which should then be supplemented with a secondary qualitative questionnaire designed specifically for the occupation being assessed.

#### **4.4 INTEGRATION OF THE RESEARCH**

At the onset of this research, it was noted that the source of an organisation's competitive advantage is their employees. In an age of global competition, the war for talent is at its peak. Attracting, retaining and managing talent has become a strategic focus, imperative to an organisation's survival, adaptation and competitive advantage.

This study explored and investigated the existence of a relationship between personality traits, Psychological Capital and job performance amongst ICT sales employees, who are considered to be external strategic partners and an internal source of competitive advantage. The results established that relationships between personality traits, Psychological Capital and job performance exist, with statistically significant relationships evident of sub-scale level of personality traits and Psychological Capital for job performance. The relationship between these aforementioned variables may provide insight into talent recruitment practices.

The literature review suggests that personality traits and Psychological Capital are positively related to job performance. According to literature, personality traits are key determinants and the significant predictors of job performance, with some studies affirming their role on sales success. Studies have also provided evidence for the predictive relationship between Psychological Capital and job performance. While personality traits may be relatively stable in nature, Psychological Capital is instead malleable and can be developed. Being the embodiment of positive organisational behaviours, an improvement to an individual's internal resources and capacities would lead to higher overall levels of Psychological Capital and positive organisational outcomes including increased job performance. ICT sales employees,

who possess the personality traits and sufficient levels of internal capacities, would tend to perform more effectively, resulting from a better fit to the position, its demands and expectations.

The empirical study provided statistically significant partial support for the central hypothesis. The empirical study provided evidence to support the relationship between personality traits, Psychological Capital and job performance, as well as between the various sub-dimensions of personality traits, Psychological Capital and job performance. In addition, significant differences were found between the biographical groups in relation to some of their levels of personality traits, Psychological Capital and job performance.

In conclusion, the findings of the study reveal that insight into the nature of and relationships between personality traits, Psychological Capital and job performance may have practical significance in that knowledge of these relationships may inform talent recruitment practices. It is trusted that this study successfully provides insight into the nature of the relationships between the variables and described the role of the biographical variables in relation to personality traits, Psychological Capital and job performance and the relationships between the variables. This is of particular importance, given the multicultural context of the South African ICT sector.

#### **4.5 CHAPTER SUMMARY**

Chapter 4 discussed the conclusions drawn from this study and its possible limitations by focusing on the results of both the literature review and the empirical study. Recommendations were made and practical suggestions were offered for both Industrial Organisational Psychology practices and further research. The chapter concludes with an integration of the research, emphasising the positive findings relating to the relationships between personality traits, Psychological Capital and job performance amongst ICT sales employees.

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