THE RELATIONSHIP BETWEEN PERSONALITY AND EMPLOYABILITY

by

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DECLARATION

I, SAMANTHA RON-LEIGH OTTINO, student number 43744613 declare that this dissertation entitled **"The relationship between personality and employability"** is my own work, and that all sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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SUMMARY

THE RELATIONSHIP BETWEEN PERSONALITY AND EMPLOYABILITY

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The primary objective of this study was to explore the relationship between personality and employability using a sample of 100 employees at a meat producing company in South Africa. A secondary objective was to determine if personality could be used to predict employability, and whether individuals from different demographic groups differed regarding their employability. The instruments used were the sixteen personality factor inventory (16PF) and the Van Der Heidje employability measure.

The research findings indicated that the personality factors of submissiveness and seriousness correlated to the employability dimensions of anticipation/ optimization and occupational expertise respectively. Openness and corporate sense were also correlated, with anxiety in particular correlating with the overall employability measure.

Differences between the race groups and employability were also noted. Particular interventions aimed at improving individual career decision making and employability practices within the organisation concluded the study.

KEY TERMS

Career transitions, adaptability, dispositional employability, personality traits.

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CHAPTER 1
SCIENTIFIC BACKGROUND TO THE STUDY

The following aspects are discussed in this chapter: background to and motivation for the research; the problem statement; the aims of the study; the research design and methods as well as an outlay of the remaining chapters.

1.1 Background to the study

The current organisational context is characterised by continuous change. On a macro level, globalisation and rapid technological developments are synonymous with fluctuating business demands. Consequently, organisations are forced to adapt the way they compete to meet the inherent challenges of these rapid changes (Van Dam, 2004). As a result, more and more organisations are under pressure to proactively adjust to a changing and dynamic environment. In the past, successful companies tended to focus on streamlined production processes and flexibility in order to adjust (Robbins, Odendaal & Roodt, 2001).

On an individual level, current trends indicate that as organisations become boundary-less, career paths that span across more than one organisation can be expected (Coetzee & Roythorne-Jacobs, 2007). In particular, individuals are increasingly expected to drive their own career success (Baruch, 2004; Coetzee & Roythorne-Jacobs, 2007; Fugate, Kinicki & Ashforth, 2004). The era when career patterns consisted of upward moves, and were arranged within a framework of long-term employment relationships, has also passed (De Fillippi & Arthur, 1994; Hall & Mirvis, 1995; Sullivan, 1999). Instead, employment relationships have changed to the extent that an employee's responsibility now lies in their own development, as

opposed to commitment to a particular organisation (Coetzee & Roythorne-Jacobs, 2007).

Careers are therefore now more likely to involve lateral movements between organisations and marked instability, as compared to the security of 'traditional' employment relationships (McArdle, Waters, Briscoe & Hall, 2007). Consequently, individuals have to be quick and adaptive learners to become more marketable in light of varying career opportunities (Fugate, 2006; Karaevli & Hall, 2006). It is however largely unknown what the necessary skills and knowledge will be in the future, in light of a constantly changing work context.

Whilst 'fixed' abilities may have been useful in the previous employment context to achieve career success, the new employment scenario is influenced by the ability to continually adapt one's knowledge and skills (Karaevli & Hall, 2006; Schreuder & Coetzee, 2006). 'Domain-specific' occupational expertise is no longer sufficient to guarantee life-long employment (Van der Heidjen & Bakker, 2008). By implication, employees now require a different set of occupational and career related competencies to maintain their relevance in the market. It is therefore critical that employees assume full control of managing their own careers, so as to ensure they are always prepared for the next opportunity (Van der Heijden & Bakker, 2008).

Theoretically, employability is said to be the conceptual link that enables individuals to assume greater responsibility for the management of their own careers (Allvin, 2004; Gazier, 2001). As career paths are less predictable, enhanced employability has become the new benchmark of career success (Carberry & Garavan, 2005; Guest, 2004 as cited in Clark & Patrickson, 2007; Hind, 2008). This is especially relevant as individuals operate within flexible work environments, with individualised responsibility (Berntson, 2008). Being employable will thus be of high value when it becomes necessary to move on to a new job, particularly because life-time

employment in a single organisation is no longer guaranteed (Coetzee & Roythorne-Jacobs, 2007).

Definitions and synonyms for employability are abundant. In broad terms, employability refers to the ability to find and maintain employment even when no job exists (Fugate, 2006). More especially, employability focuses on the relationship between individual characteristics and behavioural and cognitive adaptation in the workplace (Fugate, 2006). In the current study, employability is defined as the "continuous fulfilling, acquiring or creating of work through the optimal use of competencies" (Van der Heidje & Van der Heidjen, 2006, p.453). Embedded within this definition is a view of employability that is not only connected to the attainment of work, but also to the role that individual competencies play in maintaining career success.

At present however, a broad based 'competence' package of employability is missing within the literature - a finding that is especially significant as this affects how workers will meet changing job requirements (Van der Heidje & Van der Heidjen, 2006).

1.2 Problem statement

There have already been a number of studies indicating the fundamental role that employability plays in organisational life in general and individual career success in particular (Bernston, 2008; Coetzee, 2007; Van Dam, 2004; Van der Heidje & Van der Heidjen, 2006). More specifically, it has also been established that employability is valuable in the current employment context (Coetzee & Roythorne, 2007; Mc Ardle et al., 2007). High employability has also been strongly correlated with positive coping strategies in a high unemployment context (Mc Ardle et al., 2007).

As modern perceptions of employability encompass “independence from rather than reliance on traditional organisational career arrangements” (Sullivan & Arthur, 2006, p.20), historical measurements of employability have often appeared to be short sighted. This is largely because of an over-emphasis on how to stimulate entry into the labour market as opposed to definitions of employability that extend beyond traditional employment perceptions (Coetzee & Roythorne-Jacobs, 2007; Cuyper, Berntson & Alarco, 2008; Fugate, 2006). Support for this assumption is reflected in a recent content analysis of career articles published in four prominent vocational/career journals. The study revealed that the majority of career or employability related articles in the last thirty-four years, have predominantly focused on work attitudes and career motivation or preferences (Nilsson et al., 2007). In terms of employment trends, attitudes towards unemployment have also been widely researched.

There is however limited research-based data on how best to strategically and practically increase employability in South Africa (De Vries, Gründemann, & van Vuuren, 2001; Gore, 2005). As a result, there has been little focus on the personal factors that contribute to one’s employability (Mc Ardle et al., 2007). Despite this finding however, Fugate et al’s (2004) employability study has been particularly valuable in shaping the current understanding of employability. The author’s key reference to employability as a person-centred construct, i.e. that individuals play a role in determining their own employability is particularly apt (Fugate et al., 2004).

Fugate et al. (2004) have conducted studies to operationalise employability. Three related yet interdependent dimensions were proposed; namely adaptability, career identity and human and social capital. Similarly, Creed, Fallon and Hood (2009) investigated career adaptability (or employability) in terms of ‘person and situation’ variables. The study however focused more on differences in terms

of goal orientation as opposed to comprehensively investigating employability and individual characteristics.

It has consequently been established that there are many ‘personal characteristics’ that can influence the propensity to identify and realise particular career opportunities (Fugate, 2006). A subsequent view of employability that reviews ‘domain-specific’ expertise usually associated with employment, and combines them with more generic competencies, is thus needed (Van der Heijde & Van der Heijden, 2006; Van der Heijden, 2000).

Twenty years ago, organisations would have focused extensively on the measurement of these personal characteristics in order to match individuals to jobs. Other author’s interest extended to include the study of *personality* variables and organisation fit, as opposed to simply how individuals perform in a specific job function (Whitfield, 1988). Personality is defined as those distinctive patterns of behaviour that differentiate how individuals generally adapt to situations (Mischel, 1984). By measuring these differences, the predictive ability of personality is also highlighted. Cattell’s (1945, p.2) conception of personality in particular, as that which “makes it possible to [anticipate] what *a* person will do in a given situation,” supports this notion.

Literature reviews indicate that in particular, certain personality traits correlate positively with the tendency to be proactive and to ‘shape and create’ one’s career as opposed to merely *reacting* to organisational change (Kolveried & Amo, 2002). Furthermore, other personality factors (such as openness to experience and persistence) are often linked to the tendency to actively seek out career challenges, thereby displaying flexibility and versatility (Karaevli & Hall, 2006). It might therefore be expected that personality can also be related to employability.

Pro-active personality has been especially linked to the ability to adapt and change behaviours. Past research in particular has shown that proactive personality is linked to identifying and acting on work opportunities, as well as self-direction and 'information seeking' behaviour. These are all activities central to employability (Bateman & Crant, 1993; Crant, 2000; Seibert, Crant & Kraimer, 1999; Seibert, Kraimer & Crant, 2001; Thompson, 2005). From a personality theory perspective however, proactive personality is defined as a 'self-quality' and in fact only represents one facet of a complex concept (Seibert, Crant & Kraimer, 1999). Despite prior findings of links between proactive personality and employability, there has still been limited research examining all the components of personality and employability together. In addition to this, examining the extent to which demographic factors such as age and gender affect employability is also important, as previous research has indicated that age for example can be associated with differences in certain career related behaviour (Amos-Wilson, 1996).

Investigating the relationship between personality and employability has both theoretical and practical implications (Van Dam, 2004). Career mobility practices for example can be improved (Van der Heidjen, de Lange, Demerouti & Van der Heidje, 2009). Also, employability does not only contribute to meeting organisation's demands, but high employability is also strongly related to "positive career outcomes" (Van der Heidjen et al., 2009). Individuals will thus be in a better position to use their personality characteristics to guide their own career (Dries, Pepermans & Carlier, 2008).

From an organisational perspective, valuable information about how to enhance employability orientations can be deduced from the study. More specifically, the results can be used to assist the current organisation from which the sample was selected to adopt a stronger employability culture. As a result, by stimulating worker's

employability, a culture that supports individual development can be created (Schneider, Brief & Guzzo, 1996).

1.3. General research question

The general research question that requires further study is as follows:

What is the relationship between personality and employability, can personality be used to predict employability and how does employability differ between various demographical groups?

1.3.1 Specific questions

The following research questions will be addressed by means of a literature review:

- How can personality and employability be conceptualised from the literature?
- Does a theoretical relationship exist between personality and employability?
- Does employability differ between demographic groups?

1.3.2 Empirical study

The following research questions will be answered through the collection of empirical data:

- What is the relationship between personality and employability?
- Can personality be used to predict employability?
- Does employability differ between various demographic groups?

1.4 Aims of the research

Given the problem statement reflected earlier, the aims of this research project are listed below:

1.4.1 General aim

The general aim of the study is to determine if a relationship exists between personality and employability and to determine if personality can be used as a predictor of employability. Furthermore, the secondary aim of the study is to investigate if demographic groups differ with regards to their employability.

1.4.2 Specific aims

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

- Conceptualise personality and its properties.
- Conceptualise employability.
- To determine if a theoretical relationship exists between personality and employability.
- To determine if demographic groups differ with regards to their employability.

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

- To determine the relationship between personality and employability.
- To determine if personality can be used as a predictor of employability.

- To determine if demographic groups differ with regards to their employability.

1.5 Research design

Each of the variables, type of research and methods employed to enhance reliability and validity, will be explored in order to provide structure to the study.

1.5.1 Research variables

The two variables in the study are personality, which is the independent variable, and employability, which is the dependent variable. In addition to this, demographic variables are also considered to be an independent variable.

1.5.2 Type of research

A non-experimental, cross-sectional survey design was used. This falls within the school of quantitative analysis, with the particular research design selected for its appropriateness in determining if the variables are related. A cross-sectional survey design provides a snapshot of the variables included in a study at a particular point in time (Huysamen, 2001). It may also reveal how particular variables are represented within a cross-section of a population. As it is specifically useful in measuring attitudes, beliefs and behaviours, it was an appropriate research design for this study, as it was also possible to measure differences between groups of people on the basis of specific criteria.

1.5.3 Unit of measurement

The unit of measurement was primarily aimed at an individual level. Carbery and Garavan (2005) support this view, by stating that employability is usually measured at the individual level of analysis together with personality (Arnold, Cooper & Robertson, 1995).

1.5.4 Measures to ensure validity and reliability

The researcher attempted to ensure that standard data collection processes were used across all the participants and hence increase the reliability of the data obtained. Only valid and reliable measuring instruments were used.

Theoretical validity was also increased by ensuring that each of the concepts were addressed appropriately in an extensive literature review (Mouton & Marais, 1991). Validity is also important in the empirical party of the study, and was ensured by the use of validated psychometric instruments.

1.5.5 Population and sample

The research was conducted within a large food-producing organisation in South Africa. At present, the head count in this organisation is 140, with an additional support office of 60 staff members. Convenience sampling was used as individuals were asked to participate in the study voluntarily. Convenience sampling, also known as accessibility sampling, occurs when the researcher selects those cases which are convenient, to make up the final sample (Eckhardt & Ermann, 1977). The aim was to include a minimum of 100 people in the sample.

1.6 Measuring instruments

The measuring battery consisted of three measuring instruments which will be discussed in the following section.

1.6.1 Biographical questionnaire

A short biographical questionnaire detailing age, job level, gender and tenure was administered.

1.6.2 The 16 PF

The sixteen personality factor questionnaire (16PF) is currently one of the most comprehensively researched measures of personality in use (Cattell, Eber & Tatsuoka, 1970; Prinsloo, 1992). The 16PF was empirically developed using factor analysis to measure normal aspects of personality. The instrument is based on five global dimensions of personality; namely extroversion, anxiety, tough mindedness, independence and self-control. These global scales are then made up of 16 different factors.

In terms of the psychometric properties of the 16PF, numerous studies have been conducted that support the construct validity of the 16PF (Cattell & Krug, 1986; Cheryshono, Stark, Chan, Drasgow & Williams, 2001; Conn & Rieke, 1994; Gerbing & Tuley, 1991; Hofer, Horn & Eber, 1997). In addition to this, the Cronbach coefficient alphas of each of the personality factors vary on average from 0.64 to 0.85 for the primary scales and a range of 0.68 to 0.87 for all 16 scales (Cattell & Schuerger, 2003). Studies indicate that the test-retest reliability over a 2 week and 2 month interval averaged 0.56 to 0.87 respectively, indicating that the stability of the 16PF over time is acceptable (Conn & Rieke, 1994).

Results from a study that compared the 16PF with other personality measures like the 15FQ displayed a high level of congruence ($r > 0.6$) between eight of the 16 factors found in the 16PF and the

corresponding 15FQ dimensions. However, three of the 16PF correlated less than 0.3, successfully indicating that the measures are likely to focus on different aspects of personality (Lorr, Nerriano & Myhill, 2006).

1.6.3 Employability questionnaire

The employability questionnaire used in this study is a competence based measure of employability that was developed by Van der Heijde and Van der Heidjen (2006). The employability measure was devised using exploratory factor analysis and is a compound instrument that consists of five dimensions. The five dimensions of employability that are measured include occupational expertise, which is matched against other generic competencies of anticipation and optimisation, personal flexibility, corporate sense and balance (based on exchange theory - see Bezuijen, Van Dam, van den Berg, & Thierry, 2010). Items were formulated using statistical validation methods to determine suitability and are able to validly predict career success, regardless of domain of expertise (Van der Heidje & Van der Heidjen, 2006).

The predictive power of the scales was established through convergent and divergent item and criterion validity. Following the statistical analysis of the item responses in the questionnaire, the Cronbach's alphas for the five scales ranged from 0.81 to 0.88 for occupational expertise, 0.71 to 0.87 for anticipation and optimisation and 0.87 to 0.91 for personal flexibility. The reliability coefficients for the remaining two scales ranged from 0.79 to 0.93 for corporate sense and 0.5 to 0.63 for balance (Van der Heidje & Van der Heidjen, 2006).

1.7 Data analysis

The statistical analysis was done using the SPSS (1995) software programme to measure a combination of inferential and descriptive statistics. Descriptive statistics (namely the mean, standard deviation, minimum and maximum values) were used to organise, summarise and describe the dataset**.** In this study the Pearson product correlation coefficients were used to determine the relationship between personality and employability. Subsequently, a t-test and ANOVA was used to determine if demographical groups differed with regards to their employability, and the extent to which these differences were significant (Monk, 1991).

More detailed information on the statistical analysis techniques applied in this study will be discussed in Chapter 4.

Intended Chapter layout

Chapter2
Personality

Chapter 3
Employability

Chapter 4
Research methodology

Chapter 5
Results

Chapter 6
Conclusion, limitations and recommendations

1.8 Conclusion

Chapter 1 provided a scientific background to the study. The chapter reviewed the problem statement as well as proposed research design and methodology. The chapter ended with an outline of the chapters to follow. In Chapter 2, personality will be conceptualised as the first variable in the study.

CHAPTER 2
PERSONALITY

2.1 Introduction

The aim of this chapter was to provide a clear understanding of the concept of personality as defined by trait theory. This chapter also briefly examined this concept in relation to coping with career changes. This related to the overall aim of the study, which was to investigate the relationship between personality traits and employability.

2.2 Defining personality

A variety of approaches exist in the definition of personality. Controversy over a single definition of personality is a reflection of how research in this field has evolved over time. According to Meyer, Moore and Viljoen (1989), personality psychology focuses on the processes underlying human behaviour. The key focus of the field is to empirically understand how and why individual differences exist (Burger, 1997; Pervin, 1984).

Definitions of personality focus on exploring different aspects of behaviour (Burger, 1997). Some definitions emphasise personality as a group of characteristics that are directly observable, as opposed to inferred from behaviour. Other definitions of personality are embedded in a psycho-dynamic perspective where unconscious processes that guide behaviour (and hence personality) are reported (Bergh, 2003; Burger, 1997). Further definitions focus on how personality functions on different levels, where individual characteristics are organised as traits (Mathews, Deary & Whiteman,

2003). Personality theorists have therefore generated a number of different explanations to explore personality.

Meyer, Moore and Viljoen (1989) for example define personality as the characteristics within an individual that account for various patterns of behaviour. Mischel's (1977, 1984) earlier definition of personality comprehensively reflects the notion that these patterns of behaviour (which include thought and emotion) typify how an individual will adapt to circumstances. In the context of this definition, differences as well as similarities in behaviour are implied. Despite the view that people may display different behaviours across various situations, personality is generally defined in terms of stable characteristics (Meyer et al., 1989; Pervin, 1984). This means that the tendency to act fairly, consistently and predictably over time is emphasised when defining personality. Despite these differences however, there are elements that are common across these definitions. Firstly, there is agreement that personality is a multi-faceted construct, and that it includes a spectrum of factors that motivate behaviour (Hjelle & Ziegler, 1992). There is also general consensus that personality includes enduring patterns and consistencies (Bergh as cited in Momberg, 2005). Finally, the notion that personality is a mechanism that influences how people adjust or adapt to change has also been acknowledged (Mathews, Deary & Whiteman, 2003).

Earlier definitions of personality indicated that personality can also be explored in terms of how it *predicts* behaviour. Cattell's (1965, p.25) definition of personality, in terms of how it can be used to anticipate how a person will behave in a situation, is evidence of this claim. There are two implied arguments within this definition. Firstly, this account of personality is similar to other personality definitions, which state that no two people are alike. In addition to this, the element of reasonably predicting how people will react in situations is evident.

One of the current ways to empirically measure this is by examining the concept of traits.

A trait is defined as a predisposition to behave or react in a fairly consistent way to a range of different stimuli (Cattell, 1965; Mathews, Deary & Whiteman, 1995). Traits can be seen as those particular aspects of behaviour that can be validly measured to enable comparisons between individuals to be made (Hjelle & Ziegler, 1992). Traits thus emphasise both the consistency of behaviour across situations, as well as individual differences between these relatively stable characteristics (Guildford, 1959). This emphasis on individual differences is a key feature of psychology, the result of which is that trait theory has become a common feature within personality theory. Trait theory will be used to define personality in this study and will be explored in more detail in the following section.

2.3 Trait theories

As mentioned above, the representation of how people are both similar as well as different in their behaviour is reflected in a group of personality perspectives, known as trait theories (Hjelle & Ziegler, 1992). Traits can be defined as those enduring and consistent patterns of behaviour within people (Bergh, 2003; Brody, 1972; Corsini & Marsella, 1987). The trait approach organises these patterns or various elements of personality into predispositions that influence overt behaviour. It is possible to therefore predict to a certain extent how individuals will respond, in an equivalent manner to particular situations (Brody, 1972; Peck & Whitlow, 1975). Whilst this view of personality emphasises the consistency of behaviour across situations, it also highlights how relatively stable aspects in one individual differ from one another (Guildford, 1959; Mathews et al., 1995).

Although trait perspectives have become prominent within personality theory, they are not without criticism. In particular, it is argued that there is limited evidence to show that people's behaviour displays trait-like consistency over time (Pervin, 1984). Theoretically, behaviours that are conceptually related to particular groups of traits should highly correlate across different situations (Hjelle & Ziegler, 1995). Instead, the situation specificity of behaviour has been well researched with promising results. The average cross correlation coefficients for example of behaviour along similar dimensions was actually found to be quite low (0.33) (Hjelle & Ziegler, 1995; Mischel, 1968, 1973).

Trait theorists however, do acknowledge the differences in people's behaviour across situations. Allport's definition of personality as a "dynamic organisation….of systems that determine characteristic behaviour and thought" (Allport, 1961, p.28 as cited in Hjelle & Ziegler, 1995) illustrates this. By describing people as 'dynamic,' the notion that behaviour evolves and changes is acknowledged. A trait at best can thus only represent a *range* of possible behaviours at any given time (Pervin, 1984). Therefore, if traits are dispositional characteristics, they can only determine behaviour in some situations, and not others (Brody, 1972).

The role of the context or situation and its effect on the variability of behaviour is also an area in which trait theory is argued to be limited (Pervin, 1984). However, Allport's theory argues that people will seek out situations that allow for the expression of particular traits. This implies that their traits and situations interact to produce particular behaviour (Hjelle & Ziegler, 1995). As this theory also includes the influence of cognitive and emotional processes on behaviour, a comprehensive account of personality is established (Heidje & Ziegler, 1995; Mathews et al., 1995).

Finally, it has also been well established that traits illustrate what is both similar as well as different between people. Trait theorists thus distinguish between common (nomothetic) and individual (idiographic) traits (Carver & Scheier, 1996; Peck & Whitlow, 1975). The former concept refers to traits that are shared by several people, whilst the latter focuses on the characteristics that are fundamental to individual personalities. Theorists such as Cattell focus on nomothetic traits. These traits will manifest differently between individuals. A discussion of the other basic tenets of Cattell's perspective of personality, which is used to conceptualise and operationalise personality in this study, will follow.

2.3.1 Cattell's trait theory

Cattell (1965) indicated that the essence of personality could be captured in a set of 16 traits. Drawing on a structure-based systems theory, behaviour is conceptualised as a function of both internal traits and situational factors (Cattell, 1965; Pervin, 1984). By using a statistical process of factor analysis, primary as well as second order traits were determined (Brody, 1972; Cattell, 1965). A primary or source trait refers to a trait that operates as an underlying source of observed behaviour (Cattell, 1965). Source traits are also defined as pure and independent sources of behaviour (Cattell, 1965) and are therefore more important in understanding personality than surface traits (Corsini & Marsella, 1983; Hall & Lindzey, 1978). Surface traits are those qualities that, whilst they are fairly consistent within people, they do not affect a great deal of what a person does (Calsyn, 1982). These traits thus manifest as personal individual preferences, but are less influential in terms of life choices or behaviours. Examples of source traits on the other hand, as measured by the 16PF include warmth, emotional stability and dominance (Cattell, 1965).

In the context of the 16PF, source traits are also referred to as first order factors. First order factors assist with the prediction of specific,

concrete criteria, and have been shown to have a strong predictive power (Bischof, 1970). These traits are in essence the building blocks of personality (Corsini & Marsella, 1983). Second order factors on the other hand, are usually considered to be broad categories of personality that are more theoretical in nature (Bischof, 1970).

The 16PF was used in this study and measures 16 pairs of first order factors on a continuum. Each factor specifically covers a whole set of behaviours and are bi-polar in nature (Cattell, 1965; Conn & Rieke, 1994; Ribeaux & Poppleton, 1977; Prinsloo, 1998). This means that there is a low and high indicator (determined by scores) for each factor (De Bruin, 2001 as cited in Naude, 2007). These factors are further outlined below.

2.3.2 Description of sixteen personality factors

The 16PF traits presented in Table 1 that follows details the basic structural elements of personality as described by Cattell (1945, 1965).

Table 1

Description of the 16 primary factors of personality

First order factors		
Factor	**Low Score**	**High Score**
A	Reserved	Outgoing
B	Concrete reasoning	Abstract thinking
C	Reactive	Emotionally stable
E	Submissive	Dominant
F	Serious	Lively
G	Expedient (lower super-ego strength)	Rule conscious (higher super-ego strength)
H	Shy	Socially bold
I	Self-reliant	Dependent
L	Trusting	Vigilant
M	Conventional	Imaginative
N	Forthright	Private
O	Self-assured	Apprehensive
Q1	Traditional	Open to change
Q2	Group oriented	Self-reliant
Q3	Tolerates disorder	Perfectionist
Q4	Relaxed	Tense
Second order factors		
Qi		Extroversion/ Introversion
Qii		Anxiety dynamism
Qiii		Tough poise
QIV		Independence
QVIII		Compulsivity

The first order (primary) factors are now described in greater detail in terms of both high and low scores, followed by a discussion of the second order factors.

Factor A measures a trait which indicates the degree to which a person is reserved, detached, critical and cool versus outgoing, warm-hearted and easy going (Bain, n.d; Carver & Scheier, 1996).

Individuals with lower scores may be uncomfortable in situations where they may have to display warmth and emotional closeness, and may instead choose to focus on more mechanical/intellectual activities (Dorfman & Hersen, 2001). People with a higher score on the other hand tend to display an intrinsic interest in others.

Factor B assesses general intelligence, in terms of concrete versus abstract reasoning (Cattell, 1965). Concrete thinking is evident when individuals are less able to solve verbal and numerical problems, indicating a lower general mental capacity. According to Dorfman and Hersen (2001), this is further demonstrated by an acute difficulty to handle abstract problems (which may be due to a lower scholastic mental capacity). Abstract thinkers on the other hand appear to demonstrate a higher general mental capacity, with the qualities of a fast learner. This dimension does not however replace traditional measures of intelligence and can therefore not be generalised as such (Conn & Rieke, 1994).

Factor C is a source trait that measures ego strength (Cattell, 1965). It is also conceptualised in terms of how it influences an individual's ability to successfully mediate between internal impulses and opportunities within the external environment (Cattell, 1965). Specifically, it is possible to differentiate between reactive versus emotionally stable individuals, depending on the score obtained on the instrument. Bandura's (1997) use of the term "external locus of control" is appropriate to describe individuals with a low score on this dimension. Specifically, this is evidenced by a feeling of diminished control over one's life and challenges. This results in the tendency to be reactive and more easily upset as opposed to proactive decision makers (Conn & Rieke, 1994). On the other hand, a higher score on this dimension can be indicative of an individual who is emotionally stable, and capable of facing challenges in an adaptive, mature manner (Cattell, 1965). Cattell's (1965) mention of a positive super-

ego as opposed to a dependent character also describes this dimension.

Factor E is another example of a source trait, and measures levels of dominance. It has been described as a dynamic disposition because of the range of behaviour that it measures (Cattell, 1965). Individuals will differ in terms of mild, obedient and conforming behaviour versus assertive, independent, aggressive and stubborn behaviour (Conn & Rieke, 1994; Dorfman & Hersen, 2001; also see Poppleton & Ribeaux, 1977). High scorers can be perceived as competitive, stubborn and bossy, with a 'take charge' attitude. Behaviour reflective of the extreme presence of this trait however can be perceived as being overbearing and argumentative (Dorfman & Hersen, 2001).

A low indication of Factor F (serious vs. lively) is suggestive of an individual that is sober, prudent, serious, taciturn and reflective. A strong indication of this trait on the other hand may be indicative of people who are drawn to lively social situations (Prinsloo, 1998). They tend to be animated, spontaneous, enthusiastic, expressive, impulsive, but to a certain extent unreliable (where there are high scores).

Factor G assesses a trait of personality known as super-ego strength, in the context of rule consciousness. Individuals are either referred to as expedient (non-conforming, disregarding of rules and self-indulgent) or rule conscious (conscientious and rule bound). The former qualities generally illustrate lower super-ego strength as compared to rule bound individuals with higher super-ego strength (Conn & Rieke, 1994; Dorfman & Hersen, 2001).

Factor H describes one's levels of social boldness, which Cattell (1965) referred to as parmia and threctia. This dimension correlates with a number of other personality inventories, although different labels may be used to describe this quality (Judge, Bono, Ilies & Gerhardt, 2002). In this context however, this trait differentiates

between individuals who are shy and restrained versus socially bold (tend to initiate contact with others and are also more spontaneous).

Factor I reflects a source trait of sensitivity, which is measured in terms of tender mindedness versus tough mindedness (Cattell, 1965). Individuals that have a high score on this dimension are generally tough-minded, objective, and self-reliant, with a no-nonsense approach to situations. Tender-minded, emotionally sensitive and dependent are all descriptors that indicate lower scores. Individuals that are more tough minded would be found at the other end of this trait, and may be defined in terms of their difficulty in managing situations that demand sensitivity.

Factor L assesses the extent to which people are trusting as opposed to vigilant (Cattell et al., 1970). Individuals with a low score tend to be trusting, adaptable, and unsuspecting. They are generally accepting of events that occur around them, but may be taken advantage of, as not much thought is given to others' motives. On the other hand, higher scores highlight qualities such as being suspicious, vigilant, sceptical and distrustful.

Another important trait in personality is the extent to which people are practical versus imaginative. Factor M demonstrates that individuals may differ in terms of having a practical, careful and conventional approach to reality, as opposed to people who are more imaginative, and careless of practical matters (Russel & Karol, 1994). Furthermore, the latter may also be an indication of people that are more intensely focused on inner urgencies.

Factor N refers to the degree to which individuals are more forthright in their interactions versus those who value a greater degree of privacy (Cattell, 1965). Forthright people are usually described as natural, artless and unpretentious, as they are always open and willing to talk about themselves. The opposite of this quality is present in people who are more private, discreet, and non-disclosing.

They tend to display a reluctance to disclose personal information, even appearing to be shrewd.

Factor O is a measure of the level of anxiety that individuals can manage, be it in a self-assured or an apprehensive manner (Cattell, 1965). This factor particularly refers to the extent to which people are placid, self-assured and confident when faced with challenges as opposed to adopting an apprehensive, worrying, and depressive stance.

Factor Q_1 indicates the extent to which people are more traditional, conservative and respectful of established ideas, as compared to others who are deemed to be more open to change (Dorfman & Hersen, 2001). The former typifies people who are conservative; displaying a preference for what is predictable and routine. Consequently, individuals with a strong presence of this trait may not always initiate or be open to change. On the other hand, people who score higher are seen as more liberal, analytical, and free thinking, demonstrating a higher level of flexibility.

To a certain extent, the element of flexibility is present in the next factor. Factor Q_2 (group-oriented versus self-reliant) highlights behaviour that reflects a level of group dependence, and people who are perceived to be steady, stable followers. Self-sufficient individuals who prefer to make their own decisions and are resourceful can be found at the opposite pole of this dimension. In a work environment, extremely self-reliant/self-sufficient individuals may have trouble working collaboratively with others whilst group-oriented and affiliative individuals with higher levels of group adherence may enjoy working in teams (Conn & Rieke, 1994). They may not however work as effectively when required to work independently.

There are certain individuals who in the context of work display a preference for perfectionism, whilst others are more tolerant of disorder. Factor Q_3 describes this tendency in greater detail. More

specifically, people are classified as either careless of protocol or social rules, impulsive, and keen to follow their own urges, or they are controlled, socially precise and exercise a high level of self-discipline. Cattell (1965) describes further that individuals with low integration (i.e. tolerant of disorder) may seem disorganised and lacking discipline. Perfectionists on the other hand exact higher will power and control, reflecting higher self-concept control. Scores on this dimension also indicate whether people find it difficult to deal with unpredictability or are comfortable to operate in a fairly unstructured environment. The last factor provides further insight into the dimension of tension.

Factor Q_4 describes individuals who display a relaxed disposition as compared to people who are tense. The former refers to individuals who are perceived as patient and composed (Cattell, 1965). This means that individuals have a lower level of arousal, translating into behaviour where people are less inclined to initiate change (and push themselves). Generally, high scores allude to high ergic tension (i.e. level of drive/energy), whereby, although individuals may become over-wrought, their high levels of drive positively correlate with motivating action (Conn & Rieke, 1994). Extreme levels of tension on the other hand may cause individuals to be easily impatient, frustrated and irritated. Of interest to note is that factors such as tender-mindedness, nervous tension and self-control all appear to be environmentally determined. This illuminates the importance of taking context into account when accounting for personality (Bischof, 1970). Cattell's 16PF measure achieves this.

In summary, there are numerous precise primary traits, all of which describe the richness and complexity of each unique personality. The 16PF however gives scores on both primary as well as second order global traits. Second order factors provide an overview of personality at a broader conceptual level (Carver & Scheier, 1996). These second order or cluster traits were derived as a result of traits that

naturally went together (Corsini & Marsella, 1985). Consequently it was found that particular configurations all reflected specific aspects of personality (Cattell & Schuerger, 2003). A discussion of each of the five global factors follows.

2.3.3 Second order factors

The five second order factors are extroversion, anxiety, tough-mindedness, independence and self-control. The first global factor of extroversion/introversion is comprised of primary traits such as warmth, liveliness and social boldness, as reflected in the tendency to seek social interaction in a 'bold and fearless' manner. Other factors such as forthrightness and affiliation (inclusive, co-operative) are also included in this second order factor. Based on the description of these primary factors, it can be deduced that extroversion refers to the tendency to seek out the company of others evidenced in a preference for social situations (Ortega, Brenner & Leather, 2006). Previous theoretical and empirical work has also suggested that there are three core features of this trait; namely the tendency to experience frequent positive moods (Fleeson, Malanos & Achille, 2002) sensitivity to potential rewards (Lucas, Diener, Groba, Sun & Shao, 2000) as well as the tendency to evoke and enjoy social attention (Paunonen, Ashton & Lee, 2002). Traits frequently associated with extroversion include being outgoing, sociable, expressive and energetic (Barrick & Mount, 1991). Introverted individuals on the other hand tend to be quieter, inhibited, and happy to follow another's lead (Caspi, Roberts & Shiner, 2005; Clark & Watson, 1991).

Similarly, researchers found four other primary traits that consistently merge to define another global factor, called receptiveness/openness versus tough-mindedness. The specific primary factors of sensitivity, abstractedness, openness to change and warmth (Factor A -

openness to people and their feelings) are descriptors of this global factor.

Another global factor is the self-controlled versus unrestrained factor, which resulted from the cluster of traits that describe how people control their behaviour. Rule consciousness, perfectionism (organised and goal-oriented) seriousness (Factor F) and groundedness (Factor M) are the primary factors that best correlate to describe this aspect of personality (Conn & Rieke, 1994).

The remaining two global factors of anxiety and independence comprise the balance of the primary factors. The former factor refers to the extent to which individuals are emotionally stable and calm. Independence as a factor on the other hand determines the extent to which individuals are able to accommodate others without completely sacrificing their own wishes (Russel & Karol, 2002).

Specifically, low scores on the anxiety factor typify individuals who are less easily upset by others. They tend to be emotionally stable and self-assured (Russel & Karol, 2002). Higher scorers are generally more easily frustrated due to an elevated concern about external events. These individuals may feel particularly overwhelmed or frustrated when expected to cope with challenges. Extremely low scorers on the other hand may be counter-productive individuals who may not be motivated to change particular patterns of behaviour.

The final factor of independence in essence refers to the extent to which people are able to influence as opposed to be influenced (Cattell, 1945, 1965). For individuals with low scores on this factor, situations that demand assertiveness tend to elevate discomfort levels. Low scores also indicate varying degrees of deference or shyness and strict adherence to the status quo. The ability to accommodate others' wishes may often be at one's own expense, the result of which may be an underlying sense of frustration during interactions with others.

Higher scores on the other hand typify individuals who are adept at leading and influencing others as opposed to simply accepting the status quo. At the extreme, very high levels of independence could be perceived as difficult and disagreeable individuals who find it challenging to accommodate others when required to do so.

The global factors described in the 16PF provide the conceptual framework for understanding the meaning of each of the primary traits, and in turn, the meaning of each global factor is determined by its particular cluster of traits. As the second order factors were developed through the factor analysis of the 16 primary traits, the16PF model is hierarchical in nature (Cattell, 1945, 1965). This therefore indicates that the two levels of personality are interconnected and interrelated.

In summary, Cattell's theory of personality differed from other trait theorists such as Eysenck, in his emphasis of traits as opposed to dimensions of personality. Trait based approaches represent a comprehensive view of personality that is high in heuristic value. Although there have been criticisms regarding an overemphasis on 'proving' the consistency of traits at the expense of situational variables, the theoretical assumptions about how personality is organised within this paradigm have been well established (Hjelle & Ziegler, 1995). As Cattell's theory has a strong empirical basis that increases its reliability and validity, it was considered to be a strong theoretical foundation for this study.

It has thus been comprehensively established that traits are the core of personality, and that they ultimately determine how people will behave in situations. As employees are confronted with a number of stressors that arise from changing work environments, the importance of understanding their qualities (in terms of personality traits) and skills in order to make effective career decisions is significant (Suls, David & Harvey, 1996).

Evidence from at least three field studies has indicated that the development of these appropriate coping strategies can be linked to personality (Caruso, 2002; Ineson & Stone, 2010; Mignonac, 2008). Notably, personality factors have already been linked to career outcomes such as adaptability and marketability but despite this, the role of individual differences and how this impacts on a person's career trajectory continues to be an overlooked topic despite its' significance (Ineson & Stone, 2010). There have been few attempts to formulate detailed theoretical models that specify the relationship between personality factors and coping with career changes (Cooper & Payne, 1993), and therefore, it is necessary to explore this further.

2. 4 Personality and coping with career changes

It has been suggested that the choice to adopt specific coping strategies over others is determined by individual differences (Welbourne, Eggerth, Hartley, Andrew & Sanchez, 2007). In this respect, an accumulating body of evidence proposes that, as personality characteristics are consistent (and to a certain extent coping behaviour across situations and over time are also consistent), it is possible to use personality to predict one's choice of a coping strategy (Armstrong-Stassen, 2004; Carver, Scheier & Weintraub, 1989; Carver, Scheier & Weintraub, 1993; William & Joseph, 1999).

These findings were confirmed by a recent study where personality traits correlated with employees' approaches to coping, specifically in the work context (Ortega et al., 2006). It was found that employees who displayed a higher presence of traits that related to proactive personality for example, tended to respond to workplace challenges and changes better. This may have been the result of intrinsic motivation (which correlates to Factor Q1 openness to change) (Baek-Kyoo & Lim, 2009). It has also been found that behaviours

associated with adaptive coping mechanisms included being flexible and purposive, as well as having reality and future-oriented qualities (Suls, David & Harvey, 1996).

It has been documented that there is often a high degree of stress associated with frequent workplace changes. In terms of managing these changes, it has been suggested that individuals who tend to seek social support in response to stressors would be better able to cope with frequent changes (Suls et al., 1996). In addition to this, the ability to redefine a situation in order to see it differently has been viewed as a coping strategy, and in terms of the 16PF, correlates with the trait of openness to change.

According to Cantor, Norem, Niedenthal, Langston & Brower (1987), all these qualities are important for understanding how personality and coping contribute to adaptation. For example, certain individuals may be predisposed to use certain kinds of coping strategies (Carver & Scheir, 1996). Similarly, there have been studies examining how global *personality* dimensions such as introversion-extroversion or neuroticism influence coping processes (Russell, 1991 as cited in Cooper & Payne, 1991). Whether these have been rooted in a work context is unclear, and as previously stated, how the different dimensions influence the way in which individuals cope with career changes has been limited (Judge, Higgins, Thoresen & Barrick, 1999; Seibert et al.,1999; Seibert & Kraimer, 2001 as cited in Anderson & Thompson, 2008).

Despite this shortcoming, work has been carried out in measuring how proactive personality in particular correlates with the way an individual copes with change. Crant (2000, p.436) describes proactive behaviour as “taking initiative in improving current circumstances or creating a new one; it involves challenging the status quo rather than passively adapting to present conditions”. Proactive individuals will therefore look for and act on opportunities,

show initiative, and consistently implement change successfully (Bateman & Crant, 1993; Crant, 2000). Given the changing nature of work, proactive behaviour and how it can be measured through personality dimensions is now more critical than ever (Parker, 1998).

Researchers have postulated that personality characteristics are valid and reliable predictors of career success and more especially have already shown that proactive personality is related to adaptability (Barrick & Ryan, 2003; Bateman & Crant, 1993). These and other studies have shown that numerous 16PF traits have been found to be powerful predictors of organisational behaviour (Ashton, 1998; Goldberg, 1999; Mershon & Gorsuch, 1988; Paunonen & Ashton, 2001). Despite this, a gap in the research is still evident in terms of comprehensively measuring the relationship between personality and careers. The current study therefore adds practical insights in this regard.

2.5 Conclusion

The purpose of this chapter was to provide a comprehensive overview of various personality definitions and theories. Trait based theories were explored in particular as they were deemed to be the most appropriate for this study. The final aspect of the chapter focused on how particular dispositions can influence how people cope with change in an organisational context. Chapter 3 of the study explores employability in greater detail.

CHAPTER 3
EMPLOYABILITY

3.1 Introduction

This chapter explored the concept of employability, which falls within the field of career psychology. The specific aims of the chapter were to offer a thorough exploration of employability by outlining the brief history and relevance of the construct, its various components and its significance in the workplace. The most prominent perspectives of employability were also discussed. These theories were then briefly considered in terms of their relevance to the South African context. Finally, a summary of the main ideas of employability and personality was explored. This acted as a summary to the chapter.

3.2 Defining employability

It has been widely documented that the current work paradigm is characterised by frequent change (Bernston, 2008; Coetzee, 2006; Fugate, 2006; Mignonac, 2008; Thompson, 2010). Consequently, both employers and employees are faced with the challenge of coping with an increasingly turbulent workplace (Coetzee, 2007; van der Heidje & van der Heidjen, 2005). On an individual level, individuals can expect to experience more frequent career transitions in the course of their careers. As a result, traditional career arrangements within a single organisation will be less common (Coetzee, 2007). To this end, a number of research studies have suggested that there is an increased need for creative and flexible workers, who are easily adaptable to organisational change (Arthur, Khapova & Wilderom, 2005; Baruch, 2004**;** Karaveli & Hall, 2006; Lankard, 1990).

Whilst the notion of individuals assuming full responsibility for managing their own careers is not new (e.g. Hall's Protean career),

recent studies reflect that career management has now become more closely linked to the concept of employability (Bernston, 2001; Clark & Patrickson, 2007). This is largely because employability facilitates the realisation of job and career opportunities that exist both within and between organisations (Fugate & Kinicki, 2006).

The long history of employability research indicates that employability has been conceptualised in different ways. Prior to the 1950's for example, individuals were dichotomously characterised as either employable or not. This was later replaced by a socio-medical model of employability (Gazier, 2001). According to Forrier and Sels (2003, b), the primary focus of employability in this era was the rehabilitation of individuals in order to overcome barriers to employment. Notable gaps between employment needs and employee characteristics were identified, in order to assist people with job search and placement (Sander et al., 2002). A review of the literature indicated that South African studies in particular also tended to focus predominantly on work readiness as a means to measure employability. These studies however were of limited scope as they failed to take the complexity of employability into account (Raftopoulos, 2006).

An alternate conception of employability was thus needed. Known as 'initiative' employability, (in the late 1980's and early 1990's) employability was framed within a social capital framework (Gazier, 2001; McQuaid & Lindsay, 2005). Here, the ability to use networking skills to gain access to the labour market was emphasised (Bernston, 2001). The notion of lifelong learning was also specifically highlighted and provided the foundation for later contemporary perceptions of employability.

Currently, the literature endorses the idea of integrative employability. Within this framework, employees are 'partners' in the evolution of firms, with employment patterns spanning across and between organisations (Marock, 2008). The terms of these employment

relationships have also changed, with the written and psychological contracts between employer and employee becoming more transactional and less relational in nature (Clark & Patrickson, 2007). Consequently, loyalty will no longer be a guarantee of lifelong employment. Rather than relying on the organisation to direct and maintain their careers, it has been consistently found that individuals are expected to be the primary caretakers of their own employability (Bagshaw, 1997; Brown, George-Curran & Smith, 2003; Clark & Patrickson, 2008; Sanders & De Grip, 2004).

From these findings it is evident that employability research has had a long history. However, despite this plethora of knowledge, employability as a concept has not been universally defined in the same way (Bernston, 2001). Some authors for example define employability in terms of a 'group of qualities' that enhance an individual's ability to seek, secure, and continue to be successful at work (Rothwell & Arnold, 2007). Similarly, Coetzee and Roythorne-Jacobs (2007) defined individuals that are high in employability as being able to gain access to, and adjust to the demands of a changing workplace. As employment relationships are characterised by frequent change, specific career management skills such as self-awareness and the ability to explore and create opportunities appear to be at the core of employability (Association of Graduate Recruiters, 1995; Coetzee & Roythorne-Jacobs, 2007).

In addition to this, employability is also defined by how individuals articulate their skills and experience to engage in opportunities (Lankard, 1990). In this context, the Fugate et al., (2007) definition of employability is apt, where employability is defined as "a form of work-specific, active adaptability that enables workers to identify and realize career opportunities" (2007, p.16). Implicit within this definition is the ability to remain attractive in a fluctuating labour market. Furthermore, employability is driven by workers who are able to

anticipate changes and to react to work and task changes in a proactive manner (Sanders & De Grip, 2004).

A key feature of all the definitions of employability has been a focus on the skills and qualities that individuals need to meet workplace challenges. Notably, Van der Heijde and Van der Heijden (2005) criticized many of the initial descriptions of employability, which mainly focused on the skills required to meet specific role requirements. By only focusing on occupation specific skills, a best fit perspective was endorsed. By implication, the qualities employees needed to adapt were assumed to be static, known and invariable, a notion that has evident limitations in terms of the current turbulent employment setting (Van der Heijde & Van der Heijden, 2005).

This gap in the literature implied that individuals could not only rely on job mastery alone to secure their employability (Lankard, 1990). Knight's (2004) view of employability thus suggested that a move beyond a mere 'skills focus' when discussing employability was required. This is further substantiated by Fugate (2006), who stated that framing employability in terms of 'rigid knowledge, skills and abilities (KSAs') implied that an employee's value extended only as far as their current skills matched the strategic objectives of their employer. Van der Heijde and Van der Heijden's (2005) earlier definition of employability supported this finding, defining employability in terms of the continuous fulfillment, acquisition and creation of work through the optimal use of one's competencies.

In summary, a number of theorists have defined employability in terms of different focus areas. The last definition in particular is especially significant though, as it highlights the implied *individual differences* inherent within employability. The extent to which this has been empirically measured however, requires further scrutiny, and forms the next part of the chapter.

3.3 Prior research into employability

The dynamics of employability appear to be based on a number of assumptions that have emerged as recurrent themes within the literature. Thus far, it has been well established that employees are increasingly expected to manage unpredictable career paths. Conceptually, employability reflects these new employment patterns, characterised by multiple jobs and careers throughout the course of an individual's life (Baruch, 2004; Schreuder & Coetzee, 2006). Other studies also support the finding that employability is the new benchmark of success (Mc Quaid & Lindsay, 2005). The increased individual responsibility for career self-management and the development of behaviours supportive of ongoing employability have also been reported (Mc Ardle et al., 2007).

This is also evident in the South African context, where employability has almost always been linked to individual attributes (Herr, Cramer & Niles, 2004; Marock, 2008). By focusing on competencies or *individual* factors as central to employability, successful career management has been typified as an individual's responsibility (Bernston, 2001; Clark & Patrickson, 2007). Bernston's (2001) study similarly shows that people's perceptions of their own employability impacts on their subsequent career behaviour. By their very nature, these studies highlight the individualised nature of employability (i.e. that employability differs between individuals).

The earlier emphasis on employability as being competency driven is just as significant. Largely, it suggests that employability is reliant on the best possible use of one's abilities, qualities or competencies to identify and fully utilise career opportunities (Fugate et al., 2004). Against such a context, certain employee competencies will be of greater value to employees as these create opportunities for work continuity and career development (Van der Heidje & Van der Heidjen, 1996).

Employability however extends *beyond employment.* Largely, organisations have become 'vendors of employment' with limited traditional career advancement opportunities (Muchinsky, Kriek & Schreuder, 1998). Consequently, employees have to develop a wide range of skills to enhance their overall employability, in order to find a job, even when one does not exist (Coetzee, 2007; Fugate, 2006). The South African Federation for Mental Health (2006), as cited in Marock (2008), supports this finding, reflecting that employability encapsulates the capability to not only gain initial employment, but to maintain employment and source new employment opportunities. Employability thus reflects the ability to effectively use one's competencies in order to move self-sufficiently within the labour market. Whilst existing studies explore the nature of these dispositions, there is still a need however to fully examine how employees adapt to changes in their work and career environments (Fugate & Kinicki, 2006). It is therefore necessary to examine the dispositional components of employability in greater detail.

3.4 Components of employability

The exact components of employability are not equally agreed on in empirical research (Berntson, 2001). For example, Harvey and colleagues (Harvey, Moon, Geal & Bower, 1997) found that employers generally placed a higher value on qualities such as knowledge, willingness to learn, as well as self-management and interpersonal skills. By contrast, the Association of Graduate Recruiters (1995) proposed that career management, self-awareness, self-promotion and exploring were more appropriate measures of employability.

Similarly, Marock (2008) outlined a cluster of capabilities that are important for employability. Notably, these capabilities were not necessarily a group of 'technical' abilities, but instead reflected attitudes, behaviour and capacities that were more general in nature.

These components in turn can be classified into two key dimensions of individual employability (De Grip et al., 2004). Firstly, willingness to participate in activities that keep one attractive in the labour market is considered. Examples of these activities include learning new skills, lifelong learning and the ability to make successful transitions within and between organisations (Bernston, 2001). In addition to this, capacity is concerned with the ability to broadly develop one's position in the labour market. Specifically, the ability to function across functional areas and adapt to new situations through continuous improvement, as well as planning and managing one's own learning were highlighted (Marock, 2008).

Whilst it is agreed that individual competence is central to employability, there are arguably a number of other factors that guide employability. Essentially, this means that whilst individual employability is influenced by an employee's particular 'assets', the context (e.g. personal circumstances and labour market environment) in which people operate is also important as this stimulates employees' organisational and group competence as well (South African Federation for Mental Health, 2006, as cited in Marock, 2008; Van der Heidje and van der Heidjen, 2006). This claim is supported by other studies which indicated that various organisational factors can and therefore *do* influence employability. These include, but are not limited to, organisational culture, employee development and career planning initiatives (Robbins et al., 2001). In spite of these organisational dynamics, employees were expected to be self- reliant and know how to cope with and adapt to change, both independently as well as within an organisation.

This ability to adapt to organisational and career related changes has been crystallised by Gainer (1998) as one of the three overarching components of employability. These are namely; individual competence (i.e. an increased level of competence that allows individuals to identify development opportunities), group and

organisational skills, and overall adaptability. The former concept has already been discussed in great detail in the introduction to the chapter. Attention is now given to the concept of adaptability, which is a central component of employability.

3.4.1 Employability and adaptability

Although employability has been widely researched as a central component of managing current career demands, employability is only one aspect of the overall career management process. Other career concepts such as adaptability also determine how individuals cope with career changes. Savickas (1997, p.254) defines adaptability as the "…quality of being able to change, without great difficulty, to fit new or changed circumstances". Because of an uncertain labour market, employees need to be flexible by preparing in advance to meet known as well as unanticipated threats or likely changes (Aspinwall & Taylor, 1997; Coetzee & Roythorne, 2007).The ability to effectively alter one's behaviour to respond to environmental challenges in a proactive manner is particularly emphasised in building an understanding of adaptability (McArdle, 2006). Essentially this means that, in addition to being able to reactively adapt to demands that are known, adaptable individuals need to "have a perpetual readiness for change" (Fugate & Kinicki, 2007, p.5). According to Gainer (1998), it is these same action-oriented and *proactive* qualities that enhance one's employability, and henceforth attractiveness in the labour market.

Consistent with this trend is the notion that an approach to employability that extends beyond the traditional perceptions of adaptability, and that is specific to the work domain, is required. As such, it has been suggested that a dispositional perspective of employability is appropriate. This is because whilst it incorporates reactive approaches to change, it mirrors the attributes of highly employable individuals postulated thus far.

In summary, proactive adaptability at work is an important element of employability (Fugate, 2006). Organisations and individuals mutually benefit from attitudes and behaviours like flexibility and adaptability, as these are both qualities that positively correlate with ongoing employability (Mc Ardle et al, 2007). In addition to this, people that are high in employability are also able to proactively create and realise opportunities *between* organisations (Fugate & Kinicki, 2008). The ability to transfer skills across functional areas and industry has also been documented as pertinent to employability. Otherwise known as transferable skills, these are regarded as an inherent resource that enables individuals to adapt to changing career circumstances (Raybould & Sheedy, 2005). This forms the next part of the chapter.

3.4.2 Employability and transferable skills

Earlier in the chapter, it was established that to remain attractive in the labour market and hence employable, particular skills that are easily transferable between organisations is advantageous. Transferable skills are those skills that have been learned in one situation and that can then be taken and applied in another situation (Davies, 2000). However, transferable skills are not only cognitive (or job specific) in nature but are skills that allow individuals to succeed in a variety of tasks and jobs across industries and organisations (Falconer & Pettigrew, 2003; Holmes, 1993). As one of the conditions determining employability is the presence of these transferable skills, their role in shaping and reshaping individual careers has emerged as a key objective for people who seek ongoing, worthwhile employment (Forrier & Sels, 2003a). Individuals can thus use these skills to manage multiple career transitions and, as a consequence, enhance their career mobility (Herr et al., 2004).

However, transferable skills are not just important from a perspective of directly applying learning to another job/work environment. Instead, transferable skills enable individuals to actively explore and create opportunities within a range of employment contexts (Association of Graduate Recruiters, 1995). The key factors responsible for how employees are able to successfully manage these transitions has been somewhat debated within the literature (Garavan, 1999; Kanter, 1989). The last decade however has been marked by increased attention on how dispositional predictors account for a variety of individual and organisational criteria (Fugate & Kinicki, 2008). In the context of today's turbulent work environment, adopting a dispositional approach to understanding how employees adapt to work and career changes thus seems to be increasingly relevant.

This is due to the frequency and intensity of workplace change, which Mischel (1977) indicated would highlight individual dispositions as more than likely influencers of behaviours and performance. Adopting a dispositional perspective of employability has the added benefit of being patently rooted in the work context and is thus an appropriate theoretical foundation for this study (Fugate, 2006). A more detailed overview of this perspective of employability follows.

3.5 Dispositional employability

A review of some of the research studies conducted in career psychology has shown a heightened interest in dispositional explanations of organisational behaviour and attitudes (Seibert, Kraimer & Crant, 2001). In line with this, a dispositional view of employability, as presented by Fugate, Kinicki and Ashforth (2004) suggests that employability is a disposition that encapsulates individual characteristics that promote adaptive behaviours and result in positive employment outcomes (Fugate et al., 2004; Fugate & Kinicki, 2008). These individual characteristics do not just comprise

of a few qualities, but rather a constellation of characteristics that predispose employees to adapt to work and career environments proactively (Fugate, 2008). Investigating employability from a dispositional perspective is apt as it reinforces the notion of using personal learning to identify opportunities in the market.

For example, people with high dispositional employability may be more prone to remain in a given organisation because they see more opportunities than employees with low levels of this trait. At the same time, this quality also facilitates the realisation of opportunities outside an individual's current employer (Fugate & Kinicki, 2008). Again, this reinforces the idea that employability 'exposes' individual differences, as only specific qualities may be labelled as adaptive. This produces what Ashforth and Taylor (1990) term a 'person-centred' conceptualisation of employability that is grounded in active adaptation at work.

Adaptability and its' relationship with employability has already been explored by various authors (Fuller & Marier, 2009). The focus on specific adaptive qualities or competencies however has been specifically highlighted by Van der Heijde and Van der Heidjen (2005). Their studies suggested that employability is evident in individuals who are able to utilize their competencies in an optimal way. The later development of an employability measure to reflect these competencies provided a comprehensive description of these competencies, with adaptability evident as an important underlying competency (Van der Heidje & Van der Heidjen, 2006). This employability instrument was selected to measure employability in this study, and is defined along five key dimensions. These dimensions reflect job as well as career related competencies, and are described in further detail below.

3.5.1 Occupational expertise

The first employability dimension is occupational expertise, which consists of a combination of professional competencies and skills. This dimension is evident in individuals who have acquired a high degree of knowledge, spanning across professional domains (Van der Heidje & Van der Heidjen, 2006). Because these skills are domain independent, they enable employees to thrive from inter-firm transfers. Occupational expertise is thus often seen as *the* prerequisite for successful career outcomes, at both an individual and an organisational level. It is thus a central determinant of employability (Enders, 2002).

3.5.2 Anticipation and optimisation

The second dimension of anticipation and optimisation was also identified as a key determinant in differentiating groups with regards to their employability**.** Empirical findings suggest that this dimension is central in assisting employees to cope with career changes in a proactive manner (Van der Heidje & Van der Heidjen, 2006). Individuals high in this dimension would adopt a proactive and flexible approach to managing changes that are endemic to an unpredictable work context. Because future work content is difficult to predict however, this dimension also creates a platform for employees to continually manage changes in a creative manner (Kluytmans & Ott, 1999). As a result, employees have to be able to create their own ‘work futures’ (Altman, 2000).

3.5.3 Personal flexibility

Higher employability also translates into the ability to not only make a smooth transition between organisations, but to be able to adapt to **all** types of change within the labour market. The dimension of personal flexibility thus details the extent to which individuals can

effectively react to organisational and market changes which they themselves did not initiate (Van der Heidje & Van der Heidjen, 2006). Flexible employees are also able to derive the maximum benefit from operating in the current employability context, because they are able to cope with changes more easily. Personal flexibility is however different from anticipation and organisation, as the former refers to a proactive variant of adapting to changes, whilst the latter refers to a more passive, reactive coping mechanism (Van der Heidje & Van der Heidjen, 2006). Both however coexist to enhance the employability of the individual.

3.5.4 Corporate sense

Corporate sense is an important dimension of employability, because it challenges traditional notions of the employment relationship. Specifically, it requires individuals to engage with each other in an integrated team environment, irrespective of job level. It builds on the notion that employees will join/create networks that allow them to develop an understanding of various work roles across a business (Van der Heidje & Van der Heidjen, 2006). By participating in occupational networks, individuals are also able to create support systems that can be of benefit during career changes (Zikic & Hall, 2009). Finally, corporate sense encourages individuals to assume shared responsibility for developing organisational insight, as this is what allows companies to become market leaders in terms of change (Chapman & Martin, 1995; Frese, 2000).

3.5.5 Balance

The final dimension of employability is balance, which measures the extent to which individuals are able to establish equilibrium between opposing work and personal interests. Van der Heidje and Van der Heidjen (2006) indicate that employees are continuously challenged to balance their career and professional development, without

compromising their personal interests (Van Beckhoven, as cited in Van der Heidje & Van der Heidjen, 2006). Employees are also expected to consider the benefits of either specialising in a particular field or to de-specialise and develop more general skills. The ability to balance these two is proposed to be highly beneficial in light of a boundary-less career, as the implication is that companies will not only focus on *just* providing skills or knowledge specific to a particular area, but will instead prioritise knowledge integration across various knowledge bases (Altman, 2000). Therefore, in essence, people will become experts in certain fields (which is a competitive advantage), but will also have other generic skills that prevent them from becoming obsolete in the market.

On a multi-dimensional level, these competencies appear to better assist employees in coping with a dynamic work context, a finding that has been supported in a number of independent studies (Brown et al., 2003; Kim, 2005; Lounsbury et al., 2004). What these studies indicated is that there are a number of benefits associated with employees who fit the profile of being highly employable. A more detailed description of these benefits concludes this section of the chapter.

3.6 Benefits of employability

In the current South African employment context, individuals with a higher degree of employability are distinguishable in the labour market in a number of ways. Increased competence and a keenness for identifying development opportunities are among some of the distinguishing features (Clark & Patrickson, 2007). In addition to this, individuals that are high in employability are able to balance behaviour and impact with task and delivery (high performers). They are also less likely to be psychologically harmed by job loss and frequent career change, as they are largely more adaptable (McArdle et al., 2007). Higher employability has also been positively correlated

with a strong career identity in which individuals tend to define themselves more broadly in terms of a career as opposed to employment in a single organisation (Coetzee & Roythorne, 2007). Individuals 'high in employability' are more likely to have a wider array of interests and possibilities, as compared to people with a lower degree of employability. This is to enable one's value in the marketplace to be assessed by comparing existing skills and experience with current job requirements.

Employable individuals also display a higher level of career resilience, which enables them to be more optimistic in terms of handling objective and affective career challenges. Subsequently, work and career resilience cultivates both the identification of and acquisition of career opportunities (employability) in unpredictable work environments.

Of particular interest is the argument that it is "one thing to compile lists of employability and essential skills, and quite another to conduct the research needed to determine if these skills are the actual competencies sought by employers and used in the workplace" (Munby, Versnel, Hutchinson, Chin & Berg, 2003, p.97). In response to this, it is suggested that the exact skills and competencies needed for employability will never be exhaustively measured, largely because of the high frequency of change in work place demands. Coetzee (2006) instead suggests that general employability attributes will have to be continuously developed and enhanced. By developing one's internal career resources, it is these inherent qualities that enable individuals to make effective career decisions and allow them to proactively manage their career (McArdle, 2006).

In summary, the value of high employability has been well established, as it determines the extent to which individuals are able to manage unpredictable career demands. Whilst there has been some debate in the literature regarding why individuals adopt

particular coping strategies over others, one of the more prominent viewpoints states that coping styles can be linked to individual differences (Welbourne et al., 2007). As the analysis of personality characteristics is at the heart of the study of individual differences, numerous studies suggest that it is possible to predict one's choice of a coping strategy through the measurement of personality (Armstrong- Stassen, 2004; Carver et al., 1993; Carver, Scheier& Weintraub, 1989). A conceptualisation of employability and workplace adaptability that incorporates personality is thus valuable. Therefore, a discussion of this proposed relationship follows.

3.7 Link between personality, coping with career changes, and employability

Research findings suggest that the study of individual differences can account for the variance in adaptability and levels of employability exhibited by individuals. In this respect, a careful examination of the literature shows that coping has almost always been synonymously related to personality traits (Suls, David & Harvey, 1996). Empirical claims which suggest that personality significantly predicts career mobility have however been met with mixed reviews by vocational researchers. Carver, Scheier and Weintraub (1989) for example, found only relatively modest links between traditional personality variables and coping dispositions. McCrae and Costa (1986), as well as Foxcroft, Paterson, Le Roux and Herbst (2004) however, argue that there are very definite dimensions of personality that can be associated with preferred modes of coping. Neuroticism for example has been directly associated with passivity when it comes to task-orientated coping efforts (Herbst, 2006). Extroversion on the other hand, is positively correlated with rational action and positive thinking (McCrae & Costa, 1986).

In terms of coping with career related changes in an organisational context, contemporary studies have established relationships

between career decision making, planning, career initiative and employability (Brown et al., 2003; Kim, 2005; Lounsbury, Loveland, Sundstrom, Gibson, Drost & Hamrick, 2003; Van Dam, 2004). Within the framework of these studies, work and career pro-activity have been conceptualised as similar to general proactive coping skills (Fugate & Kinicki, 2008). Notably, it has been proposed that relationships exist between personality attributes that influence specific career behaviour and the aforementioned variables, provided that personality is comprehensively measured (Cattell & Scheurger, 2003).

Similarly, studies have examined how *global* personality factors such as introversion-extroversion or neuroticism influence coping processes (Russell, 1991 as cited in Cooper & Payne, 1991). Whether these have been rooted in a work context is unclear however, and as previously stated, research into how the different factors together influence the way in which individuals cope with career changes has been limited (Judge et al., 1999; Seibert et al., 1999; Seibert & Kraimer, 2001 as cited in Anderson & Thompson, 2008).

Based on these findings, it is expected that the 16PF factors as a set would be useful in discriminating between levels of employability, as it is a comprehensive measure of normal-range personality. Specifically however, it is anticipated that the markers of extroversion (specific primary factor of social boldness), anxiety (specific primary factor of emotional stability), self-control and restraint (primary factor of tolerance of disorder) and lastly, independence and accommodation (primary factor of openness to change) would particularly correlate with an individual's ability to manage organisational and career transitions.

Existing empirical studies provide ample support for these claims. Openness to change for example is a personality trait that reflects

characteristics such as imaginativeness, curiosity, originality and broad-mindedness (Barrick & Mount, 1991; Vakola, Tsaousis & Nikolaou, 2003). It is also defined as the need for variety, novelty and change, and has more recently been identified as a major determinant of all types of career mobility (Mignonac, 2008; also see Norman, 1963). Kanfer and Ackerman's (2004) study also identified openness to experience and self-efficacy as a key individual factor connected to an individual's ability to accept major job and organisation changes. This is because individuals that are high in openness to experience are generally more willing to consider novel ideas, are receptive to change and display unconventional tendencies (Costa & McCrae, 1992; Le Pine, Colquitt & Erez, 2000).

On the contrary, people with low scores in openness to experience tend to have narrow, common interests and prefer familiarity over novelty, and may even be perceived as conservative and resistant to change (Kanfer & Ackerman, 2004). From this perspective, individuals that are high in openness to experience are generally motivated by career related changes. This may be due to specific individual characteristics that predispose them to master different types of environmental challenges for example, persistence in the face of obstacles and disconfirming experiences. (Bandura,1997). The value of measuring openness to change is therefore relevant to this study, as theoretically it should be one of the key indicators of how individuals adapt to unpredictable challenges within employability.

A further review of literature studies indicates that Factor B (general reasoning ability) could also correlate to some extent with employability. This personality dimension explores an individual's capacity to transfer knowledge from one situation to another, which equates to the notion of transferable skills that are endemic to understanding employability. Theoretically, high scorers should be at an advantage as the ability to achieve a transfer of knowledge across

situations is implied (Russell & Karol, 1994). However, this dimension is not expected to emerge as a **predominant** discriminator of employability, as a regression analysis from a previous study revealed that personality traits connected to *emotional* intelligence served as far greater predictors of how individuals manage career changes (Lounsbury et al., 2003).

Similarly, it is expected that an extremely high score on Factor Q3 (perfectionism) will be negatively correlated with employability. An above average score suggests individuals who are more comfortable in highly organised and predictable situations and may find it difficult to deal with unpredictability (Russell & Karol, 1994). Given the existing literature detailing the rapid rate of organisational change, it is reasonable to assume that a lower score would be more beneficial in that it denotes the ability to plan ahead and be prepared for many different contingencies.

The ability to be proactive in managing career and organisational changes has also been extensively researched in the literature (Gibson, Drost & Hamrick, 2003; Karaveli & Hall, 2006; Loveland, Sundstrom, Gibson, Drost & Hamrick, 2003; Wahat, 2009). Pro-activeness is specifically related to the emotional stability dimension (Factor C) of personality as measured by the 16PF. This factor explores the extent to which individuals feel in control of their life and surroundings, specifically in respect of coping with daily challenges. Performance in this dimension can be linked to meeting the demands of employability, as it allows one to differentiate between individuals who adopt a more proactive (as opposed to reactive) approach when managing change (Russell & Karol, 1994).

The expectation that individuals are proactive when it comes to managing their own careers within the current employment context of unpredictable change has been well documented by a number of independent studies (Crant, 2000; Hall, 1996; Hall & Moss, 1998;

Seibert et al., 2001). In line with the findings from these studies, a relationship between initiative and several career related variables such as career planning, career initiative, entrepreneurial activities as well as employability have been identified. As individuals become responsible for their own careers, the need to be proactive and initiate work opportunities increases. It is therefore expected that initiative and openness to change (as discussed earlier) will be positively associated with an employability orientation.

Finally, the primary factor of social boldness (Factor H) can also be argued to have a potential influence on employability. This factor describes individuals as venturesome and socially bold, or timid and restrained, and is part of the global extroversion factor (Cattell et al., 1970). The importance of this factor is not that people high in extroversion are sociable and expressive, but more importantly that they take initiative when it comes to managing work and relationships (Crant, 2000). This supports the notion of proactive personality, which has been described earlier.

Extroversion has also been associated with an adaptability subscale known as flexibility (Murphy, 1989; Tidwell & Sias, 2005). This scale describes how individuals adjust to the needs of their environment (Leary, Reilly & Brown, 2009). In the context of employability, the role that extroversion plays in determining career success has been well researched. Notably, previous studies suggest that extroverts are generally able to *more* successfully adapt to the demands of a changing environment (as compared to introverts) (Leary, Reilly & Brown, 2009). According to Guthrie, Coate and Schwoerer (1998), this could be due to the association between certain aspects of personality (like being extroverted or sociable) and an increased use of strategies that involve building relationships with others (e.g. mentoring relationships and career networking) (also see Tziner, Vered & Ophir, 2004).

The qualities of extroversion have also been closely associated with other personality factors such as openness to experience or 'intellect', suggesting that all these dimensions will be positively correlated with self-directed career strategies (like career flexibility) that are endemic to high employability (Guthrie, Coate & Schwoerer, 1998). The majority of studies have therefore consistently shown a level of interrelatedness between extroversion, openness to change and emotional stability, in respect of how individuals cope with change. A strong indicator of each of these traits is therefore expected to be linked to employability, as each of these personality characteristics typifies key elements of employability. The expected end result is employees who are flexible, and who can successfully adapt their strategies, knowledge, skills and behaviours to effectively cope with the demands of employability (Fugate, 2006).

The extent to which this ability to adapt and cope with organisational change is influenced further by demographic differences, has produced interesting results in the literature. Findings from an international study for example suggest that a lower degree of flexibility and employability was expected in employees older than 50 years, as compared to younger employees (Schalk, 2007). Other authors however, argue that older employees are in fact *more* productive because of their extended work experience and higher degree of crystallised knowledge (Kanfer & Ackermann, 2005). Flexibility would thus not be a real issue, as older employees would be just as willing to keep their knowledge and skills up to date as younger employees would (Hendrikse & Schalk, 1995).

In terms of the aims of this particular study, age, race and gender were *all* measured to determine their influence (if any) on respondents' employability. In terms of existing research, various studies have not found significant differences with regards to age, gender and ethnicity, when it comes to measuring occupational mobility (Rothwell, Jewell & Hardine, 2009). Other studies however,

have found particular differences between males and females on certain elements of employability (such as thinking skills, interpersonal style and resource/capability skills), although these findings could only be generalised to the mechanical and technical institutions that participated in the study (Kazilan, Ramlah & Bakar, 2009).

The consistency of these findings in terms of studies conducted in South Africa is also worth exploring. A study conducted by Pauw, Oosthuizen and van der Westhuizen (2008) revealed that, whilst 65% of respondents graduating from historically white universities found employment immediately, 28% of respondents from historically black institutions were not successful. It could be argued that this outcome had less to do with ethnic differences in employability and more to do with whether the institutions where individuals were placed shared the same perspectives of employability. Based on the fact that the majority of research has not shown a definite relationship between employability and demographic factors, it is proposed that this study will yield similar results.

3.8 Conclusion

Based on the review of the literature, it is evident that employability has both personal and organisational consequences. On an individual level, the development of formal career plans will become increasingly insignificant. Instead, the enhancement of behaviours appropriate to meeting the challenges of contemporary employment relationships will be prioritised. At an organisational level, increased flexibility through work tasks such as job rotation, short-term projects and networking opportunities is critical. In this way, individuals with proactive qualities at work will theoretically tend to be more adaptable and employable as they are more likely to define their role more flexibly, whilst displaying ownership of long term goals beyond their job (Parker, Williams & Turner, 2006). In short, the challenges of

employability mean that both employers and employees must adapt in order to compete successfully.

This chapter has therefore outlined the key theoretical assumptions related to employability discourses. A relationship between employability and specific personality traits has also been suggested and explored within the literature. In particular, the specific traits of openness to experience, proactive disposition and adaptability have been highlighted as central determinants of employability. The extent to which the demographic factors of age, race and gender influence employability was also briefly explored, and the conclusion reached that universal consensus of a relationship between the two could not be reached. These assumptions however will be discussed in greater detail in the research hypothesis section that follows in Chapter 4.

CHAPTER 4
EMPIRICAL STUDY

The second phase of the research procedure is the empirical study, which is discussed in this chapter. The aim of this chapter was to provide a detailed description of the research methodology involved in the study. This chapter therefore includes discussions of the research design, data gathering procedure, population and sampling, measuring instruments and the procedure for statistical analysis used for this study.

4.1 Research design

A quantitative design was used in this study. Due to the aims and objectives of the study, this research is non-experimental and descriptive in nature. A cross sectional survey design was used to measure the relationship between personality and employability. A cross sectional design occurs when data that is collected represents what occurs at a particular point in time (Babbie & Mouton, 1998; Creswell, 2009). Variables of interest in a sample of subjects represent a cross-section of a population, and are measured to determine the relationships between them (Cresswell, 2009) Benefits of a cross sectional research design include the opportunity to obtain data on attitudes and behaviours from a large number of subjects, and to generate hypotheses for future research. As opposed to experimental research designs, this approach does not seek to establish a causal relationship but merely the existence of a relationship between the variables (Spector, 2006). Cause and effect can therefore not be established due to a lack of control over the independent variable**.**

4.2 Study population and sample

In this section, the characteristics of the population, sample and the sampling strategy are discussed.

4.2.1 Characteristics of the study population

The sample that was identified and used for the study consisted of employees from the KZN operation of a large meat producing organisation. The study population was all permanent employees (both management and staff level) employed across various divisions within the organisation.

4.2.2 Sampling

Bless, Higson-Smith and Kagee (2006) suggests that as far as possible, there should be a 95% chance that the final sample is representative of the population. The exact sample size depends on the precision of analysis, and is guided by a general rule that samples should not be less than 15 units of and preferably contain more than 25 units in respect of the target population (Huysamen, 1991). This means that in the current study (population of 200), a minimum of 80 participants was required.

An availability sampling strategy was used to compose the sample in this study (Bless, Higson-Smith & Kagee, 2006). Convenience sampling relies on available subjects to participate (Eckhardt & Ermann, 1977). In the organisation where the current study was carried out, unpredictable operational requirements made it extremely difficult to get all participants from a ‘pre-selected’ list to participate (as suggested by Rao, 2000). Therefore, accessibility sampling was used to make up the final sample.

4.2.3 Characteristics of the sample

A total of 100 employees were included in the sample. In addition to the two measuring instruments used in the study, a biographical questionnaire was also administered. The inclusion of biographical data is important, as previous research has shown that factors such as age, job level and area of expertise do have an impact on research results (Borman, 1974; Klimoski & London, 1974). The characteristics of the sample are detailed in figures and tables that are presented below.

4.3 Demographic information

The demographic variables of the participants that were recorded and are presented in this section of the study are age, gender, race, job level, functional area and number of years' service.

The actual age of respondents was recorded, as opposed to asking them to indicate which age category they fall into. Therefore, descriptive information such as means and standard deviations can be provided. Table 2 presents the descriptive information on the age of respondents.

Table 2

Age of respondents (n = 100)

	Minimum	Maximum	Mean	Std. Deviation
Age	19	60	33.70	8.469

The age of respondent's ranges from 19 to 60 years of age and the average age of the respondents was 33.7 years old.

The gender distribution of the sample was also recorded and is graphically presented below.

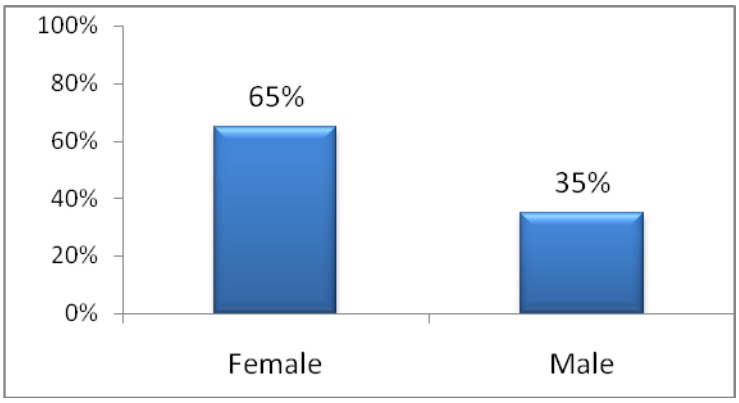

Figure 1: Gender of respondents

Figure 1 indicates that nearly two thirds of the sample (65%) was female.

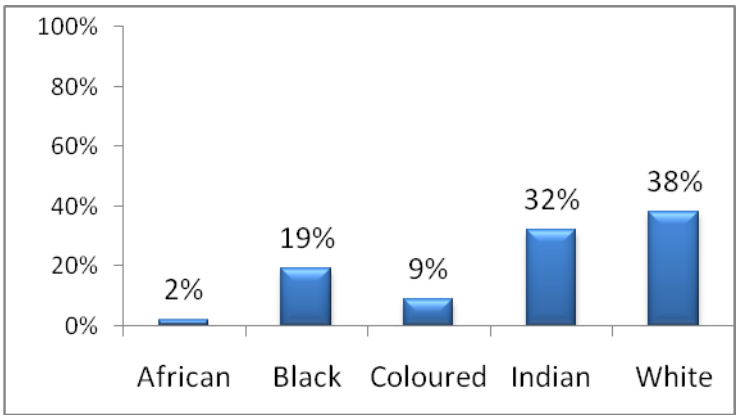

Figure 2: Race distribution of respondents

In terms of the race of respondents, Figure 2 indicates that the sample comprised predominantly Black (19%), Indian (32%) and White (38%) respondents.

Figure 3 presents the job related levels of the respondents.

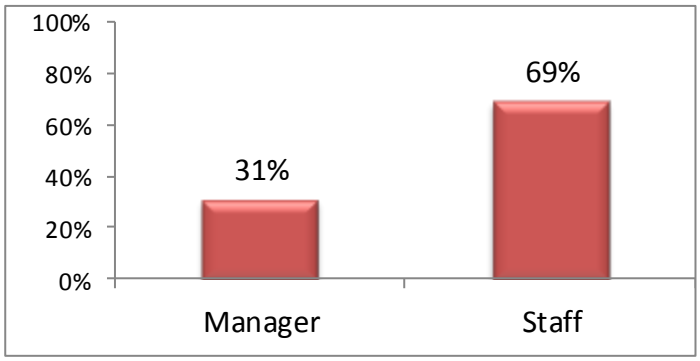

Figure 3: Job levels of respondents

From this figure it can be seen that most respondents were at a staff level in the selected organisation.

The job areas of respondents are presented in Table 3 below.

Table 3

Job area of respondents

	Frequency	Percent
Admin	13	13%
HR	14	14%
Distribution	8	8%
Operations	8	8%
Commercial sales	7	7%
Finance	7	7%
Sales	7	7%
IT	6	6%
QA	6	6%
Research & development	6	6%
Procurement (Finance)	5	5%
Marketing	3	3%
Audit	2	2%

CEO support	2	2%
Receptionist	2	2%
Technical	2	2%
Legal	1	1%
Trade marketing	1	1%

The job area groups where most respondents work are Administration (13%) and Human Resources (14%). A wide variety of other jobs areas was also represented in the sample, improving the likelihood that the sample is representative of the whole organisation.

Finally, tenure in the current organisation was also reported

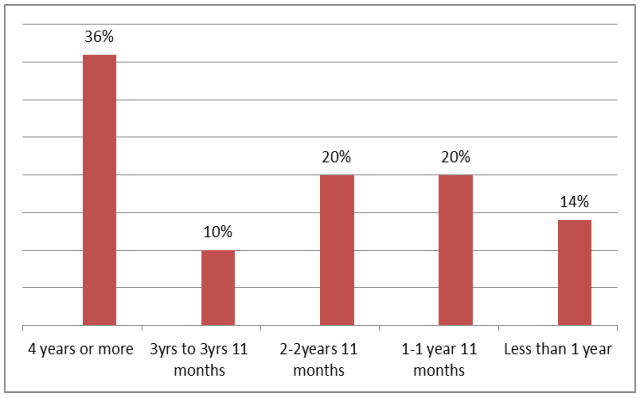

Figure 4: Number of years' service of respondents

According to Figure 4, it can be seen that a large percentage of the sample (36%) has been working at the company for 4 years or more.

The questionnaires were reviewed upon submission to ensure that there weren't any missing values due to the respondents not completing certain sections of the biographical questionnaire. It can be seen that in terms of race and gender, the majority of the respondents were white and female respectively. Although this is an uneven split, in terms of the current population within the company, this is an accurate and fair representation of gender.

4.4 The measuring battery

In this section the rationale and development, description and administration, and scoring of the two instruments were discussed. The interpretation, reliability and validity of the measuring instruments are also discussed. The total measuring battery took approximately two hours to complete.

4.4.1 Employability measure

A multi-dimensional employability instrument was developed by Van der Heidje and Van der Heidjen (2006) to measure the degree to which individuals are employable. The measure is based on a five dimensional approach to employability, where occupational expertise is paired with other generic competencies.

a) Rationale and development

The importance of adaptive and social competencies to cope with career and organisational changes has been well documented (Rodriguez, Patel, Bright, Gregory & Gowing, 2002). The measure was thus developed in response to the need for a valid and reliable instrument to measure employability.

b) Description

The multi-dimensional employability instrument is a self-report measure consisting of 5 dimensions, with 47 items in total. Respondents were requested to rate items on a scale ranging from ‘Does not apply at all’ (1), to ‘Applies a great deal’ (6) to me. The original employability measure contained four questions within the set of 47 items that were open ended. These however were converted to close ended questions. This technique has been successfully used in organisational research where, from a practical point of view, closed

response formats are better suited to conducting numerical analyses (Breakwell et al., 1995). The use of only close ended questions was warranted, as it ensured greater uniformity of responses and eliminated the need for the researcher to interpret the meaning of responses, which could result in coding errors (Babbie & Mouton, 1995; Breakwell, Hammond & Fife-Shaw, 1995).

Van der Heidje and Van der Heidjen's (2006) employability measure is divided into five subscales, namely:

- **Occupational expertise (15 items)**

This scale constitutes a substantial element of employability, and measures core occupational expertise in the form of professional knowledge or skills and domain related knowledge. The items on this scale are 1-15.

- **Anticipation and optimisation (8 items)**

This scale measures the extent to which individuals prepare for future work changes in a creative and proactive manner. This scale consists of items 1-8 in section 2.

- **Personal flexibility (8 items)**

This measures the extent to which people are willing to adapt to all types of changes in the internal and external labour market (Kluytmans & Ott, 1999) and is reflected by items 1-8 in section 3.

- **Corporate sense (7 items**)

This scale measures the extent to which individuals identify with corporate goals and participate and perform in different occupational networks. The items on this scale are 1-7 in section 4.

- **Balance (9 items)**

This scale measures the extent to which employees feel there is equilibrium between work, career and private interests. The items on this scale are 1-9 in section 5.

c) Administration and scoring

Respondents were able to read the instructions for the multi-dimensional employability instrument themselves. They then answered the items by indicating the degree to which the statement is true of them. The questionnaire can be administered individually or in groups but was sent to individual respondents via e-mail. The employability measure was scored by adding the item scores of all 47 items to arrive at a total score for the questionnaire. As the items are already listed under each dimension, it was possible to also determine the scores for each of the respective dimensions. The minimum overall employability score that could be obtained was 47 and the maximum score was 282.

d) Interpretation

The total score of the employability instrument gives an indication of the individual's perception of the degree to which they are employable.

In terms of specific employability sub-dimensions, occupational expertise is operationalised by Van der Heidjen (2006) in terms of professional knowledge and skills, meta cognitive knowledge, social recognition, growth and flexibility. Participants that score high in this dimension are likely to be labelled as high performers and excellent professionals. Anticipation and optimisation is explored in terms of career competence and self-initiating proactive behaviour. This dimension is an indication of the respondent's increased ability to attain a job within or outside their organisation. In terms of interpreting the dimensions of personal flexibility, employees with high scores for flexibility are more prone to derive greater benefit from different career experiences as they are open to change (Van der Heidjen, 2002).

Flexible employees also have a better understanding of how to take advantage of and manage changes within their careers. The dimension of balance focuses on how individuals achieve equilibrium between their work and personal life, whilst corporate sense builds on the concept of social capital and corporate citizenship. Individuals who score highly on the balance dimension indicate that they are able to handle strongly competing demands with ease.

On the other hand, individuals with high scores in the corporate sense dimension reflect an ability to leverage their knowledge across professional domains, and are thus able to sustain their careers.

e) Reliability

Reported reliability for the multi-dimensional employability instrument ranged from 0.5 for balance (which was the lowest value but was later retested) to 0.93 for the corporate sense dimension (Van der Heidje & Van der Heidjen, 2006). Van der Heidjen (2009) reports a total reliability of 0.9 for the employability instrument, but no evidence of test – retest reliability is recorded in the literature.

f) Validity

Multiple regression analysis was used to assess the criterion validity of the employability instrument. By studying the correlation structure of all the five measurement scales, any items that did not correlate were discarded in the test construction. Both convergent and divergent item and criterion validity were thus examined. Results suggested that all five dimensions of employability account for a significant amount of variance between objective and subjective career success (Van der Heidje & Van der Heidjen, 2006). This is suggestive of predictive validity.

g) Motivation for choice

The employability instrument developed by Van der Heidje and Van der Heidjen (2006) was specifically developed according to the key theoretical conceptualisations of employability and workplace adaptability. Its purpose therefore was specifically to develop a measure that complied with the conceptual assumptions related to employability, as set out in the literature review in Chapter 3 of this study.

4.4.2 Measurement of personality

The sixteen personality factor questionnaire (16PF) was selected as the measuring instrument to measure the variable of personality and will be discussed next.

4.4.2.1 The sixteen personality factor questionnaire (16PF)

The 16PF was developed by Cattell (1945) to comprehensively measure personality by focusing on traits. The rationale and

development, description and administration and scoring of the 16PF are discussed next.

a) Rationale and development

According to Cattell et al., (1970), the aim of the 16PF is to provide information about how an individual is positioned in terms of the majority of primary personality factors, as well as second order traits.

To achieve this, Cattell (1945) conducted extensive factor-analytic research to explore the basic structural elements of personality. Due to the statistical properties of these factors, Guastello and Rieke (1993) suggested that the 16 scales comprise of a finite set of traits within each of the factors. These traits were then aggregated into five broader themes. Known as second-order factors, these include introversion *vs* extroversion, high anxiety *vs* low anxiety, tough poise *vs* sensitivity, independence *vs* subduedness, and behaviour control *vs* impulsivity (Cattell, Eber & Tatsuoka, 1970).

The 16PF scales and items also correlate with the other Big Five factor models (e.g. Costa & McCrae, 1976, 1985; McKenzie & Wurzburg, 1997; Norman, 1963; Tupes & Christal, 1961 as cited in Cattell, 1945). Comparative studies between the five 16PF global factors and the set of NEO Big Five factors for example indicate a strong correlational and factor-analytic alignment between the two models (Cattell, 1945; Conn & Rieke, 1994; Gerbing & Tuley, 1991). The traits of the 16PF also appear in the psych evaluation personality questionnaire (Cattell & Schuerger, 2003). In terms of each of the 16PF versions, the factors of anxiety and extroversion are also overall consistently similar across the various 16PF Form A datasets. Barret & Paltiel (n.d) however exclude the factors of independence, control, and tough-poise which were **not** considered equivalent between the 16PF versions.

b) Description

The sixteen personality factor questionnaire (16PF) is a pencil and paper instrument that takes approximately 45 minutes to complete. The 16PF (Form A) consists of 187 items. Choices are indicated on a three-point Likert-type scale, where respondents are asked to respond by choosing option a, b or c. A indicates a 'yes' option, b indicates 'uncertain' whilst option c indicates 'no' as a response. These response options are alternated with other item responses of always (a), generally (b) and seldom (c).

The 16 PF measures 16 pairs of different factors (Prinsloo, 1998). The test provides scores on 16 primary personality scales and five global personality scales, but the specific items that load onto each factor is not detailed in the 16PF user manual.

In terms of the second order factors, Factor Qi is extroversion and measures the extent to which individuals are generally inclined to seek out interactions with others. Furthermore, this factor includes the level of comfort people experience when expected to engage in social pursuits (Dorfman & Hersen, 2001) and is comprised of the primary factors of warmth, liveliness, social boldness, forthrightness and affiliative (group dependence). Qii is the second order factor of anxiety neuroticism, which measures the degree to which the individual is emotionally stable as well as able to handle events in a calm (as opposed to anxious) manner. The primary related factors of tension, vigilance and apprehension comprise this factor (Hofer et al., 1997).

Factor Qiii measures the extent to which individuals focus on emotion or sentimentality as opposed to objectivity when facing people, or situations. This factor of tough-mindedness (tough poise) is comprised of the primary factors of sensitivity, abstractedness, openness to change and warmth. Factor Qiv (independence)

measures the extent to which people are accommodating and accepting of external influences as opposed to being more self-determining in nature. The primary factors of self-reliance (Q2), dominance (E), factor L (trusting versus vigilant), M (conventional versus imaginative) and Q1 (traditional versus open to change) make up this second order factor (Cattell et al., 1970).

The final global factor Qv (self-control) measures the emotional resources that individuals have at their disposal to regulate their behaviour. The primary factors that comprise this scale are rule consciousness, perfectionism, seriousness and groundedness.

Table 4 provides a description of all the 16 factors of personality.

Table 4

16 Factors description: Adapted from Cattell (1965) and Prinsloo (1992)

First Order Factors	**Low Score**	**High Score**
A	Reserved	Outgoing
B	Concrete-reasoning	Abstract thinking
C	Reactive	Emotionally stable
E	Submissive	Dominant
F	Serious	Lively
G	Expedient (lower super-ego strength)	Rule conscious (higher super-ego strength)
H	Shy	Socially bold
I	Self reliant	Dependent
L	Trusting	Vigilant
M	Conventional	Imaginative
N	Forthright	Private
O	Self -assured	Apprehensive
Q1	Traditional	Open to change
Q2	Group oriented	Self-reliant
Q3	Tolerates disorder	Perfectionist
Q4	Relaxed	Tense
Second order factors		
Qi	Extraversion/Intraversion	

Qii	Anxiety dynamicism
Qiii	Tough poise
Qiv	Independence
Qv	Compulsivity

c) Administration and scoring

The 16 PF is administered to respondents under supervision. The instructions are given and respondents are required to answer the 187 items by indicating which point on the scale describes them best. The 16PF can be administered individually or in groups (Prinsloo, 1992). The questionnaire is scored by tallying the item scores across each of the scales. The 16PF is either scored electronically or through the use of scoring stencils. The profile sheets provide stens for the 16 first order factors, mean stens for the five second order factors, and finally, a motivational distortion (MD) score. Otherwise known as a 'lie' scale, the MD corrects each factor score where there is evidence of respondents 'faking good' (IPAT 16 PF White paper, n.d); Owen & Taljaard, 1995).

The 16PF questionnaire uses 'standardised ten' (sten) score scales. The computed trait scores are expressed on a standard curve using numerical sten values from 1 (low) to 10 (high), where M = 5.5 with SD = 2.2. The more extreme a score is towards a given factor pole, the more likely it is that the trait will be apparent in the examinee's behaviour (Russell & Karol, 1994). Specifically, a 16PF sten of 4-7 is considered within the 'average' range. Similarly, stens of 1-3 would be 'low', whilst stens of 8-10 are in the 'high' range. A sten of 4 is described as 'low average' and a sten of 7 is 'high average'. It is expected that about 68% of the sample will obtain a sten score of within plus-or-minus one standard deviation from the mean. Approximately 16% will score at the low end, and another 16% score at the high end (Russell & Karol, 1994).

d) Interpretation

The total score of the 16 PF gives an overall indication of the respondent's personality style. All the 16PF scales can be described as 'bipolar', as there are two interpretable ends that display a negative correlation (Owen & Taljaard, 1996). A low score on a scale indicates that the trait is present to a lesser extent, whereas a high score is indicative of a stronger presence of the trait (Cattell, 1945; Cattell, & Schuerger, 2003; Prinsloo, 1998).

e) Reliability and validity

Russsel and Karol (1994) reported that the internal consistency and reliability coefficients for each of the personality factors generally ranged from 0.64 to 0.85 for the primary scales and a range of 0.68 to 0.87 for all 16 scales. Reliability coefficients for Form A in particular range from 0.31 to 0.78 across the different norm groups (Cattell et al., 1980). 70 % of the reliability coefficients are greater than or equal to 0.5 (Prinsloo, 1992). Similar reliability coefficients have been reported in other South African studies that have also used Form A (Van Eeden & Prinsloo, 1997) where n = 587.

Finally, on average, the test - retest reliability for the 16PF primary scales scores over a 2 week and 2 month interval averaged 0.56 to 0.87 respectively. Internal consistency reliabilities are on average 0.76 for the primary scales and a range of 0.68 to 0.87 for all 16 scales. It can therefore be concluded that the stability of the 16PF over time is acceptable, and is a reliable measuring instrument of personality (Conn & Rieke, 1994).

Research findings concerning the validity of the 16PF have showed promising results. The construct validity of the 16PF is specifically evident by studies that have confirmed its factor structure (e.g. Cattell & Krug, 1986; Chernysheno, et al., 2001; Conn & Rieke, 1994;

Gerbing & Tuley, 1991; Hofer, Horn & Eber, 1997). Factor analyses of test results across various language and race groups that completed the 16PF show a significant resemblance between the language and population groups, although these were not as high as the scores reported on the Form SA 92 version (Prinsloo, 1992).

Despite these differences, there are a number of studies that have demonstrated the ability of the 16PF questionnaires to predict a wide range of organisational phenomena, such as vocational preferences, job performance and career variety (Guastello & Rieke, 1993; Wu, Foo & Turban, 2008). International versions have also been effective in predicting important work dimensions that extend to areas such as leadership and more recently, work adaptability (Guastello & Rieke, 1993).

The 16PF editions have also shown strong relationships with other instruments both within South Africa as well as abroad. Examples of these include the Japanese 16PF (IPAT, 2007) the NEO-PI-R, the Gordon Personality Inventory, Myers Briggs Type Indicator (MBTI), the Locus of Control Inventory, and the South African 16PF Form A which was used in this study (Barret & Paltiel, n.d). What these findings demonstrate is that the original 16PF remains robust in the context of these more recent developments (Gerbing & Tuley, 1991).

f) Motivation for choice

The 16PF remains one of the most comprehensively researched personality measures (Owen & Taljaard, 1996). A number of studies have rated the 16PF among the top five most commonly used ‘normal-range’ instruments used in research and practice (see Piotrowski & Zalewski, 1993; Watkins, Campbell, Nieberding & Hallmark, 1995). Of the four different forms of the 16PF currently available in South Africa, Form A was used in this study. Although there have been some issues raised regarding the internal

consistency of Form A within the literature (see Abrahams, 1996), Owen and Taljaard (1996) counteracted this claim, stating that all four forms of the 16PF have been adapted and standardised for use in South Africa, and are furthermore all used and interpreted in the same manner.

The wide use of the 16PF in several South African studies (Naude, 2007; Van Eeden & Prinsloo, 1997) further confirms that the questionnaire is also cross culturally relevant (Prinsloo, 1997). This finding is significant for this study, given the fact that participants came from different cultural backgrounds. The 16PF also has a long history of empirical research, and is embedded in a well-established theory of individual differences. An important distinction between the 16PF and other questionnaires is that the test items appear to contain more contextualised questions about actual behaviour or experience.

It is proposed that the use of these indirect questions to measure actual everyday behaviour tend to measure personality more accurately. Finally, the reliability and validity coefficients reported by Cattell et al., 1980) serve as sufficient support for the inclusion of this measuring instrument.

4.5 Procedure

A literature study was conducted to conceptualise employability and personality. A measuring battery was selected, based on the literature study, and a sample identified. The sample was informed upfront about the nature and purpose of the study, as well as who would have access to the results should they choose to participate. A section related to confidentiality was included in a consent form that respondents were required to sign prior to involvement in the research.

Due to the potentially sensitive nature of information in the data, participants were fully assured of anonymity. Participants were also informed of their right to feedback, with subsequent sessions scheduled based on request. The measuring battery was administered and the subsequent data analysed. Furthermore, all results sheets were coded as opposed to using an individual's name, thus integrating the data.

4.6 Statistical analysis

The data obtained from completed questionnaires was analysed using the SPSS software package, so that both inferential and descriptive statistics could be measured (SPSS Base 14.0 User's Guide, 2005). Descriptive statistics (like averages and variance) summarise raw scores and use a range of techniques to describe the important characteristics of a set of measurements (Medenhall, Beaver & Beaver, 2009). Furthermore, descriptive statistics can either describe a single variable or can be used to summarise the association between different variables (Babbie & Mouton, 2002; Breakwell et al., 1995).

Examples of descriptive statistics include the mean, standard deviation, minimum and maximum values. The mean refers to the average set of values within the dataset, whilst the standard deviation refers to how widely spread the scores in a distribution are (Hand, 2008).

Descriptive statistics also summarise the minimum and maximum values in the data. In this study, the mean and standard deviation were calculated to describe the respondents' scores on the personality and employability measures.

Reliability refers to the extent to which one can be certain that a score obtained is an accurate measure of a person's ability or

aptitude, as opposed to a measure of incidental random factors (Bless, Higson-Smith & Kagee, 2006, & Hand, 2008). Cronbach alpha coefficients were calculated for the employability measure to determine its reliability. As a general rule, the higher the alpha coefficient values, the more reliable the test (Nunnally, 1978). Cronbach's alpha is the internal consistency reliability of a psychometric test. It can also be seen as an extension of the Kuder-Richardson formula, where the reliability of test scores is expressed as a ratio of the true score and total score (error and true score variances (Babbie & Mouton, 2001). Alpha coefficients that are generally in the range of 0.70 and above are argued to be acceptable (Kline, 1993, 1998; Nunally, 1978).

The overall purpose of interpreting sample findings is to enable assertions about the greater population to be made. According to Breakwell et al (1995), this is known as inferential statistics. Inferential statistics are comprised of a set of procedures that are used to draw conclusions about the characteristics of a population, based on the information provided by the sample (Medenhall et al., 2009). It is noted that, as non-probability sampling was used in this study, the sample effect size as opposed to other detailed inferential statistics were highlighted (Howell, 1997).

Within this study, Pearson's product moment correlation analysis was also used to determine which personality dimensions relate to employability. Pearson's product moment correlation (*r*) measures the degree of association between two interval or ratio variables (Howell, 1997). Essentially, *r* reflects how closely the value of one variable can be assumed through knowledge of the other variable (Babbie & Mouton, 1995). Pearson's correlation is also sensitive to linear relationships between the two variables, and is obtained by dividing the covariance of two variables by means of their standard deviations (Aldrich, 1995). Babbie and Mouton (1995) propose that a correlation can be established if it is possible to determine the value

of one variable through knowledge of the other variable (for example as one variable increases, the other one decreases).

The effect-size of the sample however is a measure of the strength of the observed relationship between the variables and is influenced by the level of confidence required for estimates to occur (Eckhardt & Ermann, 1977). Cohen (1992) suggests three cut-off points in respect of acceptable correlation coefficients where $r = 0.10$ (small effect); $r = 0.30$ (medium effect) and where $r = 0.50$ (large effect, or the relationship is significant). This information is therefore practically useful in terms of understanding the nature of the correlation between the variables, and hence meeting the aims of the study.

A t-test was used to determine if there was a statistical difference between gender with regard to their employability.ANOVA was used to determine if the other various demographic groups differ with regard to their employability. The Duncan post-hoc test was selected because it is especially protective against false negative (Type II) errors. There is a greater risk however of making false positive (Type I) errors (Duncan, 1955).

4.7 Hypotheses

In conjunction with the specific aims of the research, the following research hypotheses could be formulated. Since the null hypothesis is the direct inverse of the alternative hypothesis, only the alternative hypotheses are stated:

H1: Practically significant positive relationships exist between the personality characteristics of extroversion, openness to change and emotional stability.

H2: There is a significant difference between the demographic groups of age, race, years of service and gender with regard to their employability.

H3: Personality can be used as a predictor of employability.

4.8 Chapter summary

In this chapter, the research design and characteristics of the sample used in this study were described. The measuring battery was discussed in detail and the research procedure was briefly explained. Furthermore, the statistical analyses conducted in the study were outlined and the hypotheses were set out.

The results of the data analyses will be reported in Chapter 5.

CHAPTER 5
RESULTS AND DISCUSSION

The current chapter presents the results of the study. The reliability coefficients and the descriptive statistics of both measuring instruments are firstly provided. The differences between the demographic groups and employability are then explored, followed by a description of the relationship between employability and personality. The hypotheses will then be re-explored in line with the findings, which will conclude the chapter.

5.1 Reliability of the measuring instruments and descriptive statistics

The reliability of the 16PF instrument will be addressed first.

5.1.1 Reliability of the 16PF

The reliability of the 16PF questionnaire was not specifically tested for in this study. However this was not viewed as a limitation, in that the reliability coefficients of the 16PF have already been established by previous studies as reported in Chapter 4. In summary, the reliability coefficients for each of the personality factors generally averaged 0.75, with internal consistency scores ranging from 0.66 to 0.86 for the individual primary scales and a range of 0.69 to 0.87 for all 16 scales collectively (Hersen, Hilsenroth & Segal, 2004).

5.1.2 Reliability of the employability instrument

Alpha coefficients (α) were calculated in each case, to determine the internal consistency of the subscales as well as the total employability scale. These alpha coefficients are reported in Table 5 for the employability measuring instrument.

Table 5

Reliability of the five employability subscales and the total employability scale

	Cronbach Alpha	Number of scale items	Cronbach Alpha from other research
Occupational expertise	0.91	15	0.81 to 0.88
Anticipation and optimization	0.84	8	0.71 to 0.87
Personal flexibility	0.88	6	0.71 to 0.87
Corporate sense	0.84	7	0.79 to 0.93
Balance	0.82	9	0.5 to 0.63
Total employability Score	0.94	45	not reported

From Table 5 it can be seen that the employability questionnaire and all of its subscales have Cronbach Alpha values above 0.7 and can therefore be considered reliable (Terre Blanche & Durheim, 1999).

5.2 Descriptive statistics for the measuring instruments

The descriptive statistics for the personality and employability instruments are presented next.

5.2.1 Descriptive statistics for the personality questionnaire

The mean (M), minimum, maximum and standard deviation (SD) was determined for the questionnaires and their subscales and is reflected in the next few tables. These descriptive statistics of the 16PF questionnaires are displayed in Tables 6 and 7 respectively. The 16PF raw scores are presented for the first order factors in Table 6, followed by the descriptive information for the second order factors.

Table 6

Descriptive information for the 16 PF questionnaire

16PF first order factors	*N* Value	Mean	Std. Deviation	Minimum	Maximum
A (Warmth)	100	9.09	3.11	2	19
B (General intelligence)	100	5.52	2.75	1	17
C (Emotional stability)	100	11.98	4.04	2	23
E (Dominance)	100	9.35	3.98	2	19
F (Liveliness)	100	10.29	4.01	3	23
G (Ego strength)	100	8.69	4.44	1	20
H (Social boldness)	100	10.96	3.53	4	22
I (Tough mindedness)	100	8.20	2.91	1	16
L (Vigilance)	100	6.99	2.94	2	15

M					
Abstractedness	100	10.76	3.39	4	19
N (Shrewdness)	100	8.74	3.58	3	19
O (Anxiety)	100	9.48	3.54	0	19

From Table 6 it can be seen that the sample scored the highest in terms of emotional stability with an average of 11.98. Other factors where respondents also scored highly are social boldness (10.96), abstractedness (10.76) and liveliness (10.29). Generally, this is indicative of people that are able to initiate contact with others in a fairly easy and spontaneous manner. This therefore complements a high score for liveliness as well, as this trait is indicative of people who are drawn to lively situations.

Table 6 also shows that the participants scored lower on the questions related to the personality factors of general intelligence (5.52), tough-mindedness (8.20) and vigilance (6.99). These factors require respondents to indicate the degree to which they operate in either a concrete or abstract manner; their level of sensitivity when approaching situations (i.e. tough or tender-minded), and the extent to which they are trusting as opposed to suspicious of events around them respectively. Lower scores on these personality factors suggest that participants may have difficulty coping with situations that require a high degree of abstract thinking. In terms of their interaction style with others though, they are more trusting and may also find it easier to deal with situations that require emotional sensitivity.

In addition to this, the mean and standard deviation were also calculated for the 16 PF second order factors and are expressed as sten scores in Table 7 below.

Table 7

Descriptive information on the 2nd order factors

	N	Mean	Std. Deviation	Minimum	Maximum
Extroversion	100	7.81	1.39	5.00	10.00
Anxiety	100	5.08	1.54	1.00	8.20
Tough poise	100	2.21	1.28	0.00	5.00
Independence	100	7.69	1.76	4.00	10.00
Compulsivity	100	7.64	2.05	3.00	10.00

Table 7 indicates that the sample scored the highest in terms of extroversion, independence and compulsivity, suggesting that the majority of respondents have a preference for participating in social situations. Whilst it may appear that the sample is group dependent due to the high preference for interacting with others, the participant's ability to act independently was also evident from high scores which suggest that they are able to accommodate others without sacrificing their own wishes.

5.2.2 Descriptive statistics for the employability questionnaire

The mean and standard deviations were calculated for all the dimensions of the employability questionnaire. This descriptive information of the employability questionnaire is presented in Table 8 that follows.

Table 8

Descriptive information for the employability questionnaire

Employability dimension	*N* Value	Mean	Std. Deviation	Minimum	Maximum
Occupational expertise	100	4.07	0.61	1	5
Anticipation/ optimisation	100	3.78	0.71	1	5
Personal flexibility	100	3.96	0.80	1	5
Corporate sense	100	4.10	0.68	1	5
Balance	100	3.69	0.72	1	5
Employability Total score	100	3.91	0.52	1	5

These results suggest that individuals generally rated themselves consistently well across all of the employability dimensions. The highest scores however, related to the items on the corporate sense dimension.

5.3 Relationship between personality and employability

In order to report on the relationship between personality and employability, correlations were calculated. The correlation between each of the personality factors and the employability dimensions is reported in Table 9.

Table 9

Pearson product moment correlations (16 PF and employability questionnaire (N=100)

		Occupational expertise	Anticipation /optimization	Personal flexibility	Corporate sense	Balance	Employability total
16 PF							
A Warmth	*R*	-0.09	-0.09	-0.07	-0.17	-0.11	-0.14
	p-value	0.32	0.32	0.49	0.09	0.27	0.16
B (General intelligence	R	0.01	-0.1	-0.02	-0.09	0	-0.02
	p-value	0.89	0.3	0.81	0.34	0.99	0.79
C Emotional stability	R	0.02	-0.07	0.06	-0.11	0	0
	p-value	0.79	0.43	0.51	0.26	0.94	0.99
E Dominance	R	-0.04	-0.22	-0.05	-0.11	-0.07	-0.11
	p-value	0.64	0.02	0.56	0.24	0.48	0.27
F Liveliness	R	-0.2	-0.2	-0.07	-0.14	-0.08	-0.17
	p-value	0.04*	0.04*	0.45	0.14	0.42	0.08
G Ego strength	R	0	-0.09	0.07	-0.01	0.13	0.04
	p-value	0.97	0.35	0.44	0.85	0.18	0.64
H Social boldness	R	0.06	0	0.13	0.06	0.13	0.12
	p-value	0.5	0.98	0.17	0.51	0.17	0.21

I Tough-mindedness	R	0.02	0.07	-0.01	0.05	0	0.02
	p-value	0.78	0.45	0.87	0.61	0.96	0.81
L Vigilance	R	-0.07	-0.05	-0.02	-0.05	-0.14	-0.09
	p-value	0.46	0.61	0.81	0.59	0.14	0.34
M Abstracted-ness	R	0.02	0.03	0	-0.1	0.04	0.01
	p-value	0.84	0.72	0.99	0.29	0.67	0.88
N Shrewdness	R	0.09	-0.09	0.05	0.18	0.04	0.07
	p-value	0.36	0.34	0.61	0.06	0.65	0.46
O Anxiety	R	-0.27	-0.19	-0.16	-0.11	-0.12	-0.25
	p-value	0.00*	0.05	0.1	0.27	0.22	0.01*
Q1 Openness to change	R	-0.11	-0.09	0.02	-0.22	-0.07	-0.1
	p-value	0.26	0.35	0.77	0.02*	0.48	0.28
Q2 Self–reliant	R	-0.02	0.02	-0.03	0.04	0.12	0.04
	p-value	0.81	0.77	0.71	0.68	0.22	0.67
Q3 Perfectionist	R	0.04	-0.04	0.02	-0.01	0.1	0.04
	p-value	0.69	0.69	0.77	0.86	0.31	0.63
Q4 Tension	R	-0.04	0.04	-0.04	0.07	-0.04	-0.01
	p-value	0.69	0.68	0.65	0.46	0.66	0.86

* $p<0.05$ and ** $p<0.01$

In Table 9 it can be seen that there is a statistically significant negative correlation between submissiveness (as indicated by a lower score on dominance) on the one hand, and anticipation and optimisation on the other, but of small effect. There is also a statistically significant negative correlation between seriousness (as indicated by a lower score on liveliness) and two of the employability dimensions, namely; anticipation and optimisation, as well as occupational expertise (significant at the 0.05 level). As $r = 0.04$, the effect size is small.

Another statistically significant negative correlation is apparent between personality Factor O (apprehensiveness/anxiety) and occupational expertise ($r = -0.250$), but of small effect. Factor O (apprehension/anxiety) is the only personality factor that correlates with the total employability scale ($p = 0.012$), but again with small effect. A further statistically negative correlation also exists between openness and corporate sense - again the p value (0.02) indicates that this is of small effect.

As the 16PF second order factors were also calculated in the study, it may be of practical value to explore the extent to which correlations exist between these factors and employability. The results of this analysis are reflected in Table 10 that follows.

Table 10

Correlation between the 16 PF 2nd order factors and employability

		Occupational expertise	Anticipation optimisation	Personal flexibility	Corporate sense	Balance	Total Employability score
Extroversion	R	-0.06	-0.19	0.01	-0.07	-0.03	-0.09
	p-value	0.49	0.05	0.91	0.46	0.74	0.37
Anxiety	R	-0.18	-0.04	-0.18	-0.03	-0.15	-0.17
	p-value	0.07	0.66	0.06	0.76	0.11	0.09
Tough poise	R	-0.03	-0.06	-0.03	-0.03	-0.04	-0.05
	p-value	0.70	0.50	0.70	0.75	0.62	0.56
Independence	R	-0.12	-0.14	-0.02	-0.14	-0.05	-0.13
	p-value	0.21	0.16	0.81	0.14	0.57	0.18
Compulsivity	R	0.03	0.02	0.12	0.01	0.22	0.10
	p-value	0.74	0.78	0.23	0.85	0.02*	0.28

*statistically significant at 0.05 level

**statistically significant at 0.01 level

From Table 10 it can be seen that a statistically significant relationship exists between compulsivity and balance, but of small effect. This means that individuals that are grounded, organised and goal oriented may tend to find it easier to balance professional and personal demands.

The relationship between the demographic factors and employability was the final aim of the study and is discussed in the section that follows**.** In this study, the demographic variables of gender, race, years' of service and age of the respondents were also reported in order to compute differences between these variables and the various employability subscales. These findings are tabulated in the next few tables that follow.

5.4 Demographic differences with regards to employability

The extent to which differences exist between the various demographic groups, in relation to employability, is further explored below.

5.4.1 Differences between males and females in terms of the employability subscales

A t-test for independent means was conducted to test if the scores of males and females differ significantly with regard to the employability subscales and the total employability score. These results are reflected in Table 11 that follows.

Table 11

Independent T-test results for gender: Employability instrument (N=100)

Employability dimensions		Levene's test for equality of variances		t-test for equality of means			
		F	Sig.	T	Df	Sig. (2-tailed)	Mean difference
Occupational expertise	Equal variances assumed	0.09	0.75	t-test for equality of means	98	0.72	-0.04
	Equal variances not assumed			-0.37	82.98	0.7	-0.04
Anticipation/ optimisation	Equal variances assumed	5.34	0.02	0.51	98	0.6	0.07
	Equal variances not assumed			0.55	86.97	0.57	0.07
Personal flexibility	Equal variances assumed	2	0.16	-1.14	98	0.25	-0.04
	Equal variances not assumed			-0.36	87.84	0.71	-0.04
Corporate sense	Equal variances assumed	0.03	0.84	0.63	98	0.53	0.09

	Equal variances not assumed			0.63	71.89	0.52	0.09
Balance	Equal variances assumed	2.59	0.11	-0.7	98	0.48	-0.1
	Equal variances not assumed			-0.74	81.54	0.46	-0.1
Employability total score	Equal variances assumed	1.85	0.17	-0.32	98	0.75	-0.03
	Equal variances not assumed			-0.33	91.71	0.74	-0.03

*significant at the 0.05 level

**significant at the 0.01 level

From Table 11, it seems that there is no statistical significant difference between men and women with regard to their employability.

5.4.2 Differences between race groups in terms of employability

In order to investigate if race groups differ in terms of their employability, analyses of variance were conducted. The scores of only three race groups were compared: African, Indian and White as the base sizes for the other race group, namely Coloured was too small to allow reliable analysis. The descriptive information for the race groups on the employability measure is reported in Table 12, followed by the ANOVA results in Table 13.

Table 12

Descriptive information for the race groups on employability(N=100)

	Black		Indian		White	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Occupational Expertise	3.7	0.85	4.29	0.51	4.13	0.48
Anticipation and Optimization	3.47	0.81	4.13	0.66	3.59	0.62
Personal Flexibility	3.79	0.91	4.23	0.72	4.15	0.54
Corporate Sense	3.86	0.87	4.15	0.67	3.9	0.65
Balance	3.37	0.81	3.86	0.81	3.76	0.54
Total Employability Score	3.62	0.76	4.14	0.48	3.92	0.37

The above table indicates that the overall mean scores of the Indian respondents was higher than the other two race groups, indicating that they performed better on the employability scale.

Table 13
Analysis of variance of scores between race groups on employability

Independent variable	Source of variation	Sum of squares	Df	Mean sum of squares	*F*	*P*
Occupational expertise	Between groups	4.24	2	2.12	6.11	0.00**
	Within Groups	29.88	86	0.34		
	Total	34.13	88			
Anticipation/ optimisation	Between groups	7.02	2	3.51	7.52	0.00**
	Within groups	40.15	86	0.46		
	Total	47.18	88			
Personal flexibility	Between groups	2.46	2	1.23	3.62	0.03*
	Within groups	42.59	86	0.49		
	Total	45.06	88			
Corporate Sense	Between groups	1.42	2	0.71	1.41	0.24
	Within groups	43.40	86	0.50		

	Total	44.83	88			
Balance	Between groups	3.06	2	1.53	3.04	0.05*
	Within groups	43.25	86	0.50		
	Total	46.31	88			
Employability total	Between groups	3.31	2	1.65	6.36	0.00**
	Within groups	23.09	86	0.26		
	Total	26.40	88			

***** Statistically significant at the 0.05 level

**Statistically significant at the 0.01 level

From Table 13, it is clear that the race groups differed on all of the employability subscales, except for corporate sense and balance. It also seems that the race groups differ with regard to their overall employability score. Whilst it is possible to determine that the race groups differ significantly with regard to the employability subscales and total employability, it is not possible to see between which **particular** groups the differences exist. To therefore determine the means between which there were statistically significant differences, Duncan's *post hoc* multiple comparison test, was used (see Howell, 1997). The results for the differences are presented in Tables 14 to 17. As the group sizes are unequal, the harmonic means of the group sizes are used. Type I error levels are therefore not guaranteed.

Table 14

Post Hoc Duncan test for occupational expertise

Race	*N*	Subset for alpha = 0.05	
		1	2
Black	19	3.69	
White	38		4.12
Indian	32		4.28
Sig.		1	0.31

From Table 14 it can be seen that the scores of Black respondents are significantly lower than Indian or White respondents for occupational expertise.

Table 15

***Post Hoc Duncan test for* anticipation/optimisation**

Race	*N*	Subset for alpha = 0.05	
		1	2
Black	19	3.47	
White	38	3.58	
Indian	32		4.12
Sig.		0.53	1

In terms of anticipation and optimisation, both White and Black respondents score significantly lower than Indian employees, as can be seen from Table 15.

The final employability dimension that was significant at the 0.05 level was personal flexibility.

Table 16

Post Hoc Duncan test for personal flexibility

Race	*N*	Subset for alpha = 0.05	
		1	2
Black	19	3.78	
White	38	4.15	4.15
Indian	32		4.22
Sig.		0.06	0.68

Table 16 indicates that White and Black respondents scored lower than Indian employees. The mean difference between the White and Indian respondents however is minimal.

Finally, the differences with regards to the ratings on the total employability score of the different race groups was also computed, and can be found in Table 17 below.

Table 17

***Post Hoc Duncan test for* employability total**

Race	*N*	Subset for alpha = 0.05	
		1	2
Black	19	3.61	
White	38		3.92
Indian	32		4.14
Sig.		1	0.12

From Table 17 it can be seen that the scores of Black respondents are significantly lower than Indian or White respondents for the total employability score.

The third demographic variable in which the respondents could be compared in terms of their employability was years of service/ tenure.

5.4.3 Differences between years' service and employability

The different categories of Years' Service were collapsed to create three categories that are sufficient in size to allow reliable comparisons. The following categories were compared: Up to 2 years (34), 2 years – up to 4 years (30) and 4 years and more (36). The results are displayed in Table 18.

Table 18

Analysis of variance of scores between years of service and employability

Independent variable	Source of variation	Sum of squares	Df	Mean sum of squares	*F*
Occupational Expertise	Between Groups	0.1	2	0.05	0.14
	Within Groups	36.87	97	0.38	
	Total	36.97	99		
Anticipation/ Optimisation	Between Groups	50.61	97	0.52	0.07
	Within Groups	50.68	99	99	
	Total	0.12	2	0.06	
Personal Flexibility	Between Groups	46.82	97	0.48	0.63
	Within Groups	46.94	99	99	
	Total	1.47	2	0.73	
Corporate Sense	Between Groups	45.28	97	0.46	1.58
	Within Groups	45.28	99		
	Total	45.75	99		
Balance	Between Groups	51.04	97	0.52	0.31
	Within Groups	51.36	99		
	Total	0.18	2	0.09	

Employability total	Between Groups	27.12	97	0.28	0.56
	Within Groups	27.3	99		
	Total				

***** Statistically significant at the 0.05 level
**Statistically significant at the 0.01 level

From Table 18, it is clear that the analyses yielded no statistically significant differences between the groups with various years of service and their employability as all the p-values are above 0.05.

5.4.4. Correlation between age and employability

In order to determine the extent to which age influences employability, a correlation analysis was conducted, the results of which are reported in Table 19 below.

Table 19
Correlations between age and employability

		Age
Occupational expertise	*R*	0.00
	p-value	0.96
	N	100
Anticipation/ Optimisation	R	-0.12
	p-value	0.20
	N	100
Personal flexibility	R	-0.00
	p-value	0.96
	N	100

Corporate sense	R	-0.06
	p-value	0.53
	N	100
Balance	R	-0.07
	p-value	0.43
	N	100
Employability total score	R	-0.06
	p-value	0.53
	N	100

It can be seen that there are no significant correlations between age and employability as all the p-values are above 0.05.

A more comprehensive discussion of the results of the study follows. The discussion section will summarise and discuss the results regarding the reliability of the instruments, the relationship between personality and employability and the differences in terms of employability and various demographic factors. The results will also be integrated with the existing literature.

5.5 Discussion

The reliability of the 16PF was not specifically calculated for this study, as a number of previous South African research studies have already shown that the 16PF is reliable for South African sample groups. The acceptable Cronbach Alpha values obtained for the employability questionnaire indicated that this measure proved to be reliable for this specific sample (also see Van der Heidje & Van der Heidjen, 2006). The Cronbach Alpha scores are also in line with those found in other research, with the exception of the subscale

Balance that scored much higher than in previous research, as quoted by Van der Heijde and Van der Heidjen (2005).

With regards to performance on the 16PF, the sample scored the highest in terms of emotional stability, followed thereafter by social boldness, abstractedness and liveliness. Generally, these scores typify people that are able to initiate contact with others in a fairly easy and spontaneous manner. They are not easily upset by others and it is expected that this quality would be exhibited in the workplace as well.

Other studies that have been conducted using the 16 PF showed that respondents scored similarly highly on the factors related to warmth and emotional stability, but also tended to score highly on the intelligence, conscientiousness, tender mindedness and anxiety scales (Musson, 2006). Although a number of South African studies have reported using the 16PF (Abrahams, 1996; Bain, n.d; de Vos & Schepers, 1993; van Eeden & Prinsloo, 1997), only Swanepoel and Oudtshoorn (1988) specifically reported on results for the 16PF Form A, where high scores on emotional stability and ego strength (Factors C and G) and low scores on Factors I (tough-mindedness) and Q4 (tension) were reported.

In terms of the individual's ratings on the employability measure, participants obtained the highest score on the employability subscale of corporate sense. This indicates that most people in the sample were either a part of, or were able to create their own occupational networks both within and between business units (Van der Heidje & Van der Heidjen, 2006). As occupational networks act as support systems, they are hugely valuable during periods of career change. It would thus appear that for most respondents in the sample this competency is relatively well developed.

On the other hand, respondents scored the lowest on the balance dimension, although comparatively this score is not extremely low in

relation to the scores on the other dimensions. Balance is an important component of employability in that it denotes the ability to maintain stability across both professional and personal interests (Van der Heidje & Van der Heidjen, 2006). As most respondents scored lower on this dimension it could mean that they may find it difficult at present to manage both spheres effectively. This could be due to the pressures of operating in a global market, which often results in employees that are driven to mostly focus on their career development to 'survive' - often at the expense of personal interests.

Given the highly competitive nature of the current work context, it is further plausible that employees could be strongly focused on ensuring that their job skills do not become obsolete, and could thus be less focused on their personal development needs. This is not a generalised finding however, as in terms of other sample's performance on this scale with the same employability instrument, Van der Heidje and Van der Heidjen's (2005) pilot study sample scored highly on the balance dimension, second only to the occupational expertise scale. As the literature typically makes distinctions in terms of highly employable individuals as those who possess qualities of resourcefulness flexibility and balance, engaging in activities that allow participants to strike a balance between organisational and individual goals is therefore important (Fugate, 2006; Potgieter & Barnard, 2010).

In addition to this, the study highlighted a few specific relationships between the employability dimensions of occupational expertise, anticipation/optimisation and corporate sense, with specific personality factors. One of the findings from the study showed that the higher a person scores on the employability dimension of occupational expertise, the lower they score on the anxiety personality factor. Specifically, this personality factor forms part of the global second order anxiety factor, where low scores typify individuals who are less easily upset by others. They tend to be

emotionally stable and self-assured, as opposed to people who display an apprehensive and depressive stance (see Arthur et al., 2005; Baruch, 2004; Karaveli & Hall, 2006; Lankard, 1990).

Individuals who are high in occupational expertise on the other hand would typically have a high degree of knowledge that spans across various professional domains. This allows them to more easily adapt to organisational transfers as they already display competencies that exceed the skills of one type of job. In summary, where there is a combination of a high score on occupational expertise and a low score on anxiety, this is suggestive of emotionally stable people who are confident, flexible and less likely to be anxious about career changes (see Erez & Judge, 2001; Fugate, 2006). This is because employability-oriented workers are able to more easily identify and anticipate career opportunities, inside and outside the organisation, and respond in a calm and self-assured manner (Mc Quaid & Lindsay, 2005).

In addition to this, occupational expertise was also found to be significantly negatively correlated with liveliness. This means that as occupational expertise increases, individuals will tend to be more reflective, sensible and practical. A review of the characteristics of the sample may account for why this relationship exists in the data. Specifically, given that the sample comprised of employees that have been in the current organisation for four years or longer and were predominantly 35 years and older, Super's (1980) career stages theory would place these individuals in the 'establishment' stage of their careers. Literature findings indicate that individuals typically engage in processes of reflection, and evaluation of their career options during this stage. As people high in occupational expertise tend to innovate more and update their skills and knowledge across professional domains, the data findings suggest that this will probably be done in a practical and sensible manner as opposed to haphazard

risk taking, i.e. potential labour market constraints for example will be taken into account when considering career moves.

It was also found that there is a significant negative correlation between dominance and anticipation/optimisation. The implication of this negative correlation is that individuals who are mild, obedient and conforming in their behaviour (as opposed to assertive and dominant) will be better at anticipating career trends. This is a surprising finding given that the literature usually relates the proactive orientation endemic to anticipation/optimisation with people who are more socially bold (Cattell et al., 1985) and possible risk takers (as opposed to simply conforming to the status quo). However, Cattell (1965) and Conn and Rieke (1994) also point out that individuals who are low in dominance also tend to be more co-operative with others - a quality that may assist them to obtain support from others to cope with change. This however is a *possible* suggestion for this correlation, and would benefit from being explored further in future research.

There was also a negative correlation between the personality trait of liveliness and anticipation/optimisation. A low score on liveliness is indicative of individuals who are more serious and reflective and therefore more likely to take stock of career changes. For the employability dimension of anticipation/optimisation to be well developed, individuals are expected to display a flexible approach to managing change. By being proactive, they are likely to be more able to manage changes that are endemic to an unpredictable work context, because they can anticipate change and adapt their coping styles accordingly. In terms of the literature therefore, this translates into people who are able to adapt to changes in organisational structure and job assignments for example, by proactively adopting new roles and modifying existing work behaviour. By subsequently reflecting on these career moves, individuals high on this employability dimension would then be able to best decide how to

anticipate and manage further career changes better (Chan, 2000; Pulakos, Arad, Donovan & Plamondon, 2000).

The findings of this particular study further indicated a negative correlation between openness to change and corporate sense. A low score on openness to change is indicative of a person that is traditional, conservative and respectful of established ideas. Whilst some of the literature (Leggatt-Cook, 2007) suggests that people that are high in openness to change would be more flexible and able to network with others better (one of the characteristics of corporate sense), this was not reflected in the findings of this study. Contrary to expectations, the findings indicated that the lower a person scores on openness to change, the more likely they are to develop knowledge outside of their 'prescribed' work role. As corporate sense by definition is about challenging the notion of the traditional employment relationship, the existence of this correlation is greatly at odds with the literature (Chapman & Martin, 1995; Frese, 2000; Van der Heidje & Van der Heidjen, 2006).

Of all the 16PF factors, only the anxiety Factor O correlated with the total employability scale. Factor O forms part of the global factor of anxiety/neuroticism, and explores an individual's tendency to deal with events in either an emotionally calm and stable way, or in an anxious and overwhelmed manner. To contextualise this finding of the study within the framework of employability, the frequency of career moves requires individuals to continually focus on exploring their next option (Boswell, Boudreau & Dunford, 2004). Previous research indicates that people that are by nature overly anxious may find it increasingly difficult to cope with career related changes and may thus be less flexible. In summary, the research indicates that individuals who display a calm disposition when faced with frequent career related changes are more likely to be higher in their employability (Pryor & Bright, 2006). This finding is therefore in line with existing literature.

The relationship between the 16PF second order factors and employability was also explored in the study. Analyses revealed that there were statistically significant positive correlations between compulsivity and balance, but of small effect. Compulsivity comprises of the primary factors that reflect the qualities of seriousness and groundedness. In general, a lower score on compulsivity is typically indicative of people who are rule-conscious, of a perfectionist nature, and who adopt a practical and conventional approach to reality (Conn & Rieke, 2004). In terms of the qualities of balance, the employability literature indicates that this dimension represents the ability to unify and fine tune the various employability elements. A review of some of the literature lends support for this finding, where it was reported by D' Intino, Goldsby, Houghton and Neck (2007) that people who are fairly grounded and goal orientated may find it easier to balance the time spent on career and personal development if this is expressed as a specific goal.Finally, the demographic variables of age, gender, race and years of service were also considered in the study to determine if these groups differ significantly with regard to their employability.

The correlation between age and employability was firstly considered. According to Amos-Wilson (1996), previous research has shown that age can be associated with differences in certain career related behaviour. Following the statistical analyses in this study, it was found however that there was no significant relationship between age and employability. This is supported by Van der Schoot et al's (2009) study, where 51.4% of their respondents did not see age as a significant factor that affected employability. The implication of this for individuals of different age groups therefore is that employability could be more closely related to career stages as opposed to just chronological age (Karaveli & Hall, 2006; Wrobel, Raskin, Maranzano, Frankel & Beacom, 2003).

In terms of gender, the study revealed that no significant differences were found between males and females in the sample in terms of their employability. Therefore, it would appear that gender is neither a deterring factor nor an advantage in terms of enhancing one's employability (see also Berntson; Naswall & Sverke, 2008).

On the other hand, the employability scores across the different race groups revealed some variance. Research shows that the psychometric test scores obtained by various South African race groups have historically been different (van der Berg & Louw, n.d). In comparison with a recent employability study conducted in SA (Beukes, 2009), no comparisons could be made as to whether variances between different ethnic groups in terms of their employability existed, as according to Beukes (2009) the majority of the respondents were black. Notably, whilst Black people are defined as African, Coloured and Indian in terms of the Broad Based Black Economic Empowerment Act, No 53 of 2003, in this study the category Black refers only to Africans. It is therefore likely that differences could be measured in this study due to the fairly even distribution of race groups (with the exception of coloureds).

One of the implications of employability in the current work context that has been reported in the study is that lifelong employment in one organisation is no longer guaranteed (see Chapter 3). Years of service were therefore also included as a variable in order to determine if this impacted on employability. As no statistically observed relationships were found, it can be assumed that longer years of service in a company does not equate to a lack of flexibility/ inability to change, as this did not significantly separate the respondents in terms of their overall employability.

In summary, Boudreau, Boswell and Judge (2001) cited that demographic variables do have an influence on career success, but have found that this is often more relevant at an executive level. As

the majority of the sample was at a staff level, this could be one reason why there were only minimal differences between the demographic variables and employability (with race being the only variable where these differences had some statistical significance).

The results indicated that there were few statistically significant relationships between the primary and second order personality factors, and the employability dimensions. The personality Factor O was the only factor that correlated with the overall employability instrument. In terms of the differences between the demographic factors and employability, race was the only demographic factor where differences between the respondents were noted. Based on the small effect of the aforementioned correlations for both the personality factors and the demographic factors when it comes to measuring a correlation with employability, the null hypothesis is therefore only partially rejected.

5.6 Chapter summary

In this chapter the results of the empirical study were reported and discussed. The reliability of the employability instrument was established and reported. The relationship between personality dimensions and employability were also reported. Conclusions made with regard to the empirical investigation and the literature findings will be discussed in the next chapter. Recommendations for the organisation, as well as for future research will also be discussed.

CHAPTER 6
CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

In this chapter, conclusions about the literature findings as well as the results of the empirical study are made. The limitations of the present study are discussed and recommendations for the organisation and future research are presented.

6.1 Conclusions

In the following section, conclusions are made with regard to the specific literature objectives, as well as the empirical findings of the present study.

6.1.1 Conclusion in terms of the specific literature objectives of the study

The following conclusions can be made with regard to the construct of personality traits and employability:

a) First aim: Conceptualise personality and its properties

The first aim, namely to conceptualise personality and its properties, was achieved in Chapter 2. Inherent challenges exist in that there is no universally accepted definition or theory of personality, and it can therefore be conceptualised and measured in different ways. It is generally accepted however that personality includes a spectrum of factors that motivate behaviour. The study accepts that personality consists of stable characteristics that account for the individual differences in the way that people generally respond to situations and environments.

This stability and consistency of behaviour is accounted for in personality trait research. Traits were conceptualised as

predispositions to behave/react in fairly consistent ways to a range of stimuli. For this research study, personality traits provided a key role in understanding and accounting for what is both similar as well as different between people. This aim was therefore achieved in the study.

b) Second aim: Conceptualise employability

The second aim, namely to conceptualise employability and to determine its key aspects, was achieved in Chapter 3. The conclusion can be made that the conceptualisation of employability is not an easy task due to the fact that there is no universally accepted definition. However, there are certain key characteristics of employability that have been generally accepted by researchers. The ability to gain employment even when no job exists has been a prominent feature in the literature, and with this change to the traditional psychological contract and the notion of lifelong employment. Instead, lifelong employability is the current benchmark of success, with individuals increasingly expected to use their competencies to maintain relevance in the market. In this research study, employability has been primarily defined within this competence based paradigm. Within that context, employability relates to the optimum use of one's competencies to continuously fulfill, acquire and create work opportunities. A number of theorists have therefore defined employability in terms of different focus areas, but this competence based definition in particular is especially significant as it highlights the implied *individual differences* inherent within employability.

Within the field of career psychology, it is therefore necessary to enlarge an understanding of the employability concept through on-going research and dialogue. The aim however of conceptualising employability was achieved in the study.

c) **Third aim: To determine if a theoretical relationship exists between personality and employability.**

The third aim, namely to determine if a theoretical relationship exists between personality and employability was achieved in Chapter 3 (refer to 3.7). In this respect, whilst the literature is saturated with information on how to assist individuals to cope with changes around them, this has largely been from a clinical psychology perspective. A paucity of thought is thus evident within the organisational context. Henceforth, suggestions of personality traits as possible markers of individual characteristics that predispose employees to master various environmental challenges thus represented a key starting point in addressing this topic.

Employee initiative and pro-active personality was directly explored in relation to how individuals could use these qualities to cope with working within an unpredictable work context. Literature findings demonstrated that employees who are more 'reactive' in nature may find it difficult to continuously adapt their strategies, knowledge, skills, and behaviours to meet the demands of employability. Therefore, individuals with the specific traits of openness to experience, proactive disposition and adaptability were proposed to theoretically be more adaptable and employable, as they are more likely to define their roles more flexibly. The findings of the study did not reflect this however, as pro-active behaviour showed a poor correlation with emotional stability (p=.998).

Similarly, following a detailed literature review, extroversion was conceptually found to be positively correlated with employability, with a specific focus on the primary factor of social boldness (Factor H). The correlation reported in the study however was not as strong as originally hypothesised (p=.048). The implication of this is that the stereotypical notions of social boldness, warmth and confidence may not be as significant a predictor of career success or mobility as is

often proposed in the literature. In addition to this, adapting to career changes may not necessarily be connected to how outgoing or introverted an individual is. Zizik and Hall (2009) instead proposed that some individuals may be reluctant to engage in career exploration activities *simply* because their immediate environment may not encourage this attitude. The organisational context is thus an extraneous variable which cannot be ignored.

Other person-centred characteristics such as gender and age may also represent career mobility barriers for many individuals (Fugate, Kinicki & Ashforth, 2004). In the context of gender for example, whilst there may have been shifts in the prevalence of negative stereotypes in the case of women (who were predominantly represented in this sample) such prejudices still function as 'gatekeepers', not only in terms of women reaching specific occupations but also their perceived value in the labour market as compared to their male counterparts (Zikic & Hall, 2009). Interestingly though, there were no statistically significant differences between males and females in terms of their employability in this sample - neither were there reportable differences with regards to age and employability. These demographic factors therefore were not perceived to significantly influence employability.

Finally, the second order factors were also calculated and statistically analysed in terms of which employability dimensions they correlated with. In summary, compulsivity negatively correlated with balance, occupational expertise and corporate sense. Tough poise was also connected to occupational expertise, whilst independence was related to flexibility and balance. Whilst these correlations represented some deviations from the literature, the findings provided an important foundation for future research. The main conclusions that could be made were that individual differences can and do account for the variance in adaptability and levels of employability

exhibited by individuals. This aim was therefore achieved in the study.

6.2. Conclusions in terms of the empirical objectives of the study

There were three empirical aims in the study; namely to determine the relationship between personality and employability, and secondly, to determine if personality can be used as a predictor of employability. The extent to which demographic factors affect employability was the third and final aim. The findings can be summarised as follows:

6.2.1 First aim

The first aim, namely to determine the relationship between personality and employability, was achieved in Chapter 5. The employability scale and the 16PF was used to gather information on the profile of individuals within the organisation concerned, the results of which were presented in Chapter 5. The validity and reliability of the instruments were presented and it was determined that all of the scales had an acceptable internal consistency and reliability. There were a few negative correlations that were found between the personality factors of submissiveness and seriousness with the employability dimensions of anticipation/ optimisation and occupational expertise. The aim of therefore exploring the relationship between personality and employability was achieved.

6.2.2 Second aim

The second aim, namely to determine if personality can be used as a predictor of employability was not achieved. This was due to the fact that although some correlations between personality traits and employability were found in this study, these correlations were not

big enough to explore using a regression analysis for example, which would have indicated if personality was a predictor of employability.

Based on the literature reviews conducted for this study, these findings did not confirm the expected conceptual relationship between employability and personality. This might be because whilst personality is useful in predicting certain aspects of job performance, it is possibly ambitious to assume that all organisational variables (such as career performance and employability) are affected by a particular personality profile alone (Blickle et al., 2007; Ribeaux & Poppleton, 1978). The findings within the study reflect this notion, as evidenced by the relatively weak correlations that are reported in Chapter 5. The empirical value of this study therefore is that, whilst particular personality characteristics may *foster* the development of some employability skills, personality factors alone are not significant predictors of employability. This is consistent with the findings of an earlier study that only found relatively modest links between traditional personality variables and coping dispositions (Carver, Scheier & Weintraub, 1989).

6.2.3 Third aim

The third aim, namely to determine if demographic factors influence employability was achieved in Chapter 5 (refer to 5.3). The literature is divided in terms of the extent to which demographic variables affect career related behaviour. In this study, the variables of age, race, gender and years of service were specifically and reported on in terms of whether they were related to employability. This aim was therefore achieved in the study.

6.3 Limitations of the research

The limitations for the literature study and the empirical investigation are outlined below:

6.3.1 Limitations of the literature review

- There are no universally accepted definitions of employability, and hence this impacts on how it should be observed and measured. This therefore makes it difficult to compare the results from one study to the next.

6.3.2 Limitations of the empirical investigation

The limitations encountered in the empirical study are outlined below:

a) Sample

The research was conducted within a single organisation and the results can therefore not be generalised to the broader population of all South African organisations. In addition to this, a sample of convenience was used, which not only reduced the sample size, but also limited the ability to generalise the findings.

In terms of the biographical makeup of the sample, two thirds of the sample were white females over the age of 33. This therefore has an impact on the ability to generalise these results with the broader, multi-cultural population in South Africa.

In terms of the personality measure, the reliability of the 16PF in South African organisations has already been established in previous chapters. No known limitations in terms of use for this sample exist. In terms of the version of the 16PF that was used in the study, a few limitations are detailed below.

b) Limitations of the 16 PF Form A

The 16PF Form A is appropriate for use in the South African context as it has high reliability and validity. In addition to this, it has been normed using South African samples. In comparison with the 16PF Form E version though (which has less complicated grammar and is suitable for individuals who have not completed matric level), this may have influenced the results - as education was not specifically tested beforehand in this sample. Furthermore, Prinsloo (1992), as cited in Abrahams (1996; p.58) reports on a strong possibility that, due to "correspondingly problematic measurement characteristics" that are linked to the similarity of items across the various versions of the 16PF, the 16PF Form A must be used with care. As a result, this must be noted as a limitation in the study.

c) Limitations of the employability scale

The employability scale was designed and used in a Dutch context. No data currently exists for the validation of this instrument in the South African context, which represented a significant limitation. A second limitation is that the norm groups used for comparison purposes were based on the results of the studies conducted in Denmark, with no South African organisations represented. This could mean that the standards set for comparison purposes were not accurate as they were not based on a South African benchmark. However there are very few valid and reliable instruments that have been specifically developed in South Africa to measure employability.

A third limitation of the employability scale used in the study is the fact that it is a self-report measure. The general subjectivity of such measures is an apparent limitation. Furthermore, a possible halo effect when ratings are completed has been reported in other studies (Razavi, 2001), and because of the implied response bias, it must be noted as a potential limitation of the study.

Finally, one of the limitations of using the same type of data collection tool (i.e. questionnaires) can often result in what is known as ‘common method variance’. According to Doty and Glick (1998) this can cause observed correlations (or lack thereof) among variables in a sample to differ from their actual population values. One of the characteristics of common method variance relevant to the employability instrument in particular is what Meade, Watson and Kroustalis (2007) refer to as “item context effects” evident in the grouping of items. In this questionnaire, items were already classified into visible categories, increasing the chances of people not thinking through their responses and merely responding in a superficial manner (i.e. just ticking). This is therefore a potential limitation in the study.

6.3 Recommendations

Against the background of the aforementioned conclusions and limitations, recommendations for the organisation and further research in the field are outlined below.

Again the conclusions of the research indicate that although modest correlations were reported between the variables, practitioners should still take personality factors into account when looking at employability practices. As the notion of lifetime employment within the same organisation has come under pressure, employees may have been previously able to rely on career specific technical skills to cope with market demands, but in a turbulent work context; ‘lifetime employability’ skills are instead prioritised. Individuals and organisations would thus benefit if the main factors such as key competencies that influence labour market transitions for individuals, are identified (Forrier & Sels, 2003).

As the ability to manage personal and professional interests is an important skill in managing work place changes, the fact that respondents in the study scored the lowest in this area should be explored further by the organisation. This could be addressed by the organisation promoting balance through personal development plans (PDP's) for employees that *equally* highlights areas for both professional and personal growth and development, along with detailed action plans to support this.

The fact that there was some variance between the different race groups' employability scores is also an important consideration when addressing employability. The organisation should for example take this into account when implementing career management practices that are guided by particular psychometric assessments (i.e. ensure that they are culture fair etc). The organisation should also evaluate career development practices to ensure that they promote equal development across race groups, but more importantly, the development of "disadvantaged" groups in line with the Employment Equity Act (1998) needs to be prioritised.

Finally practitioners also have a role to play in helping organisations and individuals to fully understand the impact and implications of employability. As organisations continue to face unpredictable and rapid changes, the importance of employability will continue to increase, as individuals high in employability have been found to be more comfortable with uncertainty (Mc Ardle et al., 2007). By investigating employability on an organisational as well as individual level, a framework for an organisational culture that supports individual development can be created. Workers' employability orientation can thus be increasingly enhanced (Schneider et al., 1996).

6.3.1 Recommendations for future research

In an attempt to address the limitations of this research discussed in the previous section, it is recommended that a more in depth study is conducted with a larger randomised sample. In addition to this, it is recommended that in order to achieve the true value from the research, a number of organisations across industries should be selected to participate in the research. This will help to produce more generalised findings. A second recommendation for further research refers to the limited use of the employability measure in the South African context. It is recommended that studies be conducted to determine the predictive validity of this tool in the South African milieu. The final recommendation relates to the conclusions of this research, which is that further studies should be conducted to explore the relationship between personality, employability and other variables, such as emotional intelligence (see Beukes, 2009). An exploration of how both cognition and emotion for example affect employability competence would be of value.

6.4 Chapter summary

In this chapter, conclusions were made with regards to the specific literature and empirical objectives of the study. Thereafter, the limitations of the study were mentioned and recommendations were made for future research. All the objectives of the empirical study were researched and consequently the research question has been answered.

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