# THE RELATIONSHIP BETWEEN PSYCHOLOGICAL CAREER RESOURCES AND ENGAGEMENT AT A SOUTH AFRICAN SOFTWARE AND SERVICES ORGANISATION

by

**JOHANNA MARIA VENTER**

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

**in the**

**FACULTY OF ECONOMIC AND MANAGEMENT SCIENCES**

**at the**

**UNIVERSITY OF PRETORIA**

**SUPERVISOR: PROF. J.S. BASSON**

**30 JUNE 2012**

# ABSTRACT

## The relationship between psychological career resources and engagement at a South African software and services organisation

### by

### JOHANNA MARIA VENTER

| | | |
|---|---|---|
| SUPERVISOR | : | Prof. J.S. Basson |
| DEPARTMENT | : | Human Resource Management |
| DEGREE | : | MCom (Industrial Psychology) |

One of the challenges imposed by the 21$^{st}$ century is to retain talented staff by keeping employees engaged in their work. Engagement in itself is a complex construct, which still requires much clarification. One of the gaps in the literature is the link between engagement and the competencies required by individuals to craft a career in the 21$^{st}$ century. These competencies are referred to as psychological career resources (Coetzee, 2008).

This study was conducted in a medium-sized South African software and services organisation using a random sample of 111 consultants. The primary objective of the study was to investigate the relationship between psychological career resources (career preferences, career values, career enablers, career drivers and career harmonisers) and engagement (dedication, vigour and absorption). The second and third objectives were to find whether there were any significant differences between individuals who differed as to gender, age, marital status, occupational field, occupational level and department in which employed with regard to engagement and psychological career resources. A further objective was to establish the dominant psychological career resources and engagement constructs of the consultants in the sample.

The data was collected using the 9-item U-WES (Utrecht Work Engagement Scale) and the PCRI (Psychological Career Resources Inventory). The study found that behavioural adaptability and self-esteem have a significant impact on vigour and dedication, while behavioural adaptability also has a significant impact on absorption. This study could contribute meaningful information to the field of well-being and career development, allowing professionals to assist

individuals in developing career competencies that contribute to engagement and ultimately to well-being.

**KEY TERMS**

Psychological contract, boundaryless career, protean career, psychological career resources, career preferences, career values, career drivers, career enablers, career harmonisers, work engagement, dedication, absorption, vigour, 21$^{st}$ century world of work, job demands.

**TABLE OF CONTENTS:**

# LIST OF TABLES

**LIST OF FIGURES**

# DECLARATION OF ORIGINAL AUTHORSHIP

I, Jenny Venter, declare that this dissertation entitled "**The relationship between psychological career resources and engagement in a South African software and services organisation**" is my own work. All the resources I used for this study are cited and referred to in the reference list by means of a comprehensive referencing system. I declare that the content of this thesis has never before been used for any qualification at any tertiary institute.

_____                                           30 June 2012

Johanna Maria Venter
Student no 22234064

# ACKNOWLEDGEMENTS

The completion of this research study would not have been have been possible without the assistance of certain key individuals. It is my sincere desire to thank the following individuals and institutions for the part they played in this project:

- First and foremost, my deep appreciation to my Saviour, Jesus Christ, for imparting to me the energy and resilience to complete this project;

- Professor Johan Basson: Thank you for your guidance and especially for your patience and understanding with regard to the work demands of the consulting environment;

- Marion Marchand for the thorough editing of this document, and Rina Owen for the statistical assistance provided;

- The research participants. Thank you for your time and willingness to contribute to this research study. I would like to extend a special thanks to the organisation that participated in this study, specifically to the following individuals:
    o The Consulting Director, who granted permission to utilise team meetings for the gathering of data;
    o The HR Director and Finance Director, who provided me with data regarding the organisation in order to sketch the organisational environment.

- Thank you to all my family, friends and colleagues for your understanding and support and for cheering me on.

- Finally, my deepest appreciation and thanks to my husband, Abri Venter. Thank you for your amazing support and love. Thank you for all the sacrifices you have made to allow me to complete this research study. No woman could ask for a better husband.

# CHAPTER 1: SCIENTIFIC OVERVIEW OF THE RESEARCH

## 1.1    Background to and Motivation for the Research Study

This dissertation studies the relationship between psychological career resources and engagement in a South African software and services organisation. Chapter 1 describes the background to and motivation for the research. It explains the problem statement, the research questions, and the general and specific aims related to the literature review and the empirical study. Thereafter the research design and methodology are discussed. The chapter concludes with a layout of the chapters in this dissertation and a summary of Chapter 1.

This study is rooted in the context of the 21$^{st}$ century world of work and its impact on work engagement and the psychological career resources listed by Coetzee (2008): career preferences, career values, career enablers, career drivers and career harmonisers. Psychological career resources and engagement cannot be viewed in a vacuum. The research therefore focuses specifically on the relationship between psychological career resources and work engagement within a South African software and services organisation.

In explaining the significance of this research study it is first necessary to understand the context. The organisation in which the research study took place specialises in providing Human Resource Management and payroll services, with a strong focus on HR and payroll software offerings. The environment is marked by constant change in the daily schedules of consultants as well as frequent technological changes. Apart from keeping up with the technological changes, consultants are also required to remain up to date with new trends in their field of expertise, as well as legislative changes. Consultants must be able to conceptualise the unique needs of clients while at the same time paying attention to detail. Consultants therefore require competencies that are at times on opposite ends of the same continuum, such as the ability to conceptualise information strategically while being detail oriented. The organisation is a high-performance-driven organisation. The core values of this organisation focus on commitment to quality, service excellence, innovation and caring for people. This organisation is typical of the 21$^{st}$ century world of work shown in the literature review.

Business strategy has become technology driven (Berman & Hagan, 2006). Berman and Hagan also state that innovation is critical to sustaining growth, and that it only brings a competitive advantage when technological competence and ability are combined with market insight. These authors hold, however, that this phenomenon is not restricted only to companies whose core business is technology, but also includes those who deal in consumer goods. The problem is that this innovation war results in very fast-paced and constantly changing markets. Berman and Hagan add that as a result strategy can no longer be viewed within the historical five-year plan, but should be reviewed continuously in order to take advantage of emerging business opportunities. The practical implication of this is that business processes and structures must be agile, which requires employees to be resilient to ambiguity and master a wide variety of skills.

These trademarks of the 21st century world of work leave HR practitioners, Industrial Psychology practitioners and managers to grapple with the challenges of person-organisation fit, talent attraction and retention, succession management, career planning, performance management and organisational development.

In measuring the strength of the work environment for a large retailer (37 000 employees spread over three hundred stores), the Gallup Organisation reported remarkable findings (Buckingham & Coffman, 1999). It found that stores where employees were "engaged" in their work were on average 4.56% over their sales targets. Stores where employees were not engaged were performing at less than one percent (0.84%) of sales targets, with exactly the same resources as their engaged counterparts. Stores with engaged employees showed profits of 14% over their profit budgets, while stores where employees were not engaged missed profit goals by 30%. Employee turnover levels showed that stores with engaged employees retained on average 12 more employees per year than stores with unengaged employees.

The total of the above equated to a difference of $131 million per year in profit that the retailer could lose as a direct result of employees being unengaged. The research study by Buckingham and Coffman (2005) in itself represents a business case for understanding the variables that impact on engagement of employees.

Schaufeli, Salanova, González-Romá and Bakker (2002, p. 74) define engagement as "a positive, fulfilling and work related state of mind that is characterised by vigour, dedication and absorption". Vigour can be described as a high level of vitality, psychological stamina and the

willingness to give much of oneself to one's work (Schaufeli, Martinez, Pinto, Salanova, & Bakker, 2002). Dedication is recognised by a sense of meaning, muse-like motivation, dignity and challenge, while absorption refers to being contentedly immersed in one's work with a sense of genuine enjoyment (Schaufeli, Martinez, et al., 2002).

Kahn (1990) has identified three psychological conditions that affect employees' engagement. Kahn's theories, although more than two decades old, deserve closer inspection, as they are still referred to in recent engagement literature (Olivier & Rothman, 2007). The first psychological condition identified by Khan is *psychological meaningfulness*. Kahn (1990, p. 703) describes this as "a feeling that one is receiving a return on investment of one's self in a currency of physical, emotional or cognitive energy". Olivier and Rothman hypothesise that psychological meaningfulness will occur when employees perceive a fit between their individual values and the values of their work content, as well as the values of the organisation.

The second psychological condition impacting on engagement is described by Khan (1990, p. 708) as "feeling able to show and employ oneself without fear of negative consequences to self image, status or career" and is termed *psychological safety*. According to Olivier and Rothman, psychological safety is experienced on a cognitive level when other individuals act in a reliable manner, while affective trust is determined through the emotional relationship between individuals.

The third psychological condition described by Khan is that of *psychological availability*, which is explained as "the sense of having the physical, emotional and psychological resources to engage at a particular moment" (Khan, 1990. p. 714). Olivier and Rothman explain that psychological availability is influenced by an individual's level of physical and emotional vitality. Factors that drain individuals' psychological availability are insecurities in work and personal life. Coetzee (2008) explores the constructs of psychological resources and how they pertain specifically to the career development of individuals.

From the above discussion it is clear that engagement is an intricate construct and should not be conceptualised as a mere retainment or employee satisfaction strategy. In short, it is influenced by the demands and resources of the job (Demerouti, Bakker, Nachreiner & Schaufeli, 2001), which in turn are influenced by organisational culture, values, business strategy and business processes. It is also influenced by the employee's psychological condition, which brings with it all

the complexity of human nature and relationships. There are some aspects of engagement that at face value seem to correlate with the psychological career resources developed and described by Coetzee (2008).

Just as the 21$^{st}$ century work environment demands flexibility from its employees, so too do employees in the 21$^{st}$ century demand flexibility from organisations. Cascio (2001) and Vaishampayan (2006) both state that work-life balance is one of the most important considerations for employees when choosing a company to work for, and that they will even trade remuneration and benefits in return for independence and flexibility. Cascio points out that the psychological contract has changed from job security to employment security. Coetzee (2008) takes this a step further and explains that due to the demands that employability places on individuals, their set of professional skills and personal competencies may become more important than career planning in the traditional sense.

Coetzee's list of the psychological career resources is as follows (2008):
- Career preferences
- Career values
- Career drivers
- Career enablers
- Career harmonisers

Coetzee (2008) explains that career preferences guide the individual's career movement, while the career values provide the reason for a particular career preference. Career drivers refer to an individual's sense of purpose, career directedness and career venturing (Coetzee, 2009). Career enablers refer to people's practical, creative, self-management and relationship skills (Coetzee, 2009). A study by Higgins (2001) shows that career decision making takes place in the relational context. Because of this it is important not to underestimate the role of emotion. According to Emmerling and Cherniss (2003), the emotions that individuals undergo during the career decision-making process, and the nature of work relationships, influence the perception of risk associated with the different career options. This ties in with the psychological condition of safety as described by Khan (1990).

According to Coetzee (2008), behavioural adaptability refers to an individual's ability to assess behaviour that is critical to future success and then make the necessary personal changes to

achieve this. Career harmonisers help to balance the career drivers, so that employees do not burn themselves out in their endeavour to create and build careers. Coetzee further states that apart from behavioural adaptability, career harmonisers also describe people's self-esteem, emotional literacy and social connectivity.

From the above discussion one cannot help but ask whether a relationship exists between engagement and psychological career resources. Understanding of such a relationship, if it exists, would provide practitioners with invaluable information on managing human capital in the face of the challenges presented by the 21st century world of work.

## 1.2     Problem Statement

The continued engagement of employees is one of the major questions that HR practitioners and business managers struggle with. Regardless of the amount of research that has been done on engagement, it seems that a practical solution to engaging employees still evades HR practitioners and industrial psychologists alike. The traditional job-person matching based on a valid competency profile and job objectives has also only produced limited success in the quest for predicting engagement. These profiles seem only to match the employee to the job on a superficial level, ignoring the deeper psychological matches or mismatches that may occur as a result of, for example, career harmonisers and career values.

The researcher could, however, find no research done on the relationship between engagement and psychological career resources, engagement and psychological career drivers or engagement and career anchors. The research surrounding these constructs is limited to career planning and development studies, while engagement studies are focused largely on employee well-being and burnout.

In the light of the literature it is clear that a deeper understanding is required of the relationship (if indeed one exists) between psychological career resources and engagement. For the purposes of this study, the following problems have therefore been identified:

- The theoretical models and literature do not offer sufficient information on the relationship between psychological career resources and engagement;

- HR practitioners and industrial psychologists require knowledge of the relationship between engagement and psychological career resources in order to develop a practical model that could guide HR strategy with regard to human capital management;
- It is not clear how far-reaching the impact of the relationship between psychological career resources and engagement might be, not only in the field of career development, but also in the way that HR strategy is executed in terms of recruitment and selection, retention, talent management, succession management strategies and performance management.

In view of the above problem statements, the following research questions are posed with reference to the literature review and the empirical study:

1.2.1   Research questions with regard to the literature review

- *Research question 1:* What is the nature of the 21$^{st}$ century world of work and its impact on the psychological contract and careers?

- *Research question 2:* How is the construct of psychological career resources explained and conceptualised from a theoretical point of view?

- *Research question 3:* How is the construct of engagement explained and conceptualised from a theoretical point of view?

1.2.2   Research questions with regard to the empirical study

- *Research Question 1:* What is the nature of the relationship between the psychological career resources and engagement in a sample of consultants at a medium-sized South African firm specialising in payroll and HR software and services?

- *Research question 2:* How do individuals who differ as to gender, age, marital status, occupational field, occupational level and department differ with regard to engagement?

- *Research Question 3:* How do individuals who differ as to gender, age, marital status, occupational field, occupational level and department differ with regard to psychological career resources?

A further aim of the study was to find whether a specific psychological career resources and engagement profile existed for the consultant sample that participated in the study. What might be the dominant psychological career resources and dominant engagement constructs for this sample group as indicated by the descriptive statistics?

1.2.3    Hypotheses with regard to the empirical study

*1.2.3.1      Hypotheses with regard to research question 1:*

$H1_0$: There is no relationship between the psychological career resources and engagement in a sample of consultants at a medium-sized South African firm specialising in payroll and HR software and services.

$H1_a$: There is a relationship between the psychological career resources and engagement in a sample of consultants at a medium-sized South African firm specialising in payroll and HR software and services.

*1.2.3.2      Hypotheses with regard to research question 2:*

$H2_0$: There is no significant difference between individuals who differ as to gender, age, marital status, occupational field, occupational level and department with regard to engagement.

$H2_a$: There is a significant difference between individuals who differ as to gender, age, marital status, occupational field, occupational level and department with regard to engagement.

*1.2.3.3    Hypotheses with regard to research question 3:*

H3$_0$: There is no significant difference between individuals who differ as to gender, age, marital status, occupational field, occupational level and department with regard to psychological career resources.

H3$_a$: There is a significant difference between individuals who differ as to gender, age, marital status, occupational field, occupational level and department with regard to psychological career resources.

[Note: There are no specific hypotheses related to the subsidiary aim (to find whether a specific psychological career resources and engagement profile exists for the consultant sample that participated in the study), as there was no literature available from which a set of criteria for a profile analysis could be derived. The aim here was not to conduct a profile analysis against a set of criteria, but to explore the descriptive statistics for indications of dominant engagement and psychological career resource characteristics.]

## 1.3    Objectives/Aims of the Research Study

In the light of the problem as identified in section 1.2, the objectives or aims of the research study will now be stipulated:

1.3.1   General aim

The primary objective of the study is to find whether or not a correlation exists between psychological career resources and engagement in the software and services consulting environment at a specific medium-sized South African organisation.

A second objective of the study is to investigate the broad variations in individuals' psychological career resources and engagement regarding age, gender, marital status, occupational field, occupational level and department in which employed.

A subsidiary objective of the study is to find out whether there is a specific psychological career profile and engagement profile exhibited by the consultants at the medium-sized South African

firm specialising in payroll and HR software and services. This would be done by considering the descriptive statistics to determine the dominant elements of both constructs. The aim is not to conduct a profile analysis against a set of criteria.

## 1.3.2  Specific aim

Following is a stipulation of the specific aims of the research study as they pertain to the literature review and the empirical study

### 1.3.2.1  *Literature review*

*Research Aim 1:* To conceptualise the 21$^{st}$ century world of work and its impact on the psychological contract and careers from a theoretical perspective

*Research Aim 2:* To conceptualise the construct of psychological career resources from a theoretical perspective

*Research Aim 3:* To conceptualise the construct of engagement from a theoretical perspective

### 1.3.2.2  *Empirical study*

*Research Aim 1:* To investigate the statistical nature of the relationship between psychological career resources and engagement

*Research Aim 2:* To investigate the differences in engagement according to socio-demographic and occupational variables (age, gender, marital status, occupational field, occupational level and department in which employed)

*Research Aim 3:* To investigate the differences in psychological career resources according to socio-demographic and occupational variables (age, gender, marital status, occupational field, occupational level and department in which employed)
.

*Research Aim 4:* To determine the dominant psychological career resources and engagement elements of the consultants at a medium-sized South African firm specialising in payroll and HR software and services.

## 1.4    Research Design

A quantitative research method with an exploratory approach was used to conduct this study. The data was analysed with the purpose of describing the data, drawing correlations and making comparisons between sub-groups. Thereafter the findings of the data were reported in Chapter 6.

A quantitative approach was appropriate, as empirical data was required for the analysis of correlations, based on validated questionnaires (De Vos, Delport, Fouche, & Strydom, 2002). The population from which the sample was taken has significant time constraints. For this reason a quantitative research approach by means of questionnaires was more suited to encouraging participation than a qualitative approach.

### 1.4.1    Exploratory and descriptive research

Babbie and Mouton (2006) describe exploratory research as an approach that is used to investigate a topic that is relatively unknown, and descriptive research as an approach that aims to investigate relationships between constructs. This research study is exploratory in its aim to compare the constructs of psychological career resources and engagement from a theoretical and empirical point of view. A comparison between the two constructs has not yet been done and therefore the result is unknown. It is also descriptive in nature, as this exploration is specifically aimed at describing the relationship between psychological career resources and engagement and possible demographic differences, should such a relationship exist.

A cross-sectional survey design was used to conduct the study. The once-off survey was conducted by distributing and facilitating the completion of questionnaires during monthly extended team meetings to individuals willing to participate. Extended team meetings are compulsory scheduled four-hour sessions for each team within the organisation. The rationale for using these meetings to facilitate the distribution and completion of questionnaires was that the extended meeting provides a dedicated opportunity to participate in the research study

without interfering with employees' daily tasks and responsibilities. Therefore an appropriate response rate would also be ensured.

### 1.4.2 Implications of the research design for validity

The research design ensures external validity via a representative sample from the population. The use of random sampling mitigates the risk of selection bias. The fact that the questionnaires were completed during the extended team meetings ensured a proper response rate, which is always a concern with survey design, especially if electronically distributed (Babbie & Mouton, 2006).

Internal validity was ensured by using questionnaires that complied with the psychometric properties of validity and reliability, therefore mitigating the inherent risk of lack of validity in survey research, as discussed by Babbie and Mouton (2006). Furthermore, Babbie and Mouton (2006, p. 232) describe survey research as "the best method available to the social scientist interested in collecting original data for describing a population too large to observe". This is due to the high reliability associated with survey research.

### 1.4.3 Implications of the research design for reliability

Babbie and Mouton (2006) state that reliability is obtained if a specific technique is applied to the same object and provides the same result every time. Reliability with regard to the literature review was ensured by using academically published resources to investigate the relevant constructs. Reliability in the empirical research was ensured by using measurement instruments whose reliability had been established in previous research.

### 1.4.4 Unit of analysis

The unit of analysis for the study is the individual employees currently employed within the specific HR and payroll consulting organisation who participated in the study in order to determine whether a possible psychological career resources profile exists among the individuals and whether there is a relationship between psychological career resources and engagement.

Where differences in the demographical data are investigated in terms of psychological career resources and engagement, the unit of analysis will be the particular demographical sub-group.

### 1.4.5   Variables

According to Goddard and Melville (2001), the independent variable is manipulated by the researcher and the dependent variable is affected by the independent variable. In this study the psychological career resources and socio-demographic and occupational data are the independent variables. The dependent variable is the engagement constructs.

### 1.4.6   Ethical considerations

Mouton (2001) states the following basic rights of participants of the research study:
- The right to privacy;
- The right to anonymity and confidentiality;
- The right to full disclosure regarding the research purpose and content; and
- The right not to be harmed in any manner.

Employees of the organisation participated of their own free will and would remain anonymous. All participants had the right to withdraw from the research study at any time. All participants were briefed on the purpose of the study. The questionnaires utilised were used within the conditions as specified by the authors of the questionnaires. All participants signed a consent form and data will be kept confidential and will only be used for the purpose of academic research.

Furthermore, the measuring instruments used are valid, reliable and unbiased towards participants. The research design, collection of data and data analysis methods and procedures also comply with the principles of validity and reliability.

## 1.5 Research Methodology

The research study was conducted in a structured manner and divided into two parts: the literature review and the empirical study.

### 1.5.1 Literature review

The literature review addresses each of the three research questions in a structured manner by examining previous studies. These research questions are:

- *Research question 1:* What is the nature of the 21st century world of work and its impact on the psychological contract and careers?
- *Research question 2:* How is the construct of psychological career resources explained and conceptualised from a theoretical point of view?
- *Research question 3:* How is the construct of engagement explained and conceptualised from a theoretical point of view?

As regards research question 1 (*What is the nature of the 21st century world of work and what is its impact on the psychological contract and careers?),* it is important to understand the nature of the 21st century world of work and its impact on the psychological contract and careers in order to understand the context in which the dynamics of psychological career resources and engagement function. The discussion focuses only on those characteristics of the 21st century world of work that are central to the context of the organisation where this study was conducted. Information and statistics of the specific organisation are purposely included in the literature review. The researcher has chosen to describe the context of the organisation in the literature review firstly in order to point out how strongly this specific organisation depicts the typical 21st century world of work. The 21st century world of work characteristics that are descriptive of this organisation are technology and the phenomenon of the high-performance organisation. For this reason, the discussion following the organisational context focuses on these characteristics. The impact of the 21st century world of work on the psychological contract is discussed, followed by the changing nature of careers in the form of boundaryless and protean careers. The reader, having already read the organisational context, will easily see the similarities between the organisation where this study is conducted and the changing psychological contract and the changing nature of careers.

As regards research question 2: *How is the construct of psychological career resources explained and conceptualised from a theoretical point of view?*

Psychological career resources are defined and the model for psychological career resources is explained and illustrated (Coetzee, 2008). Previous studies conducted on psychological career resources are also discussed.

As regards research question 3: *How is the construct of engagement explained and conceptualised from a theoretical point of view?*

Engagement as a construct is critically discussed and the various models and contentions surrounding the construct are explained in depth. Previous studies regarding engagement are also discussed, specifically regarding the engagement model of Schaufeli, Salanova, et al. (2002).

1.5.2   The empirical study

The empirical study will facilitate a discussion on the following:
- Research approach;
- Sample selection and distribution;
- Measurement instruments;
- Data collection;
- Data analysis; and
- Formulation of hypotheses.

The results of the empirical study will be discussed by means of descriptive statistics and inferential statistics and also provide an integration of the research findings.

**1.6     Chapter Division**

The Chapter division is discussed below and a visual map to the different chapters is provided in Figure 1.1:

**Chapter 2: The literature review**

Before psychological career resources and engagement can be conceptualised, it is important to understand the context in which these constructs are at work. This chapter explains and discusses literature of the organisation where the study was conducted, the characteristics of the 21st century world of work and the impact of this world on the psychological contract and careers. The purpose of this chapter is also to conceptualise the five constructs of psychological career resources:

- Career preferences;
- Career drivers;
- Career values;
- Career enablers; and
- Career harmonisers.

This chapter also explores, discusses and conceptualises engagement as a construct, This chapter includes previous studies that have been done on these constructs, as well as related theories and models.

**Chapter 3: Research Methodology**

This chapter discusses the process of the empirical research conducted. It sets out the objectives of the research, the data sampling method and procedure, data collection method and procedure and the data analysis method and procedure.

**Chapter 4: Research Results**

This chapter presents the statistical results from the research study and discusses in detail the findings and the meaning thereof pertaining to the research study.

**Chapter 5: Conclusions, Limitations and Recommendations**

This chapter concludes the dissertation and provides a summary of findings and recommendations for future research studies. This chapter also discusses any limitations pertaining to the research study and points out the contribution made to the profession of

industrial psychology as well as to our understanding of the practical application of this knowledge.
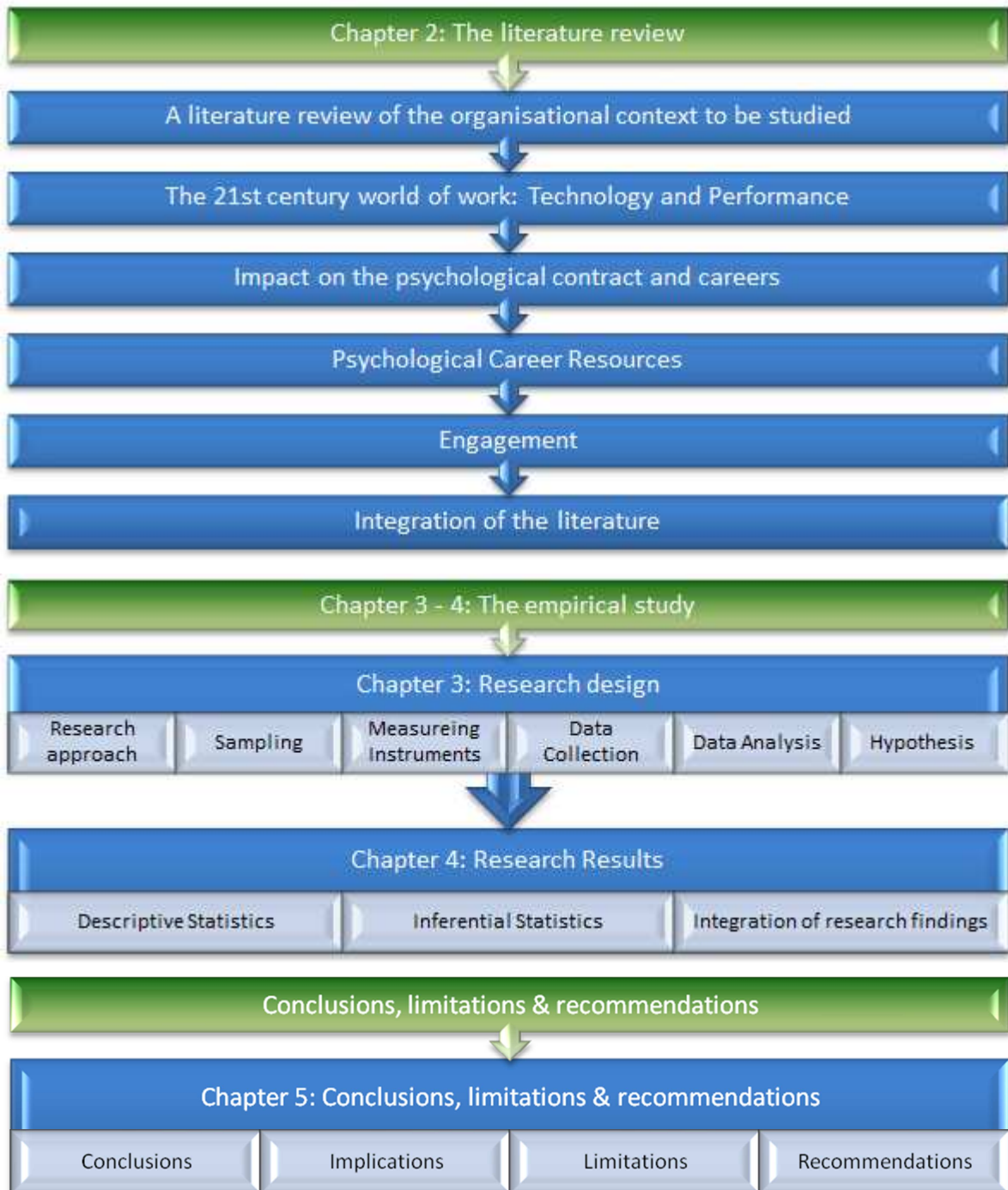


Figure 1.1. Roadmap to the chapter division

**1.7    Chapter Summary**

This chapter explains that the dissertation contains a detailed and methodical presentation of the literature review, the purpose and objectives of the proposed study, the research design, instruments to be used and the research methodology to be followed. The significance of this study lies in the fact that very little research has been done on the relationship between psychological career resources and engagement, especially pertaining to a working environment that represents the 21$^{st}$ century world of work, in which business strategy is no longer valid for five years due to the fast-changing nature of the business arena.

The insight that this study could offer into the relationship(s) between psychological career resources and engagement could greatly impact on the major questions surrounding talent management, staff retention and human capital management.

# CHAPTER 2:   LITERATURE REVIEW

## 2.1    Introduction

The 21st century world of work brings with it many challenges that impact on organisations and on the individual members of organisations. One of these problems is the question surrounding the engagement of employees. Even though many studies have been conducted on work engagement, it seems that it is still a problematic issue in practice, as evidenced by the fact that the majority of the themes in the 2011 HR Africa Summit revolved around work engagement and the employee value proposition. The term "psychological career resources" was coined by Coetzee (2008). The theory recognises the individual as a holistic being within the working environment. It takes cognisance of the complex elements within human beings and their environment, which influences their career decisions, career success and what they require from organisations. The 21st century world of work in return demands certain competencies from individuals in order to function productively in this environment. Therefore an individual requires internal and external resources to operate efficiently in this world of work. If indeed a correlation exists between psychological career resources and engagement in this 21st century environment, it would provide deeper insight into work engagement in practice as well as career planning.

The study is situated in three disciplines within the organisational psychology field. The high-performance- and technology-driven context firstly places it in the discipline of organisational development. Secondly, the focus on engagement as the dependent variable places the study in the discipline of employee well-being; and lastly the focus on psychological career resources makes the study also relevant to career management.

This study clearly cannot take place in a vacuum, but is located within a particular context in a specific organisation. It is important for the reader to understand the environment of this particular organisation, as it creates the context from which conclusions will be drawn. For this reason the literature analysis will commence with the literature available on this specific organisation and then set out to answer the following research questions with regard to the literature analysis:

- *Research question 1:* What is the nature of the 21<sup>st</sup> century world of work and its impact on the psychological contract and careers?
- *Research question 2:* How is the construct of psychological career resources explained and conceptualised from a theoretical point of view?
- *Research question 3:* How is the construct of engagement explained and conceptualised from a theoretical point of view?

The literature analysis can be graphically presented as follow:
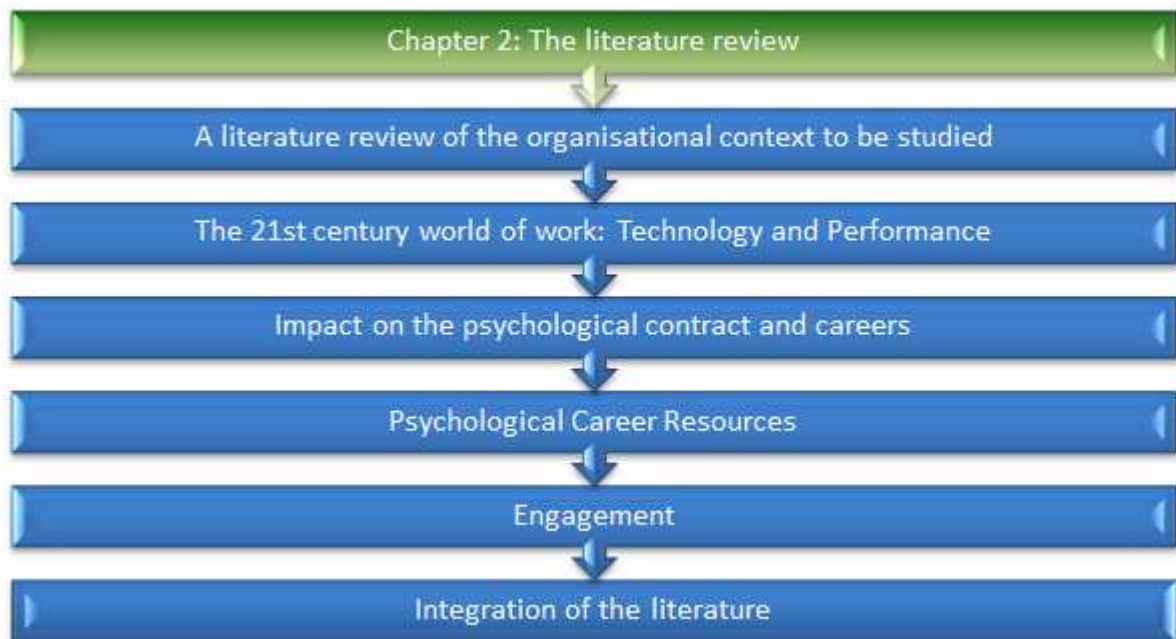


*Figure 2.1.* Literature Analysis

The organisational context will be described by providing background to the core business of the organisation and also the key competencies that this organisation requires. The organisational performance over the last five years will be considered, as it is crucial to the understanding of the organisational culture. The reward and recognition systems of the organisation will be explained and the organisation's involvement in the community will be discussed, as these characteristics provide a fuller view of the context of this particular organisation. Previous employee work experience surveys conducted by reputable organisations such as Markinor and Deloitte will also be discussed.

The first research question regarding the literature analysis states:

- *Research question 1:* What is the nature of the 21$^{st}$ century world of work and its impact on the psychological contract and careers?

The key 21$^{st}$ century characteristics of the organisation in which this study was conducted are technology and the drive for high performance. For this reason the nature of the world of work will be focused on technology and the high-performance organisation. Furthermore, the 21$^{st}$ century world of work will be explored by looking at the impact it has on the psychological contract. Two career types that have emerged in the world of work are the protean and boundaryless career types, as predicted by Hall (1996) and by Arthur and Rousseau (1996). These career types will be discussed, as well as the competencies and motivators that underpin these career types.

After the discussion on the nature of the 21$^{st}$ century world of work, research question 2 in the literature analysis will be discussed:

- *Research question 2:* How is the construct of psychological career resources explained and conceptualised from a theoretical point of view?

The various components of psychological career resources (Coetzee, 2008) will be explained. Previous research results conducted on psychological career resources will also be discussed:

- Career preferences;
- Career enablers;
- Career drivers;
- Career harmonisers; and
- Career values.

Research question 3 in the literature analysis will be discussed in Chapter 4:

- *Research question 3:* How is the construct of engagement explained and conceptualised from a theoretical point of view?

Engagement will be explored in terms of its many definitions and models and will be critically evaluated as a construct. The discussion will focus on the following models:

- Job-design approach of Khan (1990);
- Employee well-being approach of Maslach and Leiter (1997);
- Employee well-being approach of Schaufeli, Salanova, et al. (2002);

- Integrated approach by Macey and Schneider (2008).

## 2.2   A Literature Review of the Organisational Context to be Studied

The literature analysis focuses on the characteristics that are typical of the organisation in which this study was conducted. It is therefore important to clearly explain the organisation's context, as it is within this context that conclusions will be drawn. The section below presents the following aspects of this particular organisation:

- The core business of the organisation, including the core competencies required by employees;
- Previous surveys conducted at the organisation with regard to the employees' work experience at the organisation; and
- The financial performance and other achievements of the organisation.

### 2.2.1   Core business and competencies required

The organisation where this study was conducted provides HR and payroll software as well as HR and payroll consulting services to clients. This requires employees to develop a scarce skills set. On the one hand consultants must be able to implement the technological application. This requires an in-depth understanding of the software setup, the software's business logic, coding capabilities and possibilities of integration with other software.

On the other hand, consultants also fulfil an advisory role to clients on HR and payroll best practices. This requires that consultants understand South African payroll tax and remuneration structures and have the ability to consult across the spectrum of the HR value chain in areas such as payroll, recruitment and selection, job design and evaluation, salary surveys, performance management, succession management and training and development. Consultants therefore need a complex set of competencies that may lie on opposite ends of the same continuum.

For example, while the software setup requires detail orientation as a competency, the analysis of client's needs requires a holistic approach or the ability to see the bigger picture and how different components affect each other and fit into the bigger picture. The organisation places a

high focus on customer service. For this reason the ability to build and maintain relationships is regarded by the organisation as a critical competency.

Consultants need to move through rapid learning stages. Firstly they need to keep up to date with the technological enhancements of the software, legislative changes and trends in practice. Secondly they have to adapt to each implementation, as no two clients are the same and they need to identify the best implementation approach for the client's environment. The consulting environment is subject to rapid change and high pressure. Continuous learning and centralised information sharing via technology such as Sharepoint and the Customer Relationship Management (CRM) system are key characteristics of this organisation. Consultants are required to tolerate ambiguity and be highly flexible. Schedules are affected by client needs and change on a daily basis. Consultants are not only required to be flexible, but are also provided with flexibility, as they have the mobility to work from anywhere via technology and have the freedom to manage their own schedules.

### 2.2.2 Previous surveys undertaken in this organisation

The organisation where this study was conducted has undertaken multiple surveys in the last decade to measure employees' work experience. It is important for the reader to take cognisance of these survey results in order to understand the organisational culture and context. This information will help the reader to better understand the findings of this research study in chapter 4.

The first survey was a Markinor survey undertaken in 2004, which yielded the following results (A. Hartman-Weitz, personal communication, September 27, 2011):
- 14% of employees want to stay, but will not stay with the company;
- 37% of employees want to stay with the organisation and will stay;
- 32% of employees do not want to stay with the organisation and will not stay; and
- 26% of employees do not want to stay with the organisation, but will not leave either.

The following needs were rated highest by employees in the 2004 Markinor survey (A. Hartman-Weitz, personal communication, September 27, 2011):
- The need to feel a sense of accomplishment;
- The need to see a greater care of and concern for employees;

- The need for work resources in the form of technology and mobility;
- The need for satisfaction in day-to-day activities.

The organisation responded to these findings by implementing the following interventions:
- Re-evaluating employee benefits, especially maternity benefits;
- Re-evaluating the organisational structure to support cross-departmental teams;
- Investing in electronic equipment such as laptops, 3G cards, an electronic invoicing system and a more advanced client relationship management system;
- Introducing management training and development;
- Giving recognition in the form of annual awards handed over at a weekend retreat for all employees within the organisation (This event was named and branded among employees as the Oscars.);
- Giving recognition in the form of quarterly awards to employees whose behaviour reflected the organisational values.

The next Markinor survey was conducted in 2007 and yielded the following results (A. Hartman-Weitz, personal communication, September 27, 2011):

- Employees that want to stay, but will not stay with the company increased from 14% to 17%;
- Employees that want to stay with the organisation and will stay increased from 37% to 51%;
- Employees that do not want to stay with the organisation and will not stay decreased from 32% to 22%;
- Trapped employees who do not want to stay with the organisation, but will not leave decreased from 26% to 10%.

The following needs were rated highest by employees in this survey (A. Hartman-Weitz, personal communication, September 27, 2011):
- The need for increased skills and resources to perform properly;
- The need for work-life balance;
- The need for better communication; and
- The need for rewards, remuneration and benefits.

The organisation responded to these findings with the following interventions (A. Hartman-Weitz, personal communication, September 27, 2011):

- With regard to remuneration, the consultants' commission schemes were revised, annual salary increases were revised and salary adjustments were made to reflect market salaries. More detail regarding remuneration was printed on the electronic payslips of employees.
- Recognition remained a focus point for the organisation. Quarterly awards were increased from five awards to nine awards. Voucher awards were introduced whereby managers could reward employees who lived the organisational values. These vouchers are in the form of a credit card that can be used to purchase goods at any store.
- In order to improve communication and relieve the number of emails sent throughout the organisation, the intranet was restructured as the main source of communication throughout the business.
- Diversity and transformation plans were mapped out and communicated to the organisation. The organisation also embarked on black enterprise development.
- The organisation grew its charity projects by 64%, streamlined the functions of the charity committee and changed the charity strategy to allow for all branches and departments to participate with greater ease.
- In order to assist employees in work-life balance, the organisation introduced flexible work times. If an individual has reached the monthly target, the individual qualifies for a half-day time off in the following month. The monthly target takes into consideration any time-off awards, public holidays, training days and leave and is reduced accordingly.
- Training and development became a major focus point in the organisation. The organisation introduced learnerships and customer care workshops. The customer care workshop focused on internal and external customer service, was supported by the Managing Director and rolled out throughout the entire organisation from the top down. Training and development continued to grow as a vital practice within the organisation. One of the key values of the organisation is continuous development. The direct financial investment in the development of 28 consultants in a single business unit provided by one manager (R. du Plessis, personal communication, September 30, 2011) is R197 768 for the next financial year. The indirect cost of this training and development to take place in the next financial year is calculated at R4 679 760. This excludes salary cost and is only calculated on the revenue lost per consultant per training day (R. du Plessis,

personal communication, September 30, 2011). Newly appointed consultants undergo a three-month fully paid training period before they start consulting. Sharing experiential learning is also encouraged via monthly team meetings where consultants share their learning experiences in the past month and share advice. The following table shows the increased focus placed on training and development:

Table 2.1

*Percentage of employees trained 2008-2010*

| | Financial Year 2008 | Financial Year 2009 | Financial Year 2010 |
|---|---|---|---|
| Percentage of employees receiving training | 62% | 71% | 92% |

*Note.* From A. Hartman-Weitz, personal communication, September 27, 2011.

In 2010 and 2011 the Deloitte Best Company to Work for survey was used; this is discussed in section 2.2.4. The holding company of which this organisation is a subsidiary also conducted a survey in 2011 to measure employees' work experience. The survey found that the four greatest factors influencing engagement in this particular organisation were rewards and recognition; getting the job done; colleagues and teamwork; and employee loyalty (A. Hartman-Weitz, personal communication, September 27, 2011). The survey showed that employees still indicated a great need for professional growth as well as a need for clear career pathing.

2.2.3   Organisational performance and achievements

The organisation is a true high-performance organisation, as is shown in the discussion of the high-performance organisation in section 2.3 Monthly targets are results driven and stretch targets are pursued. While the organisation's workforce has grown by 75% in the last five years, its profits have grown by 196%. The organisation has also achieved a double-digit profit every year in the last five years, according to figures provided by A. Hartman-Weitz (personal communication, September 26, 2011). Table 2.2 provides a clear depiction of the organisation's financial performance.

In the 2010 Deloitte Best Company to Work For survey, the organisation received second place in the category for medium enterprises and the category for business and professional services

(Deloitte, 2010). In 2011 the organisation was the winner of the Deloitte Best Company to Work For survey for the category of business and professional services and again achieved second place in the medium enterprise category (Deloitte, 2011). Long-service awards are awarded to employees when they have been in service for 5, 10, 15 and 20 years. In 2011, 88 employees received long-service awards, and 91 employees had been in service for more than 10 years (A. Hartman-Weitz, personal communication, September 26, 2011).

Table 2.2

*Financial performance from 2005-2010*

|  | **FY05** | **FY06** | **FY07** | **FY08** | **FY09** | **FY10** |
|---|---|---|---|---|---|---|
| Staff | 74% growth | | | | | |
| Staff cost as % | 55.55% | 54.98% | 53.75% | 53.53% | 54.54% | 54.39% |
| Revenue | 19.7% | 22% | 19.4% | 21.6% | 9.7% | 13% |
| Profit | 25.1% | 18.4% | 22.5% | 20.3% | 11.5% | 21.6% |
| Profit | 196% growth | | | | | |

*Note.* From A. Hartman-Weitz, personal communication, September 26, 2011.

The above description provides the reader with an understanding of the organisational context in which this study is conducted. The literature analysis will also focus on this specific context, which can be summarised as a high-performance organisation driven by technology within a rapidly changing environment. In an organisation where employees are required to acquire a broad skills set and cope with the pressures, change and long working hours that form part of the technology and services consulting environment, one would expect a high employee turnover. However, within this specific organisation 20% of all staff who resign return within 12 months to the organisation and, as mentioned, 88 long-service awards were awarded in 2011 (A. Hartman-Weitz, personal communication, September 26, 2011). This is a considerable achievement in an organisation consisting of just over 500 staff members, and indicates an

ability to retain talent. The survey results of 2011 indicate a high level of employee satisfaction (A. Hartman-Weitz, personal communication, September 26, 2011).

It was therefore considered to be valuable to conduct this study at this particular organisation to find out whether a particular psychological career resources profile existed, and if there were any correlations between such a psychological career resources profile and work engagement. Should such a psychological career resources profile be found to correlate with engagement, it would provide insight into the practical interventions and practices in the 21$^{st}$ century world of work that could aid organisations in the selection and retention of staff. For this reason the remainder of the literature analysis will focus on the elements or characteristics that are typical of the organisation where this study was conducted.

## 2.3     The Nature of the 21st Century World of Work: Technology and High Performance

The 21$^{st}$ century world of work is marked by technology that transcends the boundaries of time and distance. The majority of business takes place in a virtual environment via email, Skype, teleconferencing, videoconferencing, BlackBerries™, i-phones and i-pads. Companies such as Orgplus no longer need to be on a client site to deliver their services. They merely access the client's servers remotely to install software and provide support to their clients via Skype and other technology.

In the human resource environment employees apply for leave online, claim travel expenses and overtime online, receive their payslips via email and engage in training sessions online or via multimedia applications. Supply Chain and manufacturing companies make use of advanced technology in order to ensure that production processes run as cost-effectively and quality-effectively as possible (Arunachalam, Koh, & Saad, 2006). Software companies need to ensure that their products can integrate with a range of other business software applications such as integrations between payroll software, HR software, time and attendance software and the company's financial software. The healthcare industry is also driven by technology, as patient-care information systems become increasingly advanced and dental tools have become state of the art, integrating x-rays to i-pads for the patient's convenience. Even services companies have become technology driven, as they utilise Client Relationship Management (CRM) software and communication technology as a core part of their business decision making and operation. The clear conclusion from these observations is that technology is not only used to execute

organisational strategy, but actually drives organisational strategy in the 21st century. This observation is confirmed by Berman and Hagan (2006) in the IBM Institute for Business Value's cross-industry study of innovative companies. Gunasekaran and Ngai (2007) emphasise that successful strategic planning is utterly dependent on technology and the management of knowledge via technology. Technology is also closely interwoven with the high-performance organisation, as will be shown in the next discussion.

Another characteristic of 21st century organisations that is reflected by the context of this study is the phenomenon of high-performance organisations, in which technology also plays a pivotal role. The literature on high-performance organisations is extensive. However, there does not seem to be an agreement among scholars as to the definition or characteristics of high-performance organisations. It is not the purpose of this study to establish these characteristics, but it is important to understand what the high-performance organisation entails in order to understand the context of the 21st century world of work. To gain a better understanding of this matter, three extensive research studies will be discussed briefly:

- A study conducted by the Gallup Organization (Buckingham & Coffman, 1999);
- A study conducted by the Institute for Corporate Productivity (Jamrog, Morrison, Overholt, & Vickers, 2008); and
- A study by the Centre of Organizational Performance (De Waal, 2010)

The Gallup Organization conducted a study over a period of 25 years. The study consisted of focus groups with over 80 000 managers from high-performing business units across organisations. Discussions of these focus groups were transcribed and surveys were developed from the data that measured the work experience of high-performing individuals. Over one million responses were gathered. A factor analysis was conducted to establish themes that are important to high-performing employees. Further regression analysis then produced 12 questions that measured employee perceptions regarding the quality of management practices. A meta-analysis was then conducted, which confirmed that business units that scored higher on the 12 questions measuring employee perception of quality management practices also outperformed business units that did not score high on the 12 questions. Thus, it was proved that high-performing organisations embodied the characteristics of these 12 questions (Buckingham & Coffman, 1999). The characteristics of these questions for high-performing organisations are summarised as follows by Buckingham and Coffman (1999):

- Role clarity and competitive remuneration;
- Clear, fair and regular performance feedback;
- A fit between the individual's value system and the organisation's value system;
- Growth opportunities in terms of professional development, personal development and the opportunity to innovate from this development.

The Institute for Corporate Productivity conducted a study that included 1 369 organisations globally. The study focused on the correlations between financial performance and organisational practices with regard to strategy, customers, leadership, processes and structure and corporate values. The study found that high-performing organisations exhibited the following characteristics (Jamrog et al., 2008):

- Management actions are consistent with organisational values;
- Supervisory development and support are in place with a strong focus on information sharing;
- Processes and procedures support organisational goals with clear performance criteria in place;
- Employees are treated fairly and ethically.

De Waal (2010) from the Centre of Organizational Performance attempted to provide clarity on the characteristics of high-performance organisations by analysing the findings of 290 studies conducted on the topic. De Waal defined the high-performance organisation as "an organisation that achieves financial and non-financial results that are better than those of its peer group over a period of time of at least five to ten years".

De Waal's (2010) analysis of the literature regarding the characteristics of high-performance organisations can be summarised as follows:
- Organisational design is flat, flexible and allows cross-pollination of skills and knowledge between departments;
- Processes are geared to supporting innovation, open communication, transparency and fair remuneration and reward practices;
- Technology is designed around business requirements and is user-friendly and flexible;
- Performance criteria and roles are clear and aligned with organisational objectives; and

- Individuals are aligned with organisational values and objectives within an environment that promotes engagement and development;
- Leadership is diverse, acts with integrity, coaches employees for performance and drives results;
- Externally the organisation is characterised by mutually beneficial partnerships, rapid adaptation to the external environment and the fostering of long-term relationships with external stakeholders.

In view of these three studies, the high-performance organisation in the 21$^{st}$ century can be described in the following building blocks (Buckingham & Coffman, 1999; Jamrog et al., 2008; De Waal, 2010):

- *Organisational design and structure*: Organisational structures are flat, flexible and allow for cross-departmental project teams;
- *Performance measures*: Performance measures are clearly defined and regular performance feedback is received. The communication of performance feedback also speaks to the importance that is placed on relationships in a high-performance organisation;
- *Value driven*: In high-performance organisations there is a fit between individuals' value systems and the value system of the organisation. Management models the behaviour that is aligned with the organisation's values;
- *Development and growth*: There is a great focus on development and growth in high-performance organisations. Development is not limited to functional training, but includes professional and personal growth and the transfer of knowledge through coaching;
- *Innovation*: High-performance organisations encourage and reward innovation. Processes are designed in a fashion that supports the flexibility required to innovate;
- *Technology*: In high-performance organisations technology is regarded as a driver of strategy and not merely as a means to an end;
- *Relationships*: High-performing employees in high-performance organisations have an expectation to be treated fairly and ethically. Open communication and networking relationships are not restricted to the organisation, but are maintained across organisations, as business partnerships are forged with professional institutions, regulatory bodies, clients and competitors. This diversity of relationships is also reflected in the diversity of the workforce, not only with regard to culture, but also with regard to experience and skills;

- *Agility*: The integration of the building blocks of a high-performance organisation discussed in this section is exactly what allows the building block of agility to exist. This places the organisation in a position to not only respond to external changes, but to also influence external changes.

High-performance organisations, inclusive of all their building blocks and the chase after the most effective and efficient technology, are important characteristics of the 21st century world of work, because these characteristics speak directly to the challenges and demands faced by organisations.

These challenges and demands of the 21st century world of work become even more pronounced in the face of the global economic crisis that has plagued the better part of the century. This crisis fuels the need for organisations to be agile and flexible in order to maintain high performance standards. This also affects the South African context. Even though South Africa was somewhat shielded from the 2008 world economic crisis, the South African National Treasury reported that nearly a million employees still lost their jobs (South African National Treasury, 2011). The world economic crisis continues and the global economy can offer organisations no certainty. Organisations that have operations in countries such as Libya, where political unrest has recently ceased, face the challenge of losses due to interrupted operations (BBC News, 2011). Locally, the annual strike actions taken by the unions place great pressure on productivity, while the skills shortage is still a focal point for many organisations in South Africa. These realities of the 21st century world of work increase the pressure to reach performance targets, placing the characteristics of the high-performance, technologically-driven organisation centre stage.

The discussions above paint a clear picture of the 21st century world of work with regard to technology and the high-performance phenomenon. It demands that organisations not only look to technology to support organisational objectives, but also be driven by its competitive possibilities (Berman & Hagan, 2006). It demands that organisations respond to changes and uncertainty rapidly in order to ensure sustainable high performance (Arunachalam et al., 2006; Jamrog et al., 2008). This is, however, only one side of understanding the dynamics of the 21st century world of work. The other side of the coin is the impact of these characteristics on the psychological contract.

## 2.4 The Impact of the 21st Century World of Work on the Psychological Contract

Just as the 21<sup>st</sup> century world of work places demands on the organisation, it also places demands on the individual. As the landscape of business has changed, so have the psychological contract and the approach to careers (Cascio, 2001). It is important to understand the impact of these demands on the psychological contract in order to appreciate the context in which engagement and psychological career resources function.

Cascio (2001) and Clarke (2008) place the responsibility for career management on the individual; they argue that the fundamental change in the psychological contract is that the focus has shifted from the organisation to the individual and the needs of the individual. Coetzee and Esterhuizen (2010) are still making the same observations as Cascio (2001) and Hall (1996) regarding the nature of careers in the 21<sup>st</sup> century. Hall (1996), in his theory of protean careers, already predicted the changes in careers as supported by Coetzee and Esterhuizen (2010). All four authors paint a picture of individuals functioning autonomously and independently from organisations in the construction of their careers. Does this mean that the psychological contract is truly as focused on the self and aloof from the organisation as the above authors seem to indicate? Does this mean that the psychological contract is really only between "one's self and one's work", as Hall (1996, p. 10), states, and not between the individual and the organisation? One needs to reflect critically on the nature of the psychological contract before a stance is adopted, as it has a fundamental impact on one's approach to careers and engagement.

Brousseau, Driver, Eneroth and Larsson (1996) took a somewhat different stance and predicted that in the midst of constant change and uncertainty in the 21<sup>st</sup> century, both organisations and individuals would have a need for some form of stability and security. This indeed seems to be reflected in the time that researchers and organisations spend deliberating on how to retain staff. A search on the Ebsco Host search engine using staff retention as key words returned a result of more than 750 articles. If indeed organisations did not have a need for some form of stability, one would not see such a host of articles on the subject of employee retention. Furthermore, the studies of Coetzee (2008), Coetzee and Bergh (2009), Ferreira, Basson and Coetzee (2010) and Matthysen (2011) all indicated the highest mean score of career preferences being stability/expertise, indicating that employees would prefer more stable or longer-term employment with an employer. These findings support Brousseau et al.'s (1996) prediction that both individuals and organisations will still have a need for some form of stability. In the light of

these findings one cannot assume that the psychological contract of the individual is completely independent of the organisation. There clearly is some interdependence between the organisation and the employee.

Baccili and Granrose (2006) conducted a study to determine whether traditional components of the psychological contract had been completely replaced. The authors found that some components of the traditional psychological contract, such as job security, are still important to employees, as well as components of the new psychological contract such as training and development and work-life balance. Interestingly, even though some traditional components of the psychological contract still seem to be important, breaching of these does not lead to an intention to leave the organisation (Baccili & Granrose, 2006). Butts, Eby and Lockwood (2003) state that individuals can no longer depend on organisations to provide them with a lifetime career. Although this research was conducted almost a decade ago, it is still supported by Clarke (2008), showing that it is still relevant for the 21$^{st}$ century world of work today. Even though individuals still value job security, they may realise that it may not be provided and therefore this breach in the psychological contract is not severe.

However, if the component of training and development associated with the new psychological contract is breached, it does lead to an intention to leave the organisation (Baccili & Granrose, 2006). This study by Baccili and Granrose showed that there is some expectation from employees that organisations contribute to their career development, even if it is not in the form of lifetime employment and a set career path. If individuals cannot obtain job security through lifetime employment, they try to obtain security through employability (Cascio, 2001). Coetzee (2008) supports this view.

The focus on continuous skills development is also identified in the discussion under section 2.3 as one of the key characteristics of the high-performance organisation typical of the 21$^{st}$ century. Therefore the individual does not seem to be completely independent of the organisation, nor the organisation independent of the individual, as certain needs overlap. Baruch (2006) argues powerfully that the psychological contract is still a mixture between the old and the new. Rather than viewing the psychological contract as modern or traditional, Baruch argues that the psychological contract exists on a continuum between the traditional and modern psychological contract. This viewpoint is echoed by Brousseau et al. (1996) and supported by a study conducted by Bradley, Brown and McDonald (2005). In another article, Hall and Moss (1998)

argue that the traditional psychological contract was a myth and never existed for 95% of individuals, and that the organisation indeed has a responsibility for the continuous development of employees.

In consulting practice the researcher of this dissertation has observed this "transactional relationship" (Park, 2009, p. 637), based on mutual benefits between employees and organisations in very much the same interdependent way as business partners operate. This observation is supported not only by Park (2009), but also by Alfred, Miles and Snow (1996), who describe this mutually beneficial relationship from the perspective of the organisational structure. The authors describe how different organisational structures create different interactions between the organisation and the individual's career (Alfred et al., 1996). From the above discussion we can therefore see that factors impacting on careers in the early 21st century are still prevalent, as authors are still observing the same phenomena.

What is the verdict, then? How should one view the psychological contract? The 21st century world of work has indeed brought great changes to the working environment. This interdependent relationship is clearly visible in the high-performance 21st century organisation, in which, as Drucker (1999) points out, the individual knowledge worker will determine the level of competitive advantage. The psychological contract is marked by an emphasis on flexibility, to ensure work-life balance and opportunities for skills development (Alfred et al., 1996; Hall, 1996; Cascio, 2001; Coetzee & Esterhuizen, 2010; De Vos & Meganck, 2009). These comments are widely supported even by pragmatists such as Baruch (2006) and the flexibility to adapt and learn is also reflective of the technological, high-performance-driven organisation of the 21st century, as discussed in section 2.3 (Arunachalam et al., 2006; Jamrog et al., 2008).

Hall and Moss (1998) use an interesting metaphor of the wilderness to show how different companies function in three different states of the psychological contract. The first state is described as "lost in the trees" (Hall & Moss, 1998, p. 27) and depicts a context in which employees' expectation of job security is disillusioned by the severity of retrenchments. Here the psychological contract is very traditional, and breaching the expectation of job security creates great trauma for employees. The second state is referred to as "sees the forest" (Hall & Moss, 1998, p. 27) and illustrates a context where employees have already accepted that job security is not guaranteed and display a greater tolerance for and adaptability in the face of change. The psychological contract here refers to the other end of the continuum, where individuals stand

almost separate from the organisation. The third state is referred to as "comfortable in the woods" (Hall & Moss, 1998, p. 28) and portrays a state in which the employee and employer share a high level of continuous learning and respect for the individual. Hall and Moss found that deep loyalty exists in this psychological contract. This loyalty is not based on tenure with the organisation or on job security, but on mutual competitive value-add (Hall & Moss, 1998). This is the only state in which individuals do not seem to experience a transition between the old and new psychological contract (Hall & Moss, 1998). Rather, the individual acts interdependently with the organisation to create a better future for both, even though those futures may separate as time progresses.

Here is the verdict, then. The psychological contract has indeed shifted to the individual in the sense that the individual does need to manage his or her career as a business venture and see every employment opportunity as a business partnership contributing to the advancement of employability in the form of new experience, skills and knowledge for the duration of employment (Clarke & Patrickson, 2008; Coetzee & Esterhuizen, 2010; Hall, 1996; Hall & Moss, 1998). This allows the employee to compete in the labour market, as organisations do require even specialists to be flexible and multi-skilled in order for the organisation to adapt to a highly competitive and shifting environment (Alfred et al., 1996). Even after termination of the employment relationship, individuals often keep in contact with the networks and connections they have made during employment at an organisation, and thus the relationship transcends the employment relationship (Arthur, 1994). The psychological contract has therefore become more dynamic. Rather than being self-centric and completely independent of the organisation or organisation-centric and dependent on the organisation, it is an interdependent balancing act between the needs of the individual and the needs of the organisation (Arthur, 1994; Park, 2009).

## 2.5    The Impact of the 21st Century World of Work on Careers

The impact of the changes in the 21st century world of work is manifested in the emergence of the boundaryless and protean career, which in turn requires that individuals possess certain career competencies. These two career approaches will be defined, after which the career competencies required will be discussed.

### 2.5.1 The boundaryless career: A short description

Arthur and Rousseau (1996) explain six meanings for the boundaryless career. Forret, Mainiero, and Sullivan (2010) state that these six meanings can be summarised in two broad categories. The first are careers that are not limited to one organisation, but consist of different experiences and roles across a variety of organisations, as defined by Arthur (1994). This is also referred to as the physical boundaryless career (Arthur & Rousseau, 1996). This physical mobility may constitute movement across departments within the same organisation, movement between professions or disciplines or movement across organisations (Arthur & Sullivan, 2006). One sees an element of the new psychological contract expressed in the boundaryless career, where the psychological contract transcends the employment relationship via social networks and connections outside of the organisation (Arthur, 1994), as discussed in section 2.4.

The second is described as a psychological boundaryless career (Arthur & Rousseau, 1996). The psychological boundaryless career is complex (Arthur & Sullivan, 2006). It refers to the individual's belief in his or her ability to make a career move and it is also influenced by the motivations of the individual (Arthur & Sullivan, 2006). Arthur and Rousseau (1996) add that an employee can engage in a psychological boundaryless career through personal growth or by compromising career ambitions in return for increased involvement in personal family life.

### 2.5.2 The protean career: A short description

Another approach to career management is the concept of the protean career. According to Hall and Mervis (1995) and Hall (1996), the protean career is a career that is moulded by the individual according to the individual's needs and the needs demanded by the context in which the individual finds himself or herself. Parks (2009) argues that the protean career is indeed a manifestation of the 21$^{st}$ century and expands on Hall and Mervis's (1995) theory by stating that one's career is a continuous process of change. The protean career requires the individual to take charge of his or her own career path (Hall & Mervis, 1995).

The measure of success in the protean career is focused on what Hall (1996, p. 8) terms "psychological success". This is in stark contrast to the traditional idea of career success. Whereas traditional career success consisted of progressing through the ranks of seniority, career success is now defined by achieving that which is meaningful to each individual (Hall,

1996). Protean careers are also characterised by lifelong learning (Hall & Mervis, 1995; Hall & Moss, 1998). Hall (1996) explains that career maturity in the protean career is not measured by the number of years' experience, but by the number of learning cycles the individual has mastered. One sees the elements of the new psychological contract expressed in the protean career's characteristics of flexibility, work-life balance and continuous development (Hall, 1996).

### 2.5.3 Career motivators and competencies pertaining to the protean and boundaryless careers

As was clearly portrayed in section 2.3, the 21$^{st}$ century world of work has changed the psychological contract and imposes the pressure of rapid change and flexibility, technological advancements, increased competition and economic instability on organisational performance as well as the individuals within this environment. The literature has also shown the emphasis that the individual places on increased learning and the flexibility of work and life. To understand the impact of the 21$^{st}$ century world of work, one must take cognisance of the motivators and competencies required from the perspective of the protean and boundaryless careers, as defined in sections 2.5.1 and 2.5.2.

As mentioned in section 2.5.2, Hall and Mervis (1995), Hall (1996) and Hall and Moss (1998) argue that one of the greatest differences between the traditional career and the protean career is the manner in which success is defined. This viewpoint is still supported by authors of the 21$^{st}$ century (Park, 2009).

The motive or measure of success in the protean career is focused on what Hall (1996, p. 8) terms "psychological success". Park (2009) conducted a study that showed a strong positive relationship between protean careers and the search for meaning in one's career, showing that the writings of Hall (1996) and his colleagues still have great relevance. This search for meaning will be different for each individual and the experience of meaningfulness will determine the level of success experienced by the individual (Hall, 1996; Hall & Moss, 1998; Park 2009). Because this perception of success is defined by what the individual deems to be meaningful, work-life issues and personal-life issues will influence each other (Hall & Mervis, 1995). Hall (1996) tells the story of a very successful accounts manager who felt that due to her business travels she had missed her child's first year without realising it. Hall's (1996) point in telling this story is that as individuals' life cycles and contexts change, their values may change and thus perceived meaningfulness for the individual may change as well. To understand career motivators it would

be necessary to create categories or themes of such career motivators. These can be found in the work of Schein (1996).

Schein (1996) explains that careers are directed by the pivotal career anchor held by an individual. A career anchor reflects the individual's identity and self perception. Schein summarises his life's work on career anchor categories as follows:

- Autonomy or independence;
- Security or stability;
- Technical or functional competence;
- General managerial competence;
- Entrepreneurial creativity;
- Service or dedication to a cause;
- Pure challenge; and
- Life style.

Schein (1996) explains that a career would normally allow the fulfilment of more than one need that supports more than one anchor. People, however, only become aware of their career anchors as they face change (Schein, 1996). One would be tempted to deduce that individuals in the 21st century world of work, where rapid change is a central theme, will display a high level of awareness regarding their career anchors.

This career awareness, however, requires more than change. It also requires what Hall and Mervis (1995) refer to as career meta-competencies. For individuals to define the meaning of career success, they would require self insight as well as career insight (Hall & Mervis, 1995). Butts et al. (2003) refer to this as career identity. Hall and Mervis add that individuals need to be adaptable and to have the ability to know how to learn without formal training being presented. Coetzee (2008) refers to ability to learn on one's own as self-directed learning. Briscoe and Hall (2006) recognised the fact that there are some overlaps between boundaryless careers and protean careers, and that each individual will experience different challenges in career development depending on the combination of boundaryless and protean career competencies that make up his or her career profile. These authors created six career profiles from the elements of boundaryless and protean careers and identified the development areas that the individual and employer would need to pay attention to in order to facilitate career development. This model is illustrated in Table 2.3.

Table 2.3

*Career profiles and challenges*

Protean and boundaryless combinations: Career profiles and development challenge

| Protean: Self-directed career management | Protean: Values driven | Boundaryless: Psychological mobility | Boundaryless: Physical mobility | Hybrid category/ archetypes | Career actor's personal challenge in maintaining status Quo | Career actor's and supporting groups' career development challenge |
|---|---|---|---|---|---|---|
| Low | Low | Low | Low | "Lost" or "Trapped" | React quickly to opportunities, survive. | Clarify priorities, gain career management skills, expand perspective. |
| Low | High | Low | Low | "Fortressed" | Find stable, opportunities in predictable organizations that match values. | Broaden in terms of open-mindedness and self-direction. Otherwise, person and employers will suffer unless this person is a perfect fit for an extremely stable situation/organization. |
| Low | Low | Low | High | "Wanderer" | Continuously find new rides to "hitch." | Help develop self-direction, establish whether fit good after this is achieved. |
| Low | High | High | Low | "Idealist" | Finding organizations that match values, curiosity, but don't require mobility. | Find challenges to push out of comfort zone and help build adaptability skills—in terms of mindset and working across boundaries. |
| High | Low | High | Low | "Organization man/ woman" | Find stable organizations in which basic performance competence can be demonstrated. | Don't be seduced by performance ability. Increase self-awareness to make leader of high performer. |
| High | High | High | Low | "Solid Citizen" | Person-organization fit a must. Mobility a threat. | Maintain diversity of talent but leverage solid citizen's contributions. |
| High | Low | High | High | "Hired Gun/hired hand" | Identify and respond to best opportunities for providing services across boundaries | Convert talented, reactive person into effective, self-aware leader with a sense of priorities. |
| High | High | High | High | "Protean Career Architect" | Leverage capability into meaningful impact | Provide stages on which to shine, learn, engage. Temper if needed. |

*Note.* From "The interplay of boundaryless and protean careers: combinations and implications," by J.P. Briscoe and D. T Hall, 2006. *Journal of Vocational Behavior, 69*(1), p. 11.

Butts et al. (2003) conducted a study on the competencies required to enable a boundaryless career. The study of Butts et al. is relevant because of the context in which the study was conducted. The study was conducted in the early 21st century when the Enron and WorldCom scandals and the 9/11 attack on the World Trade Centre created great economic uncertainty (Butts et al., 2003). With the current global economic meltdown and widespread political unrest in North Africa, Europe and the East, the same, if not greater, uncertainties are facing today's workforce. The 21st century's first decade has been prominently marked by turbulence, uncertainty and rapid change that still continue. Due to the contextual similarities between the time of the study conducted by Butts et al. and the 21st century as we know it today, attention should be paid to the career competencies identified by Butts et al.

Butts et al. (2003) found that for an employee to survive in this context the following competencies are required:

- Pro-active personality;
- Openness to experience;
- Career insight;
- Internal and external networks;
- Career identity; and
- Job related skills.

According to the findings of Butts et al. (2003), the above career meta-competencies correlate well with internal career marketability, external career marketability and career success. In short, the 21st century requires employees to create their own career.

This capability to design and execute one's own career closely relates to Peter Drucker's (1999) concept of the knowledge worker. The knowledge worker is described by Drucker as an individual who can use experience and knowledge in a variety of organisations and can thus take this ability to create competitive advantage across organisations. Vaishampayan (2006) states that the technology and the vast amount of information of the 21st century require employees to function at a higher cognitive level. The employee should be able to process high volumes of information and produce a competitive advantage from information (Alfred et al., 1996).

The implication of the above is that the 21$^{st}$ century world of work impacts significantly on the employee. It demands that employees be resilient to ambiguity and master a wide variety of skills. The skills set for successfully navigating a career in the 21$^{st}$ century seems to be much more focused on internal career resources than external career resources (Coetzee & Esterhuizen, 2010).

In order to find out if there is a relationship between career meta-competencies and engagement, one would like to base such a study on a career meta-competency model that takes the 21$^{st}$ century characteristics of boundaryless careers and protean careers into consideration. Although Briscoe and Hall (2006) present such a model, they offer no measurement instrument to test the model. The same problem is found with the career meta-competencies identified by Butts et al. (2003). Schein's model (1996) does offer an instrument that measures the eight career meta-competencies, but there is a more comprehensive South African model that has recently been developed, that takes into consideration the 21$^{st}$ century world of work and offers a measurement tool that can be used in a practical sense. This model will be discussed in the next section.

## 2.6    Psychological Career Resources

Section 2.6 will answer research question three with regard to the literature review: *How is the construct of psychological career resources explained and conceptualised from a theoretical point of view?*

Coetzee (2008) developed a South African model of career meta-competencies. She refers to career meta-competencies as psychological career resources (Coetzee, 2008) and this terminology will be used for the remainder of the literature review.

### 2.6.1    Defining psychological career resources

Coetzee (2008) argues that the development of psychological career resources will become more important than the traditional career development approach due to the challenges imposed by the 21$^{st}$ century world of work. These psychological career resources (Coetzee, 2008) consist of the following:

- Career preferences
- Career values
- Career drivers
- Career enablers
- Career harmonisers

The model of psychological career resources is represented in Figure 2.2 below.
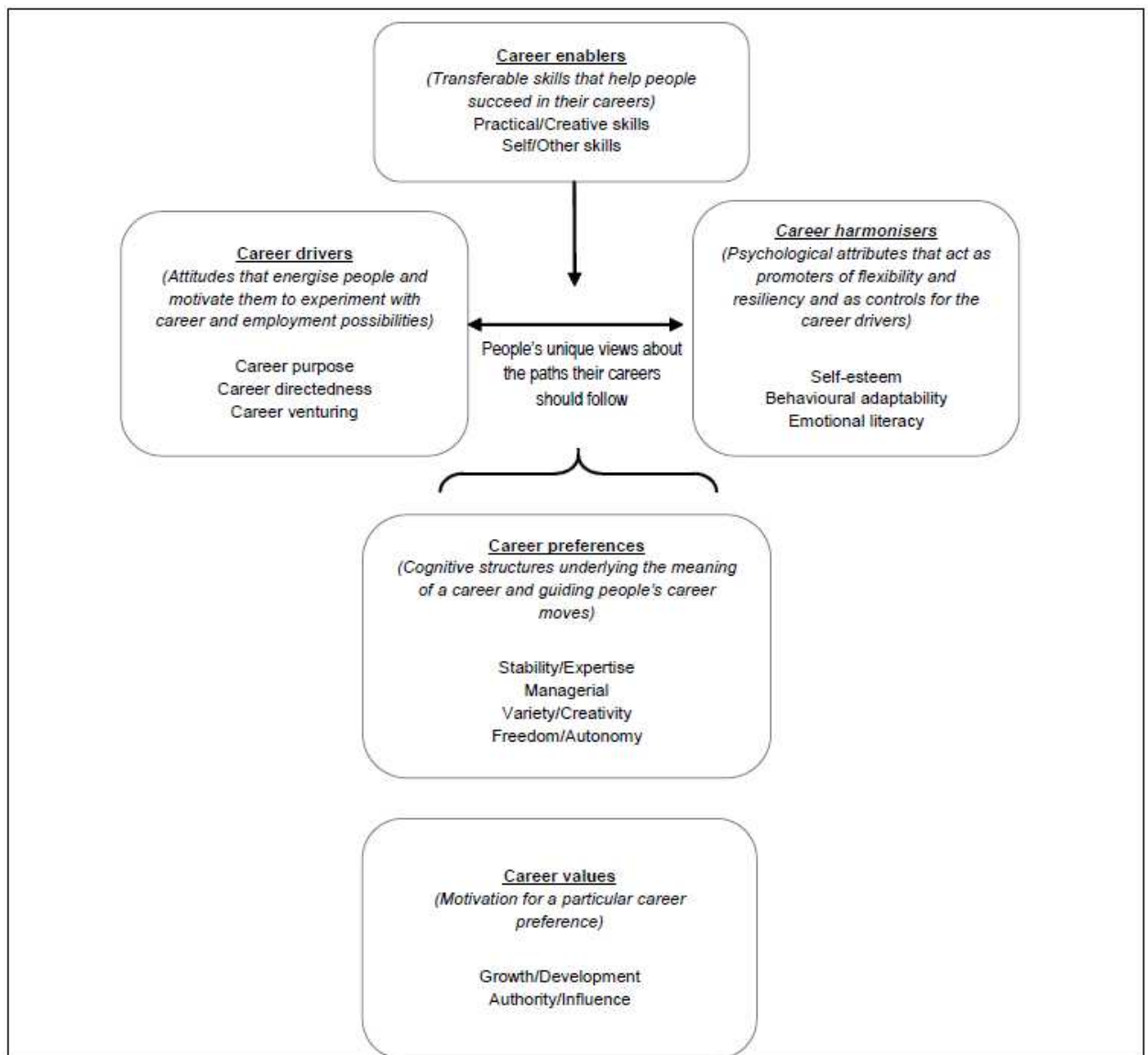


*Figure 2.2*. The framework for psychological career resources.

*Note.* From "Psychological career resources in relation to commitment: an exploratory study," by N. Ferreira, J. Basson and M. Coetzee, 2010, *SA Journal of Human Resource Management*, *8*(1), p. 2.

**Career preferences and career values**

Career preferences and career values reflect the distinctive perceptions that each individual holds about the course they envision for their careers (Coetzee, 2008). Career preferences and career values are cognitive in nature and form part of an individual's deep-seated psychological world view, which is the foundation from which an individual assigns meaning to their work life (Coetzee, 2008). Career preferences influence the career direction that an individual chooses, while the career values provide the reason for the career preference (Brousseau, 1990). Coetzee (2008) identified four career preferences based on the career orientation models of Driver and Brousseau (1998) and Derr (1986):

- *Stability/expertise*: This refers to how an individual views careers that provide security and opportunity for development in a specialist field.
- *Managerial*: This refers to individuals who view vertical mobility with more responsibility, decision-making power and influence as career success.
- *Creativity/variety*: This career preference describes individuals who prefer a wide variety of tasks that require a wide variety of competencies (skills and knowledge) in original or novel ways.
- *Autonomy/independence*: This career preference refers to individuals who see the perfect work environment as one where they have freedom from disturbance from external sources.

Coetzee (2008) identified two career values:

- *Growth/Development*: This refers to the importance that the individual places on personal and professional opportunities to grow and develop.
- *Authority/Influence*: This refers to the importance that the individual places on the responsibility for others, having authority over others and having influence on important organisational events or projects.

**Career drivers**

Career drivers refer to an individual's sense of purpose, career directedness and willingness to explore career possibilities (Coetzee, 2009).

- *Career Purpose*: Coetzee (2008, p. 11) also refers to career purpose as the "career calling". According to Coetzee, individuals with a strong sense of career purpose show higher levels

of job satisfaction as well as life satisfaction and are absent from work less. They also experience a sense that their work contributes in some way to the greater community.

- *Career directedness*: This construct refers to how clearly an individual sees his or her career goals, but also refers to how clear an individual is on locating resources that will assist him or her to attain career goals or career opportunities (Coetzee, 2008).

- *Career venturing*: According to Coetzee (2008), career venturing refers to how comfortable individuals are with taking risks in order to find and explore career opportunities. Coetzee also comments that people's career purpose and career directedness will be aligned with their strengths.

**Career enablers**

Career enablers refer to people's practical, creative, self-management and relationship skills (Coetzee, 2009). These are grouped into two main groups, namely "creative/practical skills" and "self/other skills" (Coetzee, 2008, p. 12).

- *Creative/practical skills*: Coetzee (2008) explains that the definition of the construct creative/practical skills is taken from Sternberg (1985). According to Sternberg (1985) practical skill is the ability to apply theoretical knowledge in a real-life situation and creative skill is the ability to apply one's mind to a problem and find a novel way of dealing with it.

- Self/other skills: Coetzee (2008) explains self/other skills as the ability to understand others and to understand oneself. According to Emmerling and Cherniss (2003), the emotions that individuals undergo when making career decisions include interpersonal relationships at work and therefore have an impact on the perceived risk of the career decision. This perception of risk ties in with the psychological condition of safety as described by Khan (1990), which will be discussed in section 2.8 in relation to engagement.

**Career harmonisers**

Career harmonisers are the psychological characteristics that help to rein in the career drivers so that employees do not burn themselves out, but also provides the individual with psychological flexibility and resilience. Coetzee (2008) divides career harmonisers into four constructs: people's emotional literacy, social connectivity, self esteem and behavioural adaptability. Of these four constructs, Coetzee regards emotional intelligence and social connectivity as the most important.

- *Emotional literacy*: This construct is described by Coetzee (2008) as the ability of an individual to manage the variety of emotions that can be received and conveyed.
- *Social connectivity*: Coetzee and Schreuder (2009) defines this as the ability of the individual to build and preserve healthy and mutually supportive relationships.
- *Self-esteem*: Coetzee and Bergh (2009) describe self-esteem as individuals' self-assessment regarding their competence, value and efficacy compared with others and compared with their own standards.
- *Behavioural adaptability*: Coetzee and Bergh (2009) used Hall's (2002) definition, which refers to the person's competence to recognise the attributes that are necessary for future career success and then make the changes that are required.

2.6.2    Previous studies on psychological career resources

Coetzee (2008) found that the managerial and autonomy/independence career preferences are motivated by the career driver of authority and influence. Coetzee also found that the career preferences for stability/expertise and creativity/independence are motivated by the career value of growth or development. In a South African study conducted in 2008, Coetzee found that individuals of the age of 25 and below scored higher in their career values of autonomy/influence and growth/development than individuals between the age groups of 31-40 and 41-55. Coetzee explains that young individuals prefer to be more mobile in order to take advantage of learning opportunities, hence the high scores on autonomy/influence and growth/development.

In another South African study, Coetzee and Bergh (2009) found that career directedness and behavioural adaptability have a positive relationship to job satisfaction, and that career purpose and behavioural adaptability have a strong  positive relationship to perceiving the work activity as valuable. Coetzee and Schreuder (2009) conducted a study to determine if a relationship existed between psychological career resources and Schein's (1996) career anchors. They found that career anchors of general management, pure challenge and entrepreneurial creativity had a strong positive relationship with the self/other career enabler (Coetzee & Schreuder, 2009). Coetzee and Schreuder further found that general management and entrepreneurial creativity had a negative relationship with behavioural adaptability, which affects one's ability to respond to change and deal with failures. The authors explain that this may be due to a high need for performance and control (Coetzee & Schreuder, 2009).

Ferreira et al. (2010) conducted a South African study to determine if there was a relationship between organisational commitment and psychological career resources. They found that managerial and independence/autonomy (career preferences), the authority/influence career value, the career enabler of practical/creative skills, high career directedness and low career venturing (career drivers), emotional literacy and social connectivity (career harmonisers) have a positive relationship to organisational commitment.

## 2.7 Integration: 21st Century World of Work, Protean and Boundaryless Careers and Psychological Career Resources

Before moving on to the discussion on engagement, it is first necessary to discuss the integration between the 21st century world of work, protean and boundaryless careers and psychological career resources.

From the above literature review it is clear that flexibility, continuous development, rapid adaptation and innovation are the prevalent themes that govern the 21st century world of work, the psychological contract and the types of career that have emerged. In order for organisations to meet the demands of agility, innovation and flexibility demanded in the 21st century, they require a system of clear performance criteria and feedback, multi-disciplinary project teams that collaborate across departments, divisions, networks and external partnerships, as well as a learning culture in which knowledge and skills are transferable.

Since the same types of competencies are required for both the organisation and the individual to flourish in the 21st century world of work, their needs are not mutually exclusive, and therefore lead to a shift in the psychological contract. The psychological contract becomes a partnership between the organisation and the individual and is sustained by each adding mutual value to the future sustainability of the other, which may supersede the employment relationship and boundaries of the organisation. For this reason the individual's needs and values as a holistic human being also influence the psychological contract and find expression in the form of the protean career. This also results in the focus, in high-performance organisations, on the fit between the individual's values and the values of the organisation.

The 21st century places demands on the individual who needs to operate within this environment. Individuals need to be highly skilled as well as multi-skilled in order to contribute to

the organisation's performance. In order to adapt to the changing demands of the 21$^{st}$ century world of work, they need to be able to learn and unlearn skills. This dynamic environment sets the scene for boundaryless and protean careers. For individuals to flourish in these types of careers, they are required to have certain psychological career resources. The protean and boundaryless career requires the individual to be self-aware, pro-active, innovative and have the ability to build networks and have career identity (Butts et al., 2003). These very same competencies are echoed in the organisational competencies required by any company to achieve high performance, as well as in the studies conducted on psychological career resources.

From the studies conducted on psychological career resources one can clearly see the impact of the 21$^{st}$ century world of work, which is driven by performance and technology. One can further see the elements of the new psychological contract as well as the characteristics of the protean and boundaryless careers reflected in the psychological career resources and their relationships to job satisfaction (Coetzee & Bergh, 2009), to Schein's (1996) career anchors (Coetzee & Schreuder, 2009) and to organisational commitment (Ferreira et al., 2010), with the emphasis on growth and development, freedom and autonomy to pursue learning opportunities, interpersonal relationships and the ability to create social networks and to have clarity on one's career purpose and goals.

If one considers the literature available about the organisation where this study is conducted, one finds that the employee needs from survey results in 2004, 2007 and 2011 are the same as the characteristics of the protean and boundaryless career and the psychological career resources as found in the studies of Coetzee and Bergh (2009); Coetzee and Schreuder (2009); and Ferreira et al., (2010). These employee needs were related to growth and development, career directedness and purpose (especially the need to feel a sense of accomplishment and contribution), independence and autonomy in relation to work-life balance.

If one considers the results of the surveys after the interventions of the organisation and one compares them with the financial performance, other awards and high-retention and long-service records in the organisation, it seems, at least on face value, that the psychological career resources of individuals could influence engagement.

Therefore one cannot but ask if there is a relationship between psychological career resources and engagement. While sections 2.2 to 2.6 provide an understanding of the context in which this study is conducted and its impact, it is now necessary to investigate the construct of engagement. Sections 2.8 to 2.10 will explore engagement by defining the concept and unpacking the constructs that underlie engagement.

## 2.8    Defining Engagement

Sections 2.8 to 2.10 will answer the third research question with regard to the literature review: *How is the construct of engagement explained and conceptualised from a theoretical point of view?*

Defining engagement is quite a tricky business. The literature shows that there is no agreement between academics and practitioners on a formal definition for engagement (Saks, 2006; Macey & Schneider, 2008). The author of this dissertation has found 18 definitions of engagement (Buckingham & Coffman, 1999; Cawe, 2006; Kahn, 1990; Kular, Gatenby, Rees, Soane, & Truss, 2008; Macey & Schneider, 2008; Maslach & Leiter, 1997; May, Gilson, & Harter, 2004; Schaufeli, Salanova, et al., 2002). Most of these definitions do not offer a clear academic definition of work engagement, but refer to engagement as synonymous with constructs such as commitment to the organisation and satisfaction. Other definitions refer to engagement with vague phrases, including a passion for work and making a difference. Macey and Schneider (2008) and Bakker, Leiter, Schaufeli, and Taris (2008) found the same problems with work engagement definitions in their literature reviews on the construct. The only three studies on engagement that provided clear definitions and constructs were those of Khan (1990), Maslach and Leiter (1997) and Schaufeli, Salanova, et al. (2002). Of these, the engagement model most researched and supported by the most empirical evidence is that of Schaufeli, Salanova, et al. In Macey and Schneider's attempt to unravel the concept of engagement, they found that the definitions of engagement, especially among practitioners, included personality traits, psychological states and behaviours; they attempted to provide an integrated model of work engagement.

In order to conceptualise engagement, the discussion that follows will focus on the following authors' engagement models:
- Job-design approach of Khan (1990);

- Employee well-being approach of Maslach and Leiter (1997);
- Employee well-being approach of Schaufeli, Salanova, et al. (2002); and the
- Integrated approach by Macey and Schneider (2008).

These models are used in the conceptualisation of work engagement because they were subjected to empirical research, with the exception of Macey & Schneider's (2008) integrated model. Macey and Schneider did, however, base their model on previous robust research (even though the author of this dissertation could not find evidence of this model itself being subjected to empirical research) and therefore it deserves consideration.

## 2.8.1    Engagement from the job-design approach of Khan (1990)

In order to understand engagement, one needs to start tracking the literature where work engagement originated. The first publication on work engagement that this author could find was by Khan (1990). Khan (1990, p. 694) defines work engagement as "the harnessing of organization members' selves to their work roles". Khan's view was that when individuals are engaged they express themselves on a physical, cognitive and emotional level in the role they are performing, and when they are not engaged they will protect themselves by withdrawing or defending themselves on these same three levels. When an individual willingly invests himself or herself physically, cognitively and emotionally in work, Khan refers to this state as personal presence. Although Khan theorised that engagement will be stable when an average over time is determined, he was concerned with studying the moments in day-to-day work when harnessing to a task (engagement) and uncoupling from a task (disengagement) took place. Khan also referred to engagement as personal engagement. Khan explained that personal engagement means that individuals utilise and express preferred dimensions of themselves at the same time as executing a role. This utilisation and expression of the "preferred self" (Khan 1990, p. 700) enhances a connectedness to work, others, personal presence and active role performance. The focus of engagement for Khan was on the interaction between the individual and the role itself, and he positioned engagement from the theoretical basis of job-design research (Mills, Culbertson, & Fullager, 2012).

Khan's (1990) qualitative research found that employees engaged and disengaged based on the answers to three questions:

- Is there a return on investment in terms of physical, cognitive or emotional energy if I engage in this role?
- Is it safe for me to engage in this role?
- To what degree am I available to engage in this role?

Kahn (1990) stated that each time individuals were asking these questions, they were in fact contracting between themselves and the role, trying to determine if they would have the resources to fulfil the role.

The first question refers to Khan's (1990) psychological condition of *psychological meaningfulness.* This refers to the perceived room allowed to give and to receive when engaging in the execution of the role. Khan also found that personal engagement was influenced by three factors: namely task characteristics, role characteristics and work interactions. The second question referred to Khan's second psychological condition for engagement, namely *psychological safety*. Khan explained psychological safety by stating that people will engage in a role if they do not experience fear of reprisals for doing so. Psychological safety, according to Khan, depends on interpersonal relationships, group and inter-group dynamics, management styles, and organisational norms. The third question refers to Khan's third psychological condition for personal engagement, which he calls *psychological availability*. Psychological availability is defined by Khan as the measure of physical, emotional and psychological resources the person has in order to engage in the role. According to Khan's findings, psychological availability is influenced by physical energy and emotional energy. Although Khan's model of engagement focuses on the interaction between the individual and the work role, we see elements in his model of engagement of not only a fleeting cognitive state, but also a momentary affective state (Macey & Schneider, 2008).

May et al. (2004) investigated Khan's theory of psychological conditions. They found that all three psychological conditions correlated positively with engagement, the strongest correlation being with psychological meaningfulness. Furthermore, job enrichment and role fit were found to influence psychological meaningfulness. Fulfilling co-worker relationships and supportive managerial relationships were found to correlate positively with psychological safety, while group norms and self-consciousness correlated negatively with psychological safety. Managerial relationships had the greatest impact on psychological safety.

Table 2.4

*Khan's model of psychological conditions for engagement*

## Dimensions of Psychological Conditions

| Dimensions | Meaningfulness | Safety | Availability |
|---|---|---|---|
| Definition | Sense of return on investments of self in role performances. | Sense of being able to show and employ self without fear of negative consequences to self-image, status, or career. | Sense of possessing the physical, emotional, and psychological resources necessary for investing self in role performances. |
| Experiential components | Feel worthwhile, valued, valuable; feel able to give to and receive from work and others in course of work. | Feel situations are trustworthy, secure, predictable, and clear in terms of behavioral consequences. | Feel capable of driving physical, intellectual, and emotional energies into role performance. |
| Types of influence | Work elements that create incentives or disincentives for investments of self. | Elements of social systems that create situations that are more or less predictable, consistent, and nonthreatening. | Individual distractions that are more or less preoccupying in role performance situations. |
| Influences | Tasks: Jobs involving more or less challenge, variety, creativity, autonomy, and clear delineation of procedures and goals. Roles: Formal positions that offer more or less attractive identities, through fit with a preferred self-image, and status and influence. Work interactions: Interpersonal interactions with more or less promotion of dignity, self-appreciation, sense of value, and the inclusion of personal as well as professional elements. | Interpersonal relationships: Ongoing relationships that offer more or less support, trust, openness, flexibility, and lack of threat. Group and intergroup dynamics: Informal, often unconscious roles that leave more or less room to safely express various parts of self; shaped by dynamics within and between groups in organizations. Management style and process: Leader behaviors that show more or less support, resilience, consistency, trust, and competence. Organizational norms: Shared system expectations about member behaviors and emotions that leave more or less room for investments of self during role performances. | Physical energies: Existing levels of physical resources available for investment into role performances. Emotional energies: Existing levels of emotional resources available for investment into role performances. Insecurity: Levels of confidence in own abilities and status, self-consciousness, and ambivalence about fit with social systems that leave more or less room for investments of self in role performances. Outside life: Issues in people's outside lives that leave them more or less available for investments of self during role performances. |

*Note.* From "Psychological conditions of personal engagement and disengagement at work", by W. Khan, 1990, *The Academy of Management Journal, 33*(4)*,* p.705.

51

These findings are also supported by the 25-year research study conducted by Buckingham and Coffman (1999) that found that the direct manager also had the greatest influence on individual performance. Gruman and Saks (2011) argue powerfully that engagement has a great impact on performance; they created an integrated model between performance management and engagement. De Lange, De Witte and Notelaers (2008) support their argument.

Availability of resources was positively associated with psychological availability, while participation in outside activities was negatively associated. Table 2.4 was drawn up by Khan (1990, p. 705) to illustrate his model of engagement.

## 2.8.2    Engagement from the employee well-being approach of Maslach and Leiter (1997)

Where Khan's (1990) focus was on job design, Maslach and Leiter (1997) positioned work engagement in the positive organisational psychology field as part of work-related well-being. (Rothman (2008) has also identified work engagement as one of the four dimensions of work-related well-being.) Maslach and Leiter saw work engagement as the positive side of burnout, but not as an independent construct. In their opinion, an individual moved on a continuum with burnout as the negative on one side and work engagement as the positive on the other side. Maslach and Leiter identified the dimensions of burnout as exhaustion, cynicism (detachment from the job) and a lack of professional efficacy (ineffectiveness). As the opposites of these, Maslach and Leiter identified the dimensions of work engagement as energy, involvement and professional efficacy. Maslach and Leiter's (1997) view on engagement can be illustrated as follows:

| **Burnout / Engagement** | |
|---|---|
| Exhaustion | Energy |
| Cynicism | Involvement |
| Ineffectiveness | Professional efficacy |
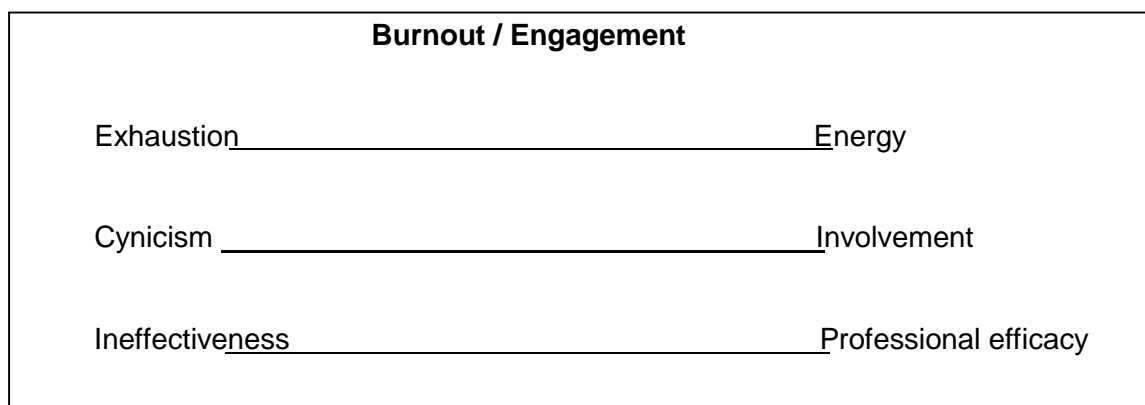
*Figure 2.3.* Maslach and Leiter's theory on engagement
*Note*: own compilation

Exhaustion refers to the individual's experience of being stretched too thin in terms of his or her psychological and/or physical resources (Maslach, Leiter, & Schaufeli, 2001). Cynicism is described by Maslach et al. as a negative, aloof or detached reaction to the job. Maslach et al. (2001) then describe professional ineffectiveness or inefficacy as the experience of incompetence or the inability to achieve results. According to Maslach and Leiter (1997), an engaged individual will display an absence of these symptoms, leading to their notion that burnout and engagement are opposite sides of the same coin or construct.

The way Maslach and Leiter (1997) viewed engagement has an important impact on the measurement thereof. They used the inverted scores of the Maslach Burnout inventory to measure engagement. Therefore a low score on exhaustion, cynicism and ineffectiveness (professional inefficacy) would indicate that an individual is engaged (Maslach et al., 2001). Although the studies conducted by Maslach et al. showed a strong negative relationship between these opposite dimensions of burnout, the danger of assuming that the two constructs are one and the same may be to underestimate the complexity of engagement.

2.8.3   Engagement as the employee well-being approach of Schaufeli, Salanova, et al. (2002)

Schaufeli, Salanova, et al. (2002) also viewed work engagement as the opposite of burnout, but they differed from Maslach and Leiter (1997) in that they viewed engagement as a separate construct from burnout that should be measured by means of its own measurement instrument. Schaufeli, Salanova et al. (2002, p. 74) formally define work engagement as a:

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

This study conducted by Schaufeli, Salanova et al. (2002) supported the theory that burnout and engagement, although related, are in fact two independent psychological constructs. These researchers found that exhaustion and vigour (energy) are indeed negatively related, and that cynicism and dedication, called involvement by Maslach and Leiter (1997), are negatively related, but found a third factor of engagement that was not related to the lack of efficacy factor

of burnout, namely absorption. Vigour refers to high energy levels, mental resilience and the willingness to invest oneself in one's work (Schaufeli, Salanova et al., 2002). Dedication is recognised by a sense of significance, inspiration, pride and challenge, while absorption refers to being happily engrossed in one's work or experiencing a sense of internal enjoyment (Schaufeli, Salanova et al., 2002). While vigour speaks to the dimension of high energy, dedication speaks to the dimension of identification with one's work (Bakker et al., 2008). The close relationship between the absorption factor of Schaufeli, Salanova, et al. (2002) and the theory of flow (Csikszentmihalyi, 1990) has been noted by various authors (Mills et al., 2012; Mauno, Kinnunen & Ruokolainen, 2007; Rothman & Storm, 2003; Rothman & Colff, 2009). Csikszentmihalyi states that persons experience flow when they are completely absorbed in the task they are performing. In the state of flow an individual will lose track of time and consciousness of surroundings. Rothman and Storm (2003) note that the theory of flow does differ from absorption in the sense that flow is a more complex construct that results in more short-lived or peaked experiences, whereas absorption refers to a more stable and persistent state of mind.

Rothbard (2001) states that engagement consists of two motivational dimensions, namely attention and absorption. Rothbard (2001, p. 655) describes attention as "the cognitive availability and the amount of time one spends thinking about a role". He refers to absorption as the intensity of the focus with which one carries out a role, as noted by Macey & Schneider (2008), whereas Schaufeli, Salanova, et al. (2002) see work engagement as both cognitive and affective, Rothbard's definition points only to a cognitive state. Rothbard's dimension of attention closely relates to Khan's (1990) concept of psychological availability and cognitive expression of the self in the work role. Rothbard's conceptualisation of absorption also reflects Schaufeli, Salanova, et al.'s definition of absorption, but their definition is more extensive.

There has been a lot of contention about the three-factor model of Schaufeli, Salanova, et al. (2002). Various authors have at first argued that the three-factor model's factors are related and should not be viewed as independent factors (Mills et al., 2012; Rothman & Storm, 2003; Sonnetag, 2003). As a result, Schaufeli, Bakker and Salanova (2006) shortened the Utrecht Work Engagement Scale (UWES), which measured engagement using the factors vigour, dedication and absorption, by removing problem items. Many of the authors contesting the three-factor structure of engagement conducted studies to test the fit of the model against a two-structure as well as a uni-structure model, before and after the UWES was shortened from the

17-item questionnaire to a 9-item questionnaire. These empirical studies, however, found support for the three-factor structure for engagement that includes vigour, dedication and absorption, as opposed to the two-factor structure and uni-factor structure (Mills et al., 2012; Schaufeli, Martínez et al., 2002; Schaufeli, Salanova, et al., 2002; Seppälä, Mauno, Feldt, Hakanen, Kinnunnen, Tolvanen & Schaufeli, 2009; Rothman & Storm, 2003).

Mills et al. (2012) have provided the greatest criticism on the three factor structure and proceeded to conduct the most recent and most robust study thus far on the three-factor model of the UWES-17 and UWES-9 of Schaufeli, Salanova, et al. (2002) and Schaufeli et al. (2006). Mills et al. claimed that the three-factor model was still not confirmed, because Schaufeli et al. (2006) had forced the three-factor model by assuming the factors and then conducting confirmatory factor analysis without first conducting exploratory factor analysis.

However, Mills et al.'s study confirmed that when the UWES-9 instrument of Schaufeli et al. (2006) is used, engagement is indeed supported by the three-factor structure. To date, this conceptualisation of work engagement is the only model that could be found by the author of this dissertation that has been psychometrically tested and validated. This is an important point to note when one considers the many definitions of engagement that include other existing constructs such as job satisfaction and organisational commitment. As Mills et al. rightly note, one cannot use a psychological construct in practice if its psychometric properties are not known and construct validity has not been proved, as one will not know what one is truly measuring. For this reason Macey and Schneider (2008) argue that practitioners can very often not provide clear intervention guidelines to organisations when they consult on engagement interventions.

Roberts and Davenport (2002) point out that engaged employees identify personally with their job. Although this definition overlaps with Schaufeli, Salanova et al.'s (2002) dimension of dedication, Roberts and Davenport continue to explain that they view engagement as job involvement. This again emphasises the seriousness of the question regarding engagement as an independent construct. If engagement is the same as job involvement, then it is not a unique psychological construct and should not be measured as such. This point will be discussed further in section 2.9, where job engagement will be compared with related psychological constructs.

Only four longitudinal studies have been found to test the stability of engagement as conceptualised in this specific model, over time (De Lange et al., 2008; Mauno et al., 2006; Mills et al., 2012; Seppälä et al., 2009). All of these authors tested engagement using Schaufeil, Salanova, et al.'s (2002) model of engagement. Mauno et al. (2006) and Seppälä et al. (2009) found that engagement was stable across time. The findings of both these studies, however, should be interpreted with caution with regard to the stability of engagement over time, as both the environments in which these studies were conducted were very stable and employees had long tenure. Mills et al. (2012) found that employees with very short tenure (three to six months) do not have stable work engagement results. De Lange et al. (2008) found that over time engagement and job resources had a reciprocal influence. It is therefore not yet clear how stable or how fleeting engagement may be. There is much evidence that suggest that job resources have an impact on engagement. The role of resources and the antecedents to engagement will, however, be discussed in section 2.10.

### 2.8.4 Integrated approach to engagement (Macey & Schneider, 2008)

After analysing the various definitions of engagement, Macey and Schneider (2008) concluded that three types of engagement exist: trait engagement, state engagement and behavioural engagement. *Trait engagement* refers to personality traits that naturally lend themselves to engagement, such as those of the proactive personality, the autotelic personality, trait positive affect and conscientiousness. *State engagement* refers to a cognitive and affective psychological state that includes satisfaction, involvement, commitment and empowerment. Macey & Schneider argue that these psychological constructs are not synonymous with state engagement, but rather that they are pieces that make up a complex pie of what state engagement is. Finally, *behaviour engagement* refers to the behaviours that can be observed when individuals are engaged. Macey and Schneider view work attitudes, trust and transformational leadership as the environment which supports trait, state and behavioural engagement, and argue that trait engagement is reflected in state engagement, while state engagement is the antecedent to behaviour engagement. Figure 2.4 shows the framework of engagement as conceptualised by Macey and Schneider.

Although Khan's (1990) description of engagement relates strongly to a psychological state, one finds elements of traits in his argument for engagement when he explains the way that the individuals express their preferred self in the performance of a role when they are engaged. One

also sees elements of behaviour engagement, as Khan's study and conclusions were based on inferences drawn from observable behaviour in moments of engagement and disengagement, as well as cognitive and affective experiences of the individuals during these moments. Macey and Schneider's (2008) integrated model also speaks to elements of Khan's psychological conditions for engagement. Psychological safety is influenced by trust and management style (trust and transformational leadership) and psychological meaningfulness relates to Macey and Schneider's work attributes of variety, challenge and autonomy.
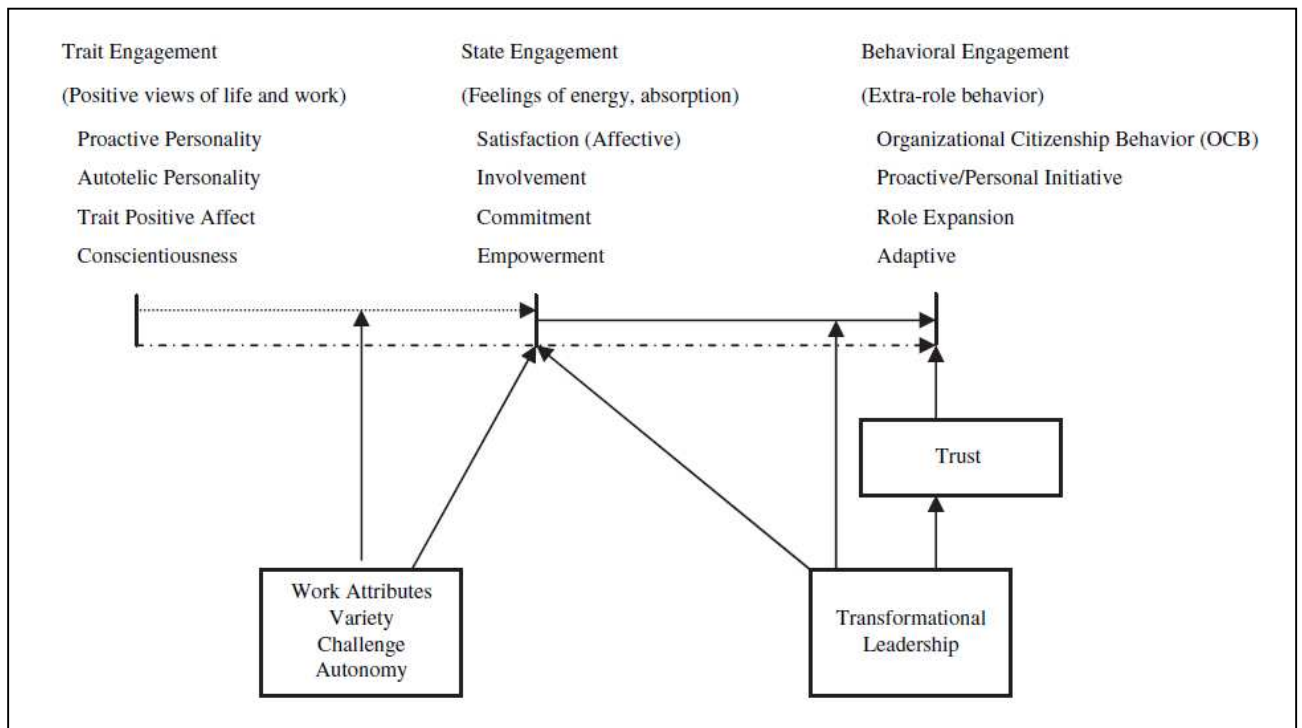


*Figure 2.4.* Framework for understanding the elements of employee engagement

*Note.* From "The meaning of employee engagement," by W. Macey and B. Schneider, 2008, *Industrial and Organizational Psychology, 1*(1)*,* p. 6.

The models of Maslach and Leiter (1997) and Schaufeli, Salanova, et al. (2002) relate mainly to Macey and Schneider's (2008) concept of the engagement state, both affective and cognitive. In Macey and Schneider's model one sees an emphasis on other psychological constructs as part of state engagement, as mentioned earlier. The question of whether engagement is independent of these constructs or not is important and will be addressed in the next section.

## 2.9 Engagement and Related Psychological Constructs

As mentioned in section 2.8, many definitions of engagement include existing psychological constructs (Macey & Schneider, 2008; Bakker, Leiter, Schaufeli & Taris, 2008). This is problematic, as it draws into question the uniqueness of engagement as a psychological construct. From the discussion in section 2.8.3 it was shown that the only model of engagement whose psychometric properties have been validated is that of Schaufeli, Salanova, et al. (2002), as measured by the UWES-9. Sections 2.8.2 and 2.8.3 have shown that engagement has been proved empirically to be different from burnout (Schaufeli, Salanova et al., 2002).

Other psychological constructs associated with engagement are job satisfaction, job involvement, organisational commitment, workaholism and job embeddedness (Bakker et al., 2008; Halsbesleben & Wheeler, 2008; Macey & Schneider, 2008; Mills et al., 2012; Rothman, 2008; Rothman & Jordaan, 2006; Rothman & Storm, 2003; Wefald & Downy, 2009). In order to better understand how these related constructs fit in with engagement it is necessary to discuss each.

Maslach, Leiter and Schaufeli (2001) define job satisfaction as the extent to which work satisfies the individual's needs. War (2007) refers to job satisfaction as the level of pleasure experienced when doing a job. Wefald and Downey (2009) found very high positive correlations between engagement and job satisfaction and therefore argued that it was the same construct. However, it should be noted that Wefald and Downy used the UWES-S questionnaire to measure engagement and not the UWES-9. The UWES-S was a 14-item questionnaire that was later modified to the UWES-17 and then, after more research analysis, some problem items were removed to create the UWES-9 (Schaufeli et al., 2006). The problem items contained within the UWES-S could possibly have influenced Wefald and Downey's research results. Rothman (2008) conducted a study among South African police officers to determine the constructs of employee well-being and found in their study that although there are positive correlations between different constructs, employee well-being consists of four independent constructs: occupational stress, job satisfaction, burnout and engagement. Erickson (2005) argues that job satisfaction differs from engagement in that job satisfaction is a more passive state that merely refers to the sense of being satisfied, while engagement refers to energy or activation. It is therefore important to note that engagement is a more complex construct than job satisfaction.

Salanova, Agut and Peiro (2005) state that job involvement is part of engagement. Macey and Schneider (2008) support this statement. Maslach et al. (2001) argue that job involvement, like job satisfaction, lacks the energy dimension found in engagement with work. Macey & Schneider (2008) prefer the definition of Cooper-Hakim and Viswesvaren (2005), which describes job involvement as the extent to which an individual relates psychologically to the job and the work contained in the job. According to Macey and Schneider's model, job involvement is one of the elements of state engagement and has a positive relationship to state engagement, but is not synonymous with state engagement. May et al. (2004) concluded that job involvement is a cognitive state, whereas engagement is an antecedent to job involvement.

Maslach et al. (2001) distinguish between organisational commitment and work engagement by explaining that organisational commitment focuses on the relationship between the individual and the organisation, while engagement refers to the relationship between the individual and the work activity. Rothman and Jordaan (2006) therefore continue Maslach et al.'s argument and postulate that an individual can be engaged in the work they do and at the same time not experience organisational commitment. This theory is also supported by a study conducted by Winter, Taylor and Sarros (2000).

Bakker et al. (2008) explain that both engaged employees and workaholics work hard. The difference is, however, that workaholics are addicted to work and feel a compulsion to work. Engaged employees, although they are absorbed in work, are able to disengage from work. Workaholics do not have that ability, and end up in unbalanced life styles that negatively affect their health, relationships and happiness. While workaholics work due to a compulsion, engaged employees work because it is fun.

Job embeddedness is defined by Yao, Lee, Mitchell, Burton and Sablynski (2004) as a group of factors keeping the employee in the job. Halsbesleben and Wheeler (2008) found a positive correlation between job embeddedness and performance, specifically related to organisational embeddedness. Halsbesleben and Wheeler concluded from their empirical study that job embeddedness and engagement are indeed related. They found, however, that job embeddedness is different from engagement, in that engagement is focused on the nature of the work, while job embeddedness, like organisational commitment, is focused on the organisation. They also found in their literature review that the resources that influence job embeddedness differ from the resources that influence engagement.

The above shows that engagement is indeed different from the psychological constructs of job satisfaction, job involvement, organisational commitment, workaholism and job embeddedness. To all of these constructs (except workaholism) one also sees a positive relationship, which means that engagement either influences these psychological constructs or is influenced by them, or each has an influence on the other. This paints a picture of a complex psychological construct that, although unique, is highly integrated.

In order to explore the integration of engagement, one needs to consider the antecedents of engagement, as well as studies exploring causal relationships and the effect that time has on engagement. These antecedents, causal relationships and the effect of time are bound together in Demerouti et al.'s (2001) model of job demands and job resources.

## 2.10    Engagement, Job Demands and Job Resources

There are multiple studies that show that job resources have a positive relationship to employee engagement (Bakker & Demerouti, 2007; Bakker & Demerouti, 2008; Burke & El-Kot, 2010; De Lange et al., 2008; Mauno et al.; 2006; Halsbesleben & Wheeler, 2008; Olivier & Rothman, 2007; Rothman & Jordaan, 2006; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009).

Demerouti et al. (2001), in their research concerning burnout, found that job demands and job resources impacted on different levels of burnout. Job demands refer to any physical, psychological, social or organisational parts of the job that need to be maintained. This effort requires a certain sacrifice from the individual in physical or psychological terms. These sacrifices can be experienced in terms of work pressure, overload, emotional strain, job insecurity, role ambiguity or role conflict (Rothman & Jordaan, 2006; Demerouti et al., 2001). Job resources refer to physical, psychological, social or organisational parts of the job that assist the achievement of performance goals, mediate job demands and enhance learning and development (Rothman & Jordaan, 2006; Demerouti et al., 2001). According to Rothman and Jordaan, job resources can be in the form of:

- Organisational resources (remuneration and reward and career growth);
- Interpersonal and social resources (supervisory, co-worker and team relationships);
- Role-related resources (role clarity and the level of involvement allowed during decision making);

- Task-specific resources (performance feedback, competence levels, the perception of the difference that the task will make, the level on which the individual identifies with the task and the variety within the task).

The author of this dissertation has provided a visual representation of Demerouti et al.'s (2001) model of job demand- resources (JD-R) in Figure 2.5.

May et al. (2004) tested the relationships between Khan's (1990) three psychological conditions for engagement and the construct of engagement. May et al. found that psychological meaningfulness, as defined by Khan, influenced the relationship between task-related resources such as job enrichment and work-role fit and engagement.

Based on these findings, Rothman and Jordaan (2006) hypothesised that job resources would have a positive causal relationship with engagement, that job demands would have a negative causal relationship with engagement, and that job resources would mediate the impact of high job demands. Rothman and Jordaan (2006, p. 95) found three specific job resources which had a positive causal relationship with engagement, namely "growth opportunities in the job"; "organisational support"; and "advancement opportunities". Secondly, they found that no significant negative causal relationship existed between job demands and engagement, but did find that job resources, specifically organisational support, significantly lessened the impact of high job demands, thus increasing engagement more when they were present than when they were not.
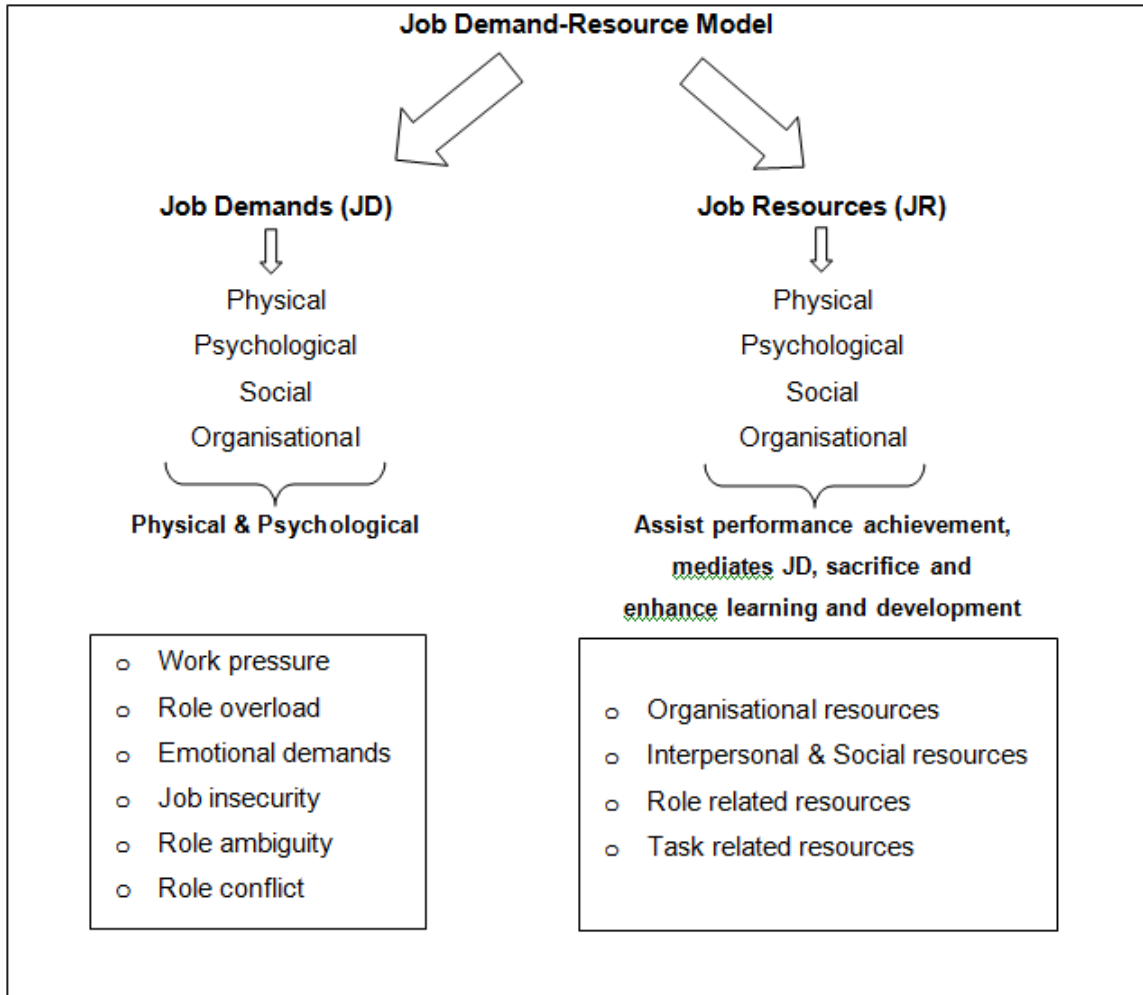
*Figure 2.5* Visual presentation of the JD-R model of Demerouti, Bakker, Nachreiner and Schaufeli (2001).

*Note:* own compilation

Interestingly, it was found that high job demands without organisational support did contribute to the dedication dimension of engagement (Rothman & Jordaan, 2006). It may be that employees put in more labour to reduce high job demands when resources are low, in an effort to protect themselves from the adverse effects of job demands. The other explanation may be that academics in higher education institutions experience high psychological meaningfulness (Khan, 1990), which may serve as a mediator between job demands and engagement. The study was, however, not a longitudinal study, and it can therefore not be assumed from Rothman and Jordaan's study that high job demands where job resources are low would sustain dedication over time.

Rothman and Jordaan found that psychological meaningfulness and psychological safety are predictors of engagement. Olivier and Rothman (2007) found similar results in their study in a multinational oil company. In addition they found that Khan's (1990) psychological condition of psychological availability also had a statistically significant relationship to engagement, and was affected most by cognitive, affective and physical resources.

Mauno et al. (2007) conducted a longitudinal study of two years among health care professionals. They found that engagement was stable over the two-year period, supporting Schaufeli, Salanova, et al.'s (2002) definition of engagement as a stable psychological state. It must, however, be noted that the health professionals' tenure was long and the environment itself remained stable over two years. Mauno et al. acknowledge that this may have influenced the stability found in the experience of engagement. Furthermore, Mauno et al. also found that job resources had a greater effect on engagement than did job demands. This supports the findings of Rothman and Jordaan (2006) that job resources lessen the effect of job demands on engagement. They found that job autonomy as a job resource had a great impact on engagement and that organisation-based self-esteem also correlated with engagement. Mauno et al. therefore advise that organisations should take care to provide employees with the experience of being respected and valued.

Bakker and Demerouti (2008) made an interesting discovery. They found that personal resources such as optimism, self-efficacy, resilience and self-esteem, as well as job resources, become more significant in predicting engagement when job demands are higher. They postulate that individuals with job and personal resources who are more engaged and therefore perform more highly have the ability to create more job resources, which over time will generate more engagement. Bakker and Demerouti (2008, p. 218) refer to this as the creation of the "positive gain spiral". Their reference to personal resources is also reflected in Macey and Schneider's (2008) dimension of trait engagement.

De Lange et al. (2008) studied the relationship between job resources, engagement and staff turnover over time. They found that low job resources and low autonomy lead to the intention to leave over time. Employees who are not highly engaged will start to search for an environment where job resources are available and leave the current environment, while employees who are engaged are more likely to be promoted over time and be given more job resources. However, if promotion opportunities are not available for engaged employees, those employees will also

seek an environment where job resources such as growth opportunities are supported. Very interestingly, they also found reversed causal effects between autonomy and job engagement and relationships with managers and relationships with co-workers and job engagement. It therefore seems that engagement and job resources each influence the other over time. Xanthopoulou et al. (2009) also found these same reciprocal relationships.

In addition to the reciprocal relationship between job resources and engagement, Xanthopoulou et al. (2009) also found that job resources and personal resources influenced each other over time. This means that someone with the personal resource of self-efficacy over time will acquire more job resources, which will lead to a still greater perception of self-efficacy. Conversely, someone with enough job resources over time may experience the personal resource of self-efficacy and thereby acquire more job resources.

## 2.11    Chapter Summary: Integration of the Literature Review

If one considers the job resources that correlate highly with engagement (job autonomy; professional, personal and career growth opportunities; supportive supervisory and co-worker relationships), one finds these same factors taking centre stage in the protean career, boundaryless career and the new psychological contract in the 21st century, as discussed in sections 2.3 to 2.5. Hall and Mervis' (1995) definition of career meaningfulness is very similar to Khan's definition of the condition of psychological meaningfulness where engagement is concerned. Furthermore, if one considers the career anchors of Schein (1996), one sees that these anchors (autonomy, security, technical competence, managerial competence, dedication, challenge and life style) also serve as job and personal resources in the JD-R model discussed in section 2.10.

Butts et al. (2003), as discussed in section 2.5.2, also set out certain career competencies necessary to build a protean or boundaryless career in the 21st century. The career competency of the pro-active personality (Butts et al., 2003) relates to the personal resource of self-efficacy (Xanthopoulou et al., 2009) and to the engagement construct of vigour and dedication (Schaufeli, Salanova, et al., 2002). Career identity relates to the engagement construct of dedication (Schaufeli, Salanova et al., 2002).

If one considers the above, as well as the high correlation between engagement and organisational performance (Gruman & Saks, 2011), which is one of the characteristics of the 21st century, and one takes heed of the correlations between engagement and staff turnover (De Lange et al., 2008; Xanthopoulou et al., 2009), it seems that there may be a link between engagement and the psychological factors that impact on career decisions. As has been seen, Coetzee (2008) refers to these as psychological career resources.

The author of this dissertation could not find any studies that investigated the relationship between engagement and psychological career resources. Viewing the literature as an integrated whole does, however, suggest that some relationships may exist between the constructs of engagement and the constructs of psychological career resources.

Job satisfaction and organisational commitment both have a positive relationship with engagement and psychological career resources (Coetzee & Bergh, 2009; Ferreira et al., 2009; Rothman, 2008; Macey & Schneider, 2008).

Rothman and Jordaan (2006) found a positive relationship between the job resource of growth opportunities and engagement, the job resource of organisational support and engagement and the job resource of advancement opportunities. Growth/development is a career value within the psychological career resources model of Coetzee (2008). Organisational support refers to the career harmoniser of social connectivity and emotional literacy, while advancement opportunities are characteristics of the career drivers, namely career directedness and career venturing, as defined by Coetzee (2008). Rothman and Jordaan also included autonomy in their definition of growth opportunities. This is interesting, because Coetzee and Bergh (2009) found that young managers score high on growth opportunities (career value) as well as autonomy/independence (career preference), as they value the freedom to make use of learning opportunities that may arise; they still lack technical skills, which may create anxiety, while older managers score lower on both of these psychological career resources. Mauno et al. (2007) also found a positive relationship between job autonomy and dedication and vigour (engagement constructs). Their definition of job autonomy again relates to the concept of career autonomy as a psychological career resource (career preference) as defined by Coetzee (2008).

Bakker and Demerouti (2008), as well as Mauno et al. (2007), found a positive relationship between self-esteem and dedication. Bakker and Demerouti also found a positive relationship

between self-efficacy and engagement. Both these job resources are also psychological career resources. Self-esteem is a career harmoniser, while self-efficacy refers to the career driver called career directedness. Coetzee (2008) states that career directedness allows an individual the clarity to know where to find the resources to achieve career goals.

Schaufeli, Salanova, et al. (2002) define dedication as experiencing a sense of significance, pride and inspiration. Coetzee and Bergh (2009) found that high career directedness (career driver) and high behavioural adaptability (career harmoniser) lead to a sense that the work activity is valuable. It would therefore seem a logical step to theorise that high career directedness, together with high behavioural adaptability, may have a positive relationship with engagement (specifically the dedication construct).

Viewing one's work activity as valuable also links to Khan's (1990) condition of psychological meaningfulness. Coetzee and Bergh also found that academics who view their work as a valuable activity have a stronger career purpose (career driver). This links to an interesting discovery of Rothman and Jordaan (2006). Rothman and Jordaan found no relationship between job demands and dedication. Even in the face of high job demands with low job resources, academics still had high dedication scores. This may be explained by the finding of Coetzee and Bergh (2009) that academics have a strong career purpose (career driver) and view their career as a calling. Therefore it may be that a strong psychological career resource of career purpose may serve as a mediator between job demands and job resources, resulting in high dedication (engagement).

Rothman and Jordaan (2006) also found a negative correlation between job insecurity and dedication. Career stability is defined by Coetzee (2008) as a career preference and is the opposite of job instability, which may indicate that career stability as career preference may impact positively on engagement. De Lange et al. (2008) and Xanthopoulou et al. (2008) found that in stable professions work engagement also remained stable over time, which would also support the theory that stability as a career preference within such an environment may contribute to engagement.

From the above discussion it is clear that there is tremendous integration between engagement, job resources and psychological career resources. Figure 2.6 shows the links that the literature offers between psychological career resources and the job resources, which in turn have a

relationship with engagement and with psychological career resources and other psychological constructs that also have a relationship with engagement.
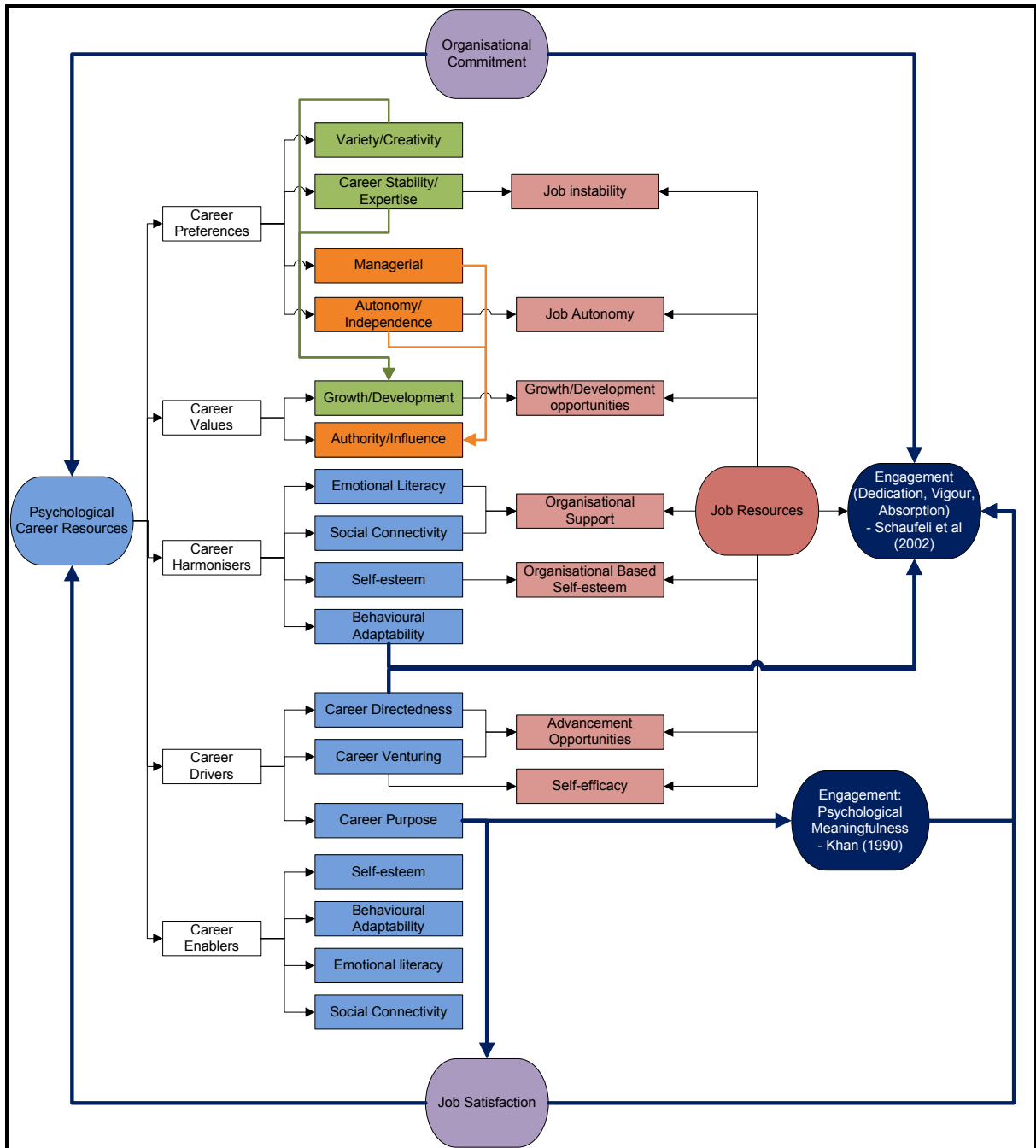


*Figure 2.6* Integration between psychological career resources, job resources and engagement

*Note*: own compilation

# CHAPTER 3:   RESEARCH METHODOLOGY

## 3.1     Introduction

The purpose of chapter 3 is to explain the research design and methods that were used in this specific study. The discussion will cover firstly the research approach and then the sample used in the study. The chapter will then discuss in detail each of the measurement instruments that were used in the study with reference to the rationale for their use, their dimensions, administration, validity and reliability. The data collection and data analysis methods will then be described, followed by the statistical hypotheses. Figure 3.1 provides a visual presentation of the layout of Chapter 3.
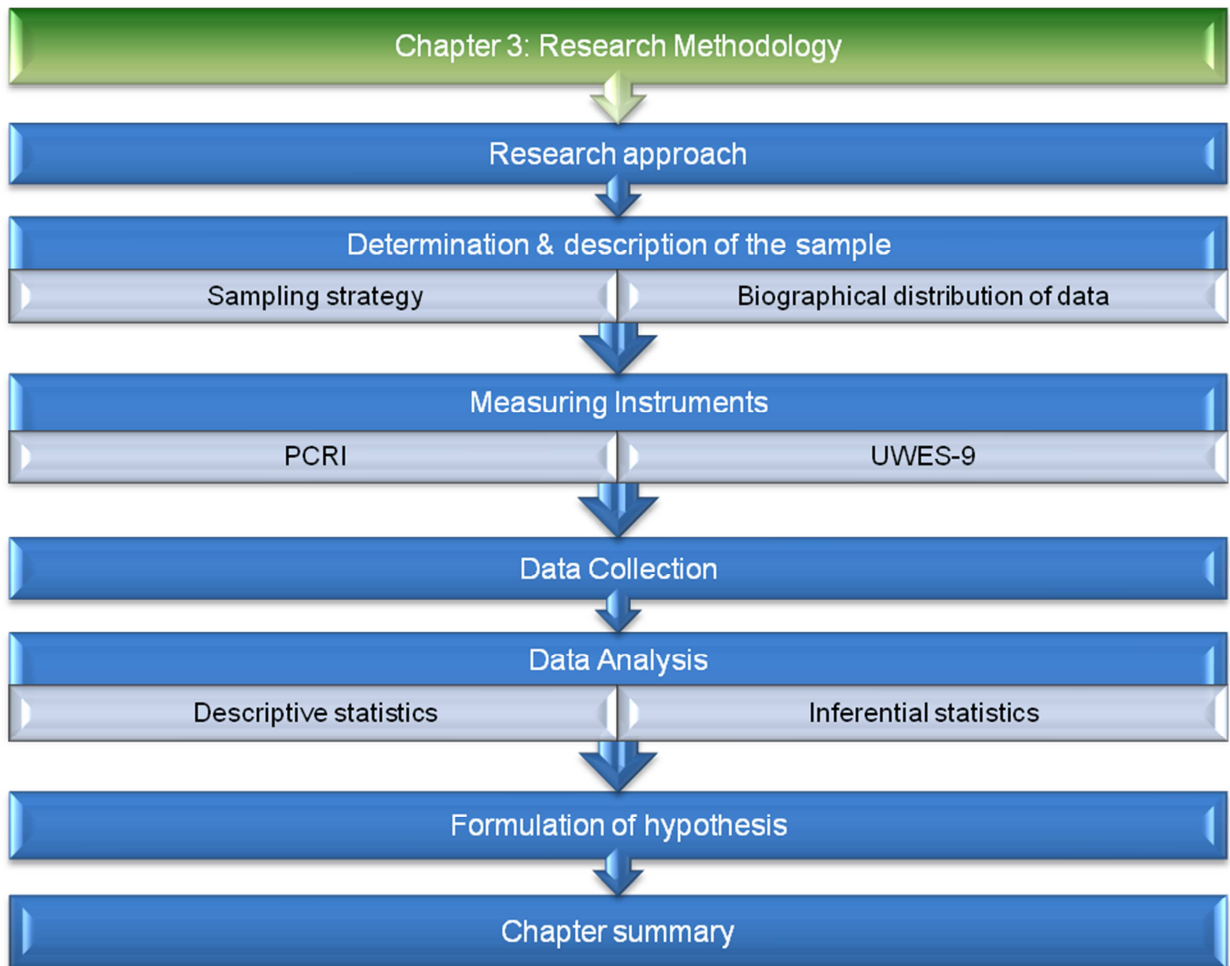


*Figure 3.1.* Research methodology

## 3.2 Research Approach

A descriptive, cross-sectional survey design was used to conduct the study. The research method is quantitative with an exploratory approach. A once-off survey was conducted by distributing and facilitating the completion of questionnaires during monthly extended team meetings to individuals willing to participate. Extended team meetings are compulsory scheduled four-hour sessions for each team within the organisation which provided the context for this study. The rationale for using these meetings to facilitate the distribution and completion of questionnaires was that the extended meeting provided a dedicated opportunity for employees to participate in the research study without interfering with their daily tasks and responsibilities. Therefore an appropriate response rate was also ensured.

The data was analysed with the purpose of describing the data, drawing correlations and making comparisons between subgroups. A quantitative approach was appropriate, as empirical data was required for the analysis of correlations and would be based on validated questionnaires. The population from which the sample was taken has significant time constraints. For this reason a quantitative research approach by means of questionnaires was used, as it is more suited to encouraging participation than a qualitative approach.

The research design would ensure a representative sample from the population. The questionnaires complied with the psychometric properties of validity and reliability, as will be discussed in section 3.4, thereby mitigating the inherent risk of lack of validity in survey research, as discussed by Babbie and Mouton (2006). Furthermore, Babbie and Mouton (2006), describe survey research as the most effective method available when one wishes to describe a population that is too large to observe. This is due to the high reliability associated with survey research. Random sampling mitigates the risk of selection bias. The completion of the questionnaires during the extended team meetings would ensure a proper response rate, which is always a concern with survey design (Babbie & Mouton, 2006).

## 3.3 Determination and Description of the Sample

The method of sampling and the justification for its choice will be discussed in this section, which will also present the biographical distribution of the data. The unit of analysis for the study is the

individual employees, currently employed within the specific HR and Payroll consulting organisation, who participated in the study.

### 3.3.1 Identification of and justification for choosing appropriate sampling strategy

A convenience sampling strategy was used. The population from which the sample was chosen consisted of workers employed within a specific organisation in South Africa whose core business is HR and Payroll services and technology solutions. This organisation was chosen as it complies with the characteristics of a 21st century high-performance, technology-driven organisation, as discussed in Chapter 2 (see sections 2.2 and 2.3). The minimum size of the sample was determined using the guidelines for sampling as set out by De Vos et. al. (2002):

Table 3.1

*Guidelines for sampling*

| *Population* | *Percentage suggested* | *Number of respondents* |
|---|---|---|
| 20 | 100% | 20 |
| 30 | 80% | 24 |
| 50 | 64% | 32 |
| 100 | 45% | 45 |
| 200 | 32% | 64 |
| 500 | 20% | 100 |

*Note:* Adapted from *Research at grass roots,* p. 201, by A.S. de Vos, H. Strydom, C.B. Fouche and C.S. Delport, 2002 , Pretoria: Van Schaik.

### 3.3.2 Biographical distribution of the sample

The population consisted of 557 employees within a medium-sized organisation in South Africa whose core business is HR and Payroll consulting and services, with a strong focus on software solutions. According to the guidelines of De Vos et al. (2002), the sample should therefore be a minimum size of 100. The sample consisted of 111 employees. Employees included in the survey deal directly with clients in providing payroll and HR software and service solutions or provide support functions to these services. The biographical data collected from the questionnaires included age, gender, marital status, occupational field, department and job level. The data was used to determine if there were differences between gender groups, age groups,

occupational field, departmental groups and job levels. The distribution of this data is presented below:
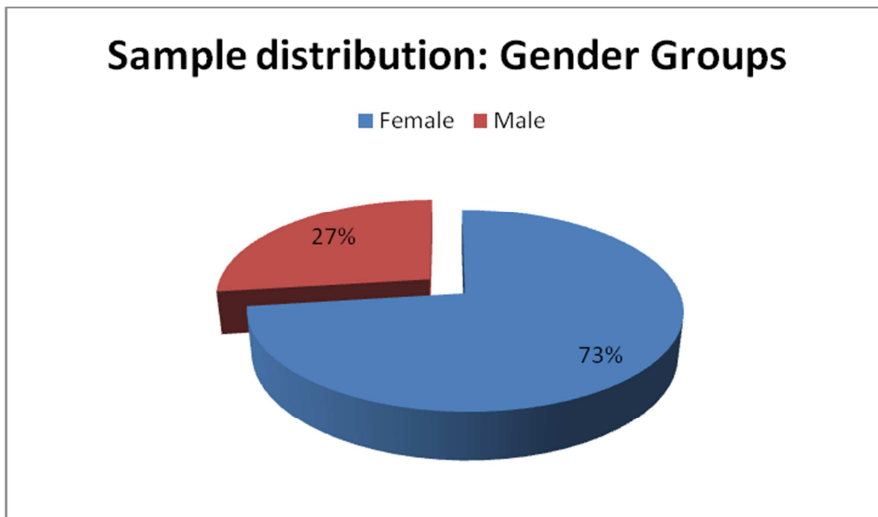


*Figure 3.2*. Sample distribution: Gender groups (*N* = 111)

Figure 3.2 indicates that the majority of the sample consists of female respondents. The female respondents represent 73% (*n* = 81) of the sample, while the male respondents represent only 22% (*n* = 30) of the sample. The gender group sample distribution is reflective of the demographical distribution of gender in the organisation as a whole.
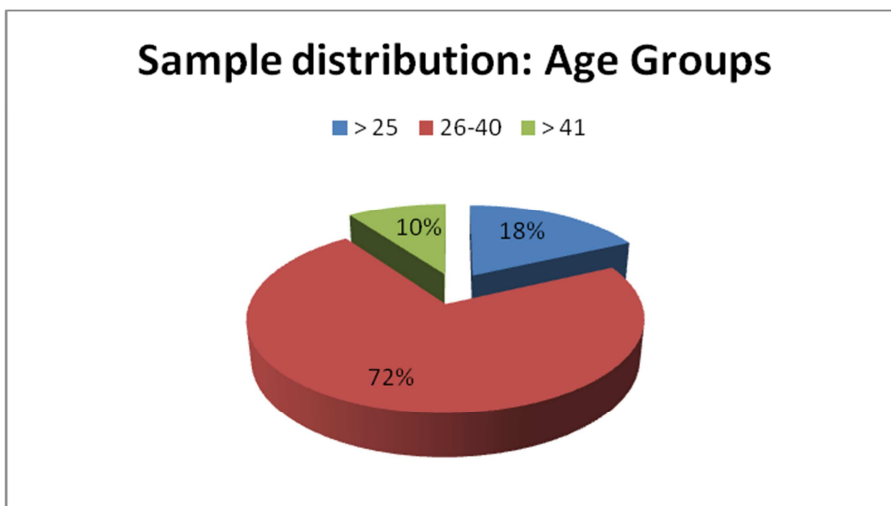


*Figure 3.3*. Sample distribution: Age groups (*N* = 111)

The majority of respondents are between the ages of 26 and 40. This age group represents 72% (*n* = 80) of the sample. Only 18% (*n* = 20) of respondents in the sample are younger than 26 and

only 10% (*n* = 11) of respondents in the sample are older than 40. The age group sample distribution, as with the gender group distribution, is reflective of the demographical distribution within the organisation as a whole. According to the career stages of Super (1992), the majority of the respondents therefore find themselves in the entry and establishment career stages. The implications of this will be discussed in Chapter 4.
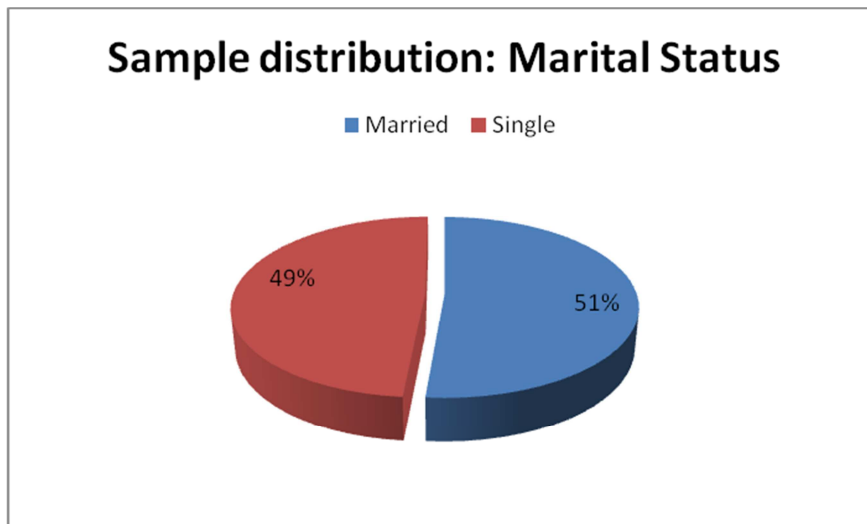


*Figure 3.4*. Sample distribution: Marital status groups (*N* = 111)

The sample is very evenly distributed in terms of marital status, with 51% (*n* = 57) of respondents being married and 49% (*n* = 54) of respondents being single.
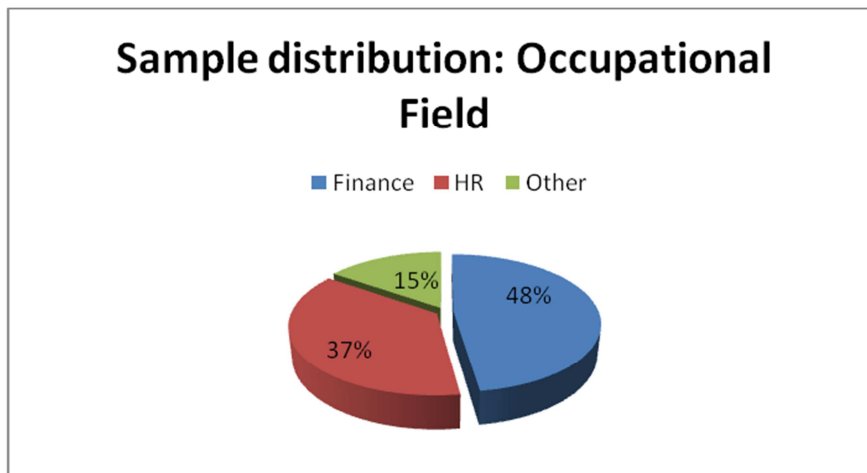


*Figure 3.5*. Sample distribution: Occupational field groups (*N* = 111)

The majority of the respondents (48%; $n$ = 53) in the sample reside within the financial occupational field. The human resources field is represented by 37% ($n$ = 41) of the respondents in the sample, while 15% ($n$ = 17) of the respondents represent other occupational fields.
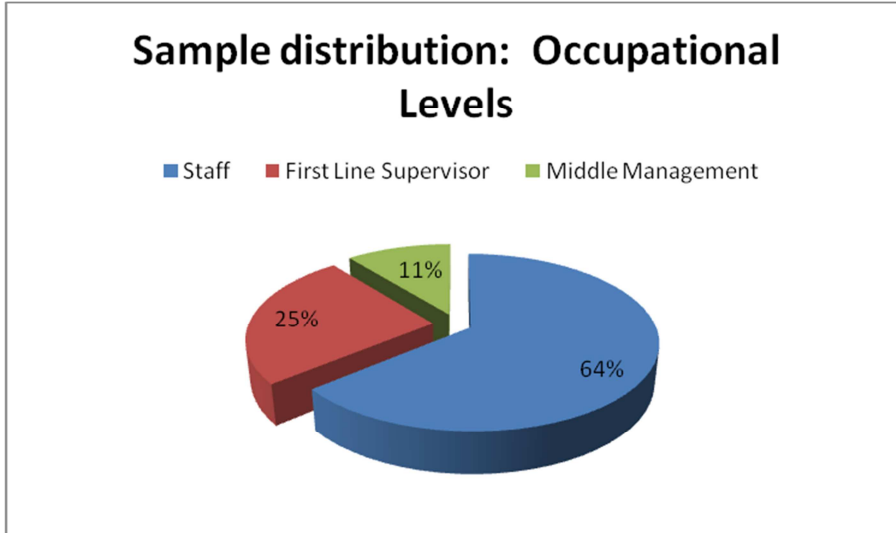


*Figure 3.6.* Sample distribution: Occupational level groups (N = 111)

The majority of respondents are non-supervisory staff, representing 64% ($n$ = 71) of the sample. First-line supervisors represent 25% ($n$ = 28) of the sample, while the management level only represents 11% ($n$ = 12) of the sample.
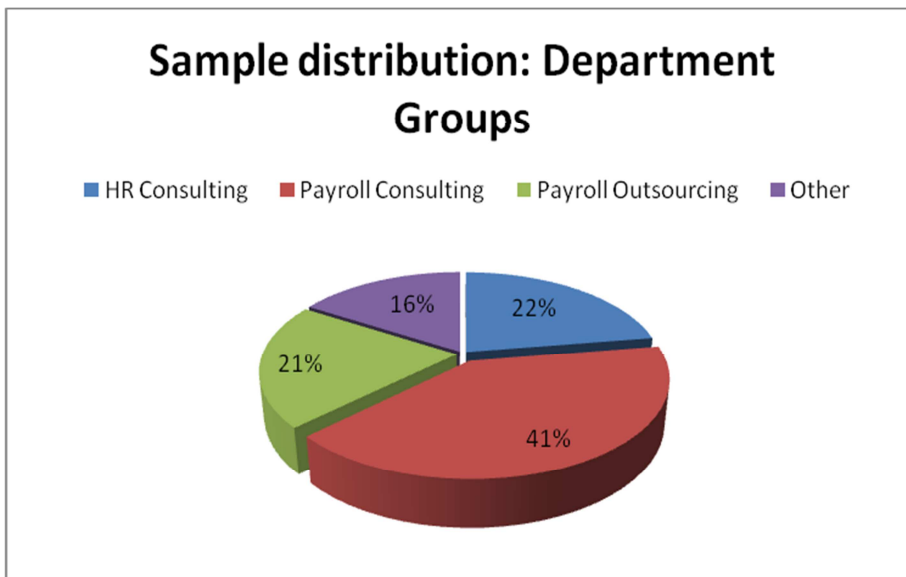


*Figure 3.7.* Sample distribution: Department groups ($N$ = 111)

The Payroll Consulting Department represents the largest portion of the sample (41%; $n = 45$). Respondents from the HR Consulting Department represent 22% ($n = 25$) of the sample, followed closely by the Payroll Outsourcing Department at 21% ($n = 23$). The other smaller departments represent 16% ($n = 18$) of the sample. This distribution is representative of the department distribution in the organisation as a whole.

Although the sample distributions are representative of the organisation's socio-biographical distribution, gender groups, age groups, occupational level groups and departmental groups may be regarded as skewed as each of these have a group (females, age 26-49, financial occupational field and Payroll Consulting Department) that dominates the sample, and this may be regarded as a limitation to the study. This will, however, be discussed in Chapter 5.

## 3.4    Measuring Instruments (PCRI and UWES-9)

The measurement instruments described below were selected because they measure the appropriate constructs central to this study. The instruments selected are:

- The Psychological Career Resources Inventory (PCRI). This questionnaire was developed by Coetzee (2008) and measures the psychological career resources, which consist of career preferences, career drivers, career enablers, career values and career harmonisers.
- The Utrecht Work Engagement Scale (UWES-9): This questionnaire was developed by Schaufeli, Salanova, et al. (2002) and refined by Schaufeli et al. (2006), and measures the level of work engagement of employees based on three constructs, namely vigour (VI), dedication (DE) and absorption (AB).

Following is a discussion of the two instruments in terms of rationale and purpose, dimensions, interpretation, administration, reliability and validity.

3.4.1   Psychological Career Resources Inventory (PCRI)

The PCRI was developed by Coetzee (2008) in order to measure the career meta-competencies (psychological career resources) that are required by individuals to craft careers in the 21st

century world of work. The instrument is a self-rated questionnaire that consists of five dimensions, 15 sub-constructs and 64 items.

### 3.4.1.1    Rationale and purpose

The Psychological Career Resources Inventory (PCRI) is used in this study to measure the psychological career resources of employees within a high-performance, technology-driven organisation that focuses on providing Payroll and HR software and services. Furthermore, the study measures psychological career resources in relation to engagement. The PCRI was developed within the South African context and complies with all psychometric conditions required before an instrument is deemed to be psychometrically sound. It was expected that the PCRI would provide data concerning the psychological career resources that were strongest, weakest and moderately represented by the sample.

### 3.4.1.2    Dimensions of the PCRI

The PCRI, as developed by Coetzee (2008), consists of five dimensions and 15 constructs. The instrument entails 64 items, which are self-rated by the respondents. Table 3.2 provides a detailed description of each dimension, its constructs and the definitions of the dimensions and their constructs.

Table 3.2

*Dimensions of the PCRI*

| Dimension | Constructs | Nr of Items | Questions | Definition |
|---|---|---|---|---|
| **Career Preferences** | | **13** | **Q1 - Q17** | Cognitive in nature. Career preferences influence the career direction that an individual chooses. |
| | Stability/ Expertise | 5 | Q1 - Q5 | Refers to  how an individual views careers that provide security and opportunity for development in a specialist field. |
| | Managerial | 4 | Q6 - Q9 | Refers to individuals who view vertical mobility with more responsibility, decision-making power and influence as career success. |
| | Variety/ Creativity | 4 | Q10 - Q13 | Describes individuals who prefer a wide variety of tasks that require a wide variety of competencies (skills and knowledge) in original or novel ways. |
| | Independence / Autonomy | 4 | Q14 - Q17 | Refers to individuals who see the perfect work environment as one where they have freedom from disturbance from external sources. |

| Career Values | | **6** | **Q18 - Q23** | Cognitive in nature. Career values provide the reason for the career preference |
|---|---|---|---|---|
| | Growth/ Development | 3 | Q18 - Q20 | Refers to the importance that the individual places on personal and professional opportunities to grow and develop. |
| | Authority/ Influence | 3 | Q21 - Q23 | Refers to the importance that the individual places on responsibility for others, having authority over others and having influence on important organisational events or projects. |
| **Career Enablers** | | **9** | **Q24 - Q32** | Refers to people's practical, creative, self-management and relationship skills |
| | Practical/ Creative skills | 4 | Q24 - Q27 | Practical skills are the ability to apply theoretical knowledge in a real-life situation, and creative skills are the ability to apply one's mind to a problem and find a novel way of dealing with it. |
| | Self/Other skills | 5 | Q28 - Q32 | The ability to understand others and to understand oneself. |
| **Career Drivers** | | **11** | **Q33 - Q43** | Refers to an individual's sense of purpose, career directedness and willingness to explore career possibilities. |
| | Career Purpose | 4 | Q33 - Q36 | Coetzee (2008, p.11) refers to career purpose as the "career calling"; it influences life satisfaction and job satisfaction |
| | Career Directedness | 4 | Q37 - Q40 | Refers to how clearly individual see their career goals, but also refers to how clear individuals are on locating resources that will assist them in attaining career goals or career opportunities |
| | Career Venturing | 3 | Q41 - Q43 | Refers to how comfortable individuals are with taking risks in order to find and explore career opportunities. |
| **Career Harmonisers** | | **21** | **Q44 - Q64** | The psychological characteristics that help to rein in the career drivers to prevent burnout, but also provide the individual with psychological flexibility and resilience. |
| | Self-esteem | 5 | Q44 - Q48 | Individuals' self-assessment regarding their competence, value and efficacy compared with others and compared with their own standards. |
| | Behavioural adaptability | 6 | Q49 - Q54 | Refers to the person's competence to recognise the attributes that are necessary for future career success and then make the behavioural changes that are required. |
| | Emotional literacy | 5 | Q55 - Q59 | The ability of an individual to manage the variety of emotions that can be received and conveyed. |
| | Social connectivity | 5 | Q60 - Q64 | The ability of the individual to build and preserve healthy and mutually supportive relationships. |

*Note:* Based on "Psychological career resources as predictors of working adults' career anchor: An exploratory study", by M. Coetzee, 2008, *SA Journal of Industrial Psychology 34*(2), p. 10-12

*3.4.1.3    Interpretation*

Respondents were presented with a 6-point Likert-type scale for each item, on which they had to rate themselves by selecting only one of the 6 rating options. The rationale for the choice of the

6-point rating scale by Coetzee (2008) is to prevent neutral answers. The rating scale is expressed as follow:

1 = never

2 = rarely

3 = sometimes

4 = often

5 = almost always

6 = always

The psychological career resource model developed by Coetzee (2008), as well as subsequent relevant studies' results pertaining to the PCR model, as described in Chapter 2, were used to interpret the results from the PCRI.

### 3.4.1.4    Administration

The PCRI was administered using a pencil-and-paper method during the extended team meetings. The questionnaire was thus administered in groups. Participation was voluntary and anonymity was ensured by allowing the completed questionnaires to be collected by an independent individual. The instructions for the completion of the questionnaire were available on the questionnaire itself, but were also explained orally in detail at the beginning of each session. All questionnaires were checked for completion and those questionnaires found to be incomplete were removed from the study.

### 3.4.1.5    Reliability and validity of the PCRI

Coetzee (2008) conducted an exploratory factor analysis of the PCRI. The results of the exploratory factor analysis revealed convergent and discriminant construct validity. Furthermore the results showed that the content of the constructs corresponded to the theoretical constructs measured by the PCRI. The study of Coetzee and Esterhuizen (2010) also proved the construct validity of the PCRI. Inter-construct correlations were between 0.14 and 0.58 (Coetzee, 2008).

Reliability was determined by using the Cronbach's Alpha coefficients as presented in Table 3.3. The Cronbach's Alpha coefficients were between 0.71 and 0.88 for the five dimensions of the PCRI. Coetzee (2007) also used the Kasier-Meyer-Olkin (KMO) test and the Bartlett test of

sphericity to further confirm the reliability of the constructs within the PCRI. The KMO measure of sampling adequacy was between 0.79 and 0.92, while the Bartlett test of sphericity indicated $p<0.001$ for each of the 15 constructs. Based on the above, the PCRI is proven to be valid and reliable for use in South Africa.

Table 3.3

*Reliability statistics for the PCRI Scale (N = 2997)*

| PCRI Scale | Number of Items | Cronbach's Alpha | Mean | SD |
|---|---|---|---|---|
| **Career Preferences** | | | | |
| Stability/Expertise | 6 | 0.73 | 21.13 | 2.911 |
| Managerial | 4 | 0.75 | 11.37 | 3.071 |
| Variety/Creativity | 3 | 0.70 | 9.52 | 2.141 |
| Freedom/Autonomy | 4 | 0.62 | 11.25 | 2.806 |
| Scale Overall | **17** | **0.84** | **52.28** | **8.221** |
| **Career Values** | | | | |
| Growth/Development | 5 | 0.74 | 17.91 | 2.324 |
| Authority/Influence | 3 | 0.63 | 8.52 | 2.139 |
| Scale Overall | **8** | **0.71** | **26.43** | **3.757** |
| **Career Enablers** | | | | |
| Practical/Creative skills | 4 | 0.68 | 9.65 | 2.764 |
| Self/other skills | 4 | 0.63 | 13.61 | 2.100 |
| Scale Overall | **8** | **0.71** | **23.25** | **4.015** |
| **Career Drivers** | | | | |
| Career Purpose | 5 | 0.66 | 18.11 | 2.066 |
| Career Directedness | 3 | 0.63 | 9.01 | 2.028 |
| Career Venturing | 2 | 0.70 | 5.84 | 1.707 |
| Scale Overall | 10 | 0.78 | 32.96 | 4.597 |
| **Career Harmonisers** | | | | |
| Self-esteem | 7 | 0.77 | 23.08 | 3.605 |
| Behaviour adaptability | 6 | 0.73 | 19.33 | 3.233 |
| Emotional literacy | 5 | 0.70 | 15.28 | 3.008 |
| Social connectivity | 3 | 0.67 | 10.00 | 1.655 |
| Scale Overall | **21** | **0.88** | **67.69** | **9.208** |

*Note.* From "Psychological career resources as predictors of working adults' career anchor: an exploratory study", by M. Coetzee, 2008, *SA Journal of Industrial Psychology 34*(2) p, 13.

*3.4.1.6    Justification for using the PCRI*

This study aimed to answer three questions with reference to the empirical data. As described in Chapter 1, these three questions are:

- *Research Question 1:* What is the nature of the relationship between the psychological career resources and engagement in a sample of consultants at a medium-sized South African firm specialising in Payroll and HR software and services?

- *Research question 2:* How do individuals who differ as to gender, age, marital status, occupational field, occupational level and department differ with regard to engagement?

- *Research Question 3:* How do individuals who differ as to gender, age, marital status, occupational field, occupational level and department differ with regard to psychological career resources?

A subsidiary aim of the study was to find whether a specific psychological career resources profile existed for the consultant sample that participated in the study. What might be the dominant psychological career resources and dominant engagement constructs for this sample group as indicated by the descriptive statistics?

Using the PCRI would assist in answering research questions one to three and partially answer the subsidiary research question. Furthermore the PCRI has been shown, in section 3.4.1.5, to be psychometrically sound for the South African context. The PCRI will therefore allow the measurement of psychological career resources and assist in determining the relationships with biographical variables as well as the construct of engagement.

3.4.2   Utrecht Work Engagement Scale (UWES-9)

The UWES-9 was developed from the UWES-17 by Schaufeli et al. (2006). The purpose of the UWES-9 is to measure the construct of engagement. The questionnaire consists of a total of nine items that are self-rated on a 7-point Likert-type scale.

*3.4.2.1 Rationale and purpose*

As discussed in the literature review in Chapter 2, this instrument is the only instrument and model of engagement that could be found that is psychometrically tested and sound. Other models of engagement that were considered revealed indiscreet and vague definitions with too many inconsistencies and overlap with constructs such as job satisfaction, job involvement and organisational commitment, and did not offer instruments that were psychometrically validated.

The UWES itself has undergone much critique, which resulted in a positive response from its original authors, who have allowed the UWES to be fine-tuned and subjected to numerous studies in order to produce the UWES-9, which is at the moment the most commonly used measure of engagement across nationalities, including South Africa. The journey of the UWES-9 will be explained in section 3.4.2.5

*3.4.2.2 Dimensions of the UWES-9*

The UWES-9 consists of three constructs. Each of the three dimensions is measured by three items. The UWES-9 thus consists of nine items in total. Table 3.4 defines the engagement constructs of UWES-9.

Table 3.4

*Dimensions of the UWES-9*

| Dimension | Constructs | Nr of Items | Questions | Definition |
|---|---|---|---|---|
| Engagement | | 9 | Q1 - Q9 | Positive , fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption. Rather than a momentary and specific state, engagement referes to a pervasive affective-cognitive state that is not focused on any particular object, event, individual, or behavior |
| | Vigour | 3 | Q1, 2 & 5 | Refers to high energy levels, mental resilience and the willingness to invest oneself in one's work |
| | Dedication | 3 | Q3, 4 & 7 | A sense of significance, inspiration, pride and challenge |
| | Absorption | 3 | Q6, 8 & 9 | Refers to being happily engrossed in one's work or experiencing a sense of internal enjoyment |

*Note.* Based on "The measurement of work engagement with a short questionnaire: a crossnational study" by W.B. Schaufeli, A. B. Bakker and M. Salanova, 2006, *Educational and Psychological Measurement*, 66 (4), p. 702, 714

### 3.4.2.3    Interpretation

The UWES-9 is a self-rated questionnaire consisting of nine items (Schaufeli et al., 2006). The interpretation of the UWES-9 is based on a 7-point frequency scale that is described as follows:

Table 3.5

*Rating Scale of the UWES-9*

| Never | Almost Never | Rarely | Sometimes | Often | Very Often | Always |
|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Never | A few times a year or less | Once a month | A few times a month | Once a week | A few times a week | Every day |

*Note.* Based on "The measurement of work engagement with a short questionnaire: a crossnational study" by W.B. Schaufeli, A. B. Bakker and M. Salanova, 2006, *Educational and Psychological Measurement*, 66 (4), p. 714

The respondents are required to select the option that best describes the frequency with which each statement is experienced.

### 3.4.2.4    Administration

The UWES-9 was administered using a pencil-and-paper method during the extended team meetings. The questionnaire was thus administered in groups. Participation was voluntary and anonymity was ensured by allowing the completed questionnaires to be collected by an independent individual. The instructions for the completion of the questionnaire were available on the questionnaire itself, but were also explained orally in detail at the beginning of each session. All questionnaires were checked for completion and those questionnaires found to be incomplete were removed from the study.

### 3.4.2.5    Reliability and validity of the UWES-9

The UWES received much critique and as a result the UWES-9 was produced. Due to contention about the construct of engagement and the UWES over the last decade, the studies pertaining to the psychometric validity and reliability of the UWES will be discussed in

chronological order. This is done to ensure that the reader has a clear understanding of the psychometric properties of the UWES-9 in terms of validity and reliability.

Schaufeli, Salanova, et al. (2002) conducted a two-sample confirmatory factor analysis using the UWES-24. Sample one included students and sample two included employees. After evaluating the Cronbach's Alpha coefficients, seven items were removed to produce the UWES-17. After removing the seven items, the Cronbach's Alpha coefficients were as follows, specifically for the sample containing employees:

- Vigour: 0.79
- Dedication: 0.89
- Absorption: 0.72

When evaluating the inter-construct correlations it was found that dedication and absorption correlated highly (0.98/0.93). Schaufeli, Salanova, et al. (2002) proceeded to conduct a goodness-of-fit analysis for a one-factor, two-factor and three-factor model. In the one-factor model, all three constructs were combined into one factor and in the three-factor model dedication and absorption were combined. The three-factor model was found to fit the data of both samples significantly better than the one- or two-factor model.

Schaufeli, Martinez, et al. (2002) conducted a cross-national study in which they found that the three-factor structure fitted the data best only after removing three problem items.

Rothman and Storm (2003) conducted a psychometric analysis on the UWES-17 in the South African context within the police services. Rothman and Storm conducted an exploratory factor analysis and found that the three-factor model including vigour, dedication and absorption only fitted the data after removing items 4 and 14 and allowing for error terms of different sub-scales to correlate. Further exploratory factor analysis was conducted and Rothman and Storm found that the model fitted the data better if an additional 4 items were removed, namely items 3, 11, 15 and 16. Internal consistency for all three engagement scales was supported. It was also found that the instrument was not racially biased and that construct equivalence was acceptable for different racial groups. These researchers did, however, suggest that validation studies for different occupations might be necessary in South Africa, and they were not convinced that the UWES could be viewed as a three-factor model, as the correlation between the sub-scales was high. In 2006, Rothman and Jordaan (2006) used the UWES in a study measuring the work

engagement of academic staff in a South African higher education institution. Rothman and Jordaan (2006) only used a two-structure model (vigour and dedication), owing to the problems found in the wording of the absorption structure. The Cronbach's Alpha coefficients for internal consistency in this study were found to be 0.69 (vigour) and 0.91 (dedication).

Schaufeli et al. (2006) conducted another cross-national study and used regression analysis to remove problem items from the original 17-item questionnaire. The UWES was reduced to a 9-item questionnaire, which was used in this study. The sample of the study conducted by Schaufeli et al. consisted of 14 521 respondents across 10 countries, which included South Africa, which represented 17.5% of the total sample (this was the second-highest representation in the sample). The study also included eight types of occupation, which were:

- Social work
- Blue collar
- Health care
- White-collar (profit)
- White-collar (not for profit)
- Teaching
- Police
- Management

Furthermore, Schaufeli et al. (2006) tested the following psychometric properties on the new UWES-9 questionnaire:

- *Factorial Validity:*
  The one-factor and three-factor models for the UWES-9 were fitted to the 10 national samples simultaneously. Both models fitted the data well and Alpha coefficients between the three scales remained high.
- *Internal Consistency:*
  The Cronbach's Alpha scores for South Africa were all above 0.70 for all the items in the VI (vigour scale), the DE (dedication scale) and the AB (absorption scale).
- *Correlation with the original scales:*
  When comparing the new shortened scales with the original longer scales, it was found that the Cronbach's Alpha exceeded 0.90 for each of the three scales, showing a high correlation between the new shortened scales and the old longer scales. Reliability was therefore not sacrificed by shortening the questionnaire.

Seppälä et al. (2008) conducted a longitudinal study using the UWES-17 and UWES-9. The UWES-9 was recommended as an acceptable instrument for future use; therefore the discussion that follows will focus on the psychometric properties of the UWES-9. During the confirmatory factor analysis Seppälä et al. found that both the three-factor and one-factor model fitted the data. The UWES-9, however, was a statistically significant better fit to the data than the one-factor model. Seppälä et al. also conducted factorial group variance analysis and found that the UWES-9 was stable in its measurement of engagement across occupations and across time.

Mills et al. (2012) conducted the most comprehensive analysis of the UWES-17 and UWES-9 to date. Only the results for the UWES-9 will be discussed, as this is the questionnaire that was recommended by Mills et al. for future use. Mills et al. conducted an exploratory factor analysis as well as a confirmatory factor analysis and found strong evidence that the three-factor engagement model as per the UWES-9 fitted the data the best. Thereafter Mills et al. conducted a confirmatory factor analysis to investigate the construct validity of the UWES-9. This also supported the three-factor model. Convergent and divergent construct validity were supported for the construct of engagement as well as for the three sub-scales of engagement. The reliability of the instrument has also been established and has been found to be reliable. Table 3.6 presents Cronbach's Alpha coefficients for the UWES-9:

Table 3.6

*Reliability statistics for the UWES-9 Scale (N = 477)*

| UWES-9 Scale | Number of Items | Cronbach's Alpha | Mean | SD |
|---|---|---|---|---|
| **Work engagement** | 9 | 0.91 | 4.33 | 1.11 |
| Vigour | 3 | 0.82 | 4.33 | 1.27 |
| Dedication | 3 | 0.83 | 4.33 | 1.09 |
| Absorption | 3 | 0.7 | 4.24 | 1.27 |

*Note:* Based on "Conceptualizing and measuring engagement: An analysis of the Utrecht Work Engagement Scale", by Mills, M. J., Culbertson, S. S., and Fullager, C. J., 2012, *Journal of Happiness Studies*, 13 (3), p. 12

The above psychometric statistics and research indicate that the UWES-9 has sufficient validity and reliability scores, as well as presenting sufficient evidence that the questionnaire is stable when used amongst different occupations.

*3.4.2.6    Justification for using the UWES-9*

The UWES-9 is the most widely used measuring instrument for engagement and the only engagement instrument found that is psychometrically sound and where the constructs do not overlap with other existing psychological constructs such as job satisfaction, job involvement and organisational commitment, but are truly proven to be unique constructs. As mentioned in section 3.4.1.6, the purpose of the study is to determine whether relationships exist between the constructs of engagement (vigour, dedication and absorption) and the constructs of psychological career resources. Relationships are also examined between engagement and other variables such as the biographical data of respondents. The UWES-9 lends itself to being utilised in determining the possibility of these relationships.

## 3.5    Data Collection

The data was collected using a survey research approach. The questionnaires were administered during the extended team meetings by the researcher and collected at the end of the administration session during the extended meeting.

The data collection process is described as follows:

- The organisation where the study was to be conducted needed to comply with the criteria of a 21st century, high-performance, technology-driven organisation. In order to determine the suitability of an organisation against the criteria the following information was investigated:
    - Financial performance over the last five years;
    - Monetary investment in training and development;
    - Learning and development strategies;
    - Investment and use of technology; and
    - Previous surveys conducted to determine the employees' work experience.

    The organisation chosen for the study complied very well with the criteria, as was discussed in detail in Chapter 2.
- After selecting the organisation, the researcher held a meeting with the HR Director and Consulting Director of the organisation, where the purpose of the study was explained and approval to conduct the study was obtained. It was decided that the study would be

restricted to the departments within the consulting division, for logistical reasons and because this division forms the core of the organisation's workforce.

- During the monthly management meeting the purpose of the study was explained to the managers within the consulting division and support for the study was obtained.

- Each manager provided the dates for their team's extended team meeting during which the administration session was to be held.

- An invitation letter for participation was handed out to the staff and the questionnaires were handed out during the administration session to those willing to participate.

- As previously discussed, the instructions for the completion of the questionnaires were provided at the beginning of each administration session and were also printed on the questionnaires.

- Employees were allowed to complete the questionnaires at their own pace, ensuring enough time. The questionnaires were collected in the administration session.

- Confidentiality and anonymity were ensured by allowing the researcher to collect the questionnaires and store them safely off-site from the company premises.


## 3.6    Data Analysis

The statistical analysis was conducted by using the Statistical Analysis System (SAS) software package. According to De Vos et al. (2002), the purpose of data analysis is to translate the data to an understandable format so that inferences can be drawn and hypothesis can be tested. De Vos et al. further state that data must first be organised, then the data must be described and analysed before inferences about the data can be drawn.

The data was therefore organised by first checking that questionnaires were complete. Incomplete questionnaires or questionnaires with errors were removed. The data was then organised in accordance with the two measuring instruments and their sub-scales, as well as according to the biographical data fields collected.

After the data was organised it was captured in MS Excel and imported into the SAS programme. From this point descriptive statistics were used to describe the means, standard deviations, Cronbach's Alpha and frequency distributions of the data, and inferential statistics were used to determine relationships and significant difference between variables.

### 3.6.1 Descriptive statistics

The purpose of descriptive statistics is to summarise the data in numerical form in order to gain an understanding of the data and assist with the interpretation of inferential statistics (Keller & Warrack, 2000).

The descriptive statistics that were utilised in this study were the Cronbach's Alpha reliability coefficient, the mean, the standard deviation and frequency distribution.

#### 3.6.1.1 *Cronbach's Alpha correlation coefficient*

The Cronbach's Alpha coefficients indicate the internal consistency of the instruments. According to Bartholemew, Antonia and Marcia (2000), a reliability coefficient above 0.6 is acceptable and indicates strong inter-item correlations within the construct.

#### 3.6.1.2 *Mean*

The mean is a measure of central location (Keller & Warrack, 2000). The mean provides information as to which engagement factors and psychological career factors are most dominant within the sample.

#### 3.6.1.3 *Standard deviation and frequency distributions*

The standard deviation is a measure of variability (Keller & Warrack, 2000). The standard deviation provides an indication of how the data is organised around the mean. If the standard deviation is high it may mean that there is not agreement among the sample group with regard to the engagement or psychological career resource factor, as scores are distributed away from the mean.

The frequency distribution indicates the spread of the sample between the biographical categories, both in terms of percentages and units, and could be helpful in assigning meaning to the inferential statistics.

3.6.2  Inferential statistics

Inferential statistics allow the researcher to deduce or draw conclusions concerning the population based on the sample data (Babbie & Mouton, 2006). The inferential statistics that will be used in this study are analysis of variance tests, *t*-tests, correlation statistics and regression analysis. Each of these will be discussed below.

### 3.6.2.1  Analysis of Variance (ANOVA)

An ANOVA test reveals how independent variables act together and what effect their interaction has on dependent variables (Field, 2005). By using ANOVA testing it would be possible to determine if there were any significant differences between biographical data when considering each of the sub-scales of the instruments. For ANOVA testing the data must comply with the assumption for equality of variances and the assumption of normality of residuals (Keller & Warrack, 2000). If the data does not comply with these assumptions, a normal Blom transformation is conducted on the data. If the data should comply with assumptions after the normal Blom transformation is conducted, the ANOVA tests will be conducted.

### 3.6.2.2  Least square means t-test

A least square means *t*-test was conducted on variables where significant differences were found in order to determine which sub-groups of the biographical field(s) differed statistically significantly from each other with reference to the specific sub-scale of the psychological career resources or engagement. These were compared with the mean of the sub-groups within the biographical field in order to assist the interpretation of the data.

### 3.6.2.3  Pearson product moment correlation coefficient

The Pearson product moment correlation coefficient is indicated by the symbol $r$. A linear relationship between two variables will be indicated when $r$ is between -1 and +1 (Field, 2005). Where $r=0$ no relationship exists (Field, 2005). The value for significance is set at 0.05. Field (2005) warns that correlation coefficients do not provide information pertaining to causality. Field (2005) advises that the effect size be considered in the interpretation of statistically significant relationships ($p \leq 0.05$). The reason for this is that the *p*-value tells the researcher that a

significant relationship exists, but does not tell one the strength of the relationship (Field, 2005). The effect size was therefore used to comment on whether the relationship was weak, moderate or strong. Cohen's (1988) suggestions for the interpretation of effect size were used:

- 0.2 = small effect (weak relationship)
- 0.3 = medium effect (moderate relationship)
- 0.5 = large effect (strong relationship)

### 3.6.2.4 Stepwise regression analysis

According to Wright (1997), multiple stepwise regression analysis should only be used when an exploratory model is developed. As there is no previous research regarding psychological career resources and engagement, a predictive model was indeed being explored. Multiple stepwise regression analysis was therefore used to determine which combination of psychological career resources best predicts each of the three engagement factors.

The stepwise multiple regression analysis was conducted separately for each of the engagement factors, owing to each being a unique construct. Furthermore, in order to fulfil the purpose of the study it was necessary to determine which combination of the 15 sub-factors of the psychological career resources would best explain the variance in each of the engagement factors. This would assist in drawing conclusions and inferences about the psychological profile of employees within the particular 21$^{st}$-century, high-performance oriented and technology-driven organisation.

### 3.6.2.5 Statistical significance

The level of statistical significance determines whether the null hypothesis will be accepted or rejected. Statistical significance will be obtained where $\alpha \leq 0.05$ or where $\alpha \leq 0.01$. For the purpose of this study a 95% certainty was sufficient and thus the level of statistical significance used for this study was $\alpha \leq 0.05$.

## 3.7 Formulation of Statistical Hypotheses

Keller and Warrack (2000) states that the purpose of a hypothesis is to state clearly the belief about a variable so that an inference can be made to determine if there is enough evidence to prove or disprove the belief about the variable.

### 3.7.1 Null hypotheses

$H1_0$: There is no relationship between the psychological career resources and engagement in a sample of payroll and HR consultants at a medium-sized South African firm specialising in Payroll and HR software and services.

$H2_0$: There is no significant difference between individuals who differ as to gender, age, marital status, occupational field, occupational level and department with regard to engagement.

$H3_0$: There is no significant difference between individuals who differ as to gender, age, marital status, occupational field, occupational level and department with regard to psychological career resources.

Although no profile analysis was conducted it was thought that it would be interesting to see whether the descriptive statistics indicated some engagement and psychological career resources to be more dominant than others.

### 3.7.2 Alternative hypotheses

$H1_a$: There is a relationship between the psychological career resources and engagement in a sample of payroll and HR consultants at a medium-sized South African firm, specialising in Payroll and HR software and services.

$H2_a$: There is a significant difference between individuals who differ as to gender, age, marital status, occupational field, occupational level and department with regard to engagement.

H3$_a$: There is a significant difference between individuals who differ as to gender, age, marital status, occupational field, occupational level and department with regard to psychological career resources.

## 3.8    Chapter Summary

Firstly chapter 3 has mapped out the research design as it pertains to the research approach, the determination and description of the sample and the measurement instruments. The measurement instruments were discussed in detail in terms of the rationale and purpose of the instrument, the dimensions of the instrument, the interpretation, administration and justification for using the instruments. Furthermore, the reliability and validity of the instruments were critically discussed, especially those of the UWES-9. Secondly, the data collection process followed was described. Thirdly the data analysis methods were discussed as they pertained to both descriptive and inferential statistics. Finally the null hypotheses and alternative hypotheses to be tested by the interpretation after the data analysis were restated. Chapter 4 will proceed to discuss the findings of the data analysis conducted.

# CHAPTER 4: RESULTS OF THE EMPIRICAL STUDY

## 4.1 Introduction

Chapter 4 will provide the results of the empirical study. This chapter will present the results of both the descriptive and inferential statistics. In order to interpret the results, they will be compared and integrated with the literature review, after which conclusions will be drawn. Figure 4.1 indicates the map for this chapter:
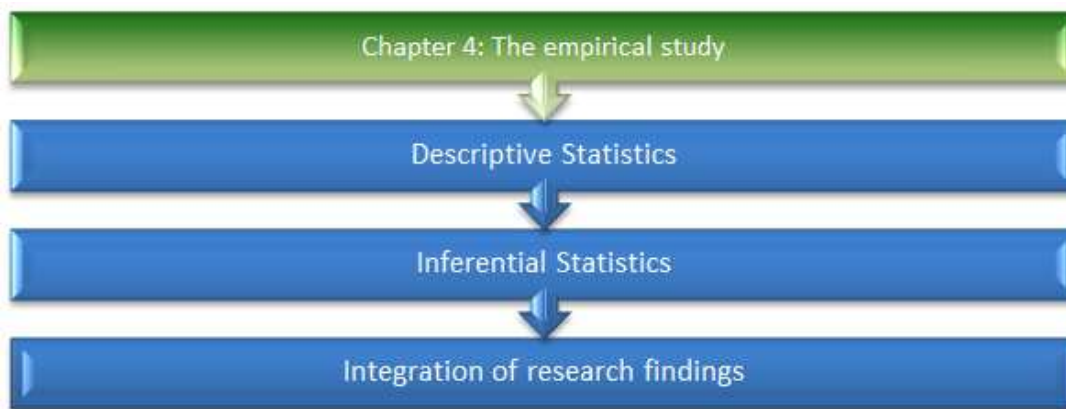


*Figure 4.1.* The empirical study

## 4.2 Descriptive Statistics

The descriptive statistics will be used to provide a summary and broad understanding of the data. The descriptive statistics that will be discussed are the Cronbach's Alpha coefficients, means and standard deviations for the PCRI and the UWES-9. All three of the descriptive statistics will be presented in Table 4.1. Thereafter each of the descriptive statistics for the PCRI and the UWES-9 will be discussed.

Table 4.1

*Descriptive statistics for the PCRI and UWES-9 (N=111)*

| PSYCHOLOGICAL CAREER RESOURCES INVENTORY (PCRI) | | | | |
|---|---|---|---|---|
| **Scales** | **Nr of items** | **Cronbach's Alpha** | **Mean** | **SD** |
| **Career Preferences:** | | | | |
| Stability/Expertise | 5 | 0.70 | 5.12 | 0.66 |
| Managerial | 4 | 0.86 | 4.08 | 1.13 |
| Variety/Creativity | 4 | 0.87 | 4.50 | 1.03 |
| Independence/Autonomy | 4 | 0.65 | 4.30 | 0.84 |
| **Career Values:** | | | | |
| Growth/Development | 3 | 0.77 | 5.28 | 0.71 |
| Authority/Influence | 3 | 0.81 | 4.28 | 1.04 |
| **Career Enablers:** | | | | |
| Practical/Creative skills | 4 | 0.81 | 4.61 | 0.87 |
| Self/Other skills | 5 | 0.77 | 5.07 | 0.63 |
| **Career Drivers:** | | | | |
| Career Purpose | 4 | 0.80 | 5.00 | 0.83 |
| Career directedness | 4 | 0.80 | 4.47 | 0.90 |
| Career Venturing | 3 | 0.87 | 4.16 | 1.15 |
| **Career Harmonisers:** | | | | |
| Self-esteem | 5 | 0.83 | 4.65 | 0.83 |
| Behavioural adaptability | 6 | 0.82 | 4.84 | 0.69 |
| Emotional Literacy | 5 | 0.85 | 4.66 | 0.93 |
| Social Connectivity | 5 | 0.87 | 4.85 | 0.77 |
| UTRECHT WORK ENGAGEMENT SCALE-9 (UWES-9) | | | | |
| **Scales** | **Nr of items** | **Cronbach Alpha** | **Mean** | **SD** |
| Vigour | 3 | 0.82 | 4.21 | 1.08 |
| Dedication | 3 | 0.89 | 4.60 | 1.20 |
| Absorption | 3 | 0.76 | 4.50 | 1.06 |

4.2.1    Item reliability and Cronbach's Alpha coefficients (PCRI and UWES-9)

Section 3.6.1.1 stated that according to Bartholemew et al. (2000), a reliability coefficient above 0.6 is acceptable and indicates strong inter-item correlations within the construct. The Cronbach's Alpha coefficients of the sub-scales of the PCRI measured between 0.65 and 0.89. Similar results were found in previous studies (Coetzee, 2008; Coetzee & Bergh, 2009;  Ferreira et al., 2010). The Cronbach's Alpha coefficients of the UWES-9 measured between 0.82 and 0.76, which is also similar to the Cronbach's Alpha coefficients found by Mills et al. (2012). Both the PCRI and UWES-9 are therefore deemed to be psychometrically sound instruments.

## 4.2.2 Means and standard deviations (PCRI)

While the mean is a measure of central location and the standard deviation (*SD)* is the measure of how much scores vary from the central location, these two statistics provide one with a picture of how the data is distributed. The mean on all psychological career resource variables was above 4, indicating that employees have a well-developed psychological career resource profile.

The questionnaire consisted of a six-point rating scale where one represents the lowest score and six represents the highest score. The most dominant career preference among respondents is stability/expertise (mean = 5.12; *SD*= 0.66). The most important career value is growth and development (mean = 5.28; *SD*= 0.71), while the most prevalent career enabler is self/other skills (mean = 5.07; *SD*= 0.63). The strongest career driver among the sample is career purpose (mean = 5.00; *SD*= 0.83). Finally there are two career harmonisers that were rated as almost equally important, namely behavioural adaptability (mean = 4.84; *SD*= 0.69) and emotional connectivity (mean = 4.85; *SD*= 0.77). Career venturing scored lowest on the career drivers (mean = 4.16; *SD*= 1.15). With career venturing as the lowest career driver, stability/expertise as the highest career preference and growth and development as the highest career value, the data seems to suggest that the employees within the sample prefer an occupation that provides stability and that they prefer to develop their career and their expertise within the same organisation. Matthysen (2011) found the same results in her master's thesis among graduates. These findings are also in line with the results of Baccili and Granrose (2006), who found that the psychological contract does still contain components of stability and security (as in the old psychological contract), as well as growth and development (as in the new psychological contract). They also found that while a breach in the psychological contract of stability did not lead to the intention to leave, the breach of the psychological contract of growth and development did lead to an intention to leave. This suggests that even though employees still have a need for stability, they do realise that they will probably not spend their lifetime career with one organisation. Therefore the focus on growth and development is stronger than the focus on stability. This argument of Baccili and Granrose (2006) is supported by the results in Table 4.1. The mean for growth and development (mean = 5.28; *SD*= 0.71) is higher than the mean for stability (mean = 5.12; *SD*= 0.66).

The managerial sub-scale scored lowest on the career preference scale (mean = 4.08; *SD*= 1.03). If this is considered with the dominance of stability/expertise and the growth and

development focus as a career value, the data suggests that the sample would rather prefer a role where they are required to manage themselves and their own work than a managerial role where they have authority and responsibility for other people. The majority of the sample (64%) are staff in a non-supervisory position. Furthermore, the majority of the respondents (72%) are in the entry and establishment career stages. Coetzee and Bergh (2009) found that employees in their younger career stages who are in supervisory roles experience anxiety and lower job and life satisfaction, and have a high focus on growth and development as a career value as they are not yet fully equipped for the supervisory or managerial roles. The data supports Coetzee and Bergh's (2009) findings that those in their entry and establishment career stages would not prefer managerial roles and value growth and development opportunities. The lowest career enabler is practical/creative skills. The lower score on this career enabler may explain the strong value placed on growth and development.

The strong focus on career purpose as a career driver indicates that the sample have very strong personal and professional goals. They therefore work for the intrinsic sense of fulfilment that their job provides (Coetzee, 2008). While career purpose is high, indicating that employees are driven by the sense of having a calling, career directedness (career driver) and practical/creative skills (career enabler) were reported lower. This may suggest that staff with a strong career purpose have less clarity on future career goals. This is supported by Coetzee and Schreuder's (2009) findings. There is, however, another explanation with regard to this study due to the organisational environment. As regards the lower score of practical/creative skills in comparison with the self\other skills variable, the lower career directedness may be due to the staff's strong focus on growth and development in their current roles. If this learning and development need is met, employees may not feel the need to plan for future steps in their career development. It has been seen from the literature review that the particular organisation where this study was conducted does have a very strong focus on the development of staff. Furthermore, the high scores on self/other skills (career enabler) and social connectivity (career harmoniser) suggest a strong focus on social interaction and building supportive relationships. The literature clearly indicates that strong and supportive work relationships are related to Khan's concept of psychological safety. The data therefore seems to suggest that if growth and development needs are met in a socially supportive environment where employees experience psychological safety, employees are less likely to show awareness of future career goals.

### 4.2.3   Means and standard deviations (UWES-9)

The means of all three engagement factors (vigour, dedication and absorption) are quite close to each other and indicate that employees are often engaged. The highest engagement factor is dedication (mean = 4.60; $SD$ = 1.20), followed closely by absorption (mean = 4.50; $SD$ =.1.06). The engagement factor that is the weakest is vigour (mean = 4.21; $SD$ = 1.08). Given the literature review, one would expect vigour to be higher than the other engagement factors, instead of being the weakest. It is interesting to note that while the strongest engagement factor is dedication, the strongest career driver is career purpose or the sense of having a career calling. Based only on the means, one can by no measure assume a correlation between dedication and career purpose. However, it is interesting to note that Rothman and Jordaan (2006) found that academics had high dedication scores even in the face of high job demands and low resources, while Coetzee and Bergh (2009) found that academics' dominant career driver is career purpose.

## 4.3     Inferential Statistics

The purpose of the study is to determine whether there is a relationship between psychological career resources and engagement. Inferential statistics are utilised to this end. The inferential statistics that are used to draw inferences about the data are correlations, multiple regression analysis and analysis of variance.

### 4.3.1   Discussion of correlation statistics

The Pearson product moment correlation was used to determine if there were relationships between the sub-scales of engagement and psychological career resources. Statistical significance is determined at a 95% confidence interval level ($p \leq 0.05$) and the size effect will be used to comment on the strength of the relationship. Table 4.2 presents the correlation statistics.

Table 4.2

*Pearson product moment correlations: UWES-9 and PCRI (N=111)*

| Pearson Correlation Coefficients, *N* = 111 Prob> |*r*| under H0: Rho=0 | | Vigour | Dedication | Absorption |
|---|---|---|---|---|
| **Career Preferences** | | | | |
| Stability/Expertise | R | 0.01 | -0.03 | 0.04 |
| | Sig | 0.2976 | 0.7557 | 0.6628 |
| Managerial | R | 0.20 | 0.09 | 0.09 |
| | Sig | 0.0311* | 0.3362 | 0.3369 |
| Variety/Creativity | R | 0.26 | 0.15 | 0.24 |
| | Sig | 0.0067** | 0.1216 | 0.0126* |
| Independence/Autonomy | R | 0.03 | 0.02 | 0.10 |
| | Sig | 0.7273 | 0.8096 | 0.2771 |
| **Career Values** | | | | |
| Growth/Development | R | 0.13 | 0.07 | 0.20 |
| | Sig | 0.1927 | 0.4730 | 0.0341* |
| Authority/ Influence | R | 0.22 | 0.15 | 0.18 |
| | Sig | 0.0179* | 0.1145 | 0.0587 |
| **Career Enabler** | | | | |
| Practical/Creative skills | R | 0.17 | 0.07 | 0.18 |
| | Sig | 0.0684 | 0.4868 | 0.0563 |
| Self/Other skills | R | 0.18 | 0.12 | 0.09 |
| | Sig | 0.0538 | 0.1995 | 0.3228 |
| **Career Drivers** | | | | |
| Career purpose | R | 0 | 0.04 | 0.05 |
| | Sig | 0.9975 | 0.6619 | 0.5828 |
| Career directedness | R | 0.31 | 0.29 | 0.24 |
| | Sig | 0.0010*** | 0.0017** | 0.0126** |
| Career venturing | R | 0.15 | 0.05 | 0.13 |
| | Sig | 0.1211 | 0.5951 | 0.1635 |
| **Career Harmonisers** | | | | |
| Self-esteem | R | 0.50 | 0.44 | 0.30 |
| | Sig | <0.0001*** | <0.0001*** | 0.0013** |
| Behavioural adaptability | R | 0.47 | 0.42 | 0.34 |
| | Sig | <0.0001*** | <0.0001** | 0.0002*** |
| Emotional literacy | R | 0.17 | 0.29 | 0.15 |
| | Sig | 0.0758 | 0.0023** | 0.1114 |
| Social connectivity | r | 0.28 | 0.26 | 0.12 |
| | Sig | 0.0032** | 0.0055** | 0.2010 |

 **\*p≤0.05; \*\*p≤0.01; \*\*\*p≤0.001**

### 4.3.1.1 Career preferences and engagement

The managerial career preference has a significant positive, but weak, relationship with vigour ($r = 0.20$; $p \leq 0.0311$). The career preference of variety/creativity also has a significant positive, but weak relationship with vigour ($r = 0.26$; $p \leq 0.0067$), as well as a weak positive relationship with absorption ($r = 0.24$; $p \leq 0.0126$)

### 4.3.1.2 Career values and engagement

Growth and development as a career value has a significant positive, but weak relationship with absorption ($r = 0.20$; $p \leq 0.0341$), while authority/influence as a career value has a significant positive, but weak relationship with vigour ($r = 0.22$; $p \leq 0.0179$)

### 4.3.1.3 Career drivers and engagement

Career directedness showed a significant positive relationship to all three engagement factors. This career driver has a strong significant positive relationship with vigour ($r = 0.31$; $p \leq 0.0010$), a weaker significant positive relationship with dedication *($r = 0.29$; $p \leq 0.0017$)* and a weak significant positive relationship with absorption *($r = 2.4$; $p \leq 0.0126$)*

### 4.3.1.4 Career harmonisers and engagement

Self-esteem showed a strong, significant positive relationship with vigour *($r = 0.50$; $p < 0.001$)*, dedication *($r = 0.44$; $p < 0.001$)* and absorption *($r = 0.30$; $p \leq 0.0013$)*. Behavioural adaptability also showed a strong, significant positive relationship with vigour *($r = 0.47$; $p < 0.0001$)*, dedication *($r = 0.42$; $p < 0.0001$)* and absorption *($r = 0.34$; $p \leq 0.0002$)*, while emotional literacy showed a weak significant positive relationship with dedication *($r = 0.29$; $p \leq 0.0023$)*. Social connectivity showed a weak, significant positive relationship with vigour *($r = 0.28$; $p \leq 0.0032$)* and dedication *($r = 0.26$; $p \leq 0.0055$)*.

### 4.3.2 Discussion of regression analysis

In order to explore the relationship between the PCRI and the UWES-9 in more depth, a stepwise multiple regression analysis was conducted. The researcher wanted to determine which of the psychological career resources variables explained the proportions of the total variance in each of the dependent engagement variable scores. For this purpose the adjusted $R^2$ was used. Statistical significance was determined at a 95% confidence interval level ($p \leq 0.05$).

Table 4.3

*Regression Analysis: (UWES-9 variables and PCRI variables)*

| Variable | Parameter Estimate (ß) | Partial R-squared | Model R-squared ($R^2$) |
|---|---|---|---|
| UWES-9 Variable: Vigour | | | |
| Self-esteem | 0.54 | 0.25 | 0.249*** |
| Behavioural adaptability | 0.54 | 0.04 | 0.284* |
| Career purpose | -0.34 | 0.05 | 0.338** |
| Career venturing | -0.19 | 0.02 | 0.350 |
| Authority/Influence | 0.17 | 0.02 | 0.375 |
| UWES-9 Variable: Dedication | | | |
| Self-esteem | 0.57 | 0.20 | 0.196*** |
| Behavioural adaptability | 0.69 | 0.03 | 0.225* |
| Career venturing | -0.28 | 0.05 | 0.273** |
| Self/other skills | -0.41 | 0.03 | 0.299* |
| Stability/expertise | 0.32 | 0.01 | 0.313 |
| Authority/Influence | 0.20 | 0.02 | 0.334 |
| UWES-9 Variable: Absorption | | | |
| Behavioural adaptability | 0.55 | 0.12 | 0.121*** |

**\*p≤0.05; \*\*p≤0.01; \*\*\*p≤0.001**

Table 4.3 indicates that self-esteem, behavioural adaptability (career harmonisers) and career purpose (career driver) explain 34% of the variance in vigour. The greatest contributors in explaining the variance in vigour are the two career harmonisers, namely self-esteem (ß = 0.54; $p < 0.0001$) and behavioural adaptability (ß = 0.54; $p \leq 0.0235$). This finding is also supported by the correlation statistics. Interestingly, the career driver called career purpose has a significant negative influence on vigour (ß = -0.34; $p \leq 0.004$), suggesting that the stronger the sense of having a career calling, the lower the vigour dimension of engagement is experienced. This

seems to be in contradiction to the correlation statistics, which found no significant relationship between career purpose and vigour.

The multiple regression analysis conducted on the dedication variable of engagement shows that 30% of the total variance can be explained by self-esteem (career harmoniser), behavioural adaptability (career harmoniser), career venturing (career driver) and self/other skills (career enabler). Self-esteem has the largest positive influence on dedication (ß = 0.57; $p < 0.0001$), followed by behavioural adaptability (ß = 0.69; $p \leq 0.0445$). Career venturing, a career driver, has a significant negative influence on dedication (ß = - 0.28; $p \leq 0.0094$). Self/other skills also has a significant negative influence on dedication (ß = -0.41; $p \leq 0.0472$). It therefore suggests that the stronger career venturing and self/other skills are, the lower the levels of dedication that will be experienced as it relates to engagement. A possible explanation for self/other skills' negative relationship with dedication may be that as individuals' ability to understand their own motives and emotions as well as those of others increases, so may their capability to build networks, which could provide a wider variety of career opportunities. The higher the self-esteem and behavioural adaptability, the higher the level of dedication. The correlation statistics support the regression analysis finding regarding self-esteem and behavioural adaptability (career harmonisers). The findings regarding career venturing and self/other skills, however, are in contrast to the findings of the correlations statistics.

The multiple regression analysis conducted on the engagement variable called absorption indicated that only behavioural adaptability (ß = 0.55; $p \leq 0.0002$) could account for 12% of the variance in absorption. This finding is also supported by the correlation statistics in Table 4.2.

Behavioural adaptability and self-esteem represent the strongest influence on engagement, with behavioural adaptability indicating a significant positive effect on all three engagement dimensions, and self-esteem indicating a significant positive effect on all engagement dimensions excluding absorption. Career drivers have a significant negative effect on two of the engagement factors (career purpose on vigour, and career venturing on dedication). In view of the literature, one would expect that career purpose would have a positive impact on absorption, but interestingly this is not supported by the data. Career purpose does, however, have a significant negative impact on vigour.

### 4.3.3  Discussion of analysis of variance (ANOVA)

The analysis of variance was conducted in order to determine if there was a significant difference in each of the following biographical and demographical variables and the variables of the PCRI and the UWES-9 respectively:

- Gender
- Age
- Marital status
- Occupational field
- Occupational level
- Department

After testing for equality of variance and normality of residuals it was found that the data did not comply with the assumptions. A normal Blom transformation was performed, after which the data did comply with the assumptions. A least square means *t*-test was conducted on the variables where statistically significant differences were found, and this will be discussed for each variable separately.

#### *4.3.3.1  Gender: Discussion of ANOVA, t-test and means*

Table 4.4 indicates the differences between gender (male, female) and the PCRI and gender and the UWES-9. Table 4.4 indicates that there was a significant difference between gender groups when considering independence/autonomy (career preference). As there are only two variables within gender the *t*-test also reveals $p \leq 0.0055$. The means for males and females in Table 4.4 indicate that males (mean = 4.66; *SD*= 0.78) have a stronger preference for independence/autonomy than females (mean = 4.17; *SD*= 0.82).

Table 4.4

*ANOVA and means for Gender: PCRI and UWES-9 (N = 111)*

| Gender | | | | Female (*n* = 81) | | Male (*n* = 30) | |
|---|---|---|---|---|---|---|---|
| | | | | **Mean** | **SD** | **Mean** | **SD** |
| **PCRI Scale** | **df** | **F Value** | **Sig** | | | | |
| **Career Preferences** | | | | | | | |
| Stability/Expertise | 1.00 | 0.13 | 0.7144 | 5.10 | 0.70 | 5.15 | 0.54 |
| Managerial | 1.00 | 0.41 | 0.5223 | 4.04 | 1.13 | 4.17 | 1.11 |
| Variety/Creativity | 1.00 | 0.00 | 0.9641 | 4.46 | 1.04 | 4.75 | 1.00 |
| Independence/Autonomy | 1.00 | 8.05 | 0.0055** | 4.27 | 0.82 | 4.67 | 0.78 |
| **Career Values** | | | | | | | |
| Growth/Development | 1.00 | 0.27 | 0.6050 | 5.27 | 0.70 | 5.29 | 0.77 |
| Authority/Influence | 1.00 | 0.59 | 0.4435 | 4.19 | 1.02 | 4.52 | 1.08 |
| **Career Enablers** | | | | | | | |
| Practical/Creative skills | 1.00 | 0.30 | 0.5873 | 4.55 | 0.88 | 4.76 | 0.85 |
| Self/Other skills | 1.00 | 1.41 | 0.2375 | 5.11 | 0.60 | 4.95 | 0.69 |
| **Career Drivers** | | | | | | | |
| Career purpose | 1.00 | 0.45 | 0.5039 | 5.04 | 0.83 | 4.89 | 0.83 |
| Career directedness | 1.00 | 0.92 | 0.3386 | 4.39 | 0.92 | 4.69 | 0.78 |
| Career venturing | 1.00 | 0.20 | 0.6586 | 4.04 | 1.19 | 4.50 | 1.00 |
| **Career Harmonisers** | | | | | | | |
| Self-esteem | 1.00 | 0.05 | 0.8190 | 4.16 | 0.84 | 4.73 | 0.81 |
| Behavioural adaptability | 1.00 | 0.00 | 0.9938 | 4.82 | 0.73 | 4.89 | 0.59 |
| Emotional literacy | 1.00 | 0.29 | 0.5903 | 4.71 | 0.86 | 4.51 | 1.09 |
| Social connectivity | 1.00 | 1.05 | 0.3086 | 4.88 | 0.78 | 4.73 | 0.77 |
| **UWES-9 Scale** | **DF** | **F Value** | **Pr>F** | | | | |
| Vigour | 1.00 | 0.07 | 0.7856 | 4.21 | 1.04 | 4.21 | 1.20 |
| Dedication | 1.00 | 0.18 | 0.6754 | 4.59 | 1.19 | 4.56 | 1.22 |
| Absorption | 1.00 | 0.06 | 0.8064 | 4.52 | 1.07 | 4.40 | 1.15 |

**\*p≤0.05; \*\*p≤0.01; \*\*\*p≤0.001**

### 4.3.3.2    *Age: Discussion of ANOVA, t-test and means*

Table 4.5 indicates the differences between age (>25; 26-40; <40) and the PCRI and age and the UWES-9. Table 4.5 indicates a statistically significant difference between age groups where the career preference of independence/autonomy (p ≤ 0.034) is concerned, and where the vigour dimension of engagement on the UWES-9 is concerned (p ≤ 0.0253). The least square means *t*-test (table 4.6) indicates a statistically significant difference between the age group '>25' and the age group '<40' regarding independence/autonomy. The age group '<40' (mean = 4.59; *SD*= 0.95) has a significantly stronger need for autonomy and independence than the age group >25 (mean = 4.01; *SD*= 0.68). Interestingly, the data furthermore shows that employees within the age group <40 (mean = 4.61; *SD*1.04) show significantly more vigour than the age

group >25 (mean = 3.98; *SD*= 1.21) and more than the age group of 26-40 (mean = 4.22; *SD*= 1.05)

Table 4.5

*ANOVA and means for Age: PCRI and UWES-9 (N = 111)*

| | | | | Age | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | >25 (N = 20) | | 26-40 (N = 80) | | <40 (N = 11) | |
| **PCRI Scale** | **df** | **F Value** | **Sig** | **Mean** | **SD** | **Mean** | **SD** | **Mean** | **SD** |
| **Career Preferences** | | | | | | | | | |
| Stability/Expertise | 2.00 | 0.15 | 0.8610 | 5.22 | 0.64 | 5.11 | 0.66 | 5.00 | 0.66 |
| Managerial | 2.00 | 0.35 | 0.7040 | 4.40 | 0.93 | 4.08 | 1.15 | 3.45 | 1.09 |
| Variety/Creativity | 2.00 | 0.75 | 0.4765 | 4.49 | 0.91 | 4.57 | 1.03 | 4.39 | 1.30 |
| Independence/Autonomy | 2.00 | 3.50 | 0.034* | 4.01 | 0.68 | 4.33 | 0.85 | 4.59 | 0.95 |
| **Career Values** | | | | | | | | | |
| Growth/Development | 2.00 | 0.41 | 0.6638 | 5.20 | 0.69 | 5.27 | 0.73 | 5.45 | 0.65 |
| Authority/Influence | 2.00 | 0.56 | 0.5719 | 4.28 | 0.85 | 4.33 | 1.08 | 3.94 | 1.09 |
| **Career Enablers** | | | | | | | | | |
| Practical/Creative skills | 2.00 | 2.08 | 0.1305 | 4.25 | 0.61 | 4.69 | 0.89 | 4.64 | 1.03 |
| Self/Other skills | 2.00 | 0.41 | 0.6680 | 4.97 | 0.65 | 5.09 | 0.61 | 5.11 | 0.77 |
| **Career Drivers** | | | | | | | | | |
| Career Purpose | 2.00 | 1.41 | 0.2501 | 5.19 | 0.90 | 4.92 | 0.82 | 5.20 | 0.71 |
| Career directedness | 2.00 | 0.75 | 0.4762 | 4.38 | 0.93 | 4.50 | 0.85 | 4.45 | 1.13 |
| Career Venturing | 2.00 | 1.22 | 0.2992 | 4.12 | 1.05 | 4.23 | 1.14 | 3.79 | 1.43 |
| **Career Harmonisers** | | | | | | | | | |
| Self-esteem | 2.00 | 1.59 | 0.2089 | 4.76 | 0.64 | 4.60 | 0.87 | 4.82 | 0.87 |
| Behavioural adaptability | 2.00 | 0.17 | 0.8425 | 4.85 | 0.58 | 4.85 | 0.70 | 4.71 | 0.86 |
| Emotional Literacy | 2.00 | 0.74 | 0.4811 | 4.80 | 1.04 | 4.61 | 0.93 | 4.78 | 0.71 |
| Social Connectivity | 2.00 | 2.02 | 0.1378 | 4.85 | 0.76 | 4.83 | 0.76 | 4.95 | 0.93 |
| **UWES-9 Scale** | **DF** | **F Value** | **Pr>F** | | | | | | |
| Vigour | 2.00 | 3.82 | 0.0253* | 3.98 | 1.21 | 4.22 | 1.05 | 4.61 | 1.04 |
| Dedication | 2.00 | 1.72 | 0.1852 | 4.43 | 1.46 | 4.55 | 1.15 | 5.09 | 0.98 |
| Absorption | 2.00 | 0.63 | 0.5338 | 4.45 | 1.23 | 4.45 | 1.06 | 4.85 | 0.99 |

**\*p≤0.05; \*\*p≤0.01; \*\*\*p≤0.001**

Table 4.6

*Least square means t-test: Age group differences regarding independence/autonomy*

| | **LSM for effect "age"** | | |
|---|---|---|---|
| | **Pr > \|t\| for H0: LS Mean *(i)* = LS Mean (j)** | | |
| | **Dependent  Variable: Independence/Autonomy** | | |
| **i/j** | **<25** | **26-40** | **<40** |
| **<25** | | 0.0890 | 0.0096 |
| **26-40** | 0.0890 | | 0.0570 |
| **>40** | 0.0096** | 0.0570 | |

**\*p≤0.05; \*\*p≤0.01; \*\*\*p≤0.001**

Table 4.7

*Least square means t-test: Age group differences regarding vigour*

| | LSM for effect "age" | | |
|---|---|---|---|
| | Pr > \|t\| for H0: LS Mean *(i)* = LS Mean (j) | | |
| | Dependent Variable: Vigour | | |
| i/j | <25 | 26-40 | <40 |
| <25 | | 0.4821 | 0.0123 |
| 26-40 | 0.4821 | | 0.0098 |
| >40 | 0.0123* | 0.0098** | |

**\*p≤0.05; \*\*p≤0.01; \*\*\*p≤0.001**

### 4.3.3.3    Marital status and occupational field: ANOVA

According to tables 4.8 and 4.9, the ANOVA test shows no significant differences between marital status groups or occupational level groups where psychological career resources (PCRI) and engagement (UWES-9) are concerned.

Table 4.8

*ANOVA and means for marital status: PCRI and UWES-9 (N = 111)*

| | | | | Married (N = 57) | | Single (N = 54) | |
|---|---|---|---|---|---|---|---|
| PCRI Scale | df | F Value | Sig | Mean | SD | Mean | SD |
| **Career Preferences** | | | | | | | |
| Stability/Expertise | 1.00 | 0.70 | 0.4062 | 5.05 | 0.70 | 5.19 | 0.60 |
| Managerial | 1.00 | 0.02 | 0.8904 | 3.97 | 1.10 | 4.19 | 1.15 |
| Variety/Creativity | 1.00 | 1.02 | 0.3147 | 4.41 | 1.08 | 4.67 | 0.97 |
| Independence/Autonomy | 1.00 | 2.54 | 0.1139 | 4.22 | 0.85 | 4.38 | 0.82 |
| **Career Values** | | | | | | | |
| Growth/Development | 1.00 | 0.09 | 0.7709 | 5.25 | 0.71 | 5.30 | 0.72 |
| Authority/Influence | 1.00 | 0.23 | 0.6299 | 4.21 | 1.04 | 4.35 | 1.04 |
| **Career Enablers** | | | | | | | |
| Practical/Creative skills | 1.00 | 1.34 | 0.2504 | 4.59 | 0.92 | 4.63 | 0.83 |
| Self/Other skills | 1.00 | 1.12 | 0.2927 | 5.17 | 0.56 | 4.97 | 0.68 |
| **Career Drivers** | | | | | | | |
| Career Purpose | 1.00 | 1.50 | 0.2239 | 5.03 | 0.80 | 4.96 | 0.86 |
| Career directedness | 1.00 | 0.01 | 0.9158 | 4.49 | 0.94 | 4.45 | 0.84 |
| Career Venturing | 1.00 | 1.37 | 0.2449 | 3.95 | 1.21 | 4.38 | 1.05 |
| **Career Harmonisers** | | | | | | | |
| Self-esteem | 1.00 | 0.31 | 0.5776 | 4.66 | 0.84 | 4.64 | 0.83 |
| Behavioural adaptability | 1.00 | 2.20 | 0.1409 | 4.89 | 0.72 | 4.78 | 0.65 |
| Emotional Literacy | 1.00 | 3.73 | 0.0563 | 4.79 | 0.82 | 4.52 | 1.02 |
| Social Connectivity | 1.00 | 0.10 | 0.7547 | 4.82 | 0.77 | 4.86 | 0.79 |
| **UWES-9 Scale** | **DF** | **F Value** | **Pr>F** | | | | |
| Vigour | 1.00 | 1.32 | 0.2529 | 4.28 | 1.12 | 4.14 | 1.04 |
| Dedication | 1.00 | 2.20 | 0.1412 | 4.71 | 1.10 | 4.44 | 1.28 |
| Absorption | 1.00 | 0.00 | 0.9790 | 4.49 | 1.09 | 4.48 | 1.09 |

**\*p≤0.05; \*\*p≤0.01; \*\*\*p≤0.001**

Table 4.9

*ANOVA and means for occupational fields: PCRI and UWES-9 (N = 111)*

| PCRI Scale | df | F Value | Sig | Finance (N = 53) | | HR (N = 41) | | Other (N = 17) | |
|---|---|---|---|---|---|---|---|---|---|
| **Occupational Field** | | | | | | | | | |
| | | | | Mean | SD | Mean | SD | Mean | SD |
| **Career Preferences** | | | | | | | | | |
| Stability/Expertise | 2.00 | 0.06 | 0.9425 | 5.22 | 0.60 | 5.03 | 0.71 | 5.02 | 0.66 |
| Managerial | 2.00 | 0.47 | 0.6289 | 4.21 | 1.06 | 3.96 | 1.11 | 3.94 | 1.36 |
| Variety/Creativity | 2.00 | 0.97 | 0.3815 | 4.51 | 0.98 | 4.45 | 1.07 | 4.82 | 1.12 |
| Independence/Autonom | 2.00 | 1.91 | 0.1535 | 4.31 | 0.78 | 4.31 | 0.81 | 4.24 | 1.08 |
| **Career Values** | | | | | | | | | |
| Growth/Development | 2.00 | 1.07 | 0.3463 | 5.19 | 0.77 | 5.25 | 0.68 | 5.59 | 0.52 |
| Authority/Influence | 2.00 | 0.93 | 0.3961 | 4.30 | 1.01 | 4.33 | 1.04 | 4.10 | 1.18 |
| **Career Enablers** | | | | | | | | | |
| Practical/Creative skills | 2.00 | 0.70 | 0.4986 | 4.61 | 0.93 | 4.48 | 0.72 | 4.88 | 1.01 |
| Self/Other skills | 2.00 | 1.07 | 0.3469 | 5.07 | 0.69 | 5.15 | 0.46 | 4.88 | 0.77 |
| **Career Drivers** | | | | | | | | | |
| Career Purpose | 2.00 | 1.61 | 0.2048 | 5.02 | 0.83 | 5.12 | 0.78 | 4.63 | 0.89 |
| Career directedness | 2.00 | 0.56 | 0.5738 | 4.49 | 0.98 | 4.40 | 0.75 | 4.59 | 0.95 |
| Career Venturing | 2.00 | 0.49 | 0.6125 | 4.14 | 1.20 | 4.07 | 1.06 | 4.45 | 1.24 |
| **Career Harmonisers** | | | | | | | | | |
| Self-esteem | 2.00 | 0.44 | 0.6476 | 4.60 | 0.89 | 4.60 | 0.77 | 4.91 | 0.80 |
| Behavioural adaptability | 2.00 | 0.89 | 0.4109 | 4.76 | 0.73 | 4.86 | 0.69 | 5.02 | 0.53 |
| Emotional Literacy | 2.00 | 1.55 | 0.2183 | 4.69 | 1.00 | 4.76 | 0.83 | 4.32 | 0.92 |
| Social Connectivity | 2.00 | 0.44 | 0.6461 | 4.90 | 0.76 | 4.81 | 0.78 | 4.74 | 0.84 |
| **UWES-9 Scale** | **DF** | **F Value** | **Pr>F** | | | | | | |
| Vigour | 2.00 | 0.37 | 0.6890 | 4.01 | 1.13 | 4.37 | 0.99 | 4.49 | 1.08 |
| Dedication | 2.00 | 0.63 | 0.5326 | 4.35 | 1.29 | 4.74 | 1.03 | 4.94 | 1.16 |
| Absorption | 2.00 | 0.17 | 0.8472 | 4.29 | 1.09 | 4.61 | 1.09 | 4.80 | 1.01 |

**\*p≤0.05; \*\*p≤0.01; \*\*\*p≤0.001**

### 4.3.3.4    Occupational level: Discussion of ANOVA, means and t-test

According to Table 4.10, the ANOVA tests show a statistically significant difference in the mean scores between occupational levels where social connectivity (career harmoniser) and absorption (engagement dimension) are concerned. The least square means *t*-test (Table 4.11) indicates that personnel on the management level (mean = 4.23; *SD*= 0.68) have a significantly lower score for social connectivity than those on first-line supervisory level (mean = 4.91; *SD*= 0.69) and staff (mean = 4.92; *SD*= 0.78). Table 4.12 indicates that personnel on the management level (mean = 5.08; *SD*= 1.01) are significantly more absorbed in their work than staff members (mean = 4.45; *SD*= 1.01). Although the absorption mean of the management level is also higher than that of the supervisory level (mean = 4.40; *SD*= 1.11), the difference is not significant.

Table 4.10

*ANOVA and means for occupational levels: PCRI and UWES-9 (N = 111)*

| PCRI Scale | df | F Value | Sig | First Line Supervisor (N = | | Management (N = 12) | | Staff (N = 71) | |
|---|---|---|---|---|---|---|---|---|---|
| **Occupational Level** | | | | | | | | | |
| **Career Preferences** | | | | Mean | SD | Mean | SD | Mean | SD |
| Stability/Expertise | 2.00 | 0.34 | 0.7095 | 5.06 | 0.66 | 5.12 | 0.61 | 5.14 | 0.67 |
| Managerial | 2.00 | 1.12 | 0.3291 | 4.03 | 1.02 | 4.33 | 1.46 | 4.05 | 1.11 |
| Variety/Creativity | 2.00 | 0.99 | 0.3771 | 4.30 | 1.00 | 4.90 | 1.12 | 4.57 | 1.03 |
| Independence/Autonomy | 2.00 | 2.72 | 0.0710 | 4.20 | 0.77 | 4.81 | 0.95 | 4.25 | 0.82 |
| **Career Values** | | | | | | | | | |
| Growth/Development | 2.00 | 0.34 | 0.7126 | 5.25 | 0.67 | 5.17 | 0.99 | 5.31 | 0.69 |
| Authority/Influence | 2.00 | 1.62 | 0.2022 | 4.13 | 1.00 | 4.61 | 1.14 | 4.28 | 1.04 |
| **Career Enablers** | | | | | | | | | |
| Practical/Creative skills | 2.00 | 0.82 | 0.4417 | 4.68 | 0.91 | 4.96 | 0.90 | 4.52 | 0.85 |
| Self/Other skills | 2.00 | 0.15 | 0.8612 | 5.07 | 0.63 | 5.05 | 0.59 | 5.08 | 0.64 |
| **Career Drivers** | | | | | | | | | |
| Career Purpose | 2.00 | 0.83 | 0.4398 | 4.88 | 0.76 | 4.81 | 1.09 | 5.07 | 0.81 |
| Career directedness | 2.00 | 0.87 | 0.4225 | 4.56 | 0.89 | 4.69 | 0.83 | 4.40 | 0.90 |
| Career Venturing | 2.00 | 0.90 | 0.4079 | 3.87 | 1.21 | 4.00 | 1.28 | 4.31 | 1.10 |
| **Career Harmonisers** | | | | | | | | | |
| Self-esteem | 2.00 | 0.12 | 0.8846 | 4.59 | 0.91 | 4.55 | 0.82 | 4.69 | 0.81 |
| Behavioural adaptability | 2.00 | 0.60 | 0.5492 | 4.90 | 0.70 | 4.78 | 0.67 | 4.82 | 0.70 |
| Emotional Literacy | 2.00 | 0.38 | 0.6832 | 4.66 | 0.82 | 4.43 | 1.07 | 4.70 | 0.95 |
| Social Connectivity | 2.00 | 3.98 | 0.0217* | 4.91 | 0.69 | 4.23 | 0.68 | 4.92 | 0.78 |
| **UWES-9 Scale** | **DF** | **F Value** | **Pr>F** | | | | | | |
| Vigour | 2.00 | 1.66 | 0.1949 | 4.20 | 1.21 | 4.50 | 0.93 | 4.17 | 1.06 |
| Dedication | 2.00 | 0.33 | 0.7199 | 4.56 | 1.17 | 4.81 | 0.86 | 4.55 | 1.26 |
| Absorption | 2.00 | 3.51 | 0.0338* | 4.45 | 1.02 | 5.08 | 1.01 | 4.40 | 1.11 |

**\*p≤0.05; \*\*p≤0.01; \*\*\*p≤0.001**

Table 4.11

*Least square means t-test: Occupational levels group differences regarding social connectivity*

| i/j | LSM for effect "Occupational level" Pr > \|t\| for H0: LS Mean *(i)* = LS Mean (j) Dependent Variable: Social connectivity | | |
|---|---|---|---|
| | **First Line Supervisor** | **Management** | **Staff** |
| **First Line Supervisor** | | 0.0183 | 0.8768 |
| **Management** | 0.0183* | | 0.0071 |
| **Staff** | 0.8768 | 0.0071** | |

**\*p≤0.05; \*\*p≤0.01; \*\*\*p≤0.001**

Table 4.12

*Least square means t-test: Occupational levels group differences regarding absorption*

| | LSM for effect "Occupational level" | | |
| | Pr > \|t\| for H0: LS Mean *(i)* = LS Mean (j) | | |
| | Dependent Variable: Absorption | | |
| i/j | First Line Supervisor | Management | Staff |
|---|---|---|---|
| **First Line Supervisor** | | 0.1173 | 0.2696 |
| **Management** | 0.1773 | | 0.0103 |
| **Staff** | 0.2696 | 0.0103* | |

**\*p≤0.05; \*\*p≤0.01; \*\*\*p≤0.001**

### 4.3.3.5    *Department: Discussion of ANOVA, means and t-test*

The ANOVA test as presented in Table 4.13 indicated that statistically significant differences occurred between departments when the following PCRI variables and the UWES-9 variables were considered:

- Managerial (career preference)
- Authority/Influence (career value)
- Self-esteem (career harmoniser)
- Behavioural adaptability (career harmoniser)
- Social connectivity (career harmoniser)
- Vigour (engagement)
- Dedication (engagement)

Table 4.13

*ANOVA and means for departments: PCRI and UWES-9 (N = 111)*

| Department | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PCRI Scale | df | F Value | Sig | HR Consulting (*n* = 25) | | Other (*n* = 18) | | Outsourcing (N = 23) | | Payroll Consulting (N = 45) | |
| **Career Preferences** | | | | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| Stability/Expertise | 3.00 | 0.61 | 0.6072 | 4.98 | 0.65 | 4.96 | 0.75 | 5.08 | 0.72 | 5.28 | 0.57 |
| Managerial | 3.00 | 5.70 | 0.0012** | 4.10 | 1.01 | 3.19 | 1.14 | 3.87 | 1.09 | 4.52 | 0.98 |
| Variety/Creativity | 3.00 | 2.16 | 0.0979 | 4.71 | 1.12 | 4.33 | 1.04 | 4.16 | 1.09 | 4.71 | 0.92 |
| Independence/Autonomy | 3.00 | 0.90 | 0.4418 | 4.38 | 0.93 | 4.19 | 0.93 | 4.20 | 0.86 | 4.35 | 0.75 |
| **Career Values** | | | | | | | | | | | |
| Growth/Development | 3.00 | 0.36 | 0.7808 | 5.23 | 0.74 | 5.44 | 0.60 | 5.09 | 0.79 | 5.33 | 0.70 |
| Authority/Influence | 3.00 | 3.51 | 0.0182* | 4.48 | 1.07 | 3.74 | 0.92 | 3.93 | 0.99 | 4.56 | 0.99 |
| **Career Enablers** | | | | | | | | | | | |
| Practical/Creative skills | 3.00 | 0.61 | 0.6122 | 4.47 | 0.80 | 4.51 | 0.75 | 4.63 | 1.08 | 4.71 | 0.86 |
| Self/Other skills | 3.00 | 1.44 | 0.2356 | 5.02 | 0.55 | 5.03 | 0.51 | 5.03 | 0.69 | 5.13 | 0.69 |
| **Career Drivers** | | | | | | | | | | | |
| Career Purpose | 3.00 | 0.77 | 0.5162 | 4.99 | 0.87 | 4.89 | 0.91 | 4.96 | 0.78 | 5.07 | 0.81 |
| Career directedness | 3.00 | 2.70 | 0.0500 | 4.50 | 0.78 | 4.00 | 0.62 | 4.42 | 1.05 | 4.67 | 0.90 |
| Career Venturing | 3.00 | 2.50 | 0.0636 | 4.15 | 1.09 | 3.76 | 1.03 | 3.70 | 1.13 | 4.57 | 1.13 |
| **Career Harmonisers** | | | | | | | | | | | |
| Self-esteem | 3.00 | 3.03 | 0.0331* | 4.70 | 0.81 | 4.42 | 0.75 | 4.34 | 1.00 | 4.86 | 0.73 |
| Behavioural adaptability | 3.00 | 3.71 | 0.0141* | 4.85 | 0.62 | 4.70 | 0.71 | 4.53 | 0.84 | 5.04 | 0.57 |
| Emotional Literacy | 3.00 | 0.96 | 0.4140 | 4.72 | 0.94 | 4.56 | 0.83 | 4.51 | 1.11 | 4.74 | 0.88 |
| Social Connectivity | 3.00 | 2.88 | 0.0398* | 4.70 | 0.87 | 4.78 | 0.68 | 4.61 | 0.86 | 5.06 | 0.67 |
| **UWES-9 Scale** | DF | F Value | Pr>F | | | | | | | | |
| Vigour | 3.00 | 6.14 | 0.0007*** | 4.60 | 0.83 | 4.41 | 0.87 | 3.59 | 1.22 | 4.24 | 1.10 |
| Dedication | 3.00 | 3.50 | 0.0182* | 4.84 | 0.95 | 4.93 | 0.95 | 3.87 | 1.60 | 4.67 | 1.04 |
| Absorption | 3.00 | 1.59 | 0.1969 | 4.57 | 1.09 | 4.98 | 0.73 | 4.09 | 1.18 | 4.44 | 1.10 |

**\*p<0.05; \*\*p<0.01; \*\*\*p<0.001**

Table 4.14

*Least square means t-test: Department group differences regarding managerial*

| | LSM for effect "Department" | | | |
| | Pr > \|*t*\| for H0: LS Mean(*i*) = LS Mean (*j*) | | | |
| | Dependent Variable: Managerial | | | |
| i/j | HR Consulting | Other | Outsourcing | Payroll Consulting |
|---|---|---|---|---|
| HR Consulting | | 0.0126 | 0.8373 | 0.0746 |
| Other | 0.0126* | | 0.0537 | 0.0002 |
| Outsourcing | 0.8373 | 0.0537 | | 0.0803 |
| Payroll Consulting | 0.0746 | 0.0002*** | 0.0803 | |

*p≤0.05; **p≤0.01; ***p≤0.001

Table 4.14 indicates that the departments grouped as 'other' have a significantly weaker score for the managerial career preference (mean = 3.19; *SD*= 1.14) than HR Consulting (mean = 4.10; *SD*= 1.01) and Payroll Consulting (mean = 4.52; *SD*= 1.14). Payroll Consulting shows the strongest preference for the managerial role, although it does not differ significantly from the HR Consulting or Outsourcing departments.

Table 4.15

*Least square means t-test: Department group differences regarding authority/influence*

| | LSM for effect "Department" | | | |
| | Pr > \|*t*\| for H0: LS Mean(*i*) = LS Mean (*j*) | | | |
| | Dependent Variable: Authority/Influence | | | |
| i/j | HR Consulting | Other | Outsourcing | Payroll Consulting |
|---|---|---|---|---|
| HR Consulting | | 0.0386 | 0.3043 | 0.5643 |
| Other | 0.0386* | | 0.6737 | 0.0229 |
| Outsourcing | 0.3043 | 0.6737 | | 0.0275 |
| Payroll Consulting | 0.5643 | 0.0229* | 0.0275* | |

*p≤0.05; **p≤0.01; ***p≤0.001

Table 4.15 indicates that the departments grouped as 'other' (mean = 3.74; *SD*= 0.92) have a significantly lower score on the career value called authority/influence than HR Consulting (mean = 4.48; *SD*= 1.07) and Payroll Consulting (mean = 4.56; *SD*= 0.99). The Outsourcing department (mean = 3.93; *SD*= 0.99) also has a significantly lower score for authority/influencing

than the Payroll department (mean = 4.56; *SD*= 0.99). Payroll Consulting places the highest value on authority/influencing, although it does not differ significantly from HR Consulting.

Table 4.16

*Least square means t-test: Department group differences regarding self-esteem*

| | LSM for effect "Department" | | | |
| | Pr > \|*t*\| for H0: LS Mean *(i)* = LS Mean (j) | | | |
| | Dependent Variable: Self-esteem | | | |
| i/j | HR Consulting | Other | Outsourcing | Payroll Consulting |
|---|---|---|---|---|
| **HR Consulting** | | 0.1841 | 0.2760 | 0.4628 |
| **Other** | 0.1841 | | 0.8717 | 0.0726 |
| **Outsourcing** | 0.2760 | 0.8717 | | 0.0135 |
| **Payroll Consulting** | 0.4628 | 0.0726 | 0.0135* | |

**\*p≤0.05; \*\*p≤0.01; \*\*\*p≤0.001**

Table 4.16 indicates that staff in the Payroll Consulting department (mean = 4.86; *SD*= 0.73) have a significantly higher score on self-esteem (career harmoniser) than staff in the Outsourcing department (mean = 4.34; *SD*= 1.00). Again, Payroll Consulting has the highest mean, although it does not differ significantly from HR Consulting or the departments grouped as 'other'.

Table 4.17

*Least square means t-test: Department group differences regarding behavioural adaptability*

| | LSM for effect "Department" | | | |
| | Pr > \|*t*\| for H0: LS Mean *(i)* = LS Mean (j) | | | |
| | Dependent Variable: Behavioural adaptability | | | |
| i/j | HR Consulting | Other | Outsourcing | Payroll Consulting |
|---|---|---|---|---|
| **HR Consulting** | | 0.330 | 0.5185 | 0.1467 |
| **Other** | 0.330 | | 0.9734 | 0.0315 |
| **Outsourcing** | 0.5185 | 0.9734 | | 0.0088 |
| **Payroll Consulting** | 0.1467 | 0.0315* | 0.0088** | |

**\*p≤0.05; \*\*p≤0.01; \*\*\*p≤0.001**

Table 4.17 indicates that the Payroll Consulting department (mean = 5.04; *SD*= 0.57) has a significantly more highly developed career harmoniser in the form of behavioural adaptability

than the departments grouped as 'other' (mean = 4.70; *SD*= 0.71) and the Outsourcing department (mean = 4.53; *SD*= 0.84).

Table 4.18

*Least square means t-test: Department group differences regarding social connectivity*

| | LSM for effect "Department" | | | |
| | Pr > \|*t*\| for H0: LS Mean *(i)* = LS Mean (j) | | | |
| | Dependent Variable: Social connectivity | | | |
| i/j | HR Consulting | Other | Outsourcing | Payroll Consulting |
|---|---|---|---|---|
| HR Consulting | | 0.8564 | 0.3502 | 0.2701 |
| Other | 0.8564 | | 0.4237 | 0.2412 |
| Outsourcing | 0.3502 | 0.4237 | | 0.0080 |
| Payroll Consulting | 0.2701 | 0.2412 | 0.0080** | |

*p≤0.05; **p≤0.01; ***p≤0.001

Table 4.18 indicates that the Payroll Consulting department (mean = 5.06; *SD*= 0.67) has a significantly greater sense of social connectivity than the Outsourcing department. Payroll Consulting has the highest mean score for social connectivity, although it does not differ significantly from HR Consulting and the departments grouped as 'other'.

Table 4.19

*Least square means t-test: Department group differences regarding vigour*

| | LSM for effect "Department" | | | |
| | Pr > \|*t*\| for H0: LS Mean *(i)* = LS Mean (*j*) | | | |
| | Dependent Variable: Vigour | | | |
| i/j | HR Consulting | Other | Outsourcing | Payroll Consulting |
|---|---|---|---|---|
| HR Consulting | | 0.8564 | 0.3502 | 0.2701 |
| Other | 0.8564 | | 0.4237 | 0.2412 |
| Outsourcing | 0.3502 | 0.4237 | | 0.0080 |
| Payroll Consulting | 0.2701 | 0.2412 | 0.0080** | |

*p≤0.05; **p≤0.01; ***p≤0.001

The least square means *t*-test presented in Table 4.19 indicates that staff in the Payroll Department (mean = 3.59; *SD*= 1.22) show a significantly higher tendency to experience vigour in their work than the Outsourcing department (mean = 4.24; *SD*= 1.10). The HR Consulting department reported experiencing vigour in their work more often than any of the other

departments. It should, however, be kept in mind that the difference between HR Consulting and the other departments is not significant.

Table 4.20

*Least square means t-test: Department group differences regarding dedication*

| i/j | LSM for effect "Department" | | | |
| | Pr > /t/ for H0: LS Mean *(i)* = LS Mean (j) | | | |
| | Dependent Variable: Dedication | | | |
| | HR Consulting | Other | Outsourcing | Payroll Consulting |
|---|---|---|---|---|
| HR Consulting | | 0.7308 | 0.0069 | 0.3303 |
| Other | 0.7308 | | 0.0143 | 0.5419 |
| Outsourcing | 0.0069** | 0.0143* | | 0.0028 |
| Payroll Consulting | 0.3303 | 0.5419 | 0.0028** | |

**\*p≤0.05; \*\*p≤0.01; \*\*\*p≤0.001**

Table 4.20 indicates that staff in the Outsourcing department (mean = 3.87; *SD*= 1.60) experience significantly lower levels of dedication than the HR Consulting department (mean = 4.84; *SD*= 0.95), the Payroll Consulting department (mean = 4.67; *SD*= 1.04) and the departments grouped as 'other' (mean = 4.93; *SD*= 0.95). The departments grouped as 'other' indicate the highest levels of dedication, although this group does not differ significantly from the Payroll and HR Consulting departments.

The Outsourcing department scored significantly lower on the dedication and vigour variables of engagement than all other departments. There also seem to be many significant differences between the Outsourcing department and the Payroll department. Regarding engagement, the Outsourcing department scored significantly lower on the dedication and vigour component than the Payroll department. With regard to psychological career resources, the Outsourcing department showed significantly lower means than the Payroll department for the career value of authority/influence and the career harmonisers of self-esteem, behavioural adaptability and social connectivity. These significant differences indicate that the employees in the Outsourcing department are significantly less engaged than employees in the Payroll department, have a significantly weaker ability to adapt to change and to bounce back from failures than employees in the Payroll department, have a significantly weaker ability to connect with others in the work environment and show a significantly less positive self-esteem than employees in the Payroll department. It is interesting to note that the vast majority of the staff in the Outsourcing

department transferred from the Payroll department. This may indicate that the above variables in terms of psychological career resources and engagement may be critical to an individual's ability to develop a career in the Payroll Consulting division.

There were no significant differences between the HR Consulting department and the Payroll Consulting department. The smaller departments grouped as 'other' obtained a significantly lower mean score regarding the career value of authority/influence than any of the other departments. This may indicate that employees in the departments grouped as 'other' may value self management as opposed to managing others significantly more than employees in the HR Consulting, Payroll Consulting or Outsourcing departments.

## 4.4 Integration of Research Findings

To date the author of this dissertation has not been able to find any studies exploring the relationships between psychological career resources and work engagement. Both work engagement and psychological career resources are relatively new concepts. The definitions and constructs of work engagement in particular are still debated by scholars (Macey & Schneider, 2008).

As discussed in Chapter 2, the organisation where this study was conducted is a typical 21st century medium-sized South African organisation specialising in HR and payroll software and services. The organisation has a strong focus on employee development, performance and technology.

The primary aim of the study was to find whether a relationship existed between psychological career resources and engagement. A subsidiary aim of the study was to find whether a psychological career resources profile and engagement profile could be identified for the consultants at the organisation by looking at the descriptive statistics. The subsidiary aim was not to conduct a profile analysis against a set of criteria, but to merely observe whether dominant elements presented themselves regarding psychological career resources and engagement in the descriptive statistics. As secondary and tertiary objectives, the study intended to find whether there were significant differences in psychological career resources and in engagement with regard to gender, age, marital status, occupational level, occupational field and departments in which employed.

As mentioned, the primary aim of the study was to determine whether any relationship existed between psychological career resources and engagement. The regression analysis shows that career purpose has a negative impact on vigour. This is reflected in the mean scores, where career purpose was shown as the dominant career driver and one of the strongest overall psychological career resources, while vigour was reported as the lowest engagement variable. The regression analysis also shows that career venturing and self/other skills have a negative effect on dedication. Career venturing refers to individuals' willingness to move easily between career opportunities and take career risks, which explains why dedication levels will decrease when career venturing increases. There is no literature that supports the weak negative effect of self/other skills on dedication as reported by the regression analysis, and it is also not supported by the correlation statistics. A possible explanation could be that as individuals' ability to understand their own motives and emotions as well as those of others increases, this may increase their ability to build supportive networks, creating more career opportunities and increasing the ability to venture into new career avenues. More research on the relationship between self/other skills and dedication would need to be conducted before a definite explanation can be offered.

In terms of psychological career resources, the career harmonisers (specifically behavioural adaptability and self-esteem) have a very powerful positive impact on engagement. The correlation statistics also support a very strong positive relationship. Behavioural adaptability and self-esteem have a significant impact on both vigour and dedication, while absorption is affected strongly by behavioural adaptability. There is no previous research done between these constructs and this finding therefore provides meaningful insight into the antecedents of engagement in the 21$^{st}$ century world of work. The data shows that individuals with a strong ability to adapt to change (a crucial 21$^{st}$ century career-meta competency), to bounce back from failure and to deal well with obstacles will have higher engagement levels, specifically as regards vigour, dedication and absorption. If one regards the definitions of each of these engagement constructs closely, the implication is that behavioural adaptability and self-esteem firstly increase employees' energy levels, mental resilience and psychological availability to engage in work. Secondly, they increase the employees' sense of significance, inspiration and pride and lead to seeking challenges. Thirdly, behavioural adaptability specifically allows employees to experience a sense of internal enjoyment or, as Khan (1990) puts it, psychological meaningfulness.

A subsidiary aim of the study was to find whether any dominant psychological career resources or engagement factors were presented by the descriptive statistics. From the mean scores it is clear that the participating consultants at this organisation indicate the following dominant career resources:

- Career preference: Stability/expertise;
- Career value: Growth and development;
- Career enabler: Self/other skills;
- Career driver: Career purpose;
- Career harmonisers: Behavioural adaptability and social connectivity.

This psychological career profile as presented by the mean scores indicates a strong sense of career purpose, an ability to connect with others in the work environment and build positive relationships with others, while being able to manage themselves. They also possess the ability to adapt to change, to bounce back successfully from failures and deal effectively with obstacles, and they place great value on growth and development opportunities.

The psychological career resources that are somewhat less developed are practical/creative skills with reference to developing one's career, career venturing and career directedness. This suggests that consultants are uncertain about future career development opportunities and have not yet fully developed the skills to investigate, discover and craft their own career paths. This is supported by the 2011 Deloitte Best Company to Work for survey, discussed in Chapter 2, which identified one of the employees' needs within this organisation as a clear available career path.

The high mean scores on stability/expertise, growth and development and the low score on career venturing indicates that consultants would prefer to develop their skills and careers in a work environment that offers security and stability. Similar results were obtained by Matthysen (2012) among graduates. Coetzee and Bergh (2009) also found a similar psychological career resources profile among working adults who were still continuing their studies. These findings support Baccili and Granrose's (2006) findings, which suggested that the psychological contract in the 21st century still retains aspects of the "old" psychological contract in terms of security and stability.

Growth and development is by far the strongest psychological career resource, which indicates that even though consultants prefer a stable work environment they realise that they will

probably not be in service in one organisation for the rest of their lives and therefore place an even higher value on growth and development opportunities than stability. This is also in line with the literature, as Baccili and Granrose (2006) found in their study that when the psychological contract of growth and development is breached it leads directly to an intention to leave the organisation, while a breach in security and stability does not lead to an intention to leave the organisation.

This psychological profile is in line with the literature that states that behavioural adaptability is key to building a career in the 21st century. Butts et al. (2003) and the literature on high-performance organisations states that flexibility as an employee characteristic is necessary for organisations to be agile and reach high performance levels (De Waal, 2010). The psychological career resources profile within this organisation also reflects the characteristics of the protean career, namely flexibility, psychological success or a sense of obtaining meaning from one's job and continuous development (Hall, 1996). Flexibility is reflected by the career harmoniser called behavioural adaptability; psychological success is reflected by the career driver called career purpose; and continuous development is reflected by the career value of growth and development. The psychological career resources profile found within this study therefore clearly portrays the elements of the 21st century organisation and the 21st century career types.

The mean scores of the engagement factors were very closely aligned and show an overall positive engagement tendency or profile. The literature did lead the researcher to expect that vigour would be a more dominant engagement characteristic. Instead it had the lowest mean score of the three engagement factors. This may mean that staff's engagement levels are more a result of their dedication and ability to become absorbed in their work. However, further studies would be necessary to ascertain the cause of vigour being the lowest engagement factor.

As regards the secondary and tertiary aims of the study, the relationships found in the correlation and regression analysis (primary aim of the study) are also demonstrated in the significant differences obtained between the Outsourcing department and the Payroll Consulting department. When compared with The Payroll Consulting department, the Outsourcing department reported significantly lower scores on both behavioural adaptability and self-esteem, as well as significantly lower vigour and dedication scores.

Individuals with strong behavioural adaptability have a stronger capacity to balance work and life roles (Coetzee & Bergh, 2009). Coetzee and Bergh (2009) also found that those in the age group over 40 (middle career stage) are better able to balance work and life roles than younger individuals. This may explain why the data in this study reported significantly higher levels of vigour in the above-40 age group than in any of the younger age groups.

The implications of the above results provide valuable information with regard to training and development focus points, as well as to the competencies that high-performance organisations in the 21$^{st}$ century should be mindful of when conducting recruitment selection, succession management and career assistance strategies within the organisation.

Table 4.21 presents a summary of the research findings with regard to the hypotheses as stated in Chapter 1 and Chapter 3:

Table 4.21

*Summary of the research findings*

| | Hypothesis | Finding |
|---|---|---|
| H1$_0$ | There is no relationship between psychological career resources and engagement in a sample of consultants at a medium-sized South African firm specialising in Payroll and HR software and services. | **Not accepted** |
| H1$_a$ | There is a relationship between psychological career resources and engagement in a sample of consultants at a medium-sized South African firm specialising in Payroll and HR software and services. | **Accepted** |
| H2$_0$ | There is no significant difference between individuals' socio-demographic and occupational variables with regard to engagement. | **Not accepted** |
| H2$_a$ | There is a significant difference between individuals' socio-demographic and occupational variables with regard to engagement. | **Accepted** |
| H3$_0$ | There is no significant difference between individuals' socio-demographic and occupational variables with regard to psychological career resources. | **Not accepted** |
| H3$_a$ | There is a significant difference between individuals' socio-demographic and occupational variables with regard to psychological career resources. | **Accepted** |

Table 4.21 indicates that significant relationships do exist between engagement and psychological career resources and that there are significant differences in socio-demographic

and occupational variables with regard to engagement and psychological career resources, as discussed in section 4.3.3.

## 4.5    Chapter Summary

Chapter 4 had as its aim to present the empirical results from the research study and to answer the research questions with regard to the empirical study, as stipulated in Chapter 1. The results of both the descriptive and inferential statistics were presented in Chapter 4 in a logical and structured fashion and discussed. Thereafter the results were integrated with the literature in order to provide a clearer perspective of the findings. Chapter 5 will present the conclusion, recommendations and limitations.

# CHAPTER 5:  CONCLUSIONS, LIMITATIONS & RECOMMENDATIONS

## 5.1    Introduction

Engagement is a complex construct that is very poorly understood by HR practitioners and industrial psychologists (Macey & Schneider, 2008). Furthermore, no research exists to determine the possible relationships between engagement and psychological career resources. This study aimed to conceptualise both these constructs from a theoretical point of view and study their statistical properties from an empirical point of view. Chapter 5 will firstly present the final conclusions regarding this study. Secondly, it will discuss the implications and limitations of the study, and finally recommendations will be made. Figure 5.1 shows the map to Chapter 5:
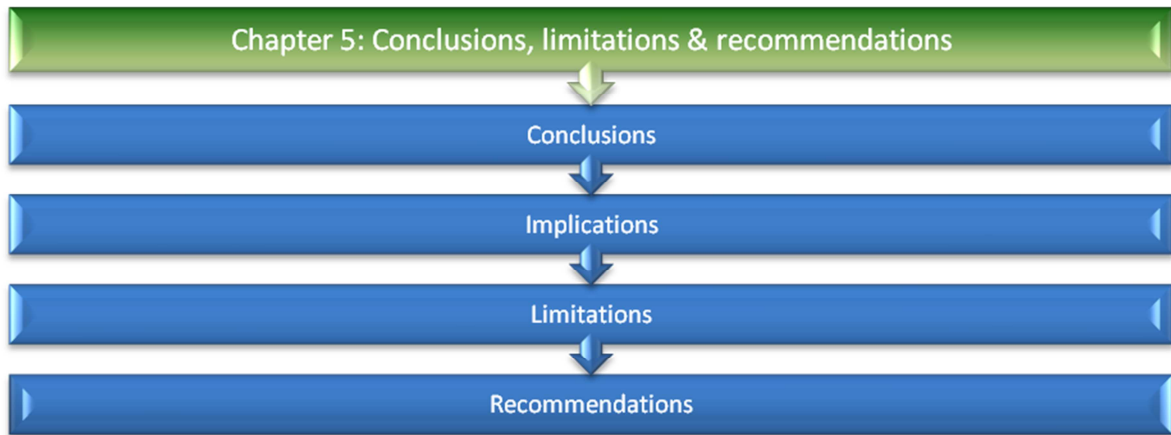


*Figure 5.1.* Conclusions, limitations & recommendations

## 5.2    Conclusions

This section will provide a summary of the conclusions drawn from the literature review, the empirical study and the central hypotheses.

5.2.1   Conclusions regarding the literature review

The literature review had as its purpose the conceptualisation of engagement and psychological career resources as two unique constructs. The research questions with regard to the literature review were stated as follows in Chapter 1:

- *Research question 1:* What is the nature of the 21$^{st}$ century world of work and its impact on the psychological contract and careers?
- *Research question 2:* How is the construct of psychological career resources explained and conceptualised from a theoretical point of view?
- *Research question 3:* How is the construct of engagement explained and conceptualised from a theoretical point of view?

The literature review concluded that the 21$^{st}$ century world of work is characterised by technology and a strong focus on performance. Not only was the literature regarding the 21$^{st}$ century world of work and the high performance organisation with its technological orientation reviewed, but the literature available regarding the organisation where the empirical study was to be held was also reviewed in order to show that this particular organisation's environment reflected that of the 21$^{st}$ century world of work. After examining three comprehensive studies conducted on high-performance organisations in the 21$^{st}$ century (Buckingham & Coffman, 1999; Jamrog et al., 2008; De Waal, 2010), the researcher concluded that high-performance organisations present the following characteristics:

- *Organisational design and structure*: Organisational structures are flat, flexible and allow for cross-departmental project teams.
- *Performance measures*: Performance measures are clearly defined and regular performance feedback is received. The communication of performance feedback also speaks to the importance that is placed on relationships.
- *Value driven*: There is a fit between individuals' value systems and the value system of the organisation. Management models the behaviour that is aligned with the organisation's values.
- *Development and growth*: There is a great focus on development and growth. Development is not limited to functional training, but includes professional and personal growth and the transfer of knowledge through coaching.
- *Innovation*: These organisations encourage and reward innovation. Processes are designed in a fashion that supports the flexibility required to innovate.

- *Technology*: Technology is regarded as a driver of strategy and not merely as a means to an end.
- *Relationships*: High-performing employees in these organisations have an expectation to be treated fairly and ethically. Open communication and networking relationships are not restricted only to the organisation, but maintained across organisations, as business partnerships are forged with professional institutions, regulatory bodies, clients and competitors. This diversity of relationships is also reflected in the diversity of the workforce, not only with regard to culture, but also with regard to experience and skills.
- *Agility*: The integration of the building blocks of a high-performance organisation discussed above is exactly what allows the building block of agility to exist. This places the organisation in a position to not only respond to external changes, but also influence external changes.

Thereafter the focus was on the impact of the 21st century world of work on the psychological contract, and career development was investigated. It was found that the psychological contract has changed to that of a mutually beneficial partnership between the organisation and the employee (Park, 2009). With regard to the impact on careers, it was concluded that the 21st century world of work had given rise to the protean and boundaryless career, which is characterised by mobility, continuous development, flexibility and a focus on work-life balance (Hall, 1996; Arthur, 1994).

The competencies required to develop a career in the 21st century were explored by reviewing the study of Butts et al. (2003), the career anchors of Schein (1996), Mervis and Hall (1995) and finally the "psychological career resources" discussed by Coetzee (2008). The psychological career resources are divided into five dimensions, including career preferences and career values, which form the foundation upon which all career decisions are made (Coetzee, 2008). Career enablers refer to skills that help individuals to develop a career, while career drivers represent the perceptions people hold regarding their future career paths and their ability to fulfil certain roles (Coetzee, 2008). Career harmonisers are the psychological competencies that allow an individual to be resilient and to balance career drivers (Coetzee, 2008).

Engagement was found to be a highly complex and controversial construct with many vague definitions. Four approaches to engagement offered discrete conceptualisations of the construct: the approaches of Khan (1990), Maslach and Leiter (1997), Schaufeli, Salanova, et al. (2002)

and Macey and Schneider (2008). It was found that Schaufeli, Salanova, et al. (2002) presented the most valid and reliable model of engagement, which is measurable using the UWES-9. This model defines engagement (Schaufeli, Salanova, et al., 2002, p. 74) as a:

> [p]ositive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption. Rather than a momentary and specific state, engagement referes to a pervasive affective-cognitive state that is not focused on any particular object, event, individual, or behavior.

Vigour refers to high energy levels, mental resilience and the willingness to invest oneself in one's work (Schaufeli, Salanova, et al., 2002). Dedication is recognised by a sense of significance, inspiration, pride and challenge, while absorption refers to being happily engrossed in one's work or experiencing a sense of internal enjoyment (Schaufeli, Salanova, et al., 2002).

No studies could be found to shed any light on possible relationships between psychological career resources and engagement. It was, however, found that the job demand-resources model (Demerouti et al., 2001) had certain job resources with similar definitions to those of some of the psychological career resources. The findings from studies conducted between the relationships of these job resources and engagement suggested that the following relationships between engagement and psychological career resources might exist:

- Stability/expertise;
- Autonomy/Independence;
- Emotional literacy;
- Social connectivity;
- Behavioural adaptability;
- Self-esteem;
- Career purpose;
- Career directedness;
- Career venturing.

5.2.2 Conclusions regarding the empirical study

The purpose of the empirical study was to answer the following questions:

- *Research Question 1:* What is the nature of the relationship between the psychological career resources and engagement in a sample of consultants at a medium-sized South African firm specialising in Payroll and HR software and services?

- *Research question 2:* How do individuals who differ as to gender, age, marital status, occupational field, occupational level and department differ with regard to engagement?

- *Research Question 3:* How do individuals who differ as to gender, age, marital status, occupational field, occupational level and department differ with regard to psychological career resources?

A further aim of the study was to find whether a specific psychological career resources profile existed for the consultant sample that participated in the study. What might be the dominant psychological career resources and dominant engagement constructs for this sample group as indicated by the descriptive statistics?

Hypotheses $H1_0$, $H2_0$, and $H3_0$, as stipulated in chapters 1 and 4, were not accepted, based on the empirical findings.

*5.2.2.1 Research question 1: What is the nature of the relationship between the psychological career resources and engagement in a sample of consultants at a medium-sized South African firm specialising in Payroll and HR software and services?*

The correlation statistics and the regression analysis found that the career harmonisers, namely self-esteem and behavioural adaptability, have a powerful effect on vigour and dedication, while behavioural adaptability has a powerful effect on absorption. The data shows that individuals with a strong ability to adapt to change, to bounce back from failure and to deal well with obstacles will have higher engagement levels, specifically with regard to vigour, dedication and

absorption. These relationships were indicated by the review. Furthermore, a weak negative effect was found in the regression analysis between career venturing and dedication and between self/other skills and dedication. A significant, but weak relationship between engagement and career venturing was expected, as it was indicated by the literature review, but no evidence in the literature exists for the relationship between self/other skills and dedication, nor was it supported by the correlation statistics. Therefore more research would be necessary to explain this relationship. The regression analysis also indicated a negative relationship between career purpose and vigour, which was supported by the literature as well as the descriptive statistics. The correlation statistics indicated a strong, positive relationship between career directedness and dedication, but this was not supported by the regression analysis.

The following relationships between engagement and psychological career resources were expected after the literature review, but not supported by the empirical evidence:

- Stability/expertise;
- Autonomy/Independence;
- Emotional literacy;
- Social connectivity;
- Career directedness;

Many of these relationships found in the literature when comparing the job demand-resources model with engagement were longitudinal studies, while this study is a cross-sectional study. It may be that certain relationships only become evident when compared with a time 1 and time 2 test.

5.2.2.2   *Research questions 2-3: How do individuals who differ as to gender, age, marital status, occupational field, occupational level and department differ with regard to (2) engagement and (3) psychological career resources?*

In terms of gender it was found that males had a significantly stronger preference for independence/autonomy than females. These results are supported by Coetzee (2008).

In terms of age it was found that the age group older than 40 had significantly higher levels of vigour than the younger age groups. Individuals with strong behavioural adaptability have a stronger capacity to balance work and life roles (Coetzee & Bergh, 2009). Coetzee and Bergh

(2009) also found that those in the age group over 40 (middle career stage) are better able to balance work and life roles than younger individuals. This may explain why the data in this study reported significantly higher levels of vigour in the above-40 age group than in any of the younger age groups. Individuals in the age group above 40 also indicate a higher preference for independence/autonomy than the lower age groups.

*5.2.2.3    Subsidiary research question:    What are the dominant psychological career resources and dominant engagement constructs for this sample group as indicated by the descriptive statistics?*

A psychological career resource profile was found to be exhibited by the participants in the empirical study. From the mean scores it is clear that the general psychological career resources profile of the participating consultants at this organisation indicate the following career resources as dominant:

- Career preference: Stability/expertise;
- Career value: Growth and development;
- Career enabler: Self/other skills;
- Career driver: Career purpose;
- Career harmonisers: Behavioural adaptability and social connectivity.

This psychological career profile indicates a strong sense of career purpose, an ability to connect with others in the work environment and build positive relationships with others, while being able to manage themselves. They also possess the ability to adapt to change, to bounce back successfully from failures and deal effectively with obstacles, and they place great value on growth and development opportunities.

The psychological career resources that are somewhat less developed are practical/creative skills with reference to developing one's career, career venturing and career directedness. This suggests that consultants are uncertain about future career development opportunities and have not yet fully developed the skills to investigate, discover and craft their own career paths. This is supported by the 2011 Deloitte Best Company to Work For survey discussed in Chapter 2, which identified one of the employees' needs within this organisation as a clear available career path.

The high mean scores on stability/expertise, growth and development and the low score on career venturing indicate that consultants would prefer to develop their skills and careers in a work environment that offers security and stability. A similar psychological career resources profile was found by Coetzee and Bergh (2009) on working adults in South Africa within their early and establishment career stages.

Dedication was found to be the dominant engagement construct, followed closely by absorption and lastly vigour. The mean scores were clustered closely together suggesting that the engagement profile for the sample is well-balanced. One did expect a higher mean score on vigour, given the organisational environment as discussed in chapter 2.

5.2.3   Conclusions regarding the central hypotheses

The primary purpose of the study was to determine whether possible significant relationships between engagement and psychological career resources could be found. It was hypothesised that significant relationships do exist, and based on the findings of the empirical study, this alternative hypothesis ($H1_a$) could be accepted. It was secondly the purpose of the study to determine whether significant differences existed as regards the socio-demographic and occupational variables of participants in terms of engagement. It was hypothesised that there would be significant differences in this regard, and based on the empirical evidence this alternative hypothesis ($H2_a$) could be accepted. The same applied to differences in terms of psychological career resources, and the alternative hypothesis ($H3_a$) could be accepted. A further aim of the study was to find whether a specific psychological career resources profile existed for the consultant sample that participated in the study. It was suggested that such a profile would be found, and again this was found to be so. In summary, all the alternative hypotheses were accepted.

**5.3    Implications of the Research Findings**

The current study contributed valuable insights into the relationship between engagement and psychological career resources. The relationships between these two constructs indicate unique antecedents to engagement that had not been found by previous studies and that had not been previously studied in relation to psychological career resources.

This study will be valuable for the organisation that participated in it, as it provides the organisation with information that will better equip management in decision making regarding recruitment and selection, succession management and career development assistance for different groups of consultants within the organisation. Management could evaluate employees specifically in terms of their psychological career resources profile in order to predict the expected engagement levels that will be experienced within this specific context by the individual, and include gaps in essential psychological career resources in the employee's personal development plan.

Where employee well-being and career development and consulting is concerned, professionals such as HR practitioners and industrial psychologists will be better informed as to the complex nature of engagement and its interaction with psychological career resources. This should provide additional insights when advising and coaching individuals to identify and develop areas where psychological career resources critical for work engagement are underdeveloped. This should empower employees to take better ownership of their careers and develop their careers in a fashion that leads to job engagement.

## 5.4    Limitations of the Research Findings

The current study is limited to the engagement model of Schaufeli et al. (2006) and the psychological career resources model of Coetzee (2008). Other models of career meta-competencies and other models of engagement were discussed in the literature review, but could not be included into the study due to the scientific limitations of the study.

The study is furthermore also limited to the context of the specific organisation where the study was conducted. Although great care was taken to ensure that the chosen organisation complied with the characteristics of a 21st century high-performance, technology-oriented organisation, the sample was too small to generalise the findings to the greater South African population or to other high-performance organisations.

Finally, the sample size with regard to some of the initially envisaged socio-demographic variables was too small for statistical analysis and consequently they had to be left out. As the

study's primary purpose was not to determine differences in socio-demographic variables, this may be viewed as acceptable within the context of the current study.

## 5.5 Recommendations for Future Research

Firstly, the construct of engagement is a complex and controversial one. Although this study has contributed to understanding the relationships between vigour, dedication and absorption (engagement) and psychological career resources, it is also recommended that future studies using related models should be used. It is recommended that the interaction between engagement and career meta-competencies should also be studied by using both the engagement model of Schaufeli et al. (2006), the engagement model of Khan (1990), the psychological career resources model of Coetzee (2008) and the career anchor model of Schein (1996) as he revised it for the 21st century.

Secondly it is recommended that future studies include multiple high-performance organisations and larger, more diverse samples in order to be able to generalise findings to the South African environment.

Lastly it is recommended that personality dimensions such as those presented in the OPQ32r (Occupational Personality Questionnaire) be included in a study between engagement and psychological career resources to determine if there are any personality profiles that predict particular psychological profiles and engagement levels.

## 5.6 Chapter Summary

The purpose of the study was to determine whether any relationships existed between psychological career resources and engagement. The literature review considered the contextual factors, such as the 21st century work environment and provided an in-depth discussion on the concepts of engagement and psychological career resources. The empirical study showed that self-esteem and behavioural adaptability are the greatest psychological career resources contributing to the experience of work engagement. The effect of lacking these two career resources were also powerfully demonstrated in the significant differences found between two departments. The saying that the only constant is change is the perfect summary

for this study, which shows that the 21<sup>st</sup> century, above all, demands behavioural adaptability from individuals in order to experience engagement in the high-performance workplace.

## References:

Alfred, B. B., Miles, R. E., & Snow, C. C. (1996). Characteristics of managerial careers in the 21st century. *Academy of Management Executive*, *10* (4), 17-27.

Arthur, M. B. (1994). A boundaryless career: A new perspective for organizational inquiry [Electronic version]. *Journal of Organizational Behaviour*, *15* (4), 295-306. DOI: 10.1002/job.4030150402

Arthur, M. B., & Rousseau, D. M. (1996). A career lexicon for the 21st Century [Electronic version]. *Academy of Management Executive*, *10* (4), 28-39. DOI: 10.5465/AME.1996.3145317

Arthur, M. B., & Sullivan, S. E. (2006). The Evolution of the boundaryless career concept: Examining physical and psychological mobility [Electronic version]. *Journal of Vocational Behavior*, *69* (1), 19-29. DOI: 10.1016/j.jvb.2005.09.001

Arunachalam, S., Koh, S. C., & Saad, S. (2006). Competing in the 21st century supply chain through supply chain management and enterprise resource planning integration [Electronic version]. *International Journal of Physical Distribution & Logistics Management*, *36* (6), 455-465. DOI: 10.1108/09600030610677401

Babbie, E., & Mouton, J. (2006). *The practice of social research.* Cape Town: Oxford University Press.

Baccili, P. A., & Granrose, C. S. (2006). Do psychological contracts include boundaryless or protean careers? [Electronic version] *Career Development International*, *11* (2), 136-182. DOI: 10.1108/13620430610651903

Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art [Electronic version]. *Journal of Managerial Psychology*, *22* (3), 309-328. DOI: 10.1108/02683940710733115

Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement [Electronic version]. *Career Development International*, *13* (3), 209-223. DOI: 10.1108/13620430810870476

Bakker, A. B., Leiter, M. P., Schaufeli, W. B., & Taris, T. W. (2008). Work engagement: An emerging concept in occupational health psychology [Electronic version]. *Work & Stress*, *22*, 187-200. DOI: 10.1080/02678370802393649

Bartholomew, K., Antonia, J.Z. & Marcia, J.E. (2000). Coded semi-structured interviews in psychological research. In H.T. Resi & C.M. Judd (Eds.), *Handbook of research methods in social and personality psychology (*pp. 286–312)*.* Cambridge: Cambridge University Press.

Baruch, Y. (2006). Career development in organisations and beyond: Balancing traditional and contemporary viewpoints [Electronic version]. *Human Resource Management Review*, *16* (2), 125-138. DOI: 10.1016/j.hrmr.2006.03.002.

BBC News (2011, February 23). *Europe races to evacuate expats from Lybia*. Retrieved October 02, 2011, from BBC News Europe: http://www.bbc.co.uk/news/world-europe-12550308

Berman, S. J., & Hagan, J. (2006). How technology-driven business strategy can spur innovation and growth. *Strategy and Leadership, 32 (2)*, 28-34.

Bradley, L., Brown, K., & McDonald, P. (2005). Have traditional career paths given way to protean ones? Evidence from senior managers in the public sector [Electronic version]. *Career Development International*, *10* (2), 109-129. DOI: 10.1108/13620430510588310

Briscoe, J. P., & Hall, D. T. (2006). The interplay of boundaryless and protean careers: Combinations and implications [Electronic version]. *Journal of Vocational Behavior*, *69* (1), 4-18. DOI:10.1016/j.jvb.2005.09.002

Brousseau, K. R. (1990). Career dynamics in the baby boom and baby bust era. *Journal of Organisational Change Management*, *3* (3), 46-58.

Brousseau, K. R., Driver, M. J., Eneroth, K., & Larsson, R. (1996). Career pandemonium: Realigning organizations and individuals [Electronic version]. *Academy of Management Executive*, *10* (4), 52-66. DOI:10.5465/AME.1996.3145319

Buckingham, M., & Coffman, C. (1999). *First, break all the rules: What the world's greatest managers do differently.* London: Simon & Schuster UK.

Burke, R. J., & El-Kot, G. (2010). Work engagement among managers and professionals in Egypt: Potential and antecedents [Electronic version]. *African Journal of Economic and Management Studies*, *1* (1), 42-60. DOI: 10.1108/20400701011028158

Butts, M., Eby, L. T., & Lockwood, A. (2003). Predictors of success in the era of boundaryless careers [Electronic version]. *Journal of Organizational Behaviour*, *24* (6), 689-708. DOI: 10.1002/job.214

Cascio, W. (2001). Knowledge creations for practical solutions appropriate to a changing world of work. *Journal of Industrial Psychology, 27 (4),*14-16.

Cawe, M. (2006). Factors contributing to employee engagement in South Africa. Unpublished master's thesis. University of the Witwatersrand, Johannesburg.

Clarke, M. (2008). Understanding and managing employability in changing career contexts [Electronic version]. *Journal of European Industrial Training*, *32* (4), 258-284. DOI 10.1108/03090590810871379

Clarke, M., & Patrickson, M. (2008). The new covenant of employability [Electronic version].
*Employee Relations, 30* (2), 121-141. DOI 10.1108/01425450810843320

Coetzee, M. (2007). Exploratory factor analyses of the Psychological Career Resources
Inventory. *Unpublished research report, University of South Africa, Pretoria.*

Coetzee, M. (2008). Psychological career resources of working adults: A South African survey.
*SA Journal of Industrial Psychology, 34 (2),* 10-20.

Coetzee, M., & Bergh, Z. (2009). Psychological career resources and subjective work
experiences of working adults: An exploratory study. *Southern African Business Review,*
*13* (2), 1-25.

Coetzee, M., & Esterhuizen, K. (2010). Psychological career resources and coping resources of
the young unemployed African graduate: an exploratory study [Electronic version]. *South*
*African Journal of Industrial Psychology, 36* (1), 1-19. DOI: 10.4102/sajip.v36i1.868

Coetzee, M, & Schreuder, D. (2009). Psychological career resources as predictors of working
adult's career anchors: An exploratory study [Electronic version].. *SA Journal of Industrial*
*Psychology,* 35 (1), 1-11. DOI: 10.4102/sajip.v35i1.833

Cohen, J. (1988). *Statistical power analysis for the behavioural sciences* (2nd ed). New York:
Academic Press.

Cooper-Hakim, A., & Viswesvaren, C. (2005). The construct of work commitment: Testing an
integrative framework. *Psychological Bulletin, 131* (2), 241-259.

Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience.* New York: Harper &
Row.

De Lange, A. H., De Witte, H., & Notelaers, G. (2008). Should I stay or should I go? Examining
longitudinal relations among job resources and work engagement for stayers versus

movers [Electronic version]. *Work and Stress*, *22* (3), 201-223. DOI: 10.1080/02678370802390132

De Vos, A., & Meganck, A. (2009). What HR managers do versus what employees value: Exploring both parties' views on retention management from a psychological contract perspective [Electronic version]. *Personnel Review*, *38* (1), 45-60. DOI 10.1108/00483480910920705

De Vos, A. S. (Ed.), Strydom, H., Fouche, C. B., & Delport, C. S. (2002). *Research at grass roots.* (2nd ed.) Pretoria: Van Schaik.

De Waal, A. (2010, January 01). *HPO Center.* Retrieved August 13, 2011, from www.hpocenter.com: http://www.hpocenter.com/articles.asp?url=the-characteristics-of-a-high-performance-organization-hpo-full-research-paper-by-andre-de-waal

Deloitte. (2010). *Deloitte Best Company to Work for Winners*. Retrieved October 16, 2011, from http://www.deloitte.com/view/en_ZA/za/services/consulting/humancapital/5482842f7 585b210VgnVCM2000001b56f00aRCRD.htm

Deloitte. (2011). *Best Company to Work for 2011*. Retrieved October 16, 2011, from http://www.deloitte.com/assets/Dcom-SouthAfrica/Local%20Assets/Documents/BCTWF %202011%20Results.pdf

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The Job-Demand Resources model of burnout. *Journal of Applied Psychology*, *68* (3), 499-512.

Derr, C. B. (1986). *Managing the new careerists.* San Francisco: Jossey-Bass.

Driver, M. J., & Brousseau, K. R. (1998). *Four career concepts.* Santa Monica: Decision Dynamics Corporation.

Drucker, P. F. (1999). Knowledge worker productivity: The biggest challenge. *California Management Review*, *4* (2), 79-94.

Emmerling, R., & Cherniss, C. (2003). Emotional intelligence and the career choice process [Electronic version]. *Journal of Career Assessment, 11 (2),* 153-167. DOI: 1 0.1177/1069072703011002003

Erickson, T. J. (2005). *Testimony submitted before the U.S. Senate Committee on Health, Education, Labor and Pensions.* May 26.

Ferreira, N., Basson, J., & Coetzee, M. (2010). Psychological career resources in relation to commitment: An exploratory study [Electronic version]. *SA Journal of Human Resource Management, 8* (1), 1-10. DOI:10.4102/sajhrm.v8i1.284

Field, A. (2005). *Discovering statistics using SPSS.* London: Sage.

Forret, M. L., Mainiero, L. A., & Sullivan, S. E. (2010). Gender role differences in reaction to unemployment: exploring psychological mobility and boundaryless careers [Electronic version]. *Journal of Organizational Behavior, 31* (5), 647-666. DOI: 10.1002/job.703

Goddard, W., & Melville, S. (2001). *Research methodology: An introduction.* Landsdowne: Juta.

Gruman, J. A., & Saks, A. M. (2011). Performance management and employee engagement [Electronic version]. *Human Resource Management Review, 21,* 123-136. DOI: 10.1016/j.hrmr.2010.09.004

Gunasekaran, A., & Ngai, E. W. (2007). Knowledge management in 21st century manufacturing [Electronic version]. *International Journal of Production Research, 45 (11)* 2391-2418. DOI: 10.1080/00207540601020429

Hall, D. T. (1996). Protean careers of the 21st century [Electronic version]. *Academy of Management Executive, 10* (4), 8-16. DOI:10.5465/AME.1996.3145315

Hall, D. T. (2002). *Careers in and out of organizations.* Thousand Oaks, CA: Sage.

Hall, D. T., & Mervis, P. H. (1995). Developing the whole person at midlife and beyond. *Journal of Vocational Behavior, 47* (3), 269-289.

Hall, D. T., & Moss, J. E. (1998). The new protean career contract: helping organizations and employees adapt [Electronic version]. *Organizational Dynamics, 26* (3), 22-37. DOI:10.1006/jvbe.1995.0004

Halsbesleben, J. R., & Wheeler, A. R. (2008). The relative roles of engagement and embeddedness in predicting job performance and intention to leave [Electronic version]. *Work and Stress, 22* (3), 242-256. DOI: 10.1080/02678370802383962

Higgins, M. (2001). Changing careers: The effects of social context [Electronic version]. *Journal of Organisational Behaviour, 22* (6), 595-618. DOI: 10.1002/job.104

Jamrog, J., Morrison, C., Overholt, M., & Vickers, M. (2008). High-performance organizations: Finding the elements of excellence. *People & Strategy, 31* (1), 29-38.

Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *The Academy of Management Journal, 33* (4), 692-724.

Keller, G., & Warrack, B. (2000). *Statistics for management and economics.* Duxbury: Brooks/Cole.

Kular, S., Gatenby, M., Rees, C., Soane, E., & Truss, K. (2008). Employee engagement: A literature review. *Unpublished paper*. Kingston University

Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology, 1* (1), 3-30.

Maslach, C., & Leiter, M. P. (1997). *The truth about burnout: How organizations cause personal stress and what to do about it.* San Francisco: Jossey-Bass.

Maslach, C., Leiter, M. P., & Schaufeli, W. B. (2001). Job burnout. *Annual Review of Psychology, 52* (1), 397-422.

Matthysen, N. (2011). Investigating graduate employability and psychological career resources. *Unpublished Thesis*. University of Pretoria.

Mauno, S., Kinnunen, U., & Ruokolainen, M. (2007). Job demands and resources as antecedents of work engagement: A longitudinal study [Electronic version]. *Journal of Vocational Behavior, 70* (1), 149-171. DOI: 10.1016/j.jvb.2006.09.002.

May, D. R., Gilson, R. L., & Harter, L. M. (2004). The psychological conditions of meaningfulness, safety and availability of the human spirit at work. *Journal of Occupational and Organizational Psychology, 77* (1), 11-37.

Mills, M. J., Culbertson, S. S., & Fullager, C. J. (2012). Conceptualizing and measuring engagement: An analysis of the Utrecht Work Engagement Scale [Electronic version]. *Journal of Happiness Studies, Preprints, 13* (3), 1-27. DOI: 10.1007/s10902-011-9277-3

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

Olivier, A., & Rothman, S. (2007). Antecedents of work engagement in a multinational oil company. *SA Journal of Industrial Psychology, (33)* 3, 49-56.

Park, Y. (2009). Factors influencing self-directed career management: An integrative investigation [Electronic version]. *Journal of European Industrial Training, 33* (7), 578-593. DOI 10.1108/03090590910985363

Roberts, D. R., & Davenport, T. O. (2002). Job engagement: Why it's important and how to improve it. *Employment Relations Today, 29* (3), 21-29.

Rothbard, N. P. (2001). Enriching or depleting? The dynamics of engagement in work and family roles. *Administrative Science Quarterly, 46* (4), 655-684.

Rothman, S. (2008). Job satisfaction, occupational stress, burnout and work engagement as componenents of work-related wellbeing. *SA Journal for Industrial Psychology, 34* (3), 11-16.

Rothman, S., & Colff, J. (2009). Occupational stress, sense of cohererence, coping, burnout and work engagement of registered nurses in South Africa [Electronic version]. *SA Journal of Industrial Psychology, 35* (1), 423-432. DOI: 10.4102/sajip.v35i1.423

Rothman, S., & Jordaan, G. (2006). Job demands, job resources and work engagement of academic staff in South African Higher Education Institutions. *SA Journal of Industrial Psychology, 32* (4), 87-96.

Rothman, S., & Storm, K. (2003). A psychometric analysis of the Utrecht Work Engagement Scale in the South African Police Service. *SA Journal of Industrial Psychology, 29* (4), 62-70.

Saks, A. M. (2006). Antecedents and consequences of employee engagement [Electronic version]. *Journal of Managerial Psychology, 21* (7), 600-619. DOI: 10.1108/02683940610690169

Salanova, M., Agut, S., & Peiro, J. M. (2005). Linking organizational resources and work engagement to employee performance and customer loyalty: The mediation of service climate. *Journal of Applied Psychology, 90*, 1217-1227.

Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study [Electronic version]. *Educational and Psychological Measurement, 66* (4), 701-716. DOI: 10.1177/0013164405282471

Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two-sample confirmatory factor analytic approach. *Journal of Happiness Studies, 3* (1), 71-92.

Schaufeli, W., Martinez, I., Pinto, A., Salanova, M., & Bakker, A. (2002). Burnout and engagement in university students: A cross national study [Electronic version]. *Journal of Cross-Cultural Psychology, 33 (5)* , 464-481. DOI: 10.1177/0022022102033005003

Schein, E. (1996). Career anchors revisited: Implications for career development in the 21st century. *Academy of Management Executive, 10* (4), 80-88.

Seppälä, P., Mauno, S., Feldt, T., Hakanen, J., Kinnunen, U., Tolvanen, A., & Schaufeli, W. (2009). The construct validity of the Utrecht Work Engagement Scale: Multisample and longitudinal evidence [Electronic version]. *Journal of Happiness Studies, 10* (4), 459-481. DOI: 10.1007/s10902-008-9100-y

Sonnetag, S. (2003). Recovery, work engagement, and proactive behavior: A new look at the interface between non-work and work. *Journal of Applied Psychology, 88*, 518-528.

South African National Treasury. (2011). *A safer financial sector to serve South Africa better.* Pretoria: SA National Treasury.

Sternberg, R. J. (1985). *Beyond IQ: A triachic theory of human intelligence.* Cambridge: Cambridge University Press.

Vaishampayan, D. (2006). Responding to the changing workforce. *Strategic HR Review, 5* (6), 3-4.

Warr, P. (2007). *Work, hapiness, and unhapiness.* Mahwah: NJ: Lawrence Erlbaum.

Wefald, A. J., & Downey, R. G. (2009). Construct dimensionality of engagement and its relations with satisfaction. *The Journal of Psychology, 143* (1), 91-111.

Winter, R., Taylor, T., & Sarros, J. (2000). Trouble at Mill: Quality of academic worklife issues within a comprehensive Australian University. *Studies in Higher Education, 25 (3)*, 279-294.

Wright, D. B. (1997). *Understanding statistics: an introduction for social sciences.* London: Sage.

Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009). Reciprocal relationship between job resources, personal resources and work engagement [Electronic version]. *Journal of Vocational Behavior, 74 (3)*, 235-244. DOI: 10.1016/j.jvb.2008.11.003

Yao, X., Lee, T.W., Mitchell, T.R., Burton, J.P. & Sablynski, C.S. (2004). Job embeddedness: Current research and future directions. In R. Griffeth & P. Hom (Eds.), *Understanding employee retention and turnover* (pp. 153-187). Greenwich, CT: Information Age.